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Highlights in this issue:

- Employment rates are high but ageing poses a challenge
- Implemented reforms do not fully exploit potential for raising labour supply
- Medium-term fiscal strategy hinges on further labour market reforms

Getting (even) more Danes into work?

*By Jens Matthiessen and Zdeněk Čech**

Introduction

The overall labour market situation in Denmark is favourable and the country already fulfils the Lisbon employment objectives. However, the projected decline in the work force as the population ages constitutes a challenge linked to the financing of welfare-related public sector commitments. In the framework of the medium-term fiscal strategy, measures are being taken to ensure the future financing basis of the welfare state. In addition to running substantial general government surpluses, the policy response includes measures to raise labour supply. To this end, a tax reform has been implemented, as well as labour market policy measures geared at raising labour market participation. However, while the need for further measures is recognised by the Danish authorities, the content of future reform has not yet been spelled out.

Building on the recommendations to Denmark in the 2003-05 Broad Economic Policy Guidelines concerning the need to raise labour supply, this Country Focus examines Denmark's policy options. It concludes that while reforms have been implemented in the areas of income taxes, the combination of taxes and benefits and the labour market participation of older workers, the measures aimed at enhancing labour supply have not fully exploited the potential scope for strengthening work incentives. This Country Focus draws on ECFIN Country Study on Denmark (European Commission, 2004).

A well-developed welfare system in a sound economy…

Denmark's welfare system is sustained by tax and public expenditure ratios which are among the highest in the EU. The financing of these public sector commitments depends critically on maintaining a broad tax base and a high employment rate. If the share of the employed declines, expenditure will increase due to a higher number of dependent persons and tax revenues risk falling if the contribution base diminishes. Such increased pressure on public finances can be addressed by expanding the output potential of the economy and thus of the potential tax base. In this context it should be noted that in Denmark, increased productivity *per se* does not improve long-term fiscal sustainability as most public expenditures are linked to private sector wage growth.

…faces the challenge of an ageing population

The projected ageing of the population in Denmark is leading to an increase in the number of retirees and to a shrinking working-age population. The consequences of this development are projected to become significant around 2010. At the same

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time, changes in the composition of the working-age population will increase the relative size of the groups with lower participation rates. The age group 60-66 is projected to grow by more than a third to 2030. In view of the effects of ageing, a rise in the employment rate will thus be needed, despite the fact that the Danish labour market situation is favourable compared to most EU countries (together with Sweden and the UK, Denmark already fulfils the Lisbon objectives for employment rates.) An implication of the high female participation is that women constitute less of a source for potential increases in labour supply. An increase in the labour supply will therefore depend on raising the participation rates for groups where the rates tend to be lower and on increasing the numbers of hours worked. The average number of hours worked per person in employment has been on a downward trend in Denmark in recent decades (from 1650 hours per person and year in 1980 to 1580 hours in 2003) and is lower than the EU-15 average. A higher share of part time work in Denmark contributes to explaining the high participation rate and low hours worked. Average annual hours worked has stabilised and even increased slightly since 1990, while there was a fall for the EU-15 as a whole in the same period (OECD, 2004). However, average working hours are set to fall by 1% by 2010, due to changes in the structure of the working-age population, including an increasing share of persons with a preference for part time work (Ministry of Finance, 2003).

Employment is high and annual hours worked have stabilized...

A rise in employment rates will be needed

Denmark is addressing this challenge in the framework of the so-called 2010 Plan. With the aim of maintaining the present welfare system, this strategy is based on debt reduction in combination with measures increasing the potential of the economy and thus the tax base. In particular, it is thought that constraints due to inadequate labour supply can be eased by increasing participation rates, i.e. by using labour reserves more efficiently. However, the content of further reforms to raise labour supply has not yet been spelled out. In the absence of further reforms, the Danish authorities estimate employment to remain largely unchanged to 2010. Without the assumed rise in employment a fiscal adjustment of around 1% of GDP would thus be needed to assure longer-term fiscal sustainability.

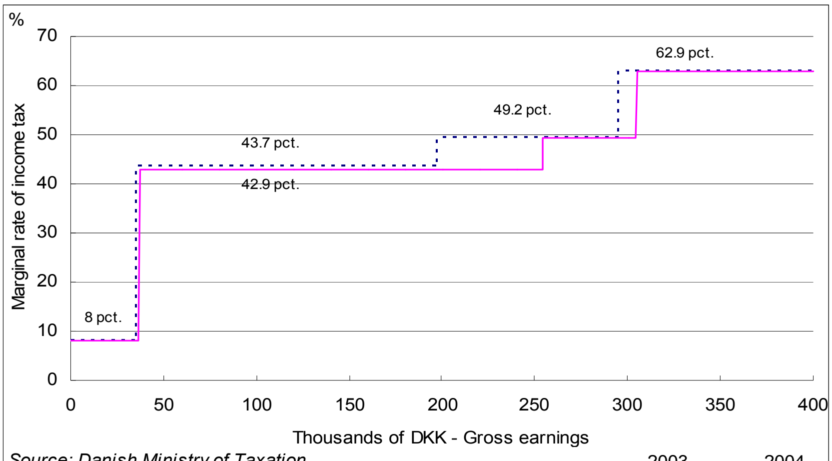
…but 2010 fiscal strategy hinges on further increases in employment.

Policies to raise labour supply: lower taxes on labour

The key objective of the 2004 tax reform is to enhance labour supply by raising the threshold for the medium tax bracket and by introducing an earned income tax credit (EITC). In 2003, the marginal tax rates were approximately 49 per cent on middle and 63 per cent on higher incomes, against 44 per cent on lower incomes. The level at which the top marginal income tax rate is reached was only 110 per cent of the average production worker wage in 2001 (Ministry of Taxation, 2002). Chart 1 illustrates the changes in income taxes of the recent tax reform.

2004 tax reform lowers marginal rates for many…

Chart 1: Structure of income taxes – effects of 2004 reform



Source: Danish Ministry of Taxation

The choice of the Danish authorities to extend the EITC to all workers rather than targeting lower wages tends to make the measure relatively costly and less well-targeted as it also enhances incomes of people whose work incentives are not affected (OECD, 2003). On the other hand, a tapering of the tax credit as incomes rise would have implied an overall negative effect on labour supply as it would increase marginal taxes as incomes rise (Ministry of Taxation, 2003). The tax reform raises the threshold for the top tax bracket marginally, but the top rate of 63 percent still applies to around 40 percent of full time workers. Recent empirical studies (Frederiksen, 2001; Danish Economic Council, 2001) conclude that raising the threshold for the top tax bracket would induce more positive labour supply reactions via the incentives for overtime work or dual jobs. Moreover, targeting the top tax bracket would also imply a higher degree of self-financing, given the wage and income elasticities in the upper income categories. Such tax cuts would, however, also have the largest effects on income distribution. The recent tax reform therefore attempts to strike a balance between labour supply effects and equity concerns.

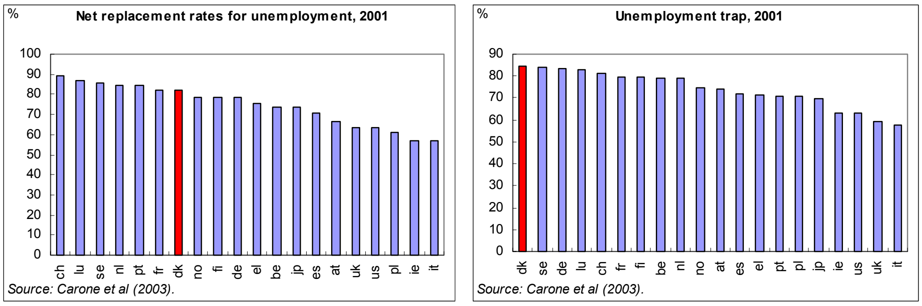
…but targeting the top bracket could have larger labour supply effects.

Unemployment benefits are relatively generous…

Taxes & benefits lead to weak work incentives for low-wage earners…

The financial incentives to enter and stay in the labour market are determined by the relation between (after-tax) labour income and the revenues provided by unemployment benefits and other (means-tested) benefits. In Denmark, the taxation of low wages is not the highest in the EU, but unemployment benefits are relatively high, particularly for low-wage earners. As shown in chart 2, this contributes to weak work incentives.

Chart 2: Weak work incentives for low-wage earners



Source: Carone et al (2003). *Source: Carone et al (2003).*

Note: The unemployment trap indicator measures the marginal effective tax rate for an unemployed when taking up a job.

A recent study (Smith et al., 2003) confirms the weak work incentives for low-wage earners in Denmark. Against this background, the duration of unemployment benefits and the requirements for participation in labour market activation measures (employment or training) becomes very important. The maximum duration of benefits has been shortened to four years and activation does not entitle to a new benefit period. However, the duration remains long in an EU context and thus tends to undermine the effectiveness of active labour market policies. Although the activation is provided after one year's unemployment (for young people even earlier), the remaining duration of unemployment benefits has provided an easy return to benefit recipiency. Consequently, this has often resulted only in short employment periods for low-wage earners.

… but eligibility rules have been tightened

..which may be counterbalanced by tighter eligibility rules.

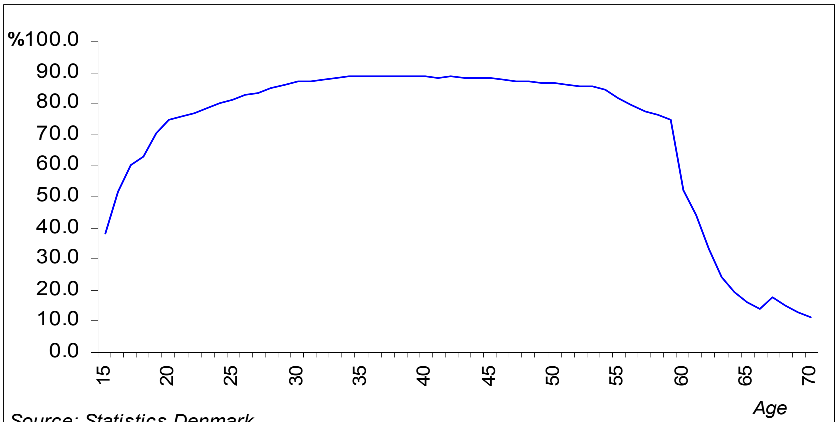
Offsetting the work disincentives entailed by the high replacement rates and long duration of unemployment places high demands on labour market policy and other aspects of the design of benefit systems. Strict and effectively enforced eligibility criteria are required to curb excessive disincentives (Carone and Salomäki, 2001). In this respect, Denmark has made efforts and ranks above average among EU-15 countries measured by a composite indicator on the strictness of job availability criteria. Moreover, the availability criteria have been tightened in recent years (Ministry of Finance, 2004). Denmark's policy of maintaining high benefits should also be seen in the context of the relatively light employment protection legislation (EPL), with hiring and firing rules which are among the least onerous in the EU. Using various indicators, the academic literature has found evidence of a possible trade-off between unemployment benefit generosity and the strictness of labour market regulation. (see e.g. Buti, Pench and Sestito, 1998; Bertola and Boeri, 2001)

Early retirement: an impediment to raising labour supply

Participation rates of Danes are high but fall sharply at the age of 60…

As the overall labour market participation rate is high in Denmark, efforts to increase labour supply should target groups where scope for increased participation can be identified, such as older workers. At 58% (compared to an EU-15 average of 40%), the employment rate of older Danish workers (55-64 years) is high in an international comparison, in the EU-15 second only to Sweden. However, the participation rate falls sharply around the age of 60 (Chart 3) and for the age group 60-64 it is around the EU-15 average.

Chart 3: Labour market participation rate per age (2002)



Source: Statistics Denmark

…largely due to voluntary early retirement.

Falling labour market participation among older workers has been a common trend in Europe in recent decades. This is largely due to policy measures in many countries since the 1960s which have contributed to making it financially unattractive to continue working after the age of 55 (Blöndal and Scarpetta, 1998). The cost of early retirement measured as a loss of potential GDP in Denmark has been estimated at 7¾% of GDP. This figure is low compared to many EU countries, but above the OECD average (Herbertsson and Orszag, 2000). In Denmark's case, this phenomenon is to a large extent due to the availability of voluntary early retirement. By far the largest share of the persons outside the labour force aged 60-66 are recipients of the voluntary early retirement benefit scheme (VERB). In 2003, there were around 180,000 recipients, close to 5% of the working age population. The VERB scheme entails a burden on public finances through net costs to the state of around 1¼% of GDP as well as indirectly through lost tax revenues.

The voluntary early retirement scheme drains labour supply of the over-60s….

The VERB scheme was introduced in 1979 in a context of high unemployment, on the presumption that older workers are difficult to employ and that their exit from the labour market would create room for younger persons. Most entrants to the scheme come from employment, which reinforces the character of the scheme as a welfare benefit, not as a labour market scheme. As argued by Smith et al. (2003), the VERB scheme is likely to make it more difficult for persons in their late 50s to find employment as a risk may be perceived that the person leaves employment for the VERB scheme at the age of 60. Indeed, the replacement rate implied by the scheme can be a strong financial incentive to retire, with low-income earners having the weakest incentives to stay in work.

…and the reform only partially addresses its negative effects.

In the late 1990s it was recognised that the VERB scheme was negatively affecting growth potential and labour supply, and it was reformed in 1999. The reform focussed on changing economic incentives rather than directly restricting access. The 1999 reform was a step in the right direction as the incentives to postpone the take-up of the benefit are reducing the number of 60- and 61-year-olds entering the scheme. However, the reform was limited and somewhat piecemeal and the scheme remains far from being actuarially fair (Danish Economic Council, 2002). The scheme thus continues to imply a strong subsidy of early retirement, distorting the basis on which individuals make decisions about their future economic situation.

Conclusion

Employment rates in Denmark compare favourably to most EU countries and the country already fulfils the Lisbon objectives in this regard. However, the financing of the welfare commitments depends on a high employment rate needed for maintaining a broad tax base. To sustain potential growth and to cope with increased public expenditure related to ageing, it will be necessary to raise labour supply. Denmark is addressing this challenge in the framework of the so called 2010 Plan, which aims at ensuring long-term fiscal sustainability. While the fiscal targets are overall being met, this plan assumes increases in employment in the medium-term through future reforms. These reforms, however, have yet to be specified.

The recent tax reform attempts to raise labour supply while limiting the negative redistribution effects. Even after this reform, however, the top marginal tax rate remains very high and applies to 40% of full-time workers. Eligibility rules for unemployed have been tightened and are now quite strict, which to some extent counterbalances the generosity of the unemployment benefits. However, the long duration of unemployment benefits has weakened the effectiveness of active labour market policies and the entitlement to benefits has provided an easy return to benefit recipiency. In spite of the modest reform of the voluntary early retirement scheme in 1999, older workers remain the largest potential source for raising labour market participation in Denmark. The scheme also burdens public finances substantially. Further reforms of the VERB scheme could thus contribute to the realisation of Denmark's medium-term employment objectives.

References

Bertola, G. and T. Boeri (2002), "EMU Labour Markets Two Years on: Microeconomics Tensions and Institutional Evolution", in M. Buti and A. Sapir (eds.), *EMU and Economic Policy in Europe*, Aldershot, Edward Elgar, pp. 249-280

Blöndal, S. and S. Scarpetta (1998), "The Retirement Decision in OECD countries", OECD Working paper No. 202, Paris, OECD

Buti, M., L. Pench and P. Sestito (1998), "European Unemployment: Contending Theories and Institutional Complexities", European Investment Bank Chief Economist's Department, *Report No. 98/01*, Luxembourg.

Carone, G. and A. Salomäki (2001), "Reforms in Tax and Benefit Systems in order to Increase Employment Incentives in the EU", *European Economy*, No. 160.

Carone, G., A. Salomäki, H. Immervoll and D. Paturot (2003), Indicators of Unemployment and Low Wage Traps (Marginal Effective Tax Rates on Labour), Joint EC-OECD project*, European Economy, Economic Papers* No. 197.

Danish Economic Council (2002), *Dansk økonomi*, Autumn 2002, Copenhagen

European Commission (2003), The Impact of Ageing Populations on Public Finances: Overview of Analysis Carried Out at EU Level and Proposals for a Future Work Programme, Report by the EPC working group on ageing population as adopted by the Ecofin Council on 4 November 2003

European Commission (2004) , "Denmark - Making work pay, getting more people into work", DG ECFIN Country Study, *Occasional Papers* No.9

Frederiksen, A., E. K. Graversen and N. Smith (2001), Overtime Work, Dual Job Holding and Taxation, IZA Discussion Paper No. 323.

Herbertsson, T.T. and J.M. Orszag (2001), The Cost of Early Retirement in the OECD, Institute of Economic Studies, Working Paper W01:02.

Ministry of Finance (2003), Convergence Programme for Denmark, 2003 update. Available from: http://europa.eu.int/comm/economy_finance/about/activities/sgp/country/countryfiles/dk/dk20032004_en.pdf.

Ministry of Finance (2004 forthcoming), Availability Criteria in Selected OECD Countries, Copenhagen, Ministry of finance

Ministry of Taxation (2004), The Danish Tax Cut 2004-2007, Web article available from: http://www.skat.dk/foreign/english/2177.html

OECD (2003), *Economic Surveys: Denmark*, Paris, OECD

OECD (2004), *Employment Outlook 2004,* Paris, OECD

Smith, N., P.J. Pedersen, S. Pedersen and M.L. Schultz-Nielsen (2003), *Fra mangel på arbejde til mangel på arbejdskraft*, København, Spektrum

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