English summary

The summary is divided into the following chapters:

- The Danish Economy, chapter I
- The Distribution of income, chapter II

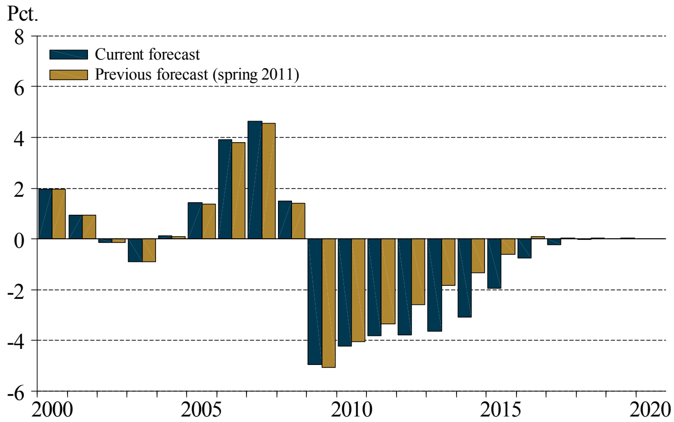
Chapter I: The Danish Economy

The outlook for the Danish economy has deteriorated markedly during the last six months, and the Danish as well as the global growth forecasts have been lowered. The uncertainty surrounding the consequences of the European sovereign debt crisis and the unsustainable state of the public finances in the United States has led to sharp falls in equity prices, rising risk premiums in financial markets and lower consumer and business confidence. In Denmark private consumption hasn't increased since early 2010 and private investment spending is still subdued. Further, the Danish housing market is still characterized by stagnation in spite of historically low interest rates.

The accumulated growth forecast for the period 2011-13 has been lowered by more than 2 percentage points, compared to the assessment in *Danish Economy, spring 2011,* with the result that GDP is now expected to grow by around 1¼ per cent each year from 2011 to 2013. This growth rate is assessed to be approximately the same as the underlying structural growth rate. Thus, the output gap, which measures the deviation between actual and structural GDP, is expected to be roughly unchanged at around -3¾ per cent for the next few years. The lower growth expectations will postpone the return to more normal economic conditions, see figure A.

The deterioration of the economic outlook is partly due to the dismal outcome in some parts of the economy in the first half of 2011. In particular, the fall in private consumption was unexpected, and private consumption is now expected to show a decline for the whole of 2011. This decline implies a further fall in the consumption ratio, i.e. the ratio of private consumption to disposable income, which is expected to be historically low. Thus, over the next few years, private consumption is expected to grow somewhat faster than GDP as a result of a partial recovery of the consumption ratio. Private investment has also fallen, and this has also taken the investment ratio down to a very low level. The low consumption and investment ratios have led to a sharp increase in financial savings in the private sector. The increase in financial savings is part of the private sector consolidation, and it implies that there will be a certain potential for growth in private consumption and investment in the next few years.

Figure A *Output gap in current and previous forecast*



Note: The bars for the current forecast show the expected output gap based on the proposed budget of the former Danish government. Note that this forecast doesn't contain the consequences of the retirement reform, which should increase the labour force beginning in 2014. Thus, the assumptions regarding fiscal policy in the current forecast are almost identical to the assumptions in the forecast from spring 2011, and the difference in the forecasts can be seen as representing the revised assessment of the economic situation.

Source: Statistics Denmark, ADAM, *Danish Economy spring 2011* and own calculations.

The Danish housing market is characterized by stagnation. The number of foreclosures has increased, the number of houses sold is still low and time on the market is high. Housing prices have fallen recently, despite the low interest rates. Real housing prices are expected to fall by around 5 per cent this year, and they are expected to further decline in 2012 and 2013. In total, real housing prices are expected to fall by around 10 per cent towards 2013. This implies that real housing prices will be more than 25 per cent lower than the pre-crisis level. Given a fall of this magnitude, actual real housing prices will be in line with the estimated long run trend level.

The Danish labour market is also characterized by stagnation. It is estimated, with some uncertainty, that employment is currently around 60,000 below the structural level, i.e. the level that would be expected under normal economic conditions. This gap is expected to widen slightly over the following years, primarily as a result of weak growth in GDP. Unemployment is expected to increase from 110,000 in 2011 to almost 130,000 in 2013.

The deteriorating global economic outlook is one of the main reasons for the low growth forecast for Denmark. What's more, the possibility that the slowdown in the global economy might yet turn out to be even more dramatic than expected can't be excluded if the European sovereign debt crisis intensifies further. The financial markets are characterized by markedly higher risk premiums, which – among other things – can be explained by the European sovereign debt crisis, and, in particular, the unsustainable state of the public finances in several southern European countries. The immediate consequences of a default in, e.g., Greece are probably not very severe but there is the risk that it may spread to other countries through solvency problems in the banking sector. If the European sovereign debt crisis intensifies further, it won't be possible to mitigate the consequences by using monetary or fiscal policy as most countries did in response to the sharp economic downturn in 2008-09. Instead, such a situation will require further fiscal consolidation which will tend to slow down global growth even further. This will affect the Danish economy even though the weakened confidence is not related to the public finances in Denmark. Calculations using the macroeconometric model SMEC show that if the growth rate of GDP in foreign markets is reduced by 3 percentage points over the period 2011-13, employment will decrease by almost 100,000 persons in Denmark compared to the baseline scenario. In this case, the public balance in Denmark will further deteriorate and there will be no room for a fiscal expansion.

The new centre-left government in Denmark has announced a fiscal expansion as part of the new government platform. The previous government's budget proposal implied that fiscal policy would be roughly neutral in relation to growth in 2012. However, the new government has announced that it will bring forward to 2012 public investments amounting to DKK 10 billion, and that it will increase public expenditure by DKK 5 billion, financed by a corresponding tax increase. It is estimated that a fiscal expansion of this size would increase the growth rate of GDP by around half a percentage point and employment by around 10,000 persons in 2012 and 2013 compared to the baseline. Such a fiscal expansion will dampen, but not prevent, the increase in unemployment. The cost of the fiscal expansion consists of higher unemployment in the medium run and a higher government budget deficit in 2012. However, public finances will not be affected significantly in the long run, given that the expansion is temporary and fully financed. Nor is the fiscal expansion expected to affect the level of economic activity in the short run significantly.

Table A *Short-term outlook for the Danish economy*

	Current prices DKK bn. 2010	Per cent of GDP 2010	Percentage change, volume 2009	2010	2011	2012	2013
Private consumption	853,1	49,0	-4,5	2,3	-0,8	1,7	2,2
Public sector consumption	511,7	29,4	3,1	0,7	0,2	0,2	-0,2
Gross fixed capital formation	292,1	16,8	-17,1	-1,6	1,7	3,7	3,3
consisting of:							
Residential investment	74,3	4,3	-16,9	-9,0	10,1	1,3	3,9
Business fixed investment	179,9	10,2	-15,3	-0,2	-6,8	6,7	5,3
Public sector investment	37,9	2,2	4,6	6,9	7,3	-5,0	-9,0
Stockbuilding[a)]	-6,3	-0,4	-2,0	0,9	0,9	0,3	0,0
Total domestic demand	1.650,5	94,7	-6,5	1,7	0,5	1,9	1,7
Exports of goods and services	882,8	50,7	-9,7	3,8	6,2	1,5	2,4
Imports of goods and services	790,6	45,4	-12,5	3,9	5,2	3,2	3,2
GDP	1.742,7	100,0	-5,2	1,7	1,3	1,1	1,3
Key indicators							
Consumer prices, percentage change[b)]			1,3	2,5	2,8	1,7	1,8
Unemployment, per cent[c)]			3,4	4,0	3,8	4,3	4,5
Current account, DKK bn.			59,0	89,9	94,0	74,8	66,6
Current account, per cent of GDP			3,6	5,2	5,3	4,1	3,5
General government budget balance, DKK bn.			-46,5	-48,3	-72,5	-84,2	-52,1
General government bud. balance, per cent of GDP			-2,8	-2,8	-4,1	-4,6	-2,7
Hourly wage costs, percentage change			2,9	2,6	2,0	2,1	2,3
Terms of trade, percentage change			-0,7	2,8	-1,7	0,2	0,1

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

b) Implicit private consumption deflator.

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

Source Statistics Denmark, National Accounts and own estimates.

Since 2007 employment has decreased considerably, and because registered unemployment has not increased correspondingly, the labour force has decreased. A person is registered as being unemployed if he/she receives unemployment benefits or social security benefits and is able to work.

According to the National Accounts, employment decreased by 151,000 from the 4th quarter 2008 to the 4th quarter 2009. Some 34,000 of this decline is explained by reductions in secondary jobs (the main explanation), a fall in the number of foreign workers and in the employed under the age of 15.

The remaining part of the decrease in employment, a little less than 120,000, is composed of an increase in registered unemployment of 55,000 and a decrease in the labour force of 64,000. The number of people of working age has remained largely unchanged, hence demographic shifts, eg, in gender, age or origin, cannot explain the labour force changes. The reduction in the labour force therefore implies that there are more people of working age who are neither employed nor registered as being unemployed. These changes were caused by increases in activation of the unemployed ("aktiverede"), the number of students, recipients of social security benefits who are not able to work, and more self-supporting persons. Particular attention should be paid to the increase in the self-supporting group. This group includes, among others, individuals who lose the right to unemployment benefits and are not entitled to social security benefits. The increase in the number of unsupported persons in 2009 was 17.000. Attention should also be paid to the increased number of people who receive social security benefits but have been declared unable to work. The number of people who are declared unfit to work should be independent of the prevailing economic conditions, and the increased size of this group indicates that people may be misplaced in the labour market system.

Long term unemployment has increased from 20,000 to 55,000 persons since the end of 2008. However, while this is a large increment, the level remains 20,000 to 30,000 below the 2000-2005 levels. A lengthy increase in the unemployment level increases the risk of higher long term unemployment, a development that should be monitored closely.

Since 2008 the registered unemployment and the unemployment measured by the Labour Force Survey (LFS-unemployment) has indicated that the LFS-unemployment has increased substantially more than the registered unemployment, a difference amounting to 59,000 persons. The LFS-unemployment measure includes individuals who are active job-seekers but who are not registered as being unemployed because they do not receive any benefits. Conversely, registered unemployment includes non-job seeking individuals who receive benefits. The greater increment in the LFS-unemployment was caused by more registered people complying with the requirements for being LFS-unemployed. This includes being active job-seekers (activity-rules) and full time unemployed. In 2007, 50 per cent of the registered unemployed were also LFS-unemployed. This share increased to 70 per cent in 2010.

Since 1995 the tighter availability-rules require that an unemployed person must document that he/she is available for a vacant position. These tighter requirements imply that more registered unemployed people also comply with the criteria for being LFS-unemployed. The increased difference between the number of LFS-unemployed and registered unemployed is thus *not* a result of an extraordinary increase in LFS-unemployment, such as an increase in students, pensioners or self-supported people who are seeking work but who are not registered unemployed. The percentage growth in the number of people in these groups is actually less than the growth in total LFS-unemployment.

Policy recommendations

The current economic situation speaks in favour of further fiscal stimulus. The possibilities of implementing further stimulus are, however, constrained, not only as a result of the large public deficits forecast for the next few years but also due to a range of other reasons. A sustainable and credible outlook for public finances in the medium and long run is a crucial prerequisite for using fiscal policy as a short term stabilization tool. A necessary condition for fiscal policy to be credible is the existence of an effective means of controlling public expenditure. The requirement for fiscal policy to be both sustainable and credible implies the need for fiscal consolidation over the coming years, see *Danish Economy, spring 2011.*

The short term fiscal policy should take into account the European Commission's recommendation that the structural public balance be improved by 1½ per cent of GDP from 2010 to 2013. This recommendation can be considered as inappropriately timed considering the current economic situation. However, compliance with the recommendation may contribute to securing the credibility of Danish fiscal policy. Thus, it is advised that Danish fiscal policy should be organized in order to secure compliance with the recommendation, and the chairmanship welcomes the new government's commitment to this objective. Taking compliance as given, a fiscal stimulus of a larger magnitude in 2012 will require a similarly larger tightening in 2013. This restricts how expansive fiscal policy ought to be in 2012.

A fiscal expansion in 2012 means that Denmark will stand out compared to most other European countries, since fiscal policy is being tightened in most European countries in order to mitigate the consequences of the European sovereign debt crisis. The increased focus on public debts in Europe and the United States implies that it could be problematic if Denmark stands out from other European countries. However, it is not considered that a fiscal stimulus of the magnitude announced by the new government would be sufficient in itself to create distrust in Danish fiscal policy. It is a necessary prerequisite, however, that the fiscal expansion is temporary and is perceived as such. In order to increase the likelihood that the fiscal expansion will be perceived as being temporary, new measures that can strengthen the control over public expenditure should be implemented.

The assessment of how expansive fiscal policy ought to be in 2012 must also be based on the current and expected economic situation. Employment is estimated to be around 60,000 persons lower than the structural level of employment, and this gap is not expected to be reduced in 2012 or 2013. Thus, it is not evident that fiscal policy should be extraordinarily expansive in 2012. Also, it must be recognized that Denmark can not be insulated entirely from the negative consequences of the recent global developments.

The former Danish government presented a retirement reform in the Danish Parliament in spring 2011, and this reform is expected to be legislated. The reform implies that, starting in 2014, the labour force will increase extraordinarily. The increased labour force will temporarily increase unemployment if the demand for labour doesn't increase accordingly. The higher unemployment constitutes a reason for stimulating the economy through fiscal policy in those years when the labour force increases. However, a prerequisite for fiscal stimulus is that fiscal policy is sustainable and that the underlying trend in the public finances is credible. It is not possible to use fiscal policy to stimulate the economy in the short run – 2012 and 2013 – and then again after 2014. Repeated fiscal expansions will lead to a marked deterioration in the public finances, and it would not be consistent with a credible and stability-oriented fiscal policy. Thus, some of the fiscal stimulus should be saved for those years when the labour force increases.

If the European sovereign debt crisis escalates, the global economic situation will deteriorate further, and this will probably result in lower employment and higher unemployment. This will imply that public budget balances deteriorate further. A significant global downturn will impinge on financial markets and public funds may be needed to recapitalize banks. Such a recapitalization will weaken public finances further. Thus, there may not be room for fiscal expansions, and it may be necessary to tighten fiscal policy, even though the economic downturn, seen in isolation, would call for fiscal stimulus.

All in all it is assessed that a fiscal expansion of the magnitude announced by the new government isn't inappropriate. This conclusion rests on the prerequisite that the expansion is temporary and financed. The expansion consists of three elements: 1) Repayment of contributions to the voluntary early retirement scheme, 2) an increase in public consumption of DKK 5 billion and 3) bringing forward public investments of DKK 10 billion. The repayment of contributions to the voluntary early retirement scheme is part of the retirement reform which improves public finances markedly in the long run. The planned increase in public consumption is financed by higher taxes. Finally, bringing forward public investment to 2012 is financed by the lower investment levels in subsequent years.

It is crucial that the level of public investment is actually lowered in the following years compared to the baseline. Convincing financial markets that public investment levels will actually be lower requires the existence of a well defined baseline. Such a baseline should consist of a cross-disciplinary and multi-annual investment plan, and specify how investments in excess of the planned level should be financed. The chairmanship advises that such a plan for public investment should be part of a new 2020 plan for public sector finances.

A sustainable and credible fiscal policy requires control of public expenditure. Experience has shown that the current system of managing expenditure is not sufficient. Budget overruns have been the rule rather than the exception. The actual growth in real public consumption has exceeded the planned growth by 1 per cent each year, on average, for the last ten years. Since public consumption amounts to one fourth of GDP, this implies that four years of overruns by 1 per cent each year would result in a permanent increase in the public deficit by 1 per cent of GDP. In comparison, it is estimated that the retirement reform would permanently improve public finances by less than ½ a per cent of GDP. This illustrates the importance of control over public expenditure. The chairmanship has, on several occasions, suggested that multi annual spending ceilings should be implemented. These spending ceilings could be designed as in

Sweden. The spending ceilings should be determined in nominal terms, and there should be well defined individual sanctions in the case of violations. It is also important that the system of expenditure ceilings contain some kind of memory, such that an overrun leads to adjustments in subsequent years.

The new government has announced that it will seek to achieve a permanent increase in the structural labour force amounting to 55,000 persons by the use of tax reforms, structural reforms and negotiations with central labour market organisations. In combination with the labour force effects of the reform of the unemployment benefit system and the retirement reform, the overall increase in the labour force is assumed to amount to 135,000 persons towards 2020. The government has announced that the increase in the labour force of 55,000 persons, in combination with increased taxes, will be used to finance increased expenditure on welfare, education etc. The chairmanship has, on several occasions, expressed concern about formulating targets for an increased workforce without pointing out at the same time which instruments should be used for achieving the target. The new government platform doesn't point out those exact measures. On the other hand, the new government platform specifies that a new 2020 plan for public sector finances should rest on the principle that expenditure will not be increased before the adoption of higher taxes or structural reforms needed to finance the increased expenditure. This precautionary principle is in line with the recommendations of the chairmanship.

The government has announced that it will implement a socially balanced and fully financed tax reform, with the aim of lowering taxes on work and increasing the labour force. It is very likely that higher green taxes will be part of the tax reform, considering the new government's ambitions regarding the environment, the climate and the energy area. However, it is important to note that higher green taxes will tend to increase the tax burden on labour.

For a number of reasons it would be natural to include the property value tax in a new tax reform. The existing nominal tax freeze implies that the taxation of imputed rents is fixed in nominal terms at the 2001 level. This has reduced the effective tax rate on owner-occupied dwellings, which were already taxed more favourably than other kinds of income. Further, the nominal tax freeze has reduced tax revenues and thereby worsened public finances. The tax freeze has contributed to the large fluctuations in housing prices over the last ten years. The increase in housing prices is one of the main explanations of the increased inequality over the period 2000-08: see the chapter on income distribution.

Abolition of the nominal tax freeze on property values would remove the tax favouritism of owner-occupied dwellings and improve public finances in the long run. This would, e.g., enable a lower tax burden on labour. A return to the rules that applied before 2001 would also recreate an important automatic stabilizing mechanism that would tend to dampen cyclical fluctuations in economic activity. A higher property value tax calculated on the basis of the current housing prices would also contribute to reducing the part of the inequality that is due to the increase in housing prices.

One specific way to abolish the nominal tax freeze is to increase the tax rate on property values to 1 per cent from 2012 or 2013, just as was the case before 2001. This would immediately impose a tax burden on owner-occupied dwellings of roughly double the current size. In order to counteract the negative consequences of the higher tax burden, homeowners could receive a tax rebate calculated as the difference between the property tax of 1 per cent of the current valuation and the tax that would have been paid if the nominal tax freeze wasn't abolished. This tax rebate could apply for a fixed period of time and then be gradually phased out. Under this proposal the property tax would be increased immediately to 1 per cent 'at the margin'. This would imply that a future increase in housing prices will increase property taxes by the tax rate of 1 per cent, while a fall in housing prices will decrease property taxes. The proposal will ensure that the property value tax will contribute to a more stable economic development and an improvement of fiscal sustainability.

The new government has announced that its economic policies will build upon the economic policies of the former government. Thus, the new government is expected to implement the reform of the retirement system, which was agreed upon in the Danish Parliament this spring. This reform includes the advancement of some elements of the Welfare Agreement ("Velfærdsaftalen"), in particular, the higher retirement age for the voluntary early retirement pension scheme and the old age pension scheme, and a shortening of the voluntary early retirement pension period. The increase in the retirement ages can be seen as an appropriate response to the longer life expectancy. The reform of the retirement system also includes the introduction of a senior early retirement scheme, making it easier for persons close to retirement age to be eligible for a disability pension (independent of whether they have made contributions to the voluntary early retirement pension scheme). The introduction of the senior early retirement scheme creates, however, a point of uncertainty regarding the consequences of the retirement reform. Experience shows that participation in such arrangements can easily exceed expectations. This has been the case for the introduction of the voluntary early retirement scheme, leave schemes and subsidized jobs for mildly disabled persons.

The new government has also announced that, in line with the reform of the unemployment benefit system passed by the Danish Parliament in spring 2010, the unemployment benefit period will be kept at two years. However, in light of the current economic situation, the Danish government has proposed to temporarily extend the period by six months for the unemployed who lose their entitlement to unemployment benefits in the period from 1 July 2012 to 31 December 2012. The extended period can, to some extent, be seen as a slower phase-in of the reform. The postponement of the shorter unemployment benefit period implies, however, that the number of unemployment benefit recipients who lose entitlements is expected to be higher at 31 December 2012 than the number who lose entitlements at 1

July 2012. This could open a discussion about whether the period should be extended once again.

Experience shows that the flow from unemployment to employment increases markedly immediately before the expiry of the unemployment benefit period. This can be attributed to a combination of increased effort by job centres and unemployment insurance funds and more intensified job search by the unemployment benefit recipients. These mechanisms will be weakened if the unemployment benefit period is extended. All else being equal, this would imply higher unemployment. If the unemployment benefit period is "exceptionally" and temporarily extended, there is a risk of creating expectations of similar measures in future periods of high unemployment. This will reduce the incentives to seek employment regardless of whether the unemployment benefit period is actually extended. If the unemployment benefit period is systematically extended in periods of high unemployment, it is important that there exists well defined mechanisms for reducing the unemployment benefit period when unemployment starts to decrease. Such a mechanism has been suggested by the Labour Market Commission.

For many years there has been a tradition that Danish fiscal policy has been planned according to medium term plans, with the aim of creating some kind of consistency between public expenditure and revenue in the medium and long term. This tradition is assessed to be very beneficial and should continue. Thus, the chairmanship welcomes the presentation of a new 2020 plan for public sector finances by the new Danish government.

Securing fiscal sustainability must be an important aim of a new 2020 plan for public sector finances, but it is also important to secure a credible evolution of public finances by constraining the increase in public debt. Given the starting point and the long term demographic trends, a credible evolution of public finances requires that fiscal policy technically should be more than sustainable. A new 2020 plan should rest on well defined objectives and should specify the instruments that are necessary to obtain these objectives. The plan should not contain unspecified reform desires. In the case of large cyclical disturbances, the actual fiscal policy should be allowed to deviate from the announced policy in the plan. However, it is important that fiscal policy is symmetric such that fiscal policy is also tightened when the economy is booming. Thus, the new 2020 plan should contain measures that strengthen expenditure management. These measures may include multi-annual spending ceilings, clear indications of the individual sanctions and subsequent adjustments pertaining to municipalities and regions whose accounts exceed their budgets. The effective management of public expenditure also requires multi-annual investment plans, such that public investment can be used to counteract fluctuations in economic activity. Finally, a new 2020 plan for public sector finances should contain the abolition of the nominal tax freeze cap on property taxes. The abolition could be based on the simple model suggested earlier.

Chapter II: Distribution of Income

A central issue in the political debate is the inequality of the distribution of income and consumption possibilities. How income is distributed in a society is a result of both the income earned by individuals and how it is redistributed through the tax and transfer system. One can distinguish between income redistribution that is aimed at limiting income differences between individuals at any given point in time and redistribution that aims at reducing differences over a lifetime. In both cases, it is a political decision to weigh how much income equality there should be against other concerns, such as economic efficiency.

The redistribution of income and consumption possibilities occurs through, for example, income compensating transfers and through the provision of free or reduced-price services by the public sector. Furthermore, the tax system contributes to the redistribution, as those with the high incomes *ceteris paribus* pay a higher share of their income in taxes than those with low incomes.

While income redistribution may be beneficial, efficiency effects should also be considered. Taxation, as well as access to social services, affects the individual's decisions regarding education, working hours, retirement, etc. Therefore, the actual design of the tax and transfer system is of great importance for the size of total income in a society.

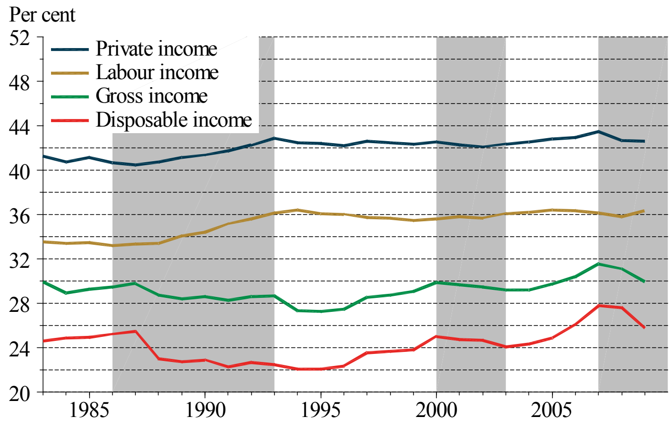
From a pure efficiency viewpoint there can be a case for a certain degree of redistribution. Income redistribution can be likened to an insurance scheme as it implies that an individual's set of possible economic outcomes is narrowed. Such insurance may have favourable efficiency effects if, for example, members of a society would otherwise choose not to initiate socially beneficial activities, such as investments in education or business start-ups, that may be considered too risky by an individual.

On the other hand, however, the degree of redistribution may become so expensive that the set of possible economic outcomes is narrowed to the extent where an individual's incentives to improve his/her qualifications or supply labour are severely reduced. Thus, there is a, not easily identifiable, degree of redistribution that maximizes efficiency. Redistribution beyond this level cannot be based on economic efficiency arguments, but must instead be based on political preferences. A society that values economic efficiency as well as equality will have a degree of income redistribution that exceeds the point where there is no conflict between efficiency and equality. Hence, there is a real trade-off between equity and efficiency in a welfare state. Consequently, a political target for income redistribution cannot stand alone, and a choice of more redistribution should, in practice, be weighed against the costs of lost efficiency.

If the loss from a redistributive economic policy becomes too great, total income in the society may fall to such an extent that both net contributors and net recipients lose income. If it is politically unacceptable that everyone is made worse off, there is thus an upper bound to how much equality can be achieved through a redistributive economic policy.

Based on disposable income, the inequality in Denmark is small from both an international and a historical perspective. Since the early 1980s, inequality measured by the Gini coefficient has remained between 22 per cent and 28 per cent, cf. figure B. From the mid-1990s to 2008 inequality rose, then it fell sharply in 2009. This recent drop brought inequality back to its mid-1980s level, which is only slightly above the level in the late 1990s. Although inequality has not really increased since the early 1980s, it has fluctuated considerably in the intervening period.

Figure B Inequality in equivalised incomes measured by the Gini coefficient



Note: The shaded areas indicate periods of economic contractions in which the output gap decreases, while the output gap is increasing in the remaining periods. Income is calculated for people over 17 years of age. Income is measured in equivalised units. Personal income includes wages, profits of businesses and capital income (including imputed rents for owner-occupiers). Gross income is generated by adding public income transfers. Subtracting direct taxes from gross income results in disposable income. Income concepts are defined in Box II.1 in the full Report (in Danish only).

Source: Own calculations using administrative records.

This income distribution path may be both a consequence of deliberate political choices, e.g., changes in government income transfers and taxation, and the business cycle. Since

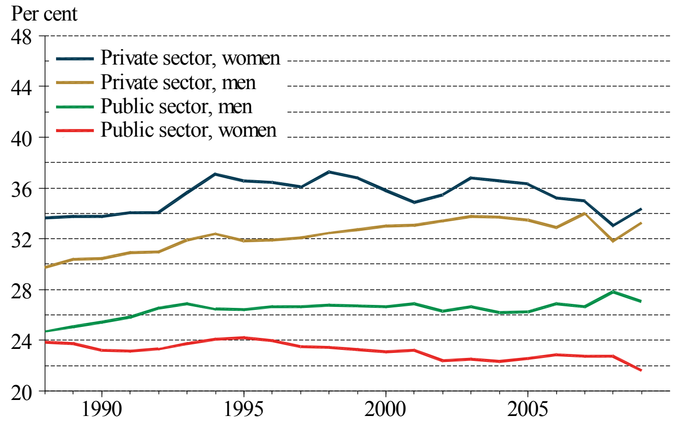
1983 there has been a tendency for inequality in disposable income to increase during an economic upturn and decrease during an economic downturn. This is the net result of two opposing trends. On the one hand, an increased employment rate during expansions reduces inequalities in labour income (wages and business profits) and, thereby, reduces income inequality. On the other hand, however, expansions are associated with significant increases in capital income and rental values, which are relatively unequally distributed. Hence, expansions contribute to a higher level of inequality. Overall, the rental values, equity- and capital income have increased inequality by about 5 percentage points over the period 1998 to 2007, but reduced inequality by about 6 percentage points from 2008 to 2009. In the period 1998 to 2007, labour income reduced inequality by about 3 percentage points, but has contributed to an increase in inequality of about 5 percentage points since 2008.

There is a higher degree of inequality in the wage distribution of men than in that of women. Until the early 1990s wage inequality increased for both men and women. Since then, the distribution of incomes has evolved very differently between genders. The wage inequality of women has fallen since the late 1980s from about 29 per cent to about 27 per cent, measured by the Gini coefficient. Conversely, it rose from about 29 per cent to 31 per cent for men.

The inequality of wage income is higher in the private sector than in the public sector for both men and women, cf. figure C. Historically, a larger share of women than men have been employed in the public sector. Moreover, the proportion of the female workforce employed in the public sector has increased by 4 percentage points from about 45 per cent to about 49 per cent during the period 1988 to 2009, while it has only increased by 2 percentage points from about 20 per cent to about 22 per cent for men in this period.

Therefore, that income inequality among women has fallen, while it has increased among men, can be partly explained by the increased share of women working in the public sector where the wage disparity is smaller than it is in the private sector. However, this cannot explain all the difference.

Figure C Gini coefficient for labour incomes, 25-70 years

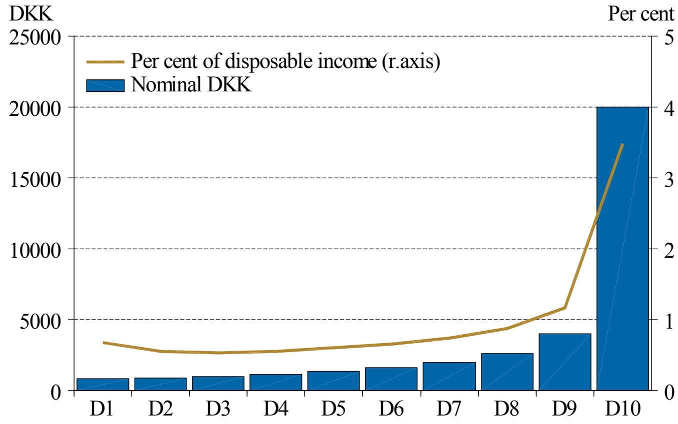


Source: Own calculations using administrative records.

Since 2001 the return on housing, i.e. the rental value, has had a significant impact on the distribution of disposable incomes. In 2008, when inequality was greatest, the return on housing contributed about a 3¼ percentage point increase in the Gini coefficient of disposable income, while the contribution was reduced to 1½ percentage points in 2009. The sharp drop in the impact of housing returns on inequality is due to the fact that both interest rates and housing prices fell in 2009 as a result of the economic downturn.

Since 2002, a nominal cap on the tax on owner-occupied dwellings has been enforced. This has implied a declining real tax rate due to the increase in housing prices. Based on housing prices in 2009 this tax relief amounts to 3½ per cent of disposable income for people in the 10th income decile, and between approximately ¾ and ½ per cent for the 1st to the 8th deciles, see figure D. As previously argued, the increase in housing prices would probably have been lower had the property taxes not been eroded by the tax freeze. It is estimated that the tax freeze accounts for a maximum of 15 percentage points of the increase in housing prices. Under this assumption, the saved property tax amounts to about 3 per cent for those in the 10th income decile and approximately 0.4 per cent for those in the 5th income decile. However, since it is complicated to calculate the total tax savings for homeowners arising from the tax freeze, these results should be interpreted with caution.

Figure D *The distribution of tax relief on owner-occupied dwellings*



Source: Own calculations based on Danish register data

Ideally, taxation of the returns on housing should be treated the same as returns on other financial assets. This is not the case in Denmark at the moment, see *Dansk Økonomi, forår 2008 (spring 2008)* and *Dansk Økonomi, efterår 2008 (autumn 2008)*. With the 2009 tax reform, the tax rate on interest deductions will gradually be reduced from about 33 per cent to 25 per cent. Assuming an annual nominal return of 4.75 per cent, a neutral tax would result in an effective tax on the value of a property of 1.2 per cent. This should be compared with the current effective property tax of about ½ a per cent.

In section I.10 of the full Report (in Danish only), the council proposes reintroducing a property value tax amounting to 1 per cent of the value of the property, but with a nominally fixed tax credit that corresponds to the difference in tax payments between the current property value tax and 1 per cent of the current property value. The tax credit would be fixed for a period, and then gradually phased out over a number of years. This proposal implies that housing taxation would again have a stabilizing effect on housing prices. Moreover, this will stabilize the returns on housing and, as a result, reduce fluctuations in income distribution. Such a reform would significantly improve public finances in the longer run and it would also reduce income inequality.

The implications of implementing an economic policy that has a higher degree of disposable income equality as one of its primary objectives should be carefully considered. As already mentioned, the distribution of disposable income is heavily affected by the business cycle, such that inequality will increase during an economic upturn and decrease during an economic downturn. To avoid frequent changes in economic policy, a measure of equality should be based on underlying structural levels. Consequently, it is not very meaningful to focus on short-term changes in inequality and, thus, these should not give rise to changes in economic policy. Similarly, it should be noted that the presence of voluntary social welfare arrangements, such as the Danish voluntary early retirement and leave schemes, themselves will tend to increase measured inequality, even though these welfare arrangements provide increased choice of consumption and leisure opportunities.

Moreover, income inequality in a single year may be higher than income inequality over a longer period. One reason is that students, unemployed people and others with temporarily low incomes, often earn higher incomes in subsequent years. Similarly, employees with bonus schemes and self-employed people often experience periods that are particularly good or bad compared to other periods. Thus, it is less problematic for a person to have a low income in one year if he or she previously had a higher income or can expect to get a higher income subsequently. Therefore, static measures of the distribution of income should be supplemented with dynamic measures. In the full report, this is done by analysing various measures of income mobility and by calculating life-time incomes for a range of employment categories.

One possibility is to base the assessment of inequality on average incomes over a longer period than one year, thereby measuring the income mobility. High income mobility tends to reduce the inequality that is implied by static measures, and decrease the long run inequality. Compared internationally, the income mobility in Denmark is very normal. Thus, Denmark appears to be a country with a high degree of equality, also when correcting for income mobility. Since the early 1980s, Danish income mobility has been quite stable. While a slight tendency to increased mobility can be observed over the last three decades in Denmark, the conclusion is that long-term inequality has evolved in parallel with inequality in annual income.

Another important question is whether children "inherit" their parents' position in the income distribution. This is assessed by examining the degree of covariation between parents and children's position in the income distribution. In the middle of the income distribution, income mobility is high among children with parents who were also in the middle of the income distribution. This suggests that there are no close associations between parents and their children's placement in the income distribution. This result applies to both girls and boys. However, it seems that income mobility among children with parents in either the lower or upper part of the income distribution is more limited. This is especially prevalent among boys whose fathers were in the top decile, as up to 1/3 of these sons also end up in the top decile and almost half of them end up in one of the top two deciles.

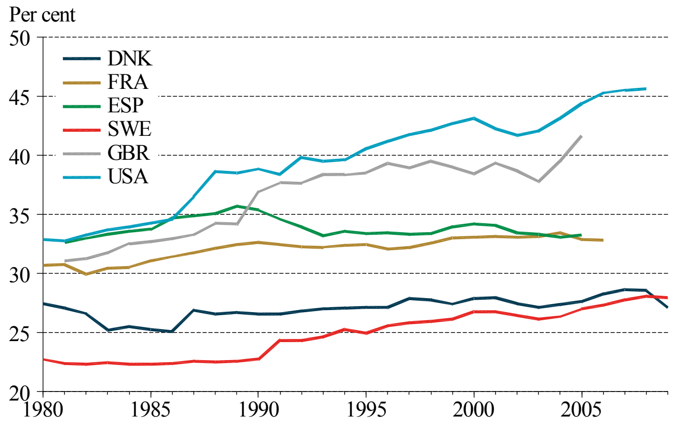
A third way to include the dynamic dimension of income distribution is to consider lifetime incomes, where the expected incomes over a labour market career are compared for different levels of education. By doing so, it is possible to take differences in incomes over people's lives into account. This is important because educated people typically have low incomes while studying, where as unskilled workers enter the workforce directly and immediately start earning an actual salary. Only after the age of 25-30 educated people earn a higher salary than unskilled workers, and they then do so until they retire from the labour market. The analysis does not attempt to separate the effect of education from the effects of other factors that are likely to influence incomes and, thus, cannot be interpreted as the expected return from completing a specific type of education. Over a lifetime, though, there is a clear tendency that people with a higher level of education achieve a higher income than those with little or no education.

The analysis shows that there is remarkable stability in the relative lifetime income across education and employment categories over the period 1995 to 2009. Thus, an average unskilled worker has a lifetime income that is about ¾ of that of a blacksmith, while an average highly educated worker has a lifetime income that is almost a ¼ higher than that of a blacksmith.

Another conclusion concerns the expected lifetime income of men and women. For a given employment category, men have, in general, a significantly higher lifetime income than women. However, due to the fact that women can expect to live longer than men, women receive an indirect transfer from men, through both the public and the private pension systems, which corresponds to about 2-3 per cent of men's lifetime income. However, for most employment categories this is far from enough to offset the income differences between genders. It is also pertinent to note that if preferences for equality between men and women are based on consumption opportunities per year of life, redistribution from men to women is a necessary consequence.

The evolution and distribution of the highest income individuals is particularly interesting to study because the share of total income of the highest income group has increased substantially, especially in English-speaking countries, over the last three decades. In the United States, the surge in high incomes has happened gradually since the 1980s and today the top-decile share has reached almost 50 per cent of total income in the United States. This is not the case in Denmark, where the top decile share has remained extremely stable at about 27 per cent over the last thirty years, cf. figure E. As is also the case for Sweden, the 10 per cent highest income earners in Denmark have a lower share of total income than in most continental Western European countries.

Figure E   The top-decile income share



Note: Income is defined as market income including labour income, business income, capital income (excl. realized capital gains) and housing income.

Source: Own calculations based on Danish register data and Facundo, Atkinson, Piketty og Saez, The World Top Incomes Database, http://g-mond.parisschoolofeconomics.eu/topincomes, 27/09/2011.

In the current Danish policy debate it is sometimes argued that taxes on the highest labour incomes should be increased. This chapter shows, however, that increased taxation on high income earners in Denmark at best is revenue neutral, and may even reduce total tax revenue. This result applies whether one considers the top 10, the top 5 or the top 1 per cent income group. This remarkable result is partly because the income disparity in the top of the income distribution is very limited and partly due to the fact that the effective marginal tax rate on the highest labour incomes is already very high. Therefore, the mechanical revenue gain of a tax increase will be quite limited, while the behavioural revenue loss will be relatively large for a given elasticity of taxable labour income. Hence, there is a significant risk that the mechanical revenue gain will be offset by a behavioural revenue loss, and thus there is little prospect for an overall revenue gain from a tax increase on high income earners.

The analyses in this chapter indicate that the effective tax rate that captures the highest revenue from high income earners is about 60 per cent. This should be compared to the actual effective tax rate, which is about 66 per cent in 2011. Using the base estimate of the elasticity of taxable labour income of 0.2, the conclusion is thus that the existing Danish tax system implies an effective tax rate on high income earners that is above – though close to – the tax rate that generates the highest tax revenue. However, this result is very sensitive to changes in the value of the behavioural response. To illustrate this sensitivity, the calculations have also been performed using elasticities of 0.1 and 0.3. This leads to a revenue-maximizing effective tax rate in the range of 50 to 75 per cent.

As an example, the revenue effect of an increase in the marginal tax rate by 6 percentage points for high-income earners is calculated. Using the base estimate of the behavioural response to taxation, this leads to a revenue loss of about ½ billion DKK. Using elasticities of 0.3 and 0.1, the tax increase leads to a revenue loss of over 2 billion DKK and a revenue gain of about 1 billion DKK, respectively.

Overall, the scope for acquiring extra tax revenue from high income earners in Denmark is very limited. Therefore, if the objective is to increase tax revenues while making the distribution of incomes more equal, alternative instruments have to be taken into consideration. As argued above, taxation of housing seems to be a more obvious choice.