ENGLISH SUMMARY

Chapter 1: The Danish Economy

The outlook for the global economy has worsened significantly over the last months, and negative growth rates are expected for the US and several European economies. The Danish economy, just as most other countries, has been hit by the financial turmoil and slowdown of the global economy. After several years of economic upturn Denmark is in for a period of negative growth and increasing unemployment.

Over the last three years the Danish economy has been characterised by high growth rates. decreasing unemployment and surpluses in the balance of payments and the government budget. It is estimated that GDP was about 3 per cent above its structural level in 2007. However, growth in demand and production is expected to decrease markedly this year as well as in the coming years. In 2009 and 2010 negative growth rates are expected of around -0.5 and -0.25 per cent, respectively. The dramatic developments in recent months have resulted in a significant downward adjustment of GDP growth rate forecasts for 2009 and 2010 of about 1.5 percentage points in 2009 and about 1 percentage point in 2010 compared to Danish Economy, Spring 2008. The negative growth will lead to the output gap becoming negative in 2010 and 2011. However, due to the initial strong economic position of the Danish economy, the negative output gap will not grow as large as in many other countries

The financial crisis has lead to increasing risk premiums in the interbank market. The spread between Danish and European interest rates has also increased. This reflects that the Danish currency has been under pressure. This should not be seen as a result of specific problems in the Danish economy, but should rather be regarded as a result of the unusual situation in the financial markets, where investors prefer German or US government bonds in favour of Danish mortgage bonds. To defend the fixed exchange rate vis-à-

vis the euro, the Danish central bank has had to increase its policy rate several times.

Norway and Sweden have experienced similar problems with pressure on their currencies. However, both countries have a floating exchange rate with inflation targeting. Therefore, the central banks of Norway and Sweden have been able to lower their policy rates. The lower interest rates and the depreciation of the Norwegian and Swedish currencies will reduce the impact of the financial crisis on the Norwegian and Swedish economies.

Danish consumers are also directly affected by the financial crisis. Higher interest rates make it more expensive to borrow, and there are signs that credit conditions have tightened. Furthermore, the recent developments are also reflected in very low consumer confidence. This, in combination with falling house prices and lower employment, will lead to very low growth in private consumption in the years to come, though tax reductions in 2008-09 could support consumption to some extent.

House prices have started to fall and are expected to continue falling in the coming years as a consequence of higher interest rates, the financial turmoil and expected lower employment. Real house prices are expected to decrease by 20 per cent over the next four years, bringing the prices down to the level in 2005. The declining house prices will result in a reduction in residential construction. Furthermore, fixed business investment is expected to decline in the coming years because of higher interest rates and declining demand. Domestic demand is therefore expected to decline in 2009 and 2010.

The financial crisis is intensifying the economic downturn in the Danish export markets. This, in combination with deteriorating Danish competitiveness due to higher wage increases, is expected to cause very low growth in exports in the coming years. In recent years, imports have risen much faster than production, but due to the economic downturn and declining demand, import growth is expected to decrease. Thus, after several years with large negative

contributions to growth, the contribution of net exports to growth is expected to be close to zero in the coming years.

Unemployment has recently fallen to a historically low level of 45,000 persons – 1.6 per cent of the labour force. However, it is expected that the number of unemployed will increase to around 120,000 by 2011. This is about 20,000 above the estimated structural level. Employment is expected to decline by 110,000 persons and the workforce to decline by 40,000 persons in the forecast period. The decrease in the labour force is partly due to business cycle fluctuations and partly due to demography.

As a consequence of the low level of unemployment, wage rates in Denmark have increased in recent years. Even though real wage increases have been limited, the wage rate increases are problematic as they have been much higher than those in the Danish export markets. Furthermore, productivity has decreased and the result has been a significant reduction in competitiveness. As a consequence of the expected increase in unemployment, future wage increases are expected to be lower, but they will continue to be significantly above foreign wage increases.

Like in many other countries inflation has been increasing, primarily caused by increasing food and energy prices, but also by increasing wages. In 2008 Danish inflation is expected to be around 3 per cent and in 2009 around 2 per cent.

Table 1 Short-term outlook for the Danish economy

| | Current | Per cent | Percentage change, volume | | | | |
|--|---------|----------|---------------------------|------|------|------|------|
| | prices | of GDP | | | | | |
| | DKK bn. | | | | | | |
| | 2007 | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 |
| Private consumption | 826,7 | 49,0 | 2,4 | 0,8 | 1,1 | 0,6 | -0,2 |
| Public consumption | 438,8 | 26,0 | 1,3 | 1,4 | 1,2 | 0,8 | 1,0 |
| Gross fixed capital formation | 376,7 | 22,3 | 2,9 | 0,1 | -5,2 | -3,6 | 0,4 |
| consisting of: | | | | | | | |
| Residential investments | 117,2 | 6,9 | 4,8 | -1,6 | -8,5 | -7,4 | -1,6 |
| Business fixed investments | 230,2 | 12,3 | 4,4 | 1,0 | -4,1 | -2,4 | 1,0 |
| Public investments | 29,3 | 1,7 | -10,0 | 2,0 | 0,5 | 1,9 | 2,0 |
| Stockbuilding ^{a)} | 9,5 | 0,6 | -0,3 | 0,1 | 0,1 | 0,0 | 0,0 |
| Total domestic demand | 1.651,7 | 97,9 | 1,9 | 0,9 | -0,2 | -0,2 | 0,3 |
| Exports of goods and services | 882,8 | 52,3 | 2,2 | 2,7 | -0,1 | 1,2 | 2,9 |
| Imports of goods and services | 846,6 | 50,2 | 2,8 | 3,7 | 0,5 | 1,5 | 2,2 |
| GDP | 1.687,9 | 100,0 | 1,6 | 0,4 | -0,5 | -0,3 | 0,7 |
| Key indicators | | | | | | | |
| Consumer prices, percentage change ^{b)} | | | 1,8 | 2,7 | 1,9 | 2,2 | 2,0 |
| Unemployment, per cent ^{c)} | | | 2,6 | 1,7 | 2,6 | 3,9 | 4,2 |
| Current account, DKK bn. | | | 12,0 | 29,5 | 28,3 | 27,6 | 30,7 |
| Current account, per cent of GDP | | | 0,7 | 1,7 | 1,6 | 1,5 | 1,6 |
| General government financial balance, DKK bn. | | | | 53,4 | 10,0 | 9,6 | -2,8 |
| General government fin. balance, per cent of GDP | | | 4,5 | 3,1 | 0,6 | 0,5 | -0,2 |
| Hourly wage costs, percentage change | | | 3,9 | 4,5 | 4,2 | 3,8 | 3,1 |
| Terms of trade, percentage change | | | | 0,7 | 0,2 | 0,6 | 0,1 |

a) The percentage changes are calculated as real change in stock building relative to GDP in the previous year.

Note: The DKK/USD exchange rate is calculated assumed to be 5.10 in 2008 and 5.75 in 2009-11.

Source: Statistics Denmark, National Accounts and own estimates.

b) Implicit private consumption deflator.

c) Percentage of the total labour force. National definition.

Policy recommendations

The financial crisis has led to a deterioration in growth prospects. Negative economic growth is expected the next two years and unemployment is estimated to increase rapidly. Despite these circumstances, the level of unemployment is not expected to reach the structural level until the beginning of 2010. This implies that there will still be pressure on scarce labour market resources in 2009. Attempts to keep unemployment at the current low level by means of an easing of fiscal policy will, therefore, only lead to larger imports, accelerating wage increases and a serious deterioration in competitiveness. Hence, fiscal policy should not be expanded relative to the planned policy in 2009.

Though a significant and long lasting slowdown in global growth is expected, the uncertainty surrounding the financial crisis and its consequences means that the actual outcome is difficult to predict. It is therefore too early to give a final evaluation of the appropriate stance for fiscal policy in 2010. However, if economic developments turn out as described in the forecast presented here, Danish production and employment will fall to a level that is lower than in a normal business cycle, and it is likely that the production level in 2011 will be even lower. In this situation it is natural to consider an easing of the fiscal policy. An appropriate expansive fiscal policy could be to introduce a tax reform in 2010.

Chapter VI of *Danish Economy* Autumn 2008 describes several examples of possible tax reforms that lower the marginal tax rate on labour income. The calculations presented show that well designed tax reforms can increase production and employment in the short run - that is, before longer term dynamic effects are taken into account. According to the calculations it is possible to increase employment in the short run by around 15,000 by a fully funded tax reform that includes a reduction in the marginal tax rates and an increase in the earned income tax credit. The long run effect of such a reform is an increase in the level of employment of around 6,000 persons together with an improvement in fiscal sustainability. Larger effects – in

the short and long run – can be achieved through tax reforms that, in addition to reducing labour taxation, increase the taxation on owner-occupied dwellings.

If the economic conditions in 2010-11 imply that there is a need for additional fiscal stimulus, the parts of the tax reforms that give tax cuts could be introduced, while the financing of these could be postponed. Alternatively, fiscal stimulus could be achieved by increasing public consumption or public investment. However, these measures will not have the same impact on labour supply as a reduction in income tax, and increased government expenditure has to be followed up later by a tightening of fiscal policy to avoid a permanent deterioration of the public finances.

The growth in public spending in recent years has been larger than the government's target for public consumption of not more than 26.5 per cent of structural GDP. This limit is now being exceeded. Another central element in securing fiscal sustainability is to increase employment and to neutralise the tendency towards shorter working hours. However, there are no measures, either in place or planned, that can increase employment sufficiently to fulfil these targets. Hence, there is a need for new labour market reforms that can contribute to improving fiscal sustainability

Since 2003 the total number of individuals in flexi-jobs and on disability pensions has increased by approximately 30,000. This is primarily due to more workers in flexi-jobs. Flexi-jobs are jobs on special terms for employees under 65 years of age who have a permanently reduced working capacity, and who are not able to maintain employment on ordinary terms. Flexi-jobs are economically very attractive to the employee as the effective hourly wage rate, due to shorter working hours, is typically higher than in ordinary employment. The regulations for flexi-jobs should be revised and tightened. Individuals who are entitled to flexi-jobs, but who are currently out of work, receive out-of-work benefits ("ledighedsydelse"). Many of those who receive this type of benefit are often out of work for long periods.

This can be due to municipalities having insufficient economic incentives to get people from out-of-work benefits into flexi-jobs. It is therefore recommended that state reimbursements to municipalities for individuals who are entitled to a flexi-job but who receive out-of-work benefits should be reduced. The inflow to the disability pension has fallen in recent years, however, the proportion of disability pension recipients under 40 years of age has increased and today the share is approximately one quarter of the total number of disability pension recipients. Therefore, it is recommended that recipients' entitlements to disability pensions be automatically evaluated regularly, e.g. every five years for those below a certain age. Even though the labour supply of those in flexi-jobs and on disability pensions can be increased somewhat, other measures are needed to ensure fiscal sustainability. If labour force participation is to increase noticeably in the long run, it will be difficult to maintain the early retirement scheme and the unemployment benefit system in their current forms.

The international economy is currently severely affected by the global financial crisis. The potential impact on the Danish economy and the Danish Financial sector has forced the government, the central bank and the Danish Financial Supervisory Authority to introduce a number of schemes in order to limit the damage from the crisis. Some elements of the schemes are that banks are now able to borrow against less secure assets from the central bank, that the government has put in place an unlimited guarantee on deposits in Danish banks, that restrictions on pension companies have been eased, and that the government plans to buy up short term mortgage bonds, which will affect the development of interest rates on variable interest rate loans.

In the current situation it has been necessary to support the financial sector to avoid unacceptable consequences for the rest of the economy. However, it is important to balance the initiatives to attain financial stability in the short run with the potential risk of increased instability in the long run. Many of the initiatives that have been put in place have caused reductions in the interest rate on short term bonds,

which gives an unfortunate signal that the government will also intervene in the future whenever there is a risk of accelerating increases in the short term interest rates. This increases home owners' incentives to take loans with variable interest rates instead of the more secure 30-year fixed interest rate loans. As another example, the regulating authority's "traffic light"-system for risk management of the pension funds has been changed by removing the so called "yellow-light risk scenario". The traffic light system for risk management gives customers an insight into a pension fund's risks. Some Danish pension funds struggling to cope with declining returns are in the "yellow-light scenario". The abolition of the "yellow-light" will help the pension funds in the short term, but may encourage them to take greater risk than is appropriate.

The financial crisis has led to problems in the Danish interbank market. Lack of trust between the banks, falling stock prices, and fear of losses on lending, have caused a situation where even solvent banks have had problems raising enough liquidity. To solve this problem the central bank has expanded its loan facility, and a state guarantee for deposits in Danish banks has been established. The state guarantee implies that the taxpayers risk paying part of the costs of widespread bankruptcies in the banking sector. However, the state guarantee is designed in such a way that banks are to contribute to the scheme by up to DKK 35 bn. to cover potential losses.

In the view of the current crisis the regulation of the financial sector should be reviewed critically. It should be taken into consideration that stricter and more detailed regulation, such as higher capital requirements, would be a cost for the banks that could lead to a less effective banking sector. When designing revisions to the current regulations, one should consider a balance between effectiveness and security. Security can be improved by increasing transparency in the banking sector, e.g. by publishing the banks' individual capital requirements (Internal Capital Adequacy Assessment) as proposed by the Danish Central Bank and the Danish Financial Supervisory Authority. The Capital Adequacy Assessment reflects a bank's exposure to

extraordinary risks such as the housing market, big individual customers, and a sudden lack of liquidity or extraordinary changes in the market interest rate. By publishing each bank's individual assessment creditors and shareholders of the banks would have a better possibility to evaluate the risk and to demand an extra risk premium from banks with risky strategies. Thereby, banks would be encouraged to take less risk or to increase their tier 2 capital levels, which would make them more capable of withstanding losses.

In the current financial crisis banks have been rescued and governments have given substantial guarantees. This has contributed to an expectation that banks in both Denmark and other countries will also be saved in the future. One possible way to protect the taxpayers against losses in future crises is to establish a winding-up reserve fund at the European level that could finance bank rescues in the event of a crisis.

The principles of a European winding-up reserve fund could, in many ways, resemble the Danish rescue scheme. The fund should be financed by contributions from the banking sector. The contributions should reflect the banks' risk profile and at the same time the contributions should be large enough to cover the expected losses resulting from failed banks. In this sense the contributions can be thought of as insurance premiums. In the case of a threatened bankruptcy of a bank, all simple debt should be passed to the fund. To reduce the banks' incentives to take unnecessary risks, it is important that the equity is lost when the creditors of an insolvent bank are rescued by the reserve fund. The fund could be set up as a subdivision of the European Investment Bank (EIB), which is administered by the 27 Ministers of Finance from the member states of the EU. If there was not enough capital in the fund, the EIB could issue government bonds, whereby the cost is distributed among all member states. Thus, establishment of a European reserve fund would reduce the problem of distributing the costs of rescuing cross-border banks.

Chapters II-VII: Principles for the Danish Tax System

The Danish tax system

The present Danish tax system is subject to increasing pressure. Globalization means that various tax bases are becoming more vulnerable to international tax competition as capital and labour are increasingly internationally mobile. At the same time demographic changes will result in a shrinking labour force over the coming decade. Increasing awareness of environmental issues, in particular the global climate problems, also implies a larger role for tax policy as one of the instruments to fulfil future, more ambitious, environmental objectives.

The main dilemma in tax policy is between efficiency and equity. Taxes are necessary to raise certain revenues. They also redistribute consumption possibilities among the population. At the same time, most taxes imply a loss of efficiency because they distort decisions of labour supply, savings, investment, consumer choice, etc. Ultimately, the optimal trade-off between these different objectives is a political question of the amount of efficiency cost it is worth paying to achieve a certain income distribution. Typically, the various objectives are, to some extent, contradictory so that the tax system becomes a compromise between different goals.

A sensible tax reform should consider the whole tax system simultaneously, as the various elements typically affect each other. This is particularly true for the direct taxation of labour and capital incomes and for the indirect taxation of goods and services.

Taxes on labour income

The direct taxation of personal income, most importantly labour income, amounts to approximately 50 per cent of total tax revenues. Labour income is taxed progressively, ranging from an effective marginal tax rate of 8 per cent for

incomes below DKK 42,900 up to an effective top marginal tax rate of approximately 63 per cent for incomes above DKK 347,200.

The Danish personal income tax rates are high compared to a number of other key OECD members, and the Danish personal income tax system has the highest progression. However, while Danish labour income taxes are exclusively levied upon employees, most other countries divide the tax burden on labour income between employees and employers. Examining this full tax wedge, where taxes and social security payments imposed on employers are taken into account, Denmark is on par with a number of other countries, and has a comparably low marginal tax rate on lower income levels.

Denmark has a low income threshold for the top marginal income tax rate compared to other OECD economies. Compared to a standardized mean wage, the British top marginal tax rate sets in at an approximately 20 per cent higher wage level, while the Swedish and Norwegian equivalents are, respectively, 40 and 50 per cent higher. Higher educational achievements have, over the last 15 years, contributed to a steady rise in the number of people in Denmark paying the top marginal personal income tax rate, to just under 1 million in 2009, corresponding to approximately 20 per cent of all tax payers.

The effective taxation of labour income also includes consumption taxes which reduce the real income of tax payers once direct labour taxes have been paid. In Denmark this indirect taxation of labour income adds approximately 11 percentage points to the effective marginal taxation of labour income.

The analysis of taxation and labour supply in chapter III of *Danish Economy* Autumn 2008, distinguishes between the direct mechanical effect of tax changes on the tax revenue and the dynamic revenue effect of behavioural responses following the tax change. The numerical results build on a micro-simulation model combining the modelling of personal income taxation with a number of assumptions

about the behavioural responses to tax changes. To model the latter a number of behavioural parameters are defined. The effect on the intensive margin is modelled as the relative change in hours worked in response to a relative change in the effective marginal tax rate, which includes both direct labour income taxation and consumption taxes. The effect of a tax change on taxable income – a broader behavioural definition – is expressed equivalently. The participatory response to tax changes is modelled as the change in the number of persons out of work as a function of changes in the net gain from entering work. In general, the analysis distinguishes between various states of employment and non-work. While employment can, for instance, be full-time or part-time, non-work states are mostly defined by the type of public benefits received, reflecting differential readiness for work.

The positive behavioural effects of small cuts in the top personal marginal tax rate – either through a rate reduction or an increase in the threshold for the top marginal tax – offset approximately 60 per cent of the mechanical loss of revenue, cf. table 2. The earned income tax credit reduces the effective marginal tax rate and increases the gain from employment relative to non-employment. The positive behavioural effects and the implied efficiency gains of a higher income tax credit are, however, significantly lower than for reductions in the top marginal tax rate. Reductions in the top marginal income tax rate affect, on average, taxpayers with a higher wage income and tax bill than the improvements in the earned income tax credit do. The former tax cuts therefore show higher positive behavioural revenue.

Further analysis shows that the positive behavioural revenue effects of larger tax cuts in the top marginal tax rate decrease relative to the mechanical revenue losses. This result follows from the fact that the marginal change in the marginal effective net of the tax share is falling with the initial level of taxation.

Table 2 Effects of tax cuts on labour supply and tax revenue

| | Mechanic revenue effect | Labour supply effect | Behavioural revenue effect | Self- financing ^{e)} | |
|---|-------------------------|----------------------|----------------------------|----------------------------------|--|
| | DKK mil | Persons | DKK mil | Per cent | |
| Top tax rate reduction ^{a)} | -1,160 | 1,900 | 660 | 57 | |
| Increase of top tax bracket ^{b)} | -1,210 | 2,500 | 770 | 63 | |
| Higher earned income tax credit ^{c)} | -1,230 | 600 | 170 | 13 | |
| Higher earned income tax credit ^d | -1,260 | 2,000 | 430 | 34 | |

- a) Reduction of the top marginal personal income tax rate by 1 percentage point.
- b) Increase of the threshold for the marginal personal income tax rate by DKK 10,000.
- c) The rate of earned income tax credit is increased to 4.8 per cent and the maximum credit is increased with DKK 1,700.
- d) The income threshold for receiving the tax credit is raised to DKK 415,000.
- e) The rate of self-financing expresses the percentage of the mechanical tax revenue losses that are recovered through the behavioural revenue effects.

Source: Own calculations based on administrative records covering 10 per cent of the Danish population.

Cuts in the top marginal tax rate benefit high-income earners and consequently have adverse distributional effects. The distributional effects of changes in the earned income tax credit are very dependent on the exact design of the tax change and can both increase and decrease income equality. In all cases, a higher income tax credit will, however, have a less negative impact on the income distribution than will reductions in the top marginal tax rate. This points to the need to balance efficiency gains and distributional concerns in political decisions about tax reforms.

The effect of tax changes on the relative gains from different educational achievements is examined through the effects of tax changes on life-time disposable income. Cuts in the top marginal tax rate increase the gains from higher education compared to lower educational levels. Increases

in the earned income tax credits can – depending on the exact design of the reform – boost the relative gains for either low or high educational attainments.

Taxes on capital income

Besides labour income, the other main source of taxable income is capital income. This comprises the returns to financial savings including pension arrangements, the returns to capital in firms and the returns to owner-occupied housing. It is a natural benchmark that these various forms of capital income should be treated identically for tax purposes. In this way pure tax considerations will not affect the allocation of savings in assets. Today, however, capital income is taxed in many different ways, and in some cases the real returns to capital are taxed very highly.

Part of the nominal returns to savings is pure compensation for price increases and hence does not constitute any real income for the capital owner. The marginal tax rate of real income is consequently higher than the statutory nominal tax rates, cf. table 3. For tax payers on the highest marginal tax rate, the effective tax rate is more than 90 per cent. Were real capital income to be taxed at the same rate as labour income, the resulting nominal tax rates for personal capital income would be around 28 per cent for bottom-bracket tax payers and 40 per cent for top-bracket tax payers.

Table 3 Real marginal tax rates on capital income

| The second secon | |
|--|----------|
| | Per cent |
| Owner-occupied dwelling | 16 |
| Pension savings | 24 |
| Corporate tax | 40 |
| Negative personal capital income | 53 |
| Personal capital income, bottom-bracket tax | 62 |
| Personal capital income, top-bracket tax | 93 |

Note: Calculation of the tax rates is based on a number of assumptions. The inflation rate is 1.75 per cent annually, and the nominal returns to all the mentioned types of investment are 4.75 per cent. For owner-occupied dwellings, an effective tax rate of 0.5 per cent on the value of the dwelling is assumed. The calculated corporate tax rate is equal to a nominal 25 per cent tax on financial income.

If one disregards equity considerations, the extent of taxation on (real) capital income relative to the tax on labour income should be determined by the relative loss of efficiency from taxation of the two tax bases. There may be various arguments for keeping the real tax on capital lower than the corresponding tax on labour income. Experiments on the computable general equilibrium (CGE) model, DANTAX, show that the present Danish capital income taxes imply a higher efficiency loss than labour income taxation under the benchmark assumptions of the model.

A level of 25 per cent for ordinary capital income might be a natural bench-mark, given the present levels of labour income taxes. However, too large differences between nominal tax rates on capital income and nominal taxes on labour income may cause problems in the form of income shifting. In particular, owners of closely controlled companies will have an incentive to transform their income to minimize tax payments. A simple adjustment would be to only tax 75 per cent of personal capital income according to the general tax rules of the personal income system. For negative capital income (which dominates personal capital income in Denmark) this would correspond to a 25 per cent

nominal tax. For positive capital income it would imply a partial compensation for the inflationary part of taxation.

Comprehensive tax reform of capital income should also lead to more consistent progressive tax rules. The present special treatment of income from shares should be abolished and the income of share-holders should be treated like other personal capital income. Considering taxation of pension savings, effective tax rates are highly affected by various income-dependent transfers. In some cases, the effective real tax on pension savings may be higher than 100 per cent when the effect of reduced transfers is taken into account.

The present corporate tax rules are in some ways highly distortionary, implying a large subsidy to debt-financed marginal investments and a high marginal tax on investments financed by equity. It is recommended that the government examines the practical possibilities for creating a more neutral corporate tax in the form of an allowance for corporate equity (ACE) for future investment. By allowing firms to deduct a fixed return on the equity part of their investment from taxable income in line with their debt expenditures the various distortionary elements are reduced. Experiments performed on the CGE model DANTAX suggest that the introduction of an ACE system would increase investment, production and wage levels in the long run

Indirect Taxes

The revenue from indirect taxes amounts to 17 per cent of GDP in Denmark. VAT amounts to two-thirds of indirect taxes. Revenue from duties on cars and energy are the main contributors to excise duties. The Danish VAT rate is 25 per cent on all goods and services.

Calculations in the *Danish Economy* Autumn 2008 show that indirect taxes only redistribute the consumption possibilities slightly. The redistributional effect is measured by the Gini-coefficient. Duties on cigarettes and candy redistribute the most, while duties on vehicles redistribute the least.

A change in indirect taxes and a similar change in direct taxes will have no effect on the employed because it is the disposable income that is decisive for the choice between work and leisure. But a revenue neutral change from direct taxation to indirect taxation, i.e. an increase in the earned income tax credit offset by an increased VAT, could result in a lower tax rate on the employed. That arises because VAT has a broader tax base. For instance an increase in the VAT rate implies taxing income, benefits, wealth and extraordinary returns from wealth. It will also result in some taxation of the black economy.

Calculations using the model DANTAX show that a decrease in the bottom bracket tax rate of 1 percentage point financed by an increase in duties on consumption will increase production, employment and consumption in the long run.

Since 2004 there have been no restrictions on cross-border shopping between Denmark and other EU countries. To avoid excessive cross-border trade with detrimental effects on tax revenue, duties on spirits and cigarettes were reduced. However, calculations show that there is room for an increase in duties on candy, beer, wine and soft drinks. An increase in these duties to finance a decrease in income tax would improve the efficiency of the economy.

Taxes on owner-occupied housing

Owner-occupied dwellings are taxed more favourably than other kinds of savings. Interest payments are deducted from capital income to arrive at taxable income to which a tax rate of about 33 per cent is applied. Owner-occupied dwellings are taxed at a nominal rate of 1 per cent of the assessed value of the dwelling. However, special discounts apply to the elderly and people who bought their house before the first of July 1998. In addition to these discounts, the so-called tax freeze means that the taxation of imputed rents is fixed in nominal terms at the 2001 level. All in all the result is an effective tax rate on owner-occupied dwellings of only 0.5 per cent of the assessed value. A

neutral tax would imply a property tax of 1.2 per cent of the assessed value if capital income is taxed at 25 per cent, as recommended. Co-operative dwellings do not pay property tax on equity.

It is recommended that taxation on housing is increased by introducing a tax on capital gains. This would secure a tax system that is more neutral in relation to other sources of capital income. If capital gains are taxed in an appropriate way, an overall neutral taxation of housing can be achieved with a rate of 0.5 per cent of the assessed value, which is the present average rate. Under this proposal the existing special rules for the elderly and people who bought their houses before the first of July 1998 would be abolished. To avoid cash flow problems for people who face an increase in property taxes, the extra payments will be frozen. When the owner-occupied home is sold, the total extra payments, plus interest would be repaid. Calculations in the Danish Economy Autumn 2008 show that most people will pay lower property taxes and it is primarily people with high incomes who will face an increase in property taxes.

Introduction of a tax on capital gains will ensure a more neutral tax on owner-occupied housing vis-à-vis other sources of capital income. Realised capital gains can be taxed at 25 per cent or 75 per cent of these gains can be included in taxable capital income. Documented and VATtaxed outlays to home improvements can be deducted from realized capital gains. All realised capital losses on owneroccupied housing after the introduction of the reforms are also deductible in future capital gains. Capital gains are not taxed if they are reinvested in another owner-occupied house or placed on a special account. Pay-outs from the account including interest payments are taxed, if they are used for consumption. This will ensure that mobility in the labour and housing markets is not constrained. Calculations in the Danish Economy Autumn 2008 show that people with high incomes receive the greatest capital gains.

The proposed changes in taxes on housing ensure that nobody will experience an increase in running costs. On the contrary, the majority of people will pay lower taxes on housing. The proposed changes imply that property taxes will evolve in accordance with changes in house prices. Thus, in the present situation with falling house prices and an expectation of further falls in house prices over the next couple of years, more people will experience lower running costs from housing taxes. The counterpoint to this is that property taxes will increase when the housing market returns to a more prosperous situation. In this way there is a better spread of risk between the state and home owners.

Tax exemptions

Some industries or goods have lower taxes or higher tax allowances than corresponding industries or goods. There can be valid reasons to have tax exemptions on some industries or goods, but some of the tax exemptions were introduced when the economic situation was very different and the reasons for maintaining them are not necessarily valid any longer. The chairmen of the Economic Council therefore suggest that all tax exemptions be re-evaluated. They also recommend that some of the tax exemptions be abolished.

The Danish personal income tax system includes a number of tax exemptions and preferential treatments for certain kinds of remuneration, i.e. fringe benefits and special treatment for sailors. A non-exhaustive list shows that these exemptions lead to a loss in revenue of more than DKK 2 billion per annum.

Other tax exemptions are the registration fees to reconstruct written-off cars and lower registration fees on taxis. These two tax exemptions result in a revenue loss of around DKK 700 million annually.

Foundations in Denmark have a number of tax exemptions. One of them is that foundations can get a 100 per cent deduction in their taxable income when they donate money. The foundations get an additional deduction in taxable income of 25 per cent of charitable donations. This means that a foundation can reduce its taxable income by 125 per cent of the amount it donates to charities. The chairmen of

the Economic Council suggest that the additional deduction of 25 per cent for foundations be abolished. This is expected to give tax revenues of DKK 1 billion annually.

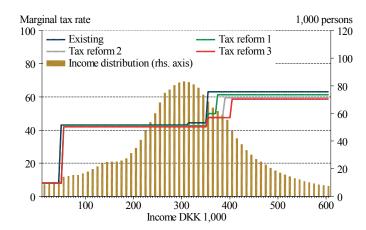
Examples of tax reforms

In the *Danish Economy* Autumn 2008 three examples of how adjustments to the different parts of the tax system can be combined and how they affect employment and fiscal sustainability are presented. The three tax reforms give examples of different magnitudes by which the income tax can be reduced.

The first reform reduces the income tax by DKK 15 billion, where DKK 5 billion come from a lower top income tax rate, DKK 5 billion from a higher earned income tax credit and DKK 5 billion from a higher tax free allowance for all taxpayers. Figure 1 shows how the marginal tax rate would be reduced. This tax reform is financed through higher indirect taxes – fees on energy and 'unhealthy' goods, sale of CO₂-quotas – and tax on fringe benefits, and reductions in some tax exemptions for companies. The reform is expected to raise employment by the equivalent of 6,000 full-time persons. Reform 1 is expected to improve fiscal sustainability by 0.04 per cent of GDP or DKK 0.6 billion annually.

In the second tax reform proposal an extra DKK 5 billion is used to lower income taxes. This is partly financed by raising other revenue sources, mainly indirect taxes, by DKK 2.6 billion. Additionally, the expected dynamic efficiency gains are directly taken into account as part of the financing so that this proposal is expected to lead to an unchanged level of fiscal sustainability. Overall, the second reform proposal therefore reduces income tax by DKK 20 billion. Compared to reform 1, further reductions are made for taxpayers paying the top marginal income tax rate. Additionally, the earned income tax credit is increased, cf. figure 1. The reform is expected to increase employment by the equivalent of 14,000 full-time persons.

Figure 1 Marginal tax rate distributed on income



Source: Own calculations based on Danish administrative records.

The third tax reform proposal reduces income tax revenue by DKK 25 billion. The additional DKK 5 billion compared to reform 2 is financed through reforms to improve the long term efficiency of taxation of capital income, which includes a reduction in the tax rate on capital and/or the introduction of a tax on capital gains on houses. The income tax reductions come through an additional reduction in the top income tax rate, and increases in the income threshold for the top tax bracket and the earned income tax credit. The reform is expected to increase employment by the equivalent of 20,000 full-time persons.