

ENGLISH SUMMARY

Chapter I: The Danish Economy

Danish economic growth in 2000 is projected to be 2¼ per cent, which is moderately higher than last year. The increase is driven by a recovery in domestic demand, while the contribution from net exports is expected to fall compared to 1999. Next year, GDP growth will temporarily reach almost 2½ per cent, before it slows down in 2002 and 2003. Domestic demand is still expected to be the major engine of growth, while it is predicted that net exports will have a small positive effect on economic growth. This year, employment is expected to increase by 30,000 persons, primarily owing to rising employment in the private sector. However, unemployment has only fallen slightly in the past months, due to an increase in the size of the labour force. Employment is expected to rise slowly in the period 2001-03, and it is predicted that unemployment will average 136,000 persons in 2003. This is primarily due to an expected expansion in public sector employment. Hence, the strong fall in unemployment of the past few years is expected to stop.

In the referendum of the 28th September 2000, Denmark decided not to participate in the third and final stage of Economic and Monetary Union (EMU). It is difficult to assess the full economic consequences of this. However, since the referendum, the long-term spread in relation to euro interest rates has narrowed to the same level as in February, indicating that the financial markets have confidence in the Danish fixed exchange rate policy. In addition, the rise in Danish stock prices has been one of the largest in the world. Hence, the outcome of the referendum has not affected the economic forecast negatively in comparison with the situation before the referendum was called.

The recovery in domestic demand in 2000 is the result of a substantial increase in residential and business fixed investments. The hurricane that hit Denmark in December 1999 has been a contributory cause to this development. It is predicted

that domestic demand next year will be driven by both private and public consumption. The private consumption growth rate is expected to rise, after two consecutive years with limited growth, at the prospect of higher real disposable incomes. In 2002 and 2003 the burden of taxation is expected to decrease, and this will also have a positive impact on the growth rate of private consumption.

The global economy is still characterised by high growth rates. In the United States, Western Europe and Japan, growth rates are projected to be higher this year than in 1999. However, a fall in the rates of growth is expected in the years to come. Activity is expected to dampen in the United States, to pick up in Japan, and to continue to be rather high in Western Europe. Denmark's trading partners are expected to have a combined growth rate of 3½ per cent in 2000, decreasing to about 3 per cent in 2001 and 2½ per cent in 2002-03.

Danish export growth was considerable in 1999, leading to a gain in shares of external markets. Although exports are benefiting from a lower effective exchange rate in 2000, these market shares cannot be maintained, and a further loss seems likely to occur in the period 2001-03. Still, given the predicted higher GDP growth rates abroad, the current account surplus is expected to increase throughout the projection period. In the period 2001-03 this improvement will be the result of declining investment as a proportion of GDP.

The surplus in the general government financial balance is expected to increase in the years to come. This will be caused by a continuing widening of the tax base and a limit to the growth in income transfers due to falling unemployment.

Consumer price inflation kept on rising in 1999 and the first part of 2000. The significant rise in fuel prices and the lower effective exchange rate have been major reasons for this increase. It is estimated that in 2000 fuel price increases will contribute 1 to 1½ percentage points to the consumer price inflation level of 3.3 per cent (deflator of private consumption). Hence, the domestic market determined inflation rate is moderate. In the projection period, it is assumed that the

effective Danish exchange rate will strengthen with the euro against the dollar, and wage costs and fuel prices are expected to grow at a slower pace, causing the inflation rate to decline. However, a number of uncertainties are associated with the forecast for the inflation rate. In particular, it is assumed that the increase in hourly wage costs will be lower than historical experience might predict. This assumption is made on the basis of the structural reforms that have been implemented in the Danish labour market during the 1990s. If the labour market turns out to be less flexible than anticipated, the result could be a return to a path of relatively higher inflation.

Table 1 Short-term prospects for the Danish economy

	Current prices	Per cent of GDP	Percentage change, volume				
	DKK bn. ^d	1999	1999	2000	2001	2002	2003
Private consumption	613.5	50.5	0.6	0.3	2.6	2.9	1.9
Public consumption	312.9	25.7	1.4	1.0	2.2	1.2	1.2
Gross fixed capital formation	241.3	19.8	0.3	7.9	-0.2	0.5	-0.8
consisting of:							
Residential investments	52.0	4.3	1.2	15.0	-3.1	-0.8	-4.3
Business fixed investments	169.0	13.9	-0.0	6.2	-0.4	0.8	-0.1
Public investments	20.3	1.7	0.5	4.0	10.0	2.0	2.0
Stockbuilding ^a	-3.0	-0.2	-1.2	0.1	0.1	-0.0	-0.0
Total domestic demand	1164.7	95.8	-0.4	2.2	2.0	1.9	1.1
Exports of goods and services	448.4	36.9	7.9	4.7	5.0	3.8	3.8
Imports of goods and services	397.3	32.7	2.2	5.0	4.3	3.7	2.9
GDP	1215.8	100.0	1.7	2.2	2.4	2.0	1.6
Key indicators							
Consumer prices, percentage change ^b			2.6	3.3	2.5	1.5	1.5
Unemployment, per cent ^c			5.6	5.3	4.9	4.6	4.7
Current account, DKK bn. ^d			15.1	19.9	22.0	31.9	47.2
Current account, per cent of GDP			1.2	1.5	1.6	2.3	3.2
General government financial balance, DKK bn. ^d			34.4	35.3	39.1	44.1	52.6
General government financial balance, per cent of GDP			2.8	2.7	2.9	3.1	3.6
Hourly wage costs, percentage change			4.1	4.1	3.8	3.6	3.6
Terms of trade, percentage change			1.0	-0.1	-0.8	0.9	0.6

- a) The percentage changes are calculated as the real changes in stock building relative to real GDP in the previous year.
- b) Implicit private consumption deflator.
- c) Percentage of the total labour force. National definition.
- d) The DKK/USD exchange rate is taken as 6.98 in 1999, 8.09 in 2000, 8.27 in 2001, 7.74 in 2002 and 7.46 in 2003.

Sources: Statistics Denmark, *National Accounts* and own estimates.

Policy Recommendations

The government fiscal stance for 2001 is too slack. In the report it is estimated that current fiscal policy will cause growth to increase by $\frac{1}{2}$ per cent in 2001 in comparison with a neutral stance. There is no macroeconomic justification for such an expansionary fiscal policy in a situation where the Danish economy is close to the full employment level of output and inflation is relatively high.

The surplus on the general government financial balance is expected to be large in the period 2000 to 2003, and public debt will continue to be reduced rapidly. In 1993 public debt equalled 80 per cent of GDP, while it is estimated that in 2003 the debt to GDP ratio will be less than 40 per cent. This reduction in the public debt eases the stress placed on the welfare state by an ageing population. At the same time, the scope for active stabilization policies in the future is increased. The speed of the reduction of the public debt is – apart from the objective of stabilizing the economy – a matter of generational distribution. A very fast reduction of public debt will make it possible not only to finance future welfare state expenditures, but also to reduce tax rates for future generations. Therefore, it is necessary that the balance between generations is considered when the speed of the reduction is decided. However, in the present situation with relatively high inflation and low unemployment, there is obviously not room for an expansionary fiscal policy.

In the present forecast, inflation is expected to decline from its present high level. The present level of inflation is caused by an increase in oil prices and the depreciation of the euro. The effects of these factors are temporary. However, a precondition for inflation to fall is that the imported inflation rate does not initiate a domestic wage-price spiral. A wage-price spiral could be the result if the labour market is not as flexible as expected in the forecast. In such a case, fiscal tightening would clearly be needed.

In several countries, energy taxes have been reduced in order to mitigate the increase in oil prices. However, it is not advisable to soften an increase in energy prices by fiscal expansion, either in the current economic situation or in general. A rise in energy prices is a supply shock which increases the price of one of the production factors, and this has to be dealt with by using less energy in production. Energy taxes have environmental as well as fiscal goals. The increase in oil prices will help Denmark to meet both its target for carbon dioxide emissions and other environmental goals.

A worldwide reduction in energy taxes may actually result in a further increase in crude oil prices. Oil producers consider the magnitude of the decrease in demand when they raise the price of oil. If the governments mitigate the rise in oil prices by decreasing taxes, the oil producers do not notice a close link between prices and demand. Thus, a reduction in energy taxes may be to the advantage of the oil producers, not the consumers.

Denmark has a considerable production of North Sea oil and gas, and higher energy prices mean a substantial increase in the profits of the producers. The substantial profits make it even more relevant to consider the division of income between oil companies and the government. Danish taxation of current extraction is not heavy when viewed in an international perspective. Together with the United Kingdom, Denmark has the most favourable rate of taxation in the North Sea area. The revenues from an increased taxation on future oil and gas production could be used to reduce the revenue needed from other potentially more distortionary tax sources. The government's proposed review of Danish taxation on future oil and gas production is therefore very welcome.

The Danish government has decided to place the radio band needed for so-called third-generation (3G) mobile service on sale by auction. The revenue from the auction will depend on the way in which it is organized and the conditions which the suppliers of mobile services have to meet. There is an unavoidable trade-off between a high revenue and future competitive conditions. Thus, the desire for high revenue should be

balanced by the benefits of relatively effective competition and other desirable characteristics of the future market for 3G mobile services.

It is recommended that the revenue from the auction is used to reduce public debt. The revenue is a one-off payment, and a part of it can be regarded as an advance tax payment on future profits. Thus, public spending can at most be increased by an amount equal to the saved interest payments on the public debt.

Chapter II: Environmental Management and Biological Diversity

Danish land use has changed of the past century. The use of agricultural land has been intensified, and this has adversely affected biological diversity on this land. Furthermore, there are indications that the increased use of pesticides and fertilisers in agricultural production is damaging the aquatic environment. Lakes, watercourses and groundwater resources are all suffering increasingly from nitrate contamination. The pattern of use of the total Danish land area has also changed. The proportion of land used for urban areas and infrastructure has increased significantly, and the proportion of agricultural land has decreased. In the same period, the proportion of land covered by woodland has increased, and the proportion of heath-land and dunes has decreased. It is not clear whether the change in the pattern of use of the Danish land area has led overall to a poorer natural environment, because woodland, which is a biological diversity rich type of environment, has increased in area. However, the declining area of heath and dunes is threatening some very typical Danish species, and the changing use of agricultural land does create problems for the conservation of Danish biological diversity and the provision of clean drinking water.

Environmental management is concerned with the different and conflicting purposes of land use. It must ensure simultaneously that there is suitable provision for agricultural production,

conservation of wild animals and plants, recreational areas for the population, and clean ground water. These goals are covered in several different laws and action plans, and it is often not clear how priorities between the multiple conflicting purposes should be established.

The most important users of the Danish rural areas are the private farmers, as 68 per cent of the total area of Denmark is used for agriculture and market gardening. 11 per cent of the total area is covered by woodland and plantations, of which area almost half is privately owned. The remaining area consists of roads and urban areas (15 per cent) and lakes, heaths, dunes, watercourses and bogs (6 per cent). The public sector manages a considerable proportion of the forested areas as well as the dunes, lakes and heath. The Danish Forest and Nature Agency under The Ministry of Environment and Energy protects most of the areas within the public sector, especially the state forests. The Danish Forest and Nature Agency is responsible for acquisition of areas that are important for nature conservation, environmental restoration and afforestation. Nature conservation orders are issued by The Danish Forest and Nature Agency as well as by regional Nature Conservancy Boards consisting of representatives from national, county and municipal authorities. The County Councils are important in the field of nature protection. In comparison with many other countries, the organisation of environmental management in Denmark is rather decentralised.

Public expenditure on environmental management is around DKK 2.5 billion per annum, of which the counties and municipalities spend 60 per cent. However, the total costs to society of environmental management also includes those costs to farmers and owners of forests which are due to regulations.

It is difficult to tell whether the public sector spends an appropriate amount of resources on environmental management. However, there is a great public interest in the well-being of the environment in Denmark, reflected by the number of members of environmental non-governmental organisations (10 per cent of the Danish population). Also, studies show that people attach substantial value to recreational sites such as

forests, lakes and parks. For example, the recreational value of forests close to urban areas is found to be up to DKK 18,000 per ha per annum, which far exceeds the value of timber production or farming, meaning that afforestation in urban areas is advisable.

In the agreed fiscal budget for 2001, an extra DKK 80 million annually is to be spent on environmental management. However, only a very small amount of this (DKK 2 million) is earmarked for improving the decision-making process in environmental management. This is insufficient in comparison with the need for good data about the area. For example, there is only knowledge of the geographical distribution of around 5 per cent of the species known to be found in Denmark.

Quantitative methods of research applied to a wide range of data could be very useful for the decision-making process. The Danish Economic Council has made empirical analyses of the existing data. These analyses evaluate the current performance of Danish environmental management organisations, and especially of the Danish Forest and Nature Agency. The analyses suggest that if resources were spent more wisely, better conservation of the environment would be possible for the same expenditure. However, these results should be interpreted with caution, as better data are needed.

The results indicate, firstly, that projects meant to provide outdoor activities seem not to be located close to places to which large numbers of people have easy access. Thereby, it would be possible to increase the recreational value of these projects without increasing the cost. Secondly, afforestation and nature restoration projects are not selected in a way that best accomplishes the purpose of protecting the ground water.

An important aspect of nature is biological diversity, i.e. the variety which exists within species, between species and in ecosystems. Conserving biological diversity is primarily done by nature conservation orders (nature conservancy), where certain sites are designated as conservation areas and some restrictions are set on the uses of the area in order for the living organisms and their habitats to be conserved. Among many

other factors, it is crucial whether the focus is on national or global biological diversity. Global biological diversity should have high priority as it relates, for example, to possibilities for developing new medicines for treatment of diseases which are not curable today.

Denmark is committed to international conventions on nature conservation in the UN, and more especially in the EU. This means that Denmark must organise its nature conservation in a way that preserves those species and ecosystems which have high priority for the EU. This commits Denmark to spending resources on species which are not necessarily of national interest for conservation, because they are very common and would not disappear from Denmark even if no effort were made to preserve them. The slow implementation in the EU of the Habitat Directive and the Bird Directive indicates this dilemma. The individual countries would ideally like to organise their nature conservation in a way that benefits their national biological diversity. But there are good reasons why every country should preserve species which are of global interest. Therefore, it is in the interest of the EU to make sure that the different countries actually fulfil their international obligations. This could demand some international monitoring.

The Danish Economic Council has made an analysis of how well national biological diversity is conserved by the nature conservation orders in force in Denmark. That is, how many species are sufficiently well protected on the sites that have been designated by the Danish Forest and Nature Agency? The results indicate that not every species is protected, and especially not those that are threatened. This should be compared to a possible alternative selection of sites in Denmark which would protect every single species in at least three sites within the same total size of area. The conclusion is therefore that it is possible to conserve the species in Denmark better than is done today. This relies on using the principle of complementarity to select the sites which ensure that the maximum number of species in the total geographical area in question are protected. Systematic analyses are needed, and in addition more data must be collected on, for example, the distribution of species.

In general, nature conservation will benefit biological diversity the most if it balances the costs associated with different possible projects with the expected increases in the likelihood of survival of the various species. This implies, among other things, that it is not generally true that it is the most threatened or rare species that need preservation the most. There is a great need for more knowledge about how different projects can be expected to increase the chances of survival of the species concerned.

The major policy issues concerning agriculture and the environment are nitrogen discharges to ground and surface water, and the risk of groundwater contamination by pesticides. The intensity of the use of nitrogen fertilisers (commercial fertilisers and livestock manure) is among the highest in the EU, after the Netherlands and Belgium. The nitrogen discharges from agriculture should be reduced by 50 per cent compared with the 1985 level, according to the 1991 Action Plan for Sustainable Agriculture and the 1998 Second Action Plan for the Aquatic Environment. The different kinds of regulations which are used in Denmark have not reduced the nitrogen discharges sufficiently, partly because of the difficulties of controlling the discharges from farms. Therefore, there are good reasons for introducing a tax on nitrogen discharges. The proposal in the report includes a tax on fertiliser and fodder, and could be extended by introducing a deposit and refund system which would compensate farmers for the amount of nitrogen contained in the final products.

In order to persuade private landowners (farmers or owners of forests) to treat the land in a way that takes environmental effects into account, various incentive measures can be introduced. One such incentive is auctions, which have the advantage that they can ensure that exactly the areas needed for the various purposes are actually used, and at the lowest costs. Auctions are an effective instrument in cases where it is easy to monitor whether private site owners are fulfilling their obligations. So far this instrument has not been introduced in Denmark with respect to environmental management.