

# The Scandinavian model—prospects and challenges

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**Abstract** Scandinavian countries are often portrayed in policy debates as model examples having shown how to square concerns for efficiency and equity. The core principle of the Scandinavian welfare model is an individual entitlement to public sector provisions combined with collective financing via taxes. However, a high employment rate is needed to ensure financial viability of this model. The Scandinavian model faces several challenges which affect the possibilities of maintaining a high employment ratio, namely, demographic changes, a growth dilemma and globalisation. This paper discusses how these challenges affect the need and scope for reforms of the Scandinavian welfare model.

**Keywords** Fiscal sustainability · Welfare state · Demographics · Globalisation

**JEL Classification** H1 · E62 · F22 · P1

## 1 Introduction

The Scandinavian countries share a number of common characteristics. They are small and open economies, they have high living standards, and the distribution of income is relatively even. Moreover, the public sector is responsible for the distribution and allocation of a substantial amount of resources (above 50% of GDP). The latter includes both a social safety net, which entitles most without any income to an income transfer, and a provision of welfare services with relatively high standards. Scandinavian countries are therefore often portrayed as having shown how to square concerns for efficiency and equity, and are often referred to in policy debates as model examples.

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The core principle of the Scandinavian welfare model is that the entitlement to public sector provisions is individual while the financing is collective, i.e. public sector provisions are tax financed. There is no relationship between the tax payment of the individual and his/her entitlement to public sector provisions (common pool property). This principle of universalism is reflected in important welfare arrangements such as education, health care, pensions, etc. A distinguishing feature is that the standard of the public provisions is high. This means that the living standard offered, particularly for those with no or only marginal attachment to the labour market, is relatively high, and the standard of public services is high in the sense that it meets the needs and requirements of most people. This implies that public service provision is neither a fall back option of last resort nor providing a minimum to be supplemented by privately financed additions.

It is difficult to point to specific schemes or institutions that can be characterised as unique for the Scandinavian countries.<sup>1</sup> Considering specific welfare arrangements, one finds similar schemes in other countries. Hence, the Scandinavian welfare model is to some extent characterised by the way policy measures have been bundled rather than by unique elements. Note also that although the Scandinavian countries share a number of similarities, there are important differences in the micro-structure of the specific welfare arrangements (see e.g. Hansen 2004; Nordic Social-Statistical Committee 2006).

Given that a large proportion of resources are allocated via the public sector, it may be asserted that the welfare model is non-market based. It has been suggested that labour has become decommodified in the sense that a decent living standard is guaranteed without people having to sell labour in the market. To some, this may seem as if the idea of social citizenship advanced by Marshal (1950) has been implemented to ensure a universal right to an income “not proportionate to the market value of the claimant” (Marshal 1950, p. 100). This is not a correct representation of the Scandinavian welfare model for two important reasons, namely that the model is very employment oriented, and entitlements are not in general unconditional.

The Scandinavian welfare model is very market oriented<sup>2</sup> with respect to labour. This is directly reflected in the fact that the public sector is a large actor in the labour market, demanding labour for the provision of public services, and that various welfare arrangements (e.g. day care) serve the double function of facilitating the supply of labour for females (see e.g. Graafland 2000). For the welfare state to be financially viable, it is necessary that a large proportion of the population is in employment. The reason is simple. If out of a job, most people would be entitled to a transfer, while in a job, their income and thus tax payment is higher. Hence, for given ambitions with respect to welfare standards and tax payments, the employment share of the population is the key balancing point for the financial viability of the model. This feature has pros and cons. On the pro side, the focus on employment is one of the reasons

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<sup>1</sup>Whether the term “the Scandinavian welfare model” is well-defined can be questioned. It is used here in the broad sense of universal and generous welfare arrangements, with the explicit proviso that such welfare arrangements are not confined to a particular geographical area. The discussion is here confined to Denmark, Norway and Sweden.

<sup>2</sup>The difference in the extent to which various services are undertaken in the public sector or privately can cause a bias in international comparisons of income levels.

why Scandinavian countries are amongst the countries in the world with the highest income levels and why the income distribution is fairly equal. On the con side, there are problems of combining generous welfare arrangements with incentives to work (including education, mobility etc.).

While entitlements are universal in the sense that they are right-based, this does not imply that access is unconditional. For some services this is absurd, and for transfers this would correspond to an unconditional basic income (demo-grant). Access to welfare arrangements does usually presume a need; that is, access is conditional on being in a particular situation (illness, lack of working capability, etc.). Eligibility for income transfers is also conditional (means-tested) in the sense that access to social assistance constituting the basic element of the social safety net is conditional on the individual being unable to support themselves.<sup>3</sup> Hence, entitlements are not unconditional, and they have a labour market focus.

The aim of matching requirements for high labour force participation (high employment ratio) with concerns for equality is not an easy task. It raises a number of problems and dilemmas in a number of policy areas. It is also interesting to note that the most severe crises in recent times in the Scandinavian countries have been associated with significant and persistent drops in employment rates. This was the case for Denmark and Norway in the 1970s and 1980s, leading to substantial economic imbalances and unsustainable public finances, and a similar situation occurred in Sweden during the 1990s crises.

In a forward looking perspective, the Scandinavian model faces several challenges that in one way or another all have implications for the requirements to ensure a high employment ratio. The challenges include: (i) changing demographics increasing the dependency ratio significantly not least due to increasing longevity, (ii) increased demand for services (e.g. health care and education) as well as leisure stressing the financial balance of the system, (iii) effects of globalisation both directly (e.g. migration and tax base mobility) and indirectly (increased tax distortions due to changes in product/labour market structures). To this list could be added the challenge related to the risk of eroding norms as well as polarisation and segregation weakening the financial viability of the model, but also the homogeneity and support on which the model relies (see e.g. Lindbeck et al. 2003). It is beyond this paper to discuss this issue.

While many of the challenges—demographics and globalisation—are not different or worse than in many countries, the consequences and possible remedies must be seen in perspective of the welfare regime adopted. The key question is thus whether and how it is possible to address these problems without making fundamental changes to the welfare model.

This paper discusses the particular way in which the various challenges affect the need and scope for reforms of the Scandinavian welfare model, and some of the proposals for reforms recently made in the Scandinavian countries. The paper is organised as follows: Sect. 2 highlights a few facts on the Scandinavian countries in

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<sup>3</sup>E.g. entitlement to social assistance in Denmark requires that some social event is present (illness, divorce, loss of spouse, unemployment). The changes must be so substantial that self-support is not possible, and moreover, it should be caused by exogenous forces which could not be foreseen. The benefit is means tested (family income).

a comparative perspective. Some of the basic policy dilemmas arising in the Scandinavian welfare model are briefly outlined in Sect. 3 as a prelude to a discussion of the challenges faced by Scandinavian countries. The discussion of these challenges (Sect. 4: demographic changes, Sect. 5: the growth dilemma, Sect. 6: globalisation) focuses on the employment question. The final Sect. 7 comments on the policy perspectives.

## 2 A brief characterisation of the Scandinavian countries in international comparison

In the Scandinavian countries, a substantial amount of resources are allocated and distributed via the public sector, amounting to about 50% of GDP, cf. Table 1. Roughly, these expenditures are equally split between consumption and transfers.

Public expenditures are mainly tax financed, and a key issue is how taxation<sup>4</sup> affects labour markets. The total tax wedge on labour is an indicator of the implications taxation has for the labour market, cf. Table 1. The Scandinavian countries are among the European countries with the highest tax wedges. However, it may be misleading to compare these countries without accounting for differences in labour market structures. The interrelationship between wages and taxes involves a common pool problem. Taxes levied on labour income also finance expenditures to the benefit of workers. Accordingly, if wage formation is centralised, negotiators will perceive that taxes finance expenditures to the benefit of workers, and therefore, the tax to wage spill-over will be smaller. However, with much decentralised wage setting, negotiators will not perceive that their own tax payments have a significant influence on aggregate tax revenue, and therefore, the tax to wage spill-over will be stronger. Historically, labour markets have been very centralised (see e.g. Boeri et al. 2001), and this has tended to mute some of the tax distortions.

Given the extended form of the welfare state in the Scandinavian countries, it follows that the ratio between employed and non-employed in the population plays a key role. For given ambitions with respect to welfare services and the social safety net as well as given tax rates, there is a lower bound on the overall dependency ratio consistent with financial viability of the welfare state. Therefore, the viability of the model depends on keeping a high labour force participation rate, i.e., the Scandinavian welfare model is employment oriented. As seen from Table 1, labour force participation rates are high in international comparison, especially for females. This is the outcome of a process that took place during the 1960s and 1970s, where the labour force participation rate for women rose to almost the same level as for men. Hence, the Scandinavian welfare model is a “gender split breadwinner” model.

One way to underline the importance of keeping a high employment rate is to consider the sensitivity of public finances to variations in employment. A drop in employment of 1% would imply a deterioration of net-public revenue of about 0.8% due

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<sup>4</sup>It is not without problems to compare resource allocation via the public sector across countries (see e.g. Adema 2001). One reason is that there can be huge differences solely from the fact that in some countries transfers are taxable income, while in others, transfers are not taxable income.

**Table 1** Scandinavian countries in international comparison: Public sector and the labour market, 2003<sup>a</sup>

	Denmark	Norway	Sweden	EU-15	OECD
<i>Public sector</i>					
Public sector size (% of GDP) <sup>b</sup>	55.2	48.9	58.7	48.0	48.3
Social expenditures (% of GDP)	29.2	23.9	29.8	23.9	20.8
Total tax wedge for average production worker (%) <sup>c</sup>	60.0	57.0	63.0	60.3	NA
<i>Labour market</i>					
Employment rate: men	79.7	78.7	75.7	72.6	74.6
Employment rate: women	70.5	72.7	72.8	56.1	55.3
Annual working hours	1,555	1,338	1,563	1,672	1,822
Unemployment rate <sup>d</sup>	5.6	4.5	5.6	7.9	7.1

Notes: <sup>a</sup>Data for social expenditures apply to 2001, and for the total tax wedge for 2004, <sup>b</sup>measured by total public outlays relative to GDP, <sup>c</sup>includes direction taxation, social contributions and consumption taxes, <sup>d</sup>standardised unemployment rates Source: OECD: [www.sourceoecd.org](http://www.sourceoecd.org) except the total tax wedge which is from the Danish Ministry of Taxation, [www.skat.dk](http://www.skat.dk)

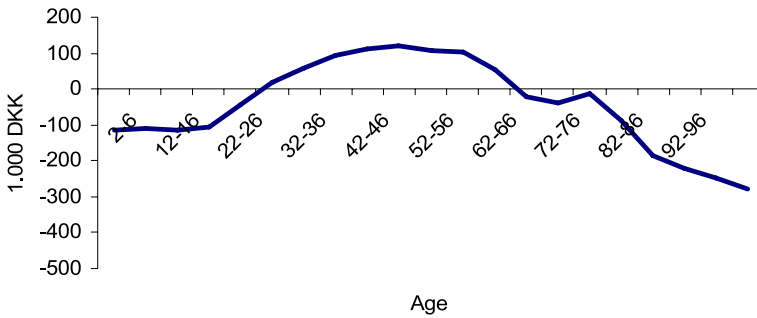
to the combined effects of lower tax revenue and increasing expenditures on transfers.<sup>5</sup> Hence, if employment drops by 1%, the financial burden resting on the remaining employed will increase by almost 1% if the welfare arrangements are to remain financially viable. This is basically a different representation of the so-called automatic stabilisers (see e.g. Van der Noord 2001). In a business cycle perspective, large automatic stabilisers contribute to the smoothening of business cycle fluctuations. However, what is a blessing in a short-run business cycle context may be a curse in a structural context if the employment ratio for various reasons is dwindling.

Although labour force participation in the Scandinavian countries is high, it should be pointed out that working hours are not high by international standards, cf. Table 1. This may partly be a consequence of the high labour force participation rate for both sexes and partly be due to the distortions caused by the high tax wedge on labour income.<sup>6</sup>

It is a natural consequence of the extended welfare arrangement that there is a strong life-cycle dependency in the net contributions to the welfare state. The average person is a net-beneficiary as child and young (child care, education, etc.), a net-contributor during work life, and a net-beneficiary as old (pensions, old age care). Naturally, at a given moment, there is a substantial dispersion across individuals of a given age, in particular for age groups normally considered to be work ages.

<sup>5</sup>The estimate is for Denmark and based on the effects of a drop in private employment among people who are entitled to unemployment benefits. Calculated on the basis of analyses in Velfærdskommissionen (2005a, 2005b).

<sup>6</sup>A further implication is black sector and doing-it-yourself activities.



Note: In DKK, averages over age groups

**Fig. 1** The social contract in Denmark—age dependent net contributions to the public sector. Data from Velfærdskommissionen (2005a, 2005b)

Figure 1 displays the dependency of the net-contribution on age for Denmark,<sup>7</sup> and it clearly demonstrates the strong life-cycle pattern. This captures a social contract between generations in which individuals in work age groups via (net) tax payments provide the financial basis for welfare arrangements directed towards young and elderly members of society. In its outset, the social contract is of the pay-as-you-go type. This extended social contract—the cradle to grave model—is one key element of the Scandinavian welfare model.

The Scandinavian countries are often portrayed as having escaped the efficiency-equity trade off since these countries have a high income level and low inequality, cf. Fig. 2. The egalitarian perspective is reflected in entitlements, tax structure, wage structure, etc. In international comparison, income inequality is low measured by standard metrics like the Gini-coefficient, cf. Fig. 2. However, more notable is the fact that the welfare model in particular offers (relatively) high compensation levels for groups with no or only a marginal attachment to the labour market (see e.g. Hansen 2004).

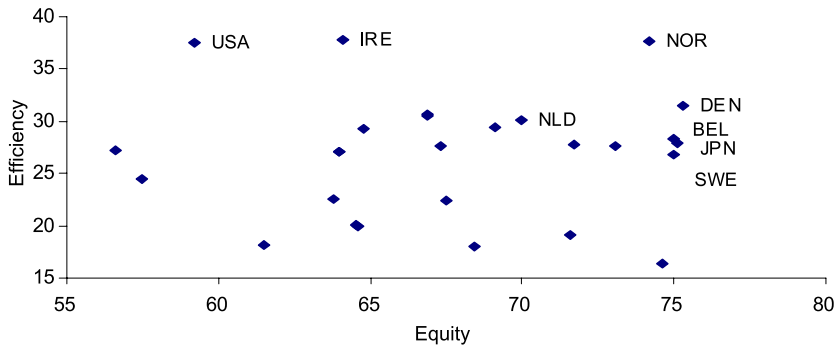
### 3 Policy dilemmas in the Scandinavian welfare model

There are a number of recurrent themes surfacing in the policy debate and which are intimately linked to the aims and characteristics of the Scandinavian welfare model.

A key issue is the balance between distributional concerns and incentives for labour market participation (the extensive margin). Concerns for redistribution and social balance imply that the level of transfers offered (and minimum wages) is high. Working poor is not a policy option in keeping a high employment ratio. This raises some fundamental questions. One is how to ensure that there is an incentive to work<sup>8</sup>

<sup>7</sup> Similar relationships hold for Norway and Sweden, cf. Andersen (2006). This age dependency in the net contribution is not specific to the Scandinavian model since it follows from e.g. a PAYG social security scheme. However, the extent of welfare arrangements has implications for the size of age dependent net-contributions.

<sup>8</sup> In policy debates, this is often made a question of laziness. Do people want to work or not? This is a too narrow perspective to take on the participation decision. The real issue is how the whole complex of social



Note: Efficiency measured by GDP per capita (PPP) in 2003, and equality as 100-Gini coefficient (latest available estimate). Countries with GDP per capita above \$ 15,000 per year are included. Only countries at the frontier are identified

**Fig. 2** Efficiency vs equity. Source: UNDP, Human Development Report

in particular for low income groups. It is difficult to use economic incentives. Making transfers and supplements (for e.g. housing and day-care) income dependent would imply very large effective marginal tax rates, and yielding tax credits raise the standard problem of how to target the intended groups without giving tax concession to a large part of the employees.

There are some non-economic measures which can be used to ensure that high labour market participation is consistent with generous transfers. One measure is concerned with requirements for availability including active job search and willingness to move and commute for jobs, etc. Another is to introduce various workfare elements in social policies, that is, claiming unemployment benefits or social assistance requires participation in various activation measures. This class of instruments has the aim of affecting the reservation demands for job searchers and minimising the scope for passively claiming transfers. In principle, such non-market instruments can ensure the incentive to be active in the labour market in the same way as reductions in the level of benefits.<sup>9</sup> As such, they seem ideal instruments in a welfare state with ambitious distributional goals. However, these instruments are not without problems. The schemes are administrative in nature and therefore costly to administer. Activation schemes in particular may be costly depending on the nature of the activities used. Moreover, a too strong commitment on the part of the political system in taking responsibility for ensuring “full employment” may have detrimental effects for search activities and on the incentives underlying wage formation (see e.g. Calmfors et al. 2002). In addition, there are other and equally important issues. Activation can have two aims. One is to reduce a moral hazard problem which arises when people are claiming support although they are voluntarily without labour income (enjoying

and labour market policies affects the reservation demands (wage, type of job, willingness to commute etc.) for accepting a job. The higher the reservation demands in any of these dimensions, the less is the active labour market participation.

<sup>9</sup>If there is some disutility to participate actively in the labour market, the participation constraint can be met either by lowering benefits or by the demands in activation schemes. Hence, to any benefit level there is a corresponding activation requirement leaving the same incentive to work.

leisure or working in the black sector). The other aim is concerned with improving people's chances of finding a job (via job-training, improved qualifications, etc.). The former can be achieved by very simple schemes (time demanding schemes), but they will often be considered humiliating. Implementation of such measures is also encountering the screening paradox; that is, if the measure succeeds in separating "deserving" and "non-deserving" claimants, it appears as if one is punishing the "deserving" claimants. Activation measures aiming at improving qualifications may overcome these constraints, but these are more resource demanding and raise the difficult question of deciding which qualifications would be in demand.

The active labour market policy has been highlighted as one of the reasons why Sweden in the 1970s and 1980s managed to escape high open unemployment when most other OECD countries were facing a severe unemployment problem. In Denmark, a number of reforms during the 1990s made a shift from a very passive orientation of the labour market policy primarily focusing on income maintenance to an active policy including workfare elements. Spending on ALMP is high in Denmark and Sweden.

Social benefits set a floor under wage formation (via legal minimum wages or negotiated minimum wages).<sup>10</sup> Since these policies are motivated by the fact that low market wages are not acceptable, it is an implication that some unemployment eventually follows. Not all of those who would have a market wage below the wage floor will be in demand if they are to be paid the minimum wage. Some unemployment is therefore a cost of redistributive policies. The question is how this cost can be minimised. One obvious answer is educational policies to ensure that the supply of unskilled labour is sufficiently small. Educational policy has always had a strong standing in the Scandinavian countries for the twofold reason that it is a key element in providing equal opportunities and breaking social heritage etc., and because it is indirectly part of the redistribution policy. Moreover, it enhances growth by better exploitation of the entire human capital potential in the population

One tension in educational policies is that a compressed wage structure and high taxation have a negative effect on the return to education. There is a demand and supply side to the compressed wage structure. This implies that highly qualified labour is relatively cheap in the Scandinavian countries, something which has also recently been highlighted as a parameter of importance in international competition. However, on the supply side, it reduces the return and thus the incentive to undertake education. In a recent study of the return to education, de la Fuente (2003) finds that the private return to education in Denmark and Sweden is below the average for the included 14 EU countries. The importance of the return to education for educational decisions should be seen relative to the fact that public financing of education is substantial. The Scandinavian countries constitute the OECD top of countries spending most public funds as a share of GDP on education.

A different route by which to consider education is to try to assess the outcomes by indicators of the educational level and the quality of educations. In the quantitative dimension measured by the share of the population holding a PhD degree, Sweden is at the OECD top, while Norway and Denmark are below average. The fraction of

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<sup>10</sup>The minimum wage is decided by law in Norway and Sweden, while in Denmark, it is negotiated between the labour market parties.



youth not receiving any education beyond compulsory schooling is low in Norway and Sweden, but still almost 1/5 of a generation in Denmark. Recent PISA tests put the Scandinavian countries at an average position in terms of acquired skills for youth at the age of 15 (OECD 2004). Hence, while the Scandinavian countries may have had an educational lead in the past, it is hard to argue that this is the case today. In the medium to long run, this may have important consequences for growth and international competitiveness.

A recurrent theme is the extent to which labour markets are distorted by the high level of taxation.

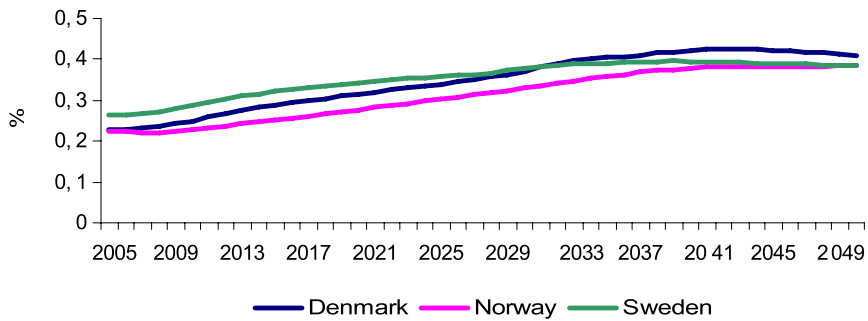
To some it may seem inconceivable that labour markets can work under such high taxation, and yet they do. There are several remarks to be made on this. First, taxation releases both income and substitution effects of taxation, and hence the quantitative importance for labour supply of a high level of taxation is not a priori given. Second, for the hours decision the evidence reported in Fig. 4 can be taken as evidence of a distortion caused by taxation. However, working hours should also be seen in the perspective of the high labour force participation of both males and females, hence working hours at the family level are not low in the Scandinavian countries. Finally, centralised labour markets have undoubtedly (see Summers et al. 1993) played a role in minimising distortions by muting the effects of taxes on wages and working hours (in centralised bargaining, the effects on the public sector budget balance are internalised). An interesting and open question is whether the recent tendency towards more decentralised wage formation implies that the distortionary effects of the high level of taxation will become more visible.

Welfare arrangements may enhance efficiency via the implied pooling and diversification of risk. Since both contributions to and benefits from the welfare state are dependent on various events, the collective welfare policies constitute an elaborate implicit insurance contract (involving inter- and intragenerational risk sharing). One basic insight from the recent economics literature on the economics of the welfare state<sup>11</sup> is that a system with ex-post redistribution (based on actual income, labour market status, health, etc.) in an ex ante perspective also serves as an insurance mechanism. If agents are risk averse, this can have direct welfare effects as well as incentive effects (via sharing and diversification of risk) that can enhance efficiency. Pursuing this line of thought reveals an important trade-off between the insurance and incentive effects of various policy instruments. The difficult policy problem is to ensure that the insurance mechanisms do not develop into permanent support; that is, the temporary nature of an insurance scheme has to be ensured.

As an example of the insurance vs. incentive effects one can consider the structure of the Danish labour market which recently has drawn much attention under the heading of the flexicurity model. The basic idea is that flexible rules for hiring and firing of workers combined with a generous unemployment insurance scheme achieve a balance between flexibility in adjustment for firms and income security for workers. As such, the model can be seen as a way to square concerns for efficiency with social security. Since Denmark has a low unemployment rate and in many respects a sound macroeconomic situation, it has been inferred that this can be attributed to the

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<sup>11</sup>For theoretical analyses developing these ideas, see e.g. Eaton and Rosen (1980), Varian (1980), Sinn (1995) and Acemoglu and Shimer (2000).



Note: Defined as the age group 65+ relative to age group 15–64

**Fig. 3** Demographic old age dependency ratios, 2005–2050. Source: Statistics Denmark, Statistics Norway and Statistics Sweden

flexicurity model. However, two points need to be taken into account in this respect (see Andersen and Svarer 2006). The first is that the basic ingredients of the flexicurity model were also in place during the 1970s and 1980s when unemployment was persistent at double digit numbers. The main change in labour market policy during the 1990s was a shift from a passive to an active orientation in the labour market including a shortening of benefit duration and introduction of workfare elements in the unemployment benefit and social assistance scheme. Second, despite the low registered unemployment rate, it is the case that about a third of the population in the work age group is receiving some form of income transfer. Hence, the model has not been unconditionally successful in ensuring high labour force participation.

#### 4 The demographic challenge

Demographic shifts are much in focus, both because they can be fairly accurately predicted and because the consequences are potentially large. The demographic shifts in the Scandinavian countries are roughly of the same order of magnitude. The demographic old age dependency ratio will thus increase from about 0.25 to 0.4 within the next 3–4 decades, cf. Fig. 3. The increase is permanent due to the expected increase in longevity.

Combining these demographic shifts with the properties of the social contract, cf. Fig. 3, immediately reveals that a financial problem will arise. Current welfare arrangements are not financially sustainable when the dependency ratio increases. The order of magnitude of the financial problems is substantial, and deteriorating public finances will lead to systematic deficits. In a recent assessment for Denmark, Velfærdskommissionen (2004) finds that the problem amounts to a trend deterioration of public finances (primary balance) of 4 percentage points of GDP between now and 2040. For Norway, the demographic consequences for public finances are among the most dramatic for OECD countries. According to estimates, the trend deterioration in the primary balance between now and 2040 is above 6 percentage points of GDP (Pensjonskommisjonen 2004; Frederiksen et al. 2005). The sustainable use of petroleum wealth can finance less than 50% of the expenditure rise due to aging. For

Sweden, estimates by the OECD (2005) show a deterioration of the budget balance between now and 2050 of 4 ½ percentage points of GDP.

The changes in the dependency ratio have two components, namely, the effect of the baby-boom generation from the 1940s approaching retirement (and the subsequent drop in fertility), and the effects of increasing longevity.<sup>12</sup> Similar demographic changes are projected for most OECD countries (see e.g. IMF 2004). The problems arising due to the baby-boom generation are irreversible and require some adjustment. The consequences of increasing longevity are gradually developing, and there is therefore time to cope with these.

A key policy question is how to ensure that retirement ages increase alongside increases in longevity. It should be noted, however, that this cannot solve the entire problem since making retirement ages follow longevity is not sufficient to deal with the entire consequences of the changing dependency ratio due to the consequences of the baby-boom generation. Later retirement raises difficult policy questions, especially since average retirement ages in recent years have been declining despite increasing longevity. One can think of several reasons for this, including the rules and conditions for retirement, the labour market situation for elderly workers and preferences.

Scandinavian countries have—as other countries—various schemes which affect the retirement decision in the form of early retirement, disability pensions and the general properties of the pension system. Rather than considering the various schemes in detail, it is possible to summarise the situation by the fact that all Scandinavian countries have observed declining employment ratios for elderly. In Denmark, this is in particular due to an early retirement scheme; in Norway, it is due to early retirement as well as increasing sickness and disability pensions, and in Sweden, it is due to an increase in the number of sick people and disability pensioners.

In all Scandinavian countries, there is a debate on how to increase the retirement age. A pivotal element in the Danish debate has been the early retirement scheme. It subsidises early retirement and is very popular, and therefore, it has proven difficult to change. Recently, the Danish “Welfare Commission” proposed a number of measures to increase labour force participation and employment, including a phasing out of the early retirement scheme and linking the statutory pension age to longevity (Velfærdskommissionen 2005b). In Norway, a commission evaluating the pension scheme has made a number of proposals for reforms of the pension scheme in order both to ensure more pension savings and later retirement. One element is to make the annual public pension benefit depend on longevity, and at the same time allow for more flexibility in retirement. The implication is that given pension benefits can be maintained by postponing retirement when longevity increases. It is currently uncertain whether reforms will be undertaken. In Sweden, there was a major pension reform in the 1990s leading to substantial changes in the pension system and introducing some mechanisms by which to handle the ageing problem. The basic mechanism is that pensions are reduced if the number of old increases, i.e., in this way pension benefits are indirectly linked to longevity (see e.g. Börsch-Supan 2005). In combination with flexible retirement possibilities, this creates incentives for later retirement alongside

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<sup>12</sup>Velfærdskommissionen (2004) documents that the permanent component in the demographic shift accounts for the major part of the fiscal sustainability problem for current welfare arrangements.

an increase in longevity. However, this reform is not sufficient to avoid a pressure on public finances, cf. above, and the need for reforms is currently debated, in particular the issue of how to increase labour supply.

In debates on retirement, one often encounters the argument that the labour market discriminates elderly workers, and therefore, it is necessary to have fairly generous retirement options. It is a fact that the unemployment rate is higher for age groups close to the normal retirement age. However, it is potentially misleading to conclude from this that it is impossible to maintain a labour market for elderly workers. Cross-country evidence documents a clear positive relationship between labour force participation of elderly workers and employment rates (Duval 2004). Moreover, the age groups at which the additional unemployment is observed are very different across countries and very closely related to the rules applying in various countries. This suggests that the rules for retirement/pension play a key role. This is underlined by the fact that when comparing the Scandinavian countries (see Andersen and Pedersen 2006), it is striking that the problems for elderly workers measured by additional unemployment are observed at age groups in the late 50s (early retirement is possible at the age of 60) in Denmark, while they are observed for the age group 62–65 in Norway and Sweden where retirement is normal at an age around 67 or 65. This suggests that the time horizon plays an important role for both the demand and the supply side of the labour market. Hence, if rules for retirement are relaxed based on the observation that elderly workers have higher unemployment, the problem may be pushed back one step, leaving both a lower retirement age and employment ratio.

Judged from policy debates, there seems to be a strong preference for taking out the welfare gain caused by increasing longevity as an increase in the retirement period. Whether this is due to tax distortions or a preference shift is an open question. The former is reflected both in the implicit tax on later retirement and also in the common pool problem that single individuals do not take into account the aggregate consequences of increasing longevity and declining (relative) retirement ages. The latter is reflected in increasing reference to “the third life phase” and a change in the perception of being old from “not able to work” to “no longer working and wanting to spend time on various other activities.”

When discussing ageing and retirement etc., it is important to point out that the balance of the social contract (cf. Fig. 1) depends on the number of years each individual contributes to the scheme relative to the number of years each individual benefits from the scheme. Hence, to maintain a balance when longevity increases is a question of keeping the fraction of lifetime spent in the labour market unchanged, and this can be achieved either by later retirement or earlier entry to the labour market. Naturally, the latter is conditional on whether the relevant qualifications have been acquired. However, in recent years there has been a tendency towards later labour market entry by young people, in particular in Denmark and Sweden. There is thus a need to reverse this trend, and this is an important ingredient in ensuring a balance in the social contract when longevity increases.

The ageing problem is a relative problem in the sense that the number of old people is increasing relative to the working age population, cf. Fig. 2. It is therefore intuitive to perceive migration as the solution. By allowing for migration to increase the working age population, the “demographic” balance can be regained, i.e., the

increase in the dependency ratio can be prevented. It is often suggested that migration is the most obvious solution to the ageing problem, see e.g. IMF (2004).

There are two important reasons why it is important to distinguish between demographics and the financial problem of the welfare state. It is much easier to correct the former than the latter. The demographic changes have both a temporary and a permanent component. Migration can potentially deal with the temporary, but not with the permanent component. The temporary component is driven by the large cohort born after WWII and the subsequent drop in fertility rates. In the process where large cohorts retire and small cohorts enter the labour market, the dependency ratio increases, and in a welfare state with an extended social contract this obviously has important consequences. However, other things being equal, the dependency ratio will fall again. Still, the problem is not trivial since demographic transitions run over decades. Whether immigration can help solve this problem depends critically on labour market consequences addressed below in Sect. 6.

However, there is a permanent change in the dependency ratio driven by increased longevity. For given eligibility ages, this implies that the balance in the social contract is changed since the number of years as net-beneficiary increases relative to the number of years as net-contributor, cf. Fig. 1. The permanent component cannot be solved by immigration since immigrants also must be expected to live longer.

Increased longevity is by most considered a welfare improvement, but the social contract would have to be revised to adapt to the change. Hence, permanent changes in welfare arrangements are needed. Basically, three options are available—increase taxes, lower benefits (or services) or delay retirement. The social contract needs to be adjusted to take account of increasing longevity.

## 5 Baumol meets Wagner—the growth dilemma

In policy debates, there is a strong perception that more growth will ease the financial problems of the welfare state. Hence, it seems as if the viability of the welfare state can be ensured by resorting to more popular initiatives like further investments in education and research, rather than by changing retirement and pension systems and the like. Unfortunately, the policy choices are not that simple.

To set the scene, note that under two very basic assumptions it follows to a first approximation that public finances are not in the medium run improved by increasing growth; that is, revenues and expenditures are increasing proportionately. Increasing productivity and growth cause incomes to increase, and therefore, public revenue will increase for given tax rates.<sup>13</sup> The public sector basically has two types of expenditures—wages to employees and transfers. If the same number of public employees is needed (the service constraint), this cost component will increase proportionally with income since public sector wages in the medium term will have to move proportionally to private wages. To the extent that the gains in living standard

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<sup>13</sup>In practice, this is not quite correct. Since some tax bases are depending on past income (e.g. taxation of pension funds), there will be a revenue drag if growth goes up because not all tax bases grow at the same rate. See Andersen and Pedersen (2006) for a further discussion.

are to be distributed equally between the work force and recipients of income transfers to ensure an unchanged distribution between employed and non-employed (the distribution constraint), the latter component will also increase proportionally with income. Hence, revenues and expenditures move proportionally under the service and distribution constraint. Overruling the distribution constraint will by most be tantamount to a violation of basic objectives of the welfare state, and hence not a viable policy option. As to the service constraint, the issue is slightly more complicated.

In the reasoning above, it was implicitly assumed that productivity increases are absent in the public sector, and therefore, an unchanged amount of labour is needed if the same service provisions shall be available in the future. To put it differently, welfare services become relatively more expensive (Baumol's law). Although for some types of welfare services it may be difficult to increase productivity by the very nature of the activity (e.g. care), there surely is scope for improving productivity for a number of activities (although on average not at the same level as for e.g. industrial production). To the extent that there are such improvements, they lessen the financial constraint.

However, this should be seen in the perspective that increasing material well-being tends to increase demand for services (income elasticity above one—Wagner's law), and therefore, the needs and requirements for public services increase. Which of these effects dominate is basically an empirical question driven by both technical and organisational/political mechanisms. The former relates to the scope for actually improving efficiency and productivity in the provision of welfare services, and the latter whether the increasing demands should be accommodated. Since, as noted in the Introduction, provision of welfare services at a level which meets the needs and requirements of the larger part of the population is an essential objective of the Scandinavian welfare model, it follows that a divergent path between demand and supply of welfare services would be problematic.

The political constraint is revealed by the fact that public expenditure growth has been above the growth rate of income, and this can be interpreted as showing that in net-terms Wagner's law has been dominating. If this holds in the future, the consequences are dire. To see the order of magnitudes involved, it has been estimated for Denmark that an increase in public expenditures of just 0.15 annually above the GDP growth rate (roughly half the extra growth observed over the last 30 years) would have effects on public finances of the same order of magnitude as the demographic shifts, i.e., a deterioration of public finances of about 4% of GDP (Velfærdskommissionen 2005a, 2005b).

In a forward looking perspective, there are reasons to believe that the demand pressure will dominate the possible efficiency and productivity gains to be reaped. An important case in point is health care. New technologies in medicine imply that some treatments can be done both more easily and effectively, but it also implies improved and new treatments. Ample empirical evidence documents that the latter dominates. In forecasts of health care expenses, OECD (2006) outlines various scenarios implying a substantial expenditure pressure in health care.

There is, however, a further aspect since increasing material well-being may be expected to lead to increased demand for leisure (shorter working hours, longer vacations, earlier retirement, etc.). It is to be expected that the gains created by growth

are to be shared between increased consumption of various forms and leisure. However, this reinforces the financial strain on the welfare state for the simple reason that leisure is not taxed. Hence, more growth may increase the demand for welfare services at the same time as it shrinks the base on which these activities are financed. The order of magnitude here is of the same size as for expenditure growth. For Denmark, a working time reduction of 0.1% per year (significantly below historical average) would have effects on public finances of the same order of magnitude as the demographic shifts, i.e. a deterioration of public finances of almost 4% of GDP (Velfærdskommissionen 2004). The precise order of magnitudes of future increases in the demand for both improved and better welfare services as well as leisure are of course subject to uncertainty. However, the calculations reported here suggest that under relatively moderate assumptions, the effects of this “growth dilemma” can easily be as large as the effects of the demographic shifts.

A key question here is whether the willingness to pay taxes increases along these developments. If so, there would be less of a policy dilemma created by further growth. It is not obvious that the political tensions concerning tax rates today are less than they were say 25 years ago (having reached a tax burden of about 50% of GDP) despite the growth in incomes in the meantime. Moreover, tax distortions are increasing in the tax rate—approximately proportional to the square of the tax rate—and globalisation puts pressure on the taxation system, cf. below.

The possible tension between demand and the scope for financing welfare services raises some difficult policy dilemmas. This may cause a growing tension between what is offered and what is expected/required, which in turn may cause an increasing dissatisfaction with public services and breaking the premise that public services are supplied at a high level that meets the needs of most (potentially eroding the political support for the model). It may also lead to an increasing use of private supplements primarily sought by those who can afford it, which in turn raises distributional questions. Free and equal access is being contested. Some scope for addressing these issues can be found in user payments (which exist in all Scandinavian countries for some health services), which can be used to affect use/demand and also as a source of revenue. However, this is not eliminating the problems, and extensive use of user payments runs counter to the distributional concerns motivating “free and equal access.”

In summation, growth puts the tax financed welfare state in a financial dilemma. It tends to push expenditures in an upward direction (more and better provision of welfare services) and revenues in a downward direction (more leisure). Growth is not a new phenomenon, and it may therefore be questioned why these problems have not surfaced until now. The reason is that the welfare state has been in a build-up phase, and the financial base has been expanded via increases in taxes and labour force participation. Now it is in a consolidation phase where the consequences of Baumol’s law (a relative price increase of welfare services) and Wagner’s law (a high demand elasticity) become clear at the same time.

## 6 Globalisation—a threat to the social contract?

Openness and tight international integration are not new phenomena in the Scandinavian countries. This is, among other things, reflected in the fact that these countries

are routinely classified as small and open. It is also clear that the concern for and constraints set by “international competitiveness” have played an important role. After all, the welfare state has been substantially extended in a period where the Scandinavian countries have been very well integrated in the international economy. However, this does not imply that further globalisation does not raise challenges, in particular due to some of the qualitative changes induced.

At a general level, one can distinguish between three channels through which globalisation may affect the welfare state, namely, taxation, spending (education and research) and migration (Andersen 2004). The challenges raised by the first two are not a threat to the basic principle of the Scandinavian welfare model, whereas migration potentially is. The three topics will be considered in turn.

### 6.1 Taxation

Since the Scandinavian welfare model is tax financed and therefore implies high tax rates, much focus has been on the question whether high tax rates are sustainable in a more globalised world. Much of this debate has been concerned with increasing tax base mobility. The basic mechanism is that the more mobile a given tax base, the more difficult it is to tax at a rate (significantly) above that of your close trading partners. To avoid loss of tax revenue due to further integration, the response must be lower tax rates, which in turn may erode tax revenue. A more aggressive response would be to undercut the tax rates of trading partners (i.e. tax competition leading to a race-to-the-bottom mechanism) in the hope of attracting more economic activity. Another response would be to change the tax structure, lowering taxes on mobile tax bases and increasing them on less mobile tax bases.

The Scandinavian countries have gradually adapted their tax structure to cope with some of these changes, in particular via the so called dual income taxation system (see e.g. Larsen and Sørensen 2003), allowing a proportional taxation of capital income to be combined with progressive taxation of other forms of income. Therefore, it has been possible to adjust taxation of capital income and corporations to lower levels in order to match rates observed in competing countries while maintaining relatively high tax rates (and progressive elements) on labour income. They have also followed the trend of lowering corporate tax rates accompanied by some broadening of the tax base. Tax adjustments have also been made in specific areas such as excise taxes (e.g. alcohol) to cope with problems arising from increased cross-border trade.

While the issue of tax base mobility is important and raises a number of important and difficult questions concerning the tax system and control, etc., it is an issue of second-order importance in relation to the overall question of the financing of the welfare state.<sup>14</sup> This is so since the predominant part of tax revenue is raised via direct and indirect taxation of various forms of income generated in the labour market. The key question is thus how the scope for taxation of labour is affected by the globalisation process.

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<sup>14</sup>This is supported by a quantitative assessment made by Sørensen (2000) of the implications of tax base mobility and tax competition for capital income taxation and corporate taxation. In accordance with theory, he finds that such taxes become inefficiently low, but compared to the initial situation, the consequences are very small in terms of production, employment etc. The important question is thus concerned with the direct and indirect implications for international integration for taxation of labour income.



Tax distortions may be affected by globalisation. With more easy options of relocating production and thus employment, it follows that job mobility increases. That is, employment creation becomes more sensitive to domestic conditions. If a larger fraction of jobs due to international integration are created in sectors with a more elastic labour demand, it follows unambiguously that the distortionary consequences of taxes levied on labour are non-decreasing (see Andersen 2003). Accordingly, the tax distortions increase alongside international integration, or to put it differently, the costs of raising tax revenue via taxation of labour increase. Moreover, and possibly even more importantly, a tendency—as observed—toward more decentralised wage setting (see e.g. Boeri et al. 2001) would reinforce these problems. As noted above under centralised wage setting, tax distortions may be lower because the public budget constraint is internalised. In a process where labour markets become more decentralised either due to international integration or due to other forces, it follows that tax distortions are on the increase.

## 6.2 Spending

Globalisation may create a spending pressure. This is primarily driven by the effects of globalisation on labour markets. Alongside technological change, globalisation tends to induce a skill-bias in the demand for labour, i.e. decreasing demand for unskilled and increasing demand for skilled. Given the structure of labour markets, this tends to increase unemployment and thus the burden on social transfers, i.e. other things being equal there is a risk that it lowers the employment ratio.

To avoid this, it is commonly agreed that the educational level of the work force should be increased, in particular for the groups having no education beyond mandatory schooling. The idea is to counter the skill-bias in demand via a reverse skill-bias in supply. While empirical evidence supports that this has worked in the past (see e.g. Fosgerau et al. 2000), it also points to an expenditure pressure to avoid a declining employment ratio. Hence, the financial constraint is tightened by these effects of globalisation.

## 6.3 Migration

Increased migration is in particular a potentially important problem for the universal or Scandinavian model. The reason lies in the fact that the welfare model is comparable to an encompassing implicit (social) insurance contract, and like any insurance market, it becomes problematic if adverse or self-selection implies that the “good” risks leave and the “bad” risks enter. The key determinant here is the labour market position of the potential emigrants and immigrants since this determines whether the person in financial terms is a net contributor or a net beneficiary to the welfare state. A problem arises if immigrants tend to have a below average attachment to the labour market since they would then be net beneficiaries of the welfare system. A parallel problem arises if there is an overrepresentation of highly educated individuals among emigrants since they tend to be higher net contributors to public finances. For these reasons, migration is a challenge which may have potential wide ranging implications for the Scandinavian welfare model.

This creates some crucial dilemmas in economic policy. Consider first education and emigration. The public sector offers free education to provide equal opportunities and to reduce the risk in educational decisions. Expenditures on education are financed via general taxation with some progressive elements, implying that those turning out to have the highest incomes after education will also pay the most in taxes. However, this model is vulnerable to mobility since the migration decision can be taken after benefiting from publicly financed education and the veil of ignorance in relation to labour market prospects has been lifted. Moreover, by moving to countries relying more on private financing of education and therefore having lower taxes and more wage dispersion, the individual gains from mobility can be high.

The potential importance of increased emigration of the highly educated for public finances is very large. However, for the time being, one cannot argue that this is a major problem, see e.g. Pedersen et al. (2003). Although there is some emigration of the highly educated, return migration is also high. However, future migration flows of the highly educated can be expected to move in only one direction. Various barriers to mobility such as language, culture and travelling time are reduced, and competition between countries to attract highly educated labour has intensified.<sup>15</sup>

Immigration is a very topical issue. The immigration pressure from low income countries is large. Over the past decades, all Nordic countries have experienced increased immigration from low income countries, and they face a number of challenges.<sup>16</sup> The primary challenge is integration of immigrants into the labour market. The problems here arise from the combination of two key features of the Scandinavian welfare model, namely, the distributional constraint implying high minimum wages and the requirement of a high employment rate. In short, the model has high demands for the qualifications of the work force (qualifications must be worth at least the minimum wages), and at the same time many are expected/needed to meet these requirements.<sup>17</sup>

All Nordic countries face problems of ensuring that the employment ratio of immigrants reaches the same level as the rest of the population. Some of these problems are related to the structure of welfare arrangements for the reasons explained above. Figure 4 shows for a number of countries the difference between the employment frequency of the population and that of immigrants from low income countries. Scandinavian countries stand out with a large discrepancy between resident and migrant labour force participation, in particular for women.

A number of factors can explain the difference. The gender gap reflects that female labour force participation has become the norm in the Scandinavian countries. It is an integral part of the welfare model and reflects a different position of women in

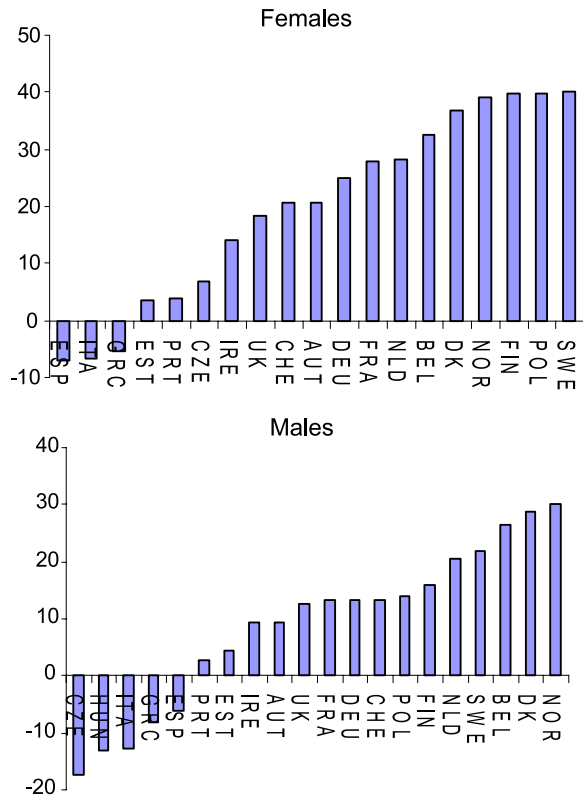
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<sup>15</sup>It is often argued that high marginal tax rates on labour income are a particular problem in relation to migration for the highly educated. However, a migration decision is not a marginal decision, and is therefore affected by the whole welfare package, i.e. tax payments, but also the various entitlements.

<sup>16</sup>Immigration rules for refugees follow UN conventions. Since 2002, Denmark has had stricter rules for family unification. Immigration for economic reasons is only allowed if there are special labour market needs, except for European citizens where the rules are in accordance with the EU/EØS agreement on labour mobility.

<sup>17</sup>Note that this argument also holds even if immigration as such is not driven by the generosity of welfare arrangements (welfare magnets). Recent empirical work did not find evidence of selection effects driven by welfare arrangements, but this can be due to restrictive immigration rules, cf. Pedersen et al. (2004).

**Fig. 4** Employment gaps—immigrants and descendants from low income countries relative to native. Source: Velfærdskommissionen (2005a, 2005b)



society compared to many low income countries. In addition, most immigrants from low income countries have low qualifications, and this poses a particular problem in the Scandinavian countries since a compressed wage structure with high minimum wages implies that it is difficult for the low skilled to find work.<sup>18</sup>

For Denmark, assessments have been made of the implications of immigration from low income countries for the social contract, presuming that the current low labour force participation rate is maintained. Unsurprisingly, it is found that this form of immigration worsens the fiscal sustainability problem. In a counterfactual path with no further immigration from low income countries, it is shown that the problem of fiscal sustainability due to demographic shifts is reduced by about  $\frac{3}{4}$  (Velfærdskommissionen 2005a, 2005b).

These problems have raised a delicate political problem in relation to immigration policy, namely, whether it is the immigration rules or the principles of the welfare state that should give in. Both have happened in Denmark. Immigration laws have been tightened, and the universal principle has been modified. To qualify for eligibil-

<sup>18</sup>In addition, the economic gains from being active in the labour market can, for some groups, be small or absent, and finally there are incidences of discrimination. Comparing integration of immigrants in Denmark and Germany it was found in Rockwool Fondens Forskningsenhed (2004) that both countries had difficulties, but Germany had a relatively better performance due to (i) better qualifications among immigrants, (ii) lower minimum wages and (iii) a large economic incentive to be in employment.

ity in the social safety net, there is now an entry condition since one must have been a resident in Denmark for 7 of the past 8 years. If this condition is not met, one is only entitled to a social benefit (starthjælp/introduktionsydelse) at roughly half the level in the ordinary social system (kontanthjælp). Both of these measures are controversial and have been much debated.

In all the Scandinavian countries, there is an ongoing debate on how to strengthen the labour market integration of immigrants as well as how to reconcile basic principles of the welfare model with “open borders.” In a similar vein, there is much discussion about the risk of “brain drain” by emigration of the highly educated as well as the scope for attracting highly educated immigrants via tax rebates or more flexible immigration rules.

## 7 Direction for policy reforms and welfare regimes

The Scandinavian countries have an extended welfare state, and they have managed to combine a high income level with a fairly equal income distribution. Although there are many exceptions to the rule, welfare arrangements have a universal character with individual entitlements for all and collective financing via taxation. Pivotal for the financial viability of this model is that a high fraction of the population is in employment. The possibility of ensuring this is challenged by demographic changes, the growth dilemma and the effects of globalisation. These problems may be intensified to the extent that work norms are changing, implying further pressure on welfare arrangements and difficulties in maintaining a high employment ratio.

The policy dilemma is that many of the instruments with potential for increasing the employment rate run counter to other objectives. This applies in particular in relation to the distributional concerns, but also the preferences of the population. Policy debates often leave a gap between proposals to increase work and employment and the widespread perception that the work effort is already high as well as the demand for more leisure. This contrast is perhaps most visible in debates on the need to induce later retirement in tandem with the increasing longevity. This is often portrayed as a retrenchment of the welfare state when it is in fact a necessary adjustment of the social contract to changes in welfare improvement made possible by an increase in longevity.

Is the Scandinavian model more vulnerable to globalisation? On the one hand, the model has been developed in very internationally integrated economies, and historically it has been possible to combine extended welfare arrangements with “international competitiveness.” On the other hand, globalisation is taking a new form, strengthening the pressure on tax bases via mobility and migration. Considering the scope for policy decisions, we are still far from a situation where the power of domestic politicians has been eroded, and there is ample of scope to influence policies. Internal and external challenges create a need for adjustment and reform, but not for a radical change in the welfare regime. Empirical evidence has also documented a substantial persistence in welfare regimes across countries, and it is therefore not to be expected that reform processes in the Scandinavian countries will lead to fundamental changes in the basic principles underlying welfare arrangements.

The challenges faced by the Scandinavian countries are large, but in a comparative perspective it is not clear whether they exceed those faced by many other countries. Whether the Scandinavian countries are more prone to undertake reforms in due time will have to be seen, but it is a fact that Denmark, Norway and Sweden recently have experienced a crisis which has been overcome by appropriate policy initiatives.

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