

ENGLISH SUMMARY

The summary is divided into the following chapters:

- The Danish Economy, chapter I
- Early retirement and sustainable and credible fiscal policy, chapters II and III
- Tax Evasion and the administration of the Danish Tax System, chapter IV
- Undeclared work, chapter V

Chapter I: The Danish Economy

The Danish economy is expected to grow by around 1½ per cent this year, while growth is forecast to increase to 2 per cent in 2012 and 2013. This trend is considered sufficient to support a gradual but weak increase in employment, following the sharp fall in employment since 2008. The growth rate of output is expected to be around half a per cent higher than the growth in potential output. Thus, the cyclical upturn is expected to continue, but it will take many years before output and employment have returned to their normal levels.

Even though output increased by more than 2 per cent in 2010 and is expected to increase by more than 1½ per cent in 2011, the recovery is not yet broadly based. A major contributor to the increase in activity in 2010 and 2011 is the increase in private inventory rebuilding, which will only provide a temporary stimulus. Consumer spending, excluding car sales, rose only slightly during 2010, and is still below the pre-crisis level. Business fixed investment is even lower compared to the pre-crisis level.

In 2011 and 2012 the growth in disposable income is expected to be very weak due to low wage increases and relatively high inflation. However, private consumption is expected to grow at 2 per cent in 2011 and 2012, despite the subdued growth in disposable income. This is due to the expectation of a gradual recovery of the consumption ratio, following the sharp fall during the crisis.

Business expectations fell markedly during the crisis and investment has not yet increased much. Investment is likely to remain subdued in 2011, after which time higher growth rates are expected, as the investment share of GDP is forecast to gradually return to a more normal level.

The Danish housing market is still weak. Housing prices have fluctuated somewhat over the past year and housing supply and time on the market have increased slightly. The expectation of only weak increases in disposable income and increasing interest rates implies that housing prices are not likely to increase appreciably in the near future. It is, however, expected that residential investment will increase slightly from the current low level. It is assessed that housing prices are still somewhat above their long-term trend level, therefore, the weak development in housing prices is expected to continue for some time. Thus, real housing prices are expected to fall slightly or remain almost unchanged for the next few years.

There is a lot of uncertainty surrounding the strength of the global recovery. High and increasing commodity prices and monetary and fiscal tightening (some of which is in excess of the tightening implied by the economic recovery) may dampen the increase in activity. Unsound public finances are a major concern in countries such as Greece, Portugal and Ireland, but uncertainty about the sustainability of public finances is also an issue in other European countries and in the US and Japan. The uncertainty about the sustainability of public sector finances may be an independent source of macroeconomic uncertainty, and it could be transmitted to other countries through the formation of expectations as well as via financial markets. The war in Libya and the general turmoil in North Africa and the Middle East are also contributing to the uncertainty. Conversely, the increase in activity has been relatively robust in the US and a number of larger European countries, in particular Germany. Growth in the Danish export markets is expected to remain at 2¾ per cent for the next few years, which means that Danish industrial exports are expected to grow. However, the growth in Danish imports is expected to exceed the growth in exports, whereby foreign trade is

expected to contribute negatively to economic growth. What's more, the high growth rate of imports is expected to result in a decrease in the current account surplus from the present historically high level.

The expectation of a growth rate of around 1½-2 per cent over the next few years implies that employment is expected to increase somewhat, while unemployment is expected to fall slightly. However, the increase in employment is not strong enough to secure significant wage increases. Since inflation is relatively high, primarily as a result of the increase in oil prices, real wages are expected to fall in 2011 and only increase slightly in 2012. Thus, the real wage is expected to increase less than productivity, implying a further decrease in the wage share from a high initial level.

The cyclical downturn in combination with fiscal stimulus has led to a marked deterioration in public sector finances. A deficit of around 3 per cent of GDP is expected this year. The deficit is expected to be reduced slightly over the next few years as a result of fiscal tightening and the gradual increase in activity. However, long term demographic trends imply an underlying deterioration in future public sector finances. The long term development in public sector finances is the theme of chapter III.

The key figures for the outlook for the Danish economy can be seen in table A.

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

	Current	Per cent	Percentage change, volume				
	prices DKK bn.	of GDP	2009	2010	2011	2012	2013
	2010	2010					
Private consumption	853,2	48,9	-4,5	2,2	1,7	1,9	2,7
Public sector consumption	513,5	29,4	3,1	1,0	0,1	0,0	0,0
Gross fixed capital formation	287,0	16,4	-17,1	-2,2	4,4	6,2	6,5
consisting of:							
Residential investment	74,0	4,2	-16,9	-9,4	3,8	4,3	7,3
Business fixed investment	174,9	10,1	-15,3	-1,4	0,4	7,7	8,2
Public sector investment	38,0	2,2	4,6	7,3	9,5	-8,0	-8,0
Stockbuilding ^{a)}	-5,4	-0,3	-2,0	0,9	0,7	0,5	0,2
Total domestic demand	1.648,3	94,4	-6,5	1,7	2,1	2,4	2,7
Exports of goods and services	881,0	50,5	-9,7	3,6	4,1	2,7	2,6
Imports of goods and services	783,6	44,9	-12,5	2,9	5,3	3,5	4,0
GDP	1.745,7	100,0	-5,2	2,1	1,6	2,0	2,0
Key indicators							
Consumer prices, percentage change ^{b)}			1,3	2,6	2,5	2,0	1,8
Unemployment, per cent ^{c)}			3,4	4,0	4,0	3,9	3,7
Current account, DKK bn.			59,0	95,6	85,0	68,9	56,5
Current account, per cent of GDP			3,6	5,5	4,7	3,7	2,9
General government budget balance, DKK bn.			-46,5	-50,8	-57,4	-51,0	-33,8
General government bud. balance, per cent of GDP			-2,8	-2,9	-3,2	-2,7	-1,7
Hourly wage costs, percentage change			2,9	2,6	2,0	2,2	2,5
Terms of trade, percentage change			-0,7	2,7	-0,9	-0,5	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.

It is crucial that the current economic policy contributes to restoring public sector finances. The projection in chapter III illustrates that budget deficits can be expected for the foreseeable future. It is estimated that the government

budget deficit will be around 4 per cent of GDP in 2040, even when some optimistic assumptions are made, including assumptions concerning the future regulation of the statutory age of retirement. Also, it is expected that the EMU debt will probably exceed the EU limit of 60 per cent of GDP. The focus of chapter III is the long run fiscal challenges.

The planned fiscal tightening is expected to improve the structural balance by about 1½ per cent from 2011 to 2013. Fiscal policy is assessed to have a neutral effect on economic activity in 2011 even though the structural balance is already improved in 2011. Considering the entire period, 2009-2011, it is estimated that fiscal policy has increased the level of GDP by 2½ per cent, compared to a situation where fiscal policy was neutral throughout the period. This is primarily due to the large fiscal stimulus in 2009. There is also expected to be some positive stimulus during 2012 and 2013 from fiscal policy measures undertaken during the crisis, although to a decreasing extent. The total deterioration in the structural balance over the period 2008-2013 is estimated to be around DKK 35 billion, amounting to 2 per cent of GDP.

Production is still substantially below the normal level, and growth is only expected to be moderate over the next few years. This could be an argument for postponing the tightening of fiscal policy. However, it is assessed that the economic outlook is strong enough to start a rollback of the expansive policy measures undertaken during the crisis, and that the pace of this fiscal consolidation is well aligned with the increase in activity. This assessment is supported by the continuing positive effects that fiscal policy is having, despite the planned consolidation measures, as mentioned above, and the fact that employment is expected to increase slightly even when the fiscal tightening is taken into consideration. Furthermore, the increase in unemployment has been much less than previously expected, even though unemployment rose at the end 2009. The number of unemployed is currently lower than at the start of 2006, and unemployment is only assessed to be slightly higher than structural unemployment. Thus, the situation in the labour

market does not call for any additional fiscal stimulus over and above the planned measures.

Public sector consumption has increased more than planned in recent years. Real public sector consumption increased by more than 3 per cent in 2009, even though the planned increase was only 1¼ per cent when the Budget Bill was passed. In 2009 public sector consumption expenditure increased more than DKK 10 billion in excess of the budgeted increase. In 2010 the actual public sector consumption expenditure exceeded the budgeted expenditure by more than DKK 5 billion, even though public consumption fell during the second half of the year. The failure to comply with the budget targets in 2009 and 2010 follows repeated failures to meet the targets in previous years.

The systematic failure to comply with the expenditure targets illustrates the need for new mechanisms that ensure compliance. As an element of the recent national reform programme, the Danish government has proposed introducing binding, multi annual, spending ceilings, which was one of the policy recommendations in *Danish Economy, spring 2010*. The Chairmanship assesses, based partly on the Swedish experience, that such binding spending ceilings can contribute to better spending management and better compliance with the targets specified in medium-term economic plans. It is also proposed that expenditure targets be based on nominal instead of real growth targets in public sector consumption. The effect of the proposal will depend on how rigorously the spending ceilings are enforced. It is especially important that those municipalities and regions, whose accounts exceed their budgets, face individual sanctions, as explained in *Danish Economy, spring 2010*.

Not only has the management of public sector consumption expenditure been insufficient, the management of public sector investment has also been lacking. In December 2009 the Danish government's economic outlook forecast public sector investment to increase by more than 30 per cent over the years 2009 and 2010. This implied that public sector investment expenditure would have increased by more than DKK 12 billion from 2008 to 2010. Instead the actual

figures in the Danish national accounts showed that investment only increased by less than 12 per cent, implying that public sector investment expenditure only increased by less than DKK 5 billion over the period.

In the past the Chairmanship has proposed the establishment of cross-disciplinary and multi annual investment plans which would contribute to a better prioritization of investments across areas. These would also be beneficial whenever public sector investments needed to be brought forward or postponed due to cyclical developments.

The introduction of adjustable-interest rate loans and loans that allow for interest-only repayments for a number of years have provided homeowners with more flexibility in borrowing. The low short-term interest rate has reduced borrowing costs but also introduced uncertainty about future debt servicing for the loans with variable interest rates. The exemption from principal repayments for a period of time has increased flexibility by making it considerably cheaper to adjust the repayment profile of housing loans, since it is now possible to avoid the costly loan restructuring that was formerly required.

However, the great extent to which these new forms of credit are being used has also made the Danish economy more sensitive to interest rate fluctuations. Under normal circumstances the higher interest-rate sensitivity of housing finance is not problematic. The impact of monetary policy working through a response in the housing market will have a stabilising effect on the economy, as long as the Danish business cycle development is fairly synchronous with the European business cycle. As an example, the current low interest rate on adjustable-rate loans has, to a large extent, supported the Danish housing market and, thereby, the overall economy.

The increased interest-rate sensitivity is, however, a potential source of instability which could be particularly problematic in the case of a currency crisis. If pressure on the Danish kroner arises, the Danish Central Bank may be forced to raise interest rates sharply and abruptly, regardless

of the economic situation. As an example, the Danish Central Bank was forced to increase the interest rate in late 2008 due to pressure on the kroner, even though world central banks, including the ECB, had begun to ease monetary policy in response to the drop in economic activity. Even though the episode was short-lived, it occurred at a time of extensive refinancing of adjustable-rate mortgages and the temporarily higher interest rate thus implied higher debt servicing for homeowners with adjustable-rate loans for the following year(s).

It should be stressed that the fundamental issue in relation to new forms of credit is the variable interest-rate. The exemption from principal repayments for a period of time is not problematic in itself, but it contributes to increasing the interest-rate sensitivity of adjustable-rate loans. The possibility of exemptions from principal repayments on, for example, fixed-rate loans should not cause concern.

The combination of high interest-rate sensitivity and turmoil in the financial markets, especially currency crises, involves an increased risk of macroeconomic instability. Ultimately, the Government could be forced to intervene if the inability of homeowners to service housing debt lead to large increases in the number of foreclosures and enormous losses in the financial sector. The expectation of public sector intervention may, in itself, increase the prevalence of adjustable-rate loans, since a part of the risk associated with these loans is shifted away from the individual borrower and onto the taxpayers.

The Danish mortgage system is generally healthy and robust even though the popularity of adjustable-rate loans has resulted in increased risk. A part of the risk is, however, addressed in the forthcoming Basel III rules. In particular, the requirement for 'stable funding' will result in the very short-term adjustable-rate loans being more costly, which will tend to reduce the demand for this type of loan and, thereby, mitigate some of the risk.

In light of the forthcoming Basel III rules there is not necessarily any need for further restrictions on the new forms of

loans. As mentioned above, the risk is primarily associated with situations where currency turbulence implies that debt servicing on adjustable-rate loans can increase sharply. As the refinancing of adjustable-rate loans is spread out over the year, the pass-through of a briefly higher interest rate will be reduced. The advantage of limiting the risk of macroeconomic instability through restrictions on the extent of adjustable-rate loans and other loans with variable interest rates will have to be weighed against the disadvantage in terms of reduced flexibility for homeowners.

If it is considered necessary to impose restrictions they should focus on adjustable-rate loans and not on the possibility of exemptions from principal repayments for a number of years. One way of restricting adjustable-rate loans is to reduce the percentage of the purchase price that can be borrowed in adjustable interest rates. However, it is not considered to be appropriate to reduce the general loan limit of 80 per cent on mortgages. Another instrument would be to reduce the stamping fees for loans with a fixed interest rate (or increase the fee for loans with variable interest rates) in order to give borrowers another incentive to choose loans with a fixed interest rate. A third possibility for limiting the extent of adjustable-rate loans could be increasing the requirements for information about the risks associated with adjustable-rate loans, including the risk that, due to exchange rate turbulence, variable interest rates may be higher than the long-term rates prevailing at the time the loan is offered.

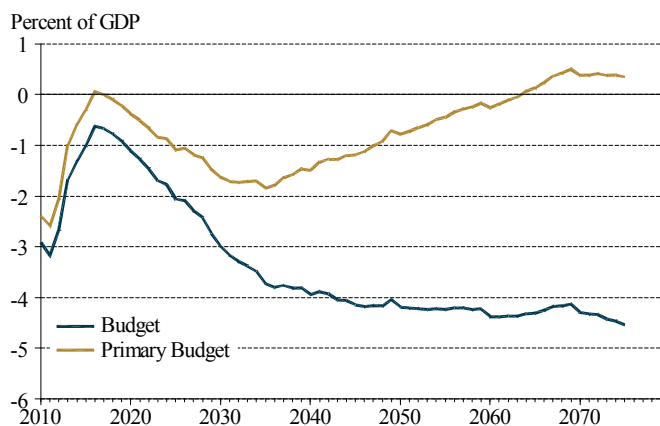
Chapters II and III: Early retirement and sustainable and credible fiscal policy

In chapter II of the report, an analysis of the Danish retirement system is presented with special emphasis on the so-called voluntary early retirement pension (VERP) scheme ("*efterlønsordningen*"). Chapter III presents a long-term projection for the Danish economy up to 2075 with focus on public sector finances.

Denmark faces considerable fiscal challenges. The demographic trend over the coming 20 to 30 years implies that the number of elderly will rise sharply, and, as a result, the demographic burden will increase similarly. Combined with the fact that life expectancy has increased very quickly, especially since 1995, the Danish public pension system will be under significant financial pressure. Thus, without any reforms or other changes that increase revenue and/or reduce costs, there is a prospect of public sector budget deficits in perpetuity.

According to the long-term projection presented in chapter III, the public sector deficit will be reduced from about 3 percent of GDP in 2011 to about 1 percent of GDP in 2020, as shown in figure A. This is primarily due to the normalisation of the economic situation combined with the planned fiscal tightening. However, the underlying trend in public sector finances is negative, and from 2040 onwards the public deficit is expected to be about 4 percent of GDP. Moreover, the projection suggests that Danish fiscal policy is unsustainable by an amount of 0.5 percent of GDP annually, which means that public sector finances have to be improved by DKK 9 billion in current prices and wage levels every year to ensure financial sustainability.

Figure A Public budget balances over the projection period



Note: The primary budget is equal to the actual budget minus net interest expenditure. When the actual budget deficit is larger than the primary budget deficit, net public debt and, consequently, interest expenditure are positive.

Source: DREAM calculations

The long-term projection takes the 2006 Welfare Agreement (“velfærdsaftalen”) into account. Under the Welfare Agreement the retirement age will be indexed to increasing life expectancy and this, therefore, constitutes a crucial element in securing the future financing of the Danish public pension system. The agreement consists of two main elements in relation to the retirement age. First, the retirement age for the voluntary early retirement pension scheme and the old-age pension scheme will be raised by two years. The voluntary early retirement pension age will be raised gradually from 2019 to 2022, while the corresponding increase in the old-age pension age will take effect five years later, thus preserving five years voluntary early retirement for all generations. Second, the agreement established a mechanism under which the retirement age is indexed to the life expectancy of a 60-year old. This mechanism aims to ensure that future generations will have roughly the same expected retirement period as those who retired in 1995.

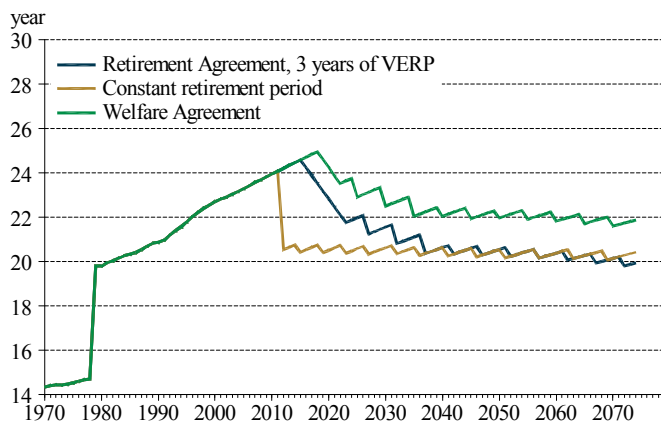
However, a crucial weakness of the Welfare Agreement is that the retirement age has remained unchanged up to now, although life expectancy has increased. This has led to an expected retirement period today that is 2.7 years longer than in 1995. Moreover, the retirement age will remain unchanged until 2019, and by then the expected retirement period will have increased by more than 3 years compared to 1995. Subsequently, it is the intention of the agreement that future politicians will raise the retirement age by more than the life expectancy of a 60-year old. If that happens, the expected retirement period will be gradually shortened towards the mid-2040s, where the expected retirement period will reach the same level as in 1995. This delayed adaptation implies that current generations are better off than both future and former generations.

The assumption that future politicians will agree to reductions in the expected retirement period that are even larger than those which current politicians have agreed upon constitutes a major credibility problem. This problem is reinforced by the fact that most of this adjustment is related to rising life expectancy that has already taken place. Thus, future politicians are not only expected to agree upon changes in the expected retirement period that current politicians are not willing to make, but also to carry out changes in the expected retirement period that compensate for the lack of change by current politicians.

To put the adjustment in the retirement age arising from the Welfare Agreement into perspective, consider figure B. The figure shows the expected number of years on the voluntary early retirement pension and the old-age pension since 1970. The introduction of the voluntary early retirement pension scheme in 1979 increased the expected retirement period from about 15 years to about 20 years. Subsequently, the expected retirement period has increased in line with rising life expectancy, and today the expected retirement period is about 24 years. In the long-run, the Welfare Agreement implies that the expected retirement period will be reduced to about 22 years. In May 2011, the current Danish Government, the Danish People's Party and the Danish Social-Liberal Party agreed to reduce the voluntary

early retirement pension period to 3 years and to raise the retirement age even sooner than agreed in the Welfare Agreement. If this new retirement plan is approved by Parliament, the expected retirement period will be reduced to about 20 years, cf. the blue line in figure B. The figure also shows a situation where the retirement period is kept constant at a level that exactly ensures fiscal sustainability, cf. brown line in figure B.

Figure B Expected retirement period



Note: The figure shows the expected number of years on the voluntary early retirement pension and the old-age pension.

Source: Own calculations.

Based on the long-term projection, fiscal sustainability is consistent with an expected retirement period of 20½ years for all future generations. This requires that the voluntary early retirement age be raised from 60 to 64 years in 2012. Figure B shows that the Welfare Agreement neither ensures fiscal sustainability nor a neutral distribution among generations – neutral in the sense that all generations are offered the same retirement period and, at the same time, a sustainable fiscal policy.

As mentioned above, the long-term projection suggests that Danish fiscal policy is unsustainable. This means that public

sector debt will continue to grow. Chapter III presents a hypothetical calculation where it is assumed that the primary budget (the public sector budget exclusive of interest rate costs) from 2012 is increased permanently such that fiscal sustainability is exactly obtained. In order to ensure sustainability, the primary budget thereby has to be improved by half a percent of GDP per year. Fiscal sustainability implies, among other things, that the public debt does not continue to grow in the long-run. However, sustainability does not specify the level at which the public debt has to be stabilized. In the hypothetical calculation, the EMU-debt is stabilized at a level of 95 percent of GDP in the long-run.

A debt increase to 95 per cent of GDP is problematic and questions fiscal credibility – even when fiscal policy is technically sustainable. First, one of the underlying assumptions of the projection is that retirement possibilities for future generations are worse than those of the present generations. If this is not implemented by future policy makers, the budget will deteriorate, and debt will grow even more. Such a result will be unsustainable. Second, even with the given assumptions the extent of the increase in government debt may be a problem. A negative development in public sector budgets and consequent expectations of debt increases may cause agents in financial markets to question the ability or will of the Danish authorities to service debt, which sooner or later will lead to increasing interest rates. It is difficult to stipulate a critical limit to the debt size, but a literature survey indicates that there may be a threshold size of government (gross) debt of 65 to 100 per cent of GDP.

In the present situation, credibility in the financial markets is more important than sustainability. It is crucial that fiscal sustainability is not based solely on surpluses that won't materialise until far into the future, especially when the surpluses are dependent on actions that have not been definitively decided upon, and which, if they are implemented, would place future generations in an inferior position compared to present ones.

A way to establish “financial credibility” is to limit government debt to under a certain threshold (or that the deficit does not pass a certain size). As an example, a calculation is made according to which government net debt may not exceed 30 per cent of GDP, corresponding to an EMU-debt of around 60 per cent of GDP. This limit may seem arbitrary, but it is chosen so that the probability of reaching the aforementioned threshold value of 65-100 per cent of GDP is very small, even, for example, in the case of a deep recession. The calculation shows that such a limit on debt size can be maintained with an improvement in the government primary budget of 1 per cent of GDP permanently from 2012. This is twice as large as the sustainability criterion, which “only” demands an improvement of half a per cent of GDP. In the projection, when the EMU-debt never exceeds 60 per cent of GDP, the government budget improves so that the deficit never exceeds 2 per cent of GDP. The projection also implies that the budget is roughly balanced in 2020. This is a coincidence as the budget in any given year depends on many different assumptions, including ones made both before and after 2020. It should also be stressed that the chosen debt limit is a cautious target.

There are many possible ways to improve sustainability. Depending on which instrument is chosen, a change in the profile will typically entail consequences for the rest of the economy as well. In principle, however, it is also possible to affect the time profile of government revenue (and expenditure) without any such consequences. One such possibility is to change the taxation rules for funded pensions. Today contributions to a funded pension scheme are deducted from taxable income, whereas pension benefits paid out by the pension scheme are taxable. If the rules were changed so that future contributions are not exempt from taxation whereas benefits become tax-free, the budget would be considerably improved during the next 30 to 40 years, corresponding to a similar deterioration in the future primary budget. *Ceteris paribus* the initial improvement will result in a considerable increase in government wealth, the interest on which will counter the tendency for the total budget to worsen. A reorganization of the pension tax may, in this sense, change the implicit government asset consist-

ing of deferred pension taxes into an explicit asset and hence improve the official government wealth position. In principle this will not affect fiscal sustainability.

However, a reorganization of the pension tax system is not without problems. A crucial condition for continued fiscal sustainability is that the large increases in tax revenues in the short and medium terms do not lead to increases in government expenditure or decreases in other taxes. To the extent that policy makers are tempted to use some of the increased revenue, the result of the reorganization will be a more unsustainable policy. For this reason it is judged that the present pension tax rules are better. It is also noted that the revenues under the present system will be realised at a time when there is relatively large pressure on public sector expenditure (that is, when a relatively large part of the population is relatively old). At the same time the deduction possibilities of pension contributions are an opportunity to smooth taxable income over time when annual income fluctuates a lot.

In April 2011 the government published a number of proposals, among which was a retirement reform. Following negotiations an agreement was reached between several parties in the Parliament (Folketinget). In the following, the central elements of a new 2020 plan for public sector finances are presented.

For many years there has been a tradition in the Ministry of Finance that fiscal policy has been planned according to medium term plans. The medium term aim has contributed to a high degree of far-sighted-ness in fiscal policy. While earlier plans have not been followed completely to the letter, they have given a good opportunity for evaluating the fiscal policy track record. Generally, such plans should contain operational goals so that it is possible to follow up on the degree of goal achievement. A point of criticism of the earlier plans has been that, to various degrees, they have built upon unspecified reform desires.

A central goal behind the 2020 plan has been to have a balanced budget by 2020. As mentioned above, the agree-

ment builds on a reduction from five to three years in the early retirement period and an earlier initiation of the increase in the retirement and early retirement eligibility ages. According to government calculations these measures will enable the goal of budget balance by 2020 to be reached and that fiscal policy will become sustainable. Generally these results are confirmed by the calculations presented in the present report.

Altogether the 2020 plan conforms, in many ways, to the criteria that should be demanded of a sustainable medium term plan. For example, the present plan is based on concrete initiatives and not unspecified reform desires to a greater extent than its predecessors. In the agreement concrete adjustments to retirement and early retirement eligibility ages have been specified. This will bring these into line more quickly with the long-run intentions for retirement ages (i.e. a period of retirement similar to that of 1995) than was the case in the 2006 welfare agreement. At the same time the plan includes an agreement to introduce expenditure limits running over several years. This may help to enforce the expenditure goals; cf. the discussion of this in Chapter I. A considerable point of uncertainty, however, is the introduction of senior early retirement, which is part of the new retirement agreement. In the past, participation in such arrangements has far exceeded expectations, which would increase costs considerably above the forecast.

The new retirement agreement made between the government parties, Danish People's Party and The Radical Left means there will be a considerable number of changes to the public pensions system. First, the early retirement period will be shortened from five to three years, whereas the ordinary retirement age after 2038 will be held at the same level as in the 2006 Welfare Agreement. The shorter early retirement period implies an increase in the lowest eligible public retirement age. Second, the new agreement involves the earlier introduction of the higher retirement eligibility ages than was planned in the 2006 Welfare Agreement.

Calculations in the chapter show that the new retirement agreement almost results in a sustainable fiscal policy with

the given assumptions. Specifically, the retirement age is judged to reduce the number of early retirement benefit recipients by 40,000 in the long run, and fiscal sustainability is improved by 0.4 per cent of GDP. The agreement also means that the retirement age will be changed relatively quickly so that the expected number of years in early retirement and retirement moves closer to the constant level expected to hold for future generations. In this way the agreement approaches a more equitable treatment of present and future generations with respect to number of years in retirement. The adjustment is still gradual, however, and the envisaged maximal period of publicly subsidized retirement is only expected to stabilize at around 20½ years in about 2040.

The retirement agreement means that, over a relatively short period of time and through concrete changes in the expected early retirement and retirement periods, an adjustment will take place for the present generations to the level expected to hold for future generations. This implies that the credibility problem, from which the 2006 Welfare Agreement suffered, is considerably reduced. Hence, it is altogether judged that the retirement agreement contributes considerably to both fiscal sustainability and renewed resilience in the comprehensive public pension system.

Fiscal sustainability can be obtained in ways other than via reforms to the public pension system. Basically fiscal sustainability and credibility can be strengthened by reducing expenditure, increasing taxation or implementing reforms that will increase labour supply. Because reforms that increase labour supply will improve the budget through lower expenditure and higher revenue at the same time, it is attractive to follow this reform path as far as possible.

The trade-off between the three ways of obtaining sustainability and credibility is naturally a political question. No matter whether labour market reforms, expenditure cuts or tax increases are chosen, it will have consequences for the well-being of some groups in society. Unfortunately neither reforms nor other budget-improving measures can be implemented in practice without costs for somebody. Which

groups will be affected will depend on the measures used. One of the costs of budget-improving measures is that they typically lead to a temporary increase in unemployment. This is true for an early retirement reform, but equally true for expenditure cuts or tax increases or for increases in labour supply through longer working hours. Hence the cost of temporarily higher unemployment is a cost that must be paid under any circumstances in order to secure a sustainable and credible path for fiscal policy.

A thorough reform of the early retirement arrangements, tough expenditure controls and abolition of the feature in the Danish tax system that causes several taxes to be eroded by inflation (the so-called nominal principle of the tax freeze) are elements of a reform package that may make fiscal policy credible. The agreements made during spring contain two of these three elements. The reform of the early retirement arrangements that were agreed upon in Spring 2011 follow, to a large extent, the recommendations of Danish Economy Spring 2010. This reform makes a considerable contribution to the credibility of fiscal policy because the retirement and early retirement eligibility ages approach the long-run targeted level relatively quickly, through concrete resolutions and early adjustments instead of more distant, not firmly determined indexation.

Chapter IV: Tax Evasion and the administration of the Danish Tax System

People evade taxes in various ways, for instance through underreporting income on annual tax returns, through transfers of capital to tax-haven countries or through undeclared work. Evasion through underreporting alone costs society approximately 5 billion DKK annually in lost tax revenue.

Tax evasion is costly to society: Evaders spend resources to dodge taxation, the tax authorities spend resources to uncover just a part of the evasion and tax evasion can itself lead to a less effective use of resources. Tax evasion fur-

thermore leads to a redistribution of income from honest tax payers to tax evaders.

However, reducing tax evasion is also costly. It is, therefore, neither realistic nor efficient to fully eliminate tax evasion, as the costs would be disproportionately large compared to the benefits.

Different policy instruments may contribute to a reduction in tax evasion: Increased enforcement and control by the tax authorities and thereby increased probability of detection, increased penalties, reduction in the gains from (undetected) tax evasion, and campaigns to influence people's attitudes to tax evasion. The specific instruments should, from a purely economic perspective, be used up to the point where the cost of the increased use of the instrument is equal to the socio-economic gain from it. There may thus be large differences in the suitability of the instruments for different types of tax evasion, as their effectiveness varies across the types of evasion.

Chapter IV focuses on tax evasion through the underreporting of income on annual tax returns, with a brief discussion of tax evasion through the use of tax havens. Chapter V discusses tax evasion through undeclared work as a type of evasion that is particularly hard to uncover by administrative means.

An analysis of the tax authorities' enforcement efforts suggests that the inspection regime for the annual tax returns is seemingly appropriately designed. No large potential gains can be identified from changing the enforcement system.

The average tax evasion by citizens in relation to annual tax returns amounts to 1,150 DKK per year. As part of their tax enforcement effort, the tax authorities apply a system where a tax return is flagged if the return is suspicious. A flag increases the likelihood that an annual statement is inspected manually by the authorities. The analysis suggests that this system is good at targeting enforcement efforts and that the revenue gains from adjusting flagged tax returns

exceed the cost of inspecting the return. A similar result does not apply to an average unflagged annual return. It would thus not be appropriate to increase inspections of unflagged returns. The flagging system only uses information on income types etc immediately available to the tax authorities. Analyses presented in the chapter suggest that it is not possible to improve the flagging system significantly by including socio-economic factors such as gender, age, education, etc.

Third-party reporting describes the fact that the tax authorities receive income statements for citizens from other parties, e.g. employers, banks or pension funds, and thus not from tax payers themselves. Analyses show that third-party reporting is a very effective instrument for avoiding irregularities in the annual tax returns. Income types with a high degree of self-reporting by the tax payers show a high incidence of tax evasion, while the opposite is the case for income types with extensive use of third-party reporting, see table B. A regression of the incidence of tax evasion on social, economic and tax system factors also shows high explanatory powers for factors describing the degree of third-party reporting, while socio-economic factors only influence tax evasion very modestly.

Table B *Third-party reporting and tax evasion by income types*

	Share of popula- tion	Re- ported by third- party^{a)}	Inci- dence of tax evasion^{b)}
	-----	Per cent	-----
	-----	-----	-----
Positive income	98	90	5
Negative income	79	75	6
Personal income ^{c)}	95	99	2
Deductions	60	63	4
Share income	22	64	4
Self-employment in- come	8	10	40
In total^{d)}	98	93	9

a) See text for definition of third-party reporting. The share of third-party reporting is calculated with respect to income after correcting for evaded taxes.

b) The Incidence of tax evasion is calculated as the share of tax payers with the respective income type who have been found to evade taxes.

c) Personal incomes include wages, pensions etc with some pension contributions deducted.

d) The total is calculated for net income as the sum of all positive and negative incomes.

Note: A person can have several income types simultaneously.

Source: Own calculations based on Kleven *et al.* (2011): Unwilling or Unable to Cheat? Evidence from a Tax Audit Experiment in Denmark. *Econometrica*, 79, s.651-692.

On average, the self-employed annually evade taxes of 9,000 DKK. However, it is complicated to inspect tax returns from the self-employed as a far smaller share of their income is third-party reported. Inspection costs, on average, therefore exceed the revenue gain from inspection.

The results show that an increased use of third-party reporting may be expected to lead to increased tax revenues. It

could also yield a socio-economic benefit, as third-party reporting could reduce the overall administrative costs of reporting, as it has the advantage of economies-of-scale in the costs of reporting.

It is therefore recommended that third-party reporting be extended where possible and where it does not lead to disproportionately high expenses. Banks have recently been asked to report both purchase and sale prices for stocks, so that tax payers' capital gains can be calculated automatically by the tax authorities. The cost of this is limited, as banks are already reporting dividends. The use of third-party reporting should, in general, be extended to include the majority of financial products. There is also an obvious advantage in allowing more fringe benefits to be covered by third-party reporting, for instance company-paid day care or bonus points for work-related flights or hotel stays.

Increased use of third party reporting means that more information on the tax returns cannot be changed by the tax payers themselves. Rather, tax payers have to request the reporting party, for instance their employer, or the tax authorities, to make changes. This can reduce the number of irregularities in the tax returns and may thus be beneficial and cost-effective. However, the benefit of reducing the tax payers' direct access to adjusting the tax return should be weighed against the potentially adverse real economic consequences. In some cases the use of third-party reporting may entail costs through, for instance, the administrative burden for the tax payer of requesting the reporting party or the tax authorities to make the appropriate changes. This is particularly relevant for information that the tax authorities only have incomplete information about, e.g. commuting distances for the calculation of travel expense deductions.

Even though it is possible to make the inspection of tax returns more effective through increased third-party reporting, the manual control of selected annual returns will still be necessary. This is especially true for the self-employed, where the possibilities for third-party reporting are limited. Hence it is not possible to point to any savings potential with regard to manual inspections. If the enforcement

expenses are reduced, there is a risk that this may lead to more irregularities in the tax returns and thus to a higher revenue loss.

It is important to improve the efficiency and targeting of inspection efforts continuously, for example by the increased use of third-party reporting. More effective enforcement efforts leading to a 5 per cent reduction in the average tax evasion on tax returns may yield increased tax revenue of 250 million DKK. Enforcement costs, however, have to be deducted to measure the net gain.

It is the individual taxpayer's responsibility to ensure that the tax return is completed correctly. Errors in tax returns may be due to conscious or unconscious errors, for instance because the taxpayer did not check the tax return thoroughly enough. Regardless of the cause however, errors on tax returns will increase inspection costs. The introduction of user fees for the tax authorities' inspection of tax returns could, therefore, be considered. One could imagine a system where a taxpayer whose return is corrected by the tax authorities pays a fee equivalent to a share of the value of the correction. The fee is also paid in cases where the correction is to the benefit of the taxpayer. To limit the taxpayer's expenses, the fee, however, has to be capped. Such a fee will mean that taxpayers have a greater incentive to be careful with their tax returns. The fee should not be construed as a punishment or as a replacement for the existing penal system, but purely as a user fee for the inspection services of the tax authorities. Thus, the users will partly be paying for the inspection of tax returns.

A special form of income tax evasion is the placement of wealth in countries that do not automatically provide details on capital gains to other countries' tax authorities, the so-called tax haven countries. This allows tax payments on returns on assets to be hidden from taxation. There is ongoing international work, facilitated by the OECD, to reduce opportunities for tax sheltering through bilateral agreements on the exchange of information with tax-shelters. Denmark has already signed agreements with several countries. A full solution to the problem will, however, require a complete

set of agreements between all countries, which is not realistic in the short term. Denmark should continue to support international efforts to reduce the use of tax havens, but it is doubtful whether the effort in the short term will yield a significant return in the form of higher Danish tax revenues.

Chapter V: Undeclared work

Cash in hand or undeclared work has a negative effect on the economy. Analyses show that the lost tax revenue from undeclared work could be up to 29 billion DKK annually. In practice, much of this potential revenue cannot be realised as the complete elimination of undeclared work is unrealistic. Labour and capital inputs are used less efficiently in undeclared work as the productivity might be lower than in declared work. Therefore, a part of the lost tax revenue is a private financial gain for buyers and sellers of undeclared work, but the other part is lost due to less efficient resource allocation. If it is assumed that the private financial gain is equal to half of the lost tax revenue, then the loss to society due to inefficient use of resources can be up to 14 billion DKK annually. This is, however, a result subject to considerable uncertainty. Furthermore, Skat (the Danish tax and customs administration) uses resources to expose undeclared income, and undeclared work leads to unintended redistribution of income from people who are not engaged in undeclared work to people who are.

Measures aimed at detecting undeclared work, like the measures aimed at tax evasion in general, should be compared to the gains such as increased tax revenue. Some amount of undeclared work is unavoidable, as it is extremely expensive to detect undeclared work and to collect the resulting increased tax payments. The high enforcement costs call for other measures to reduce undeclared work. Examples could be general tax relief, selective subsidies, tax exemptions for reciprocal favours (ie, the services/help of friends that is repaid with another favour, which is agreed upon beforehand), or prohibiting the purchase of undeclared work. The effectiveness of these instruments is assessed in the chapter.

Anonymous surveys indicate that about 20 per cent of the population was engaged in undeclared work within the past year. The typical person engaged in undeclared work is a male with nine years of schooling or with a trade, who is employed in the building industry and who lives in a sparsely populated area. Other surveys indicate that about half of Danes have paid for undeclared work in the past year, while a further approximately 30 per cent indicate that they have been willing to do so. Thus, the purchase of cash work is a popular activity among the general population.

The tax avoidance is carried out by the seller of undeclared work who does not pay income taxes or VAT, but the seller shares the private economic gain with the buyer of the work. Case studies in the report indicate that the buyer of undeclared work gets the largest share of the private economic gain while the smallest share is left to the seller. A buyer of carpentry or mechanical work gets up to 80 per cent of the gain, and a buyer of cleaning services even more. The analyses are uncertain, but sensitivity analyses do not change this result. The results presented below are therefore based upon the assumption that the buyer gets 75 per cent of the private economic gain while the seller gets the remaining 25 per cent.

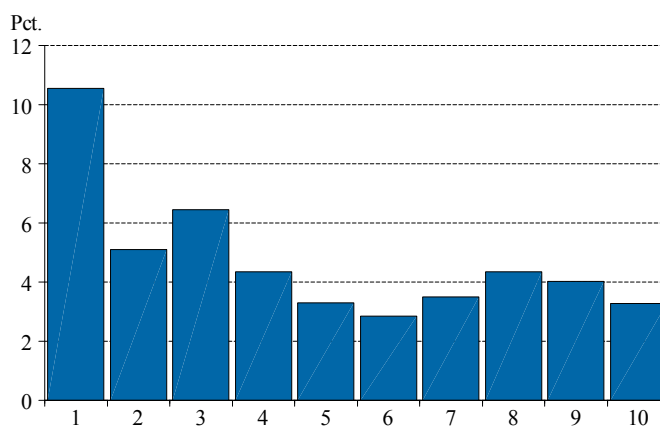
Both buyers and sellers of undeclared work achieve a gain at the expense of other tax payers. People with a high declared income have, in general, higher absolute gains from undeclared work than people with a low declared income. This holds for both buyers and sellers of undeclared work. The 10 per cent with the highest declared income have an average gain of 16,000 DKK annually, if it is assumed that the buyer gets 75 per cent of the private economic gain. The 10 per cent with the lowest declared income have an average gain of 5,000 annually. Sellers of undeclared work are included in these averages.

Sellers of undeclared work with high incomes face a higher marginal tax rate and, therefore, have a higher gain from not declaring work-related income. Moreover, there is a positive correlation between total declared income and hourly

wages from undeclared work, which gives higher gains from undeclared work to people with high declared incomes. A significant correlation between total declared income and the quantity of undeclared work cannot be identified. The positive correlation between the purchase of undeclared work and declared income is likely caused by a higher consumption level in general, hence also higher consumption of undeclared work.

However, there are also differences in the distribution of the declared income. Figure C shows the private economic gain from undeclared work relative to the declared gross income. The gain comprises a larger share of the income for the lower income groups than for the higher income groups. The gain is quite stable at 3 to 4 per cent for income deciles 4 to 10. I.e. the private economic gain from undeclared work affects the vertical income distribution progressively, even though the absolute gain from undeclared work increases with declared income.

Figure C Private economic gain from undeclared work relative to declared gross income, if buyers and sellers share the gain 75:25



Source: Rockwoolfonden's research unit, Statistics Denmark and own calculations.

The possibility of regressive redistribution from tax evasion in general was discussed in chapter III, and it was concluded that there is probably no regressive redistribution arising from this. The result in figure C indicates that this is not the case for undeclared work either. On the contrary, it indicates that the existence of undeclared work creates a more equitable income distribution than the tax system suggests. I.e. there is more redistribution of income in Denmark than would be expected from usual measures that do not take undeclared work into account. This creates incentives for society to spend relatively less resources to combat undeclared work. On the other hand, under-declaration of work income also implies an undesirable horizontal redistribution from those who do not cheat to those who do. This increases the incentives to combat undeclared work.

Income taxes provide a direct incentive to hide income from tax authorities. An obvious way to reduce undeclared work is to reduce income taxes. Generally, reduced income taxes imply, however, a considerable reduction in tax revenue from activities that are declared today. Income tax reductions might reduce the amount of undeclared work, but its positive effect is insufficient in itself to offset the loss of revenue caused by the reduced taxation. Therefore, reducing income taxes in general in order to reduce undeclared work cannot be recommended.

Optimal taxation of goods and services is, in principle, differentiated so that goods and services that are close substitutes to leisure are taxed less. This is so that labour supply is distorted as little as possible, which gives a socio-economic benefit. This is the case for some maintenance and home help services.

The Home Help Service Scheme (*hjemmeserviceordningen*) was introduced in the mid-1990s and consists of a targeted public subsidy to household services, for example, cleaning (under the obvious condition that the activity is declared). An evaluation of the scheme reveals that it has increased the turnover in the household service sector supplying declared work. A reduction in undeclared work within home services

is, however, not found. This means that the increase in the declared turnover is due to increased demand for declared home services at the lower price and that the work has previously been conducted by the households themselves or has not been conducted at all.

The observed increased demand for declared labour cannot increase employment permanently as employment in the long term is determined by the labour supply (and structural unemployment). However, there could be a beneficial labour supply effect from the households that demand these services in principle. This requires that households increase their supply of labour in response to the decreased time spent on household work. The present scheme includes only pensioners and is, therefore, not expected to increase the supply of labour. The scheme should, therefore, be viewed as a social measure, not a labour market action. Whether the Home Help Service Scheme led to increased declared labour supply in the earlier versions that included all household types not just pensioners is not assessed.

Model analyses in the chapter suggest that a 35 per cent wage subsidy to maintenance or home help services funded by an increase in VAT would increase the labour supply by approximately 10,000 people and generate an annual socio-economic gain of almost 1 billion DKK. The analyses are based upon parameter assumptions that are both central to the result and subject to considerable uncertainty. It is, however, quite certain that a subsidy would not be self-financing. Increased administrative costs and increased possibilities of tax evasion reduce the potential gain. The indication of an overall gain to society is, therefore, not sufficiently convincing. The Danish tax on dwellings (*ejenomsværdiskatten*), is fixed in nominal terms, i.e. improvements to dwellings remain untaxed. Other types of capital gains, bonds, shares etc., are taxed. This implies that too much capital is tied up in dwellings. Subsidizing home maintenance and household services will increase the capital in dwellings further, which will increase the adverse effects of the tax freeze on housing. Subsidises targeted at maintenance and home services, for this reason, are not recommended.

Favours for friends are, in principle, liable to tax. This implies, in principle, that two neighbours who help each other to build their two carports are liable to pay income tax on the value of the other's work on their carports. The work is, on the contrary, not liable to tax if each builds his own carport. This may conflict with a general perception of fairness and effective enforcement is impossible. Legislation that conflicts with people's perception of fairness can worsen tax morality and, thereby, reduce voluntary tax declaration. Legislation that conflicts with the general perception of fairness can furthermore create utility losses, e.g. from a guilty conscience. This implies a loss to society if undeclared work is unaffected by the legislation.

Not taxing reciprocal favours under a certain level could be considered. Corresponding legislation exists today in, e.g. Sweden and Germany. The individual value of reciprocal favours or the trade between two persons should, furthermore, be limited in order to avoid cases where, e.g., two tradesmen swap major services. Adverse effects may, however, arise if reciprocal favours are left untaxed. Tax morality may decrease and services that are taxed today may legally or illegally be untaxed. Hence it is not obvious that reciprocal favours should be untaxed.

High penalties for not declaring income from work can, in principle, deter people from performing undeclared work. The proportionality principle, which is a basic premise of the Danish legal system, implies, however, that there should be proportionality between the size of a criminal act and the punishment imposed. The literature does not give any clear answer to the question whether higher punishment reduces tax evasion, including undeclared work. Significantly increased punishment is, therefore, probably not an adequate solution.

Analyses in the report indicate that the buyer of undeclared work achieves the major part of the private economic gain from not declaring work. The purchase of undeclared work is, however, not an offence. Hence, there isn't proportionality between the buyers' gains and their potential punish-

ments. We recommend that the purchase of undeclared work be made an offence, ie, the existing penalty for under declaration should be supplemented with an extra penalty to the buyer.

It is not easy for the buyer to make sure that the seller of the services pays the liable taxes. This creates the risk that making the purchase of undeclared work punishable leads to unjust punishment. This is the case for purchases from firms as well as from individuals.

Purchasing undeclared work is an offence in Italy, but a buyer who holds a receipt is not responsible if the service is not declared. This rule applies for purchases from both firms and from individuals. It creates, however, a cost for customers who must manage all their receipts, which calls for alternative solutions.

Norway solves this problem by requiring that payments above 10,000 NOK (1,275 EUR) be made electronically for purchases from firms and individuals. Electronic payments document that the payments have been made, and can be used as evidence. The buyer who has paid electronically cannot be held responsible if the work is not declared. In Denmark, this electronic evidence can only be used in special cases where the tax authorities suspect that a person has not declared all income and thereby is granted access to this person's or firm's account. By far the largest proportion of the major legal transactions is electronic today, and the extra costs to the consumers are therefore probably very limited. The Norwegian system is a step in the right direction and is, as such, recommended for Denmark. The system can be even more effective if the tax authorities are granted automatic and free access to monitoring movements in Danish bank accounts.

About half of the undeclared transactions involve payments above 10,000 DKK. A lower limit is therefore recommended, e.g. 3,000 DKK (400 EUR).

Punishable purchase of undeclared work works through three channels: First, the increase in potential punishment

might in itself have a deterring effect. Second, buyers of undeclared work are given responsibility for the purchase directly. Third, the fact that the purchase of undeclared work becomes effectively illegal may have a stigmatizing effect on buyers who do not want to break the law themselves.

Punishable purchase of undeclared work may not have a major impact on the amount of undeclared work. If payment is in cash, the risk of being caught is still very small and it is not clear that a larger potential punishment will decrease the amount of undeclared work. The possibility of a small impact should, however, be viewed together with the limited extra costs of requiring electronic payments. As mentioned above, the majority of larger payment amounts are already paid electronically today, so the cost to consumers is small. It is, therefore, recommended that electronic payments of larger amounts for the purchase of work be made mandatory, even if the effect on the amount of undeclared work turns out to be small.