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TO THE READER

The Finnish Centre for Pensions published the first comparison of the total level of pension contributions in different countries in 2003. This report is an updated and extended version of the previous comparison, and it compares the pension contributions in nine European countries in 2005. In addition to the statutory pension contributions, the comparison also includes the contributions to supplementary pension schemes and the State's share of the financing. International pension contribution comparisons usually only include statutory pension contributions, in which case the supplementary pension schemes, which play an important role in many countries, are excluded from the comparison. This is problematic especially when other countries are compared to Finland, since pension provision in Finland consists almost in its entirety of statutory pensions, and this becomes apparent in the high contributions compared to other countries.

The comparison is based on the country reports which were compiled by a working group at the Finnish Centre for Pensions. The working group consisted of the following persons: Marja Kiviniemi, Juha Knuuti, Antti Mielonen, Mika Vidlund and Jarna Bach-Othman. The country reports will be published later as separate reviews.

We wish to express our thanks for the comments given and the data provided by the Nordic cooperation forum established at the start of the comparison, which included Ole Beier Sørensen from Denmark, Hans Olsson, Gudrun Ehnsson, Eskil Wadensjö and Gabriella Sjögren Lindquist from Sweden as well as Oddbjørn Haga and Ole Christian Lien from Norway.

We also wish to thank Marjukka Hietaniemi, Mikko Kautto, Christina Lindell and Risto Vaittinen from the Finnish Centre for Pensions for their comments and Merja Raunis from the Finnish Centre for Pensions for preparing the report for publication. The authors take sole responsibility for the interpretations presented in the report and any possible inaccuracies.

ABSTRACT

This report compares the level of pension contributions in nine European countries in 2005. The aim of the report is to provide an overview of the total cost of pension financing when taking into account supplementary pensions and the government's share of financing in addition to the statutory pension contributions. Supplementary pensions form a significant share of the total pension provision in several countries, excluding Finland. The report indicates that the omission of supplementary pensions in analyses of pension contributions gives an inadequate picture of the total economic burden of the pension provision in different countries.

Pension contributions have been compared in relation to the gross domestic product and wages and salaries. Indicators used include market and producer price GDP, as well as the wage sum with the employer's social insurance contributions included and the wage sum without these contributions. By using different indicators, we have sought to achieve maximum comparability between the results of different countries. The report also presents example calculations of employee and employer pension contributions.

ABSTRAKTI

Tässä raportissa verrataan eläkemaksujen tasoa yhdeksässä Euroopan maassa vuonna 2005. Raportin tavoitteena on antaa kuva eläketurvan aiheuttamasta kokonaismaksurasituksesta eri maissa, kun huomioon otetaan lakisääteisten eläkemaksujen lisäksi maksut lisäeläkejärjestelmiin sekä valtion osuus rahoituksesta. Useissa maissa työmarkkinoilla sovitut lisäeläkkeet muodostavat merkittävän osan kokonaiseläketurvasta toisin kuin Suomessa. Raportti osoittaa, että lisäeläkkeiden jättäminen tarkastelun ulkopuolelle antaa puutteellisen kuvan eläketurvan aiheuttamasta kokonaismaksurasituksesta eri maissa.

Eläkemaksuja on verrattu suhteessa bruttokansantuotteeseen ja palkkoihin. Mittareina on käytetty markkina- ja tuottajahintaista bruttokansantuotetta sekä työnantajan sosiaaliturvamaksut sisältävää palkkasummaa ja palkkasummaa ilman työnantajan maksuja. Eri mittareilla on pyritty mahdollisimman vertailukelpoiseen tulokseen eri maiden välillä. Raportissa on lisäksi esitetty esimerkkilaskelmia yksittäisestä palkansaajasta perittävistä eläkemaksuista.

CONTENTS

1 Introduction

The aim of this report is to describe the total contribution burden caused by pension provision in different countries, when taking into account both statutory and occupational pension contributions as well as the State's share of pension financing. Very few extensive international comparisons of pension premium incomes have been carried out, since international statistics and comparisons almost without exception cover only statutory pension expenditure and contributions. In many European countries occupational pensions constitute a significant part of total pension provision, and excluding them from the comparisons gives an inadequate picture of the pension schemes in different countries.

This pattern becomes especially apparent when comparing the pension schemes of other countries to the Finnish scheme. Finland is one of the few countries where the wage earner's statutory earnings-related pension accrual is not restricted by earnings or pension ceilings. Supplementary pension schemes are rare in Finland and the statutory pension contributions constitute almost on their own the whole contribution. When only statutory pensions are included in the comparison, the contribution level seems high in countries where second-pillar pensions are not a significant source of pension income, countries such as Finland. A more accurate and more comparable picture of the total contribution burden in different countries is thus obtained by analysing aggregate first and second-pillar contribution levels.

The report compares the total level of pension contributions in nine European countries. The countries included are Finland, Sweden, Norway, Denmark, the Netherlands, Germany, France, Great Britain and Switzerland. The report is an updated and extended version of a comparison published by the Finnish Centre for Pensions in 2003 (see Bach, Laitinen-Kuikka and Vidlund 2003). Compared to the previous version, the comparison has been extended by including the Netherlands and, of the non-EU countries, Norway and Switzerland, which are all interesting countries from a comparison viewpoint due to the structure of their pension schemes. The main focus of the comparison is on an analysis of the total contribution level. The comparison published in 2003 focused more on an individual wage earner's pension contributions. All data from the different countries which the comparison is based on relate to the year 2005. Due to the largest possible extensiveness of the statistics the year 2005 was chosen as the year of comparison.

The structure of the paper is as follows. First the data and methodology are presented in chapter 2, after which the structure of overall pension provision in the comparison countries is described. Chapter 4 compares the financing of pension provision in the different countries via total premium incomes, pension expenditure and pension assets. After that, calculations on the pension contributions payable for a private-sector wage earner are presented. The paper concludes with the main results and a comparison with the previous study done in 2003.

2 Data and methodology

The data on the statutory pension contributions and income flows are mainly based on statistics published by each country's actors in the social insurance sector, accounts and budget data as well as different official reports. As regards supplementary provision, the data are mainly based on the statistics and publications of the institutions which implement and supervise the supplementary pension schemes. The data sources also include figures requested directly from the authorities of the different countries. The data on GDP, wage sum and average wages have been obtained from the OECD Economic Outlook database.

The total premium income strives to take into account all premium incomes from different sources which are used to finance pension benefits. Thus, for instance, the financing of disability pensions through the health insurance scheme as regards Sweden and France is included. Fully private personal pension provision is not included in the analysis. In addition to the contribution level, the division of the contributions into the employer's and the employee's shares as well as the State's share in pension financing is studied. Lastly, the pension contributions payable for an individual private-sector wage earner are described through calculation examples. The calculation examples are based on each country's official average wage. The comparison focuses on an analysis of contribution levels, and does not strive to compare what kind and what level of benefits the pension contributions finance in each country.

Pension contributions are analysed in relation to the wage sum in the economy and GDP. The indicators used are two different wage sums (compensation of employees and wage sum) and GDP (at market and basic (factor) prices). By using different indicators the aim is to achieve as high a degree of comparability between the countries as possible. The wage sum includes wages and fees paid. The compensation of employees includes wages and fees as well as social security contributions paid by the employers. GDP at market prices, which describes the total production, includes commodity taxes (VAT, excise taxes). GDP at basic prices corresponds to GDP calculated at market prices, reduced by commodity taxes and increased by commodity subsidies (export subsidy etc.).

The wage sum is a commonly used indicator, but it can, for its part, lead to inaccurate interpretations, when comparing countries where the employer's and the employee's shares of social security contributions differ. Such a situation arises especially when comparing two countries, where in one country the employer's social security contributions are high, e.g. in Sweden, and in the other country low, e.g. in Denmark. In Denmark the financing of the social security schemes is, as a rule, based on taxes or employee contributions, which are included in the wage sum. International statistics do not differentiate employee contributions from the wage sum (so-called net wage), as a consequence of which the wage sum is in proportion higher in Denmark than in Sweden (see Table 3).

The comparison set-up may be explained through the following example, where in the first country the employer pays the whole social security contribution and in the other country the social security contribution is divided in half between the employer and the employee. Even though the pension contribution is of the same size in both countries, a comparison to the wage sum gives differing results.

Table 1. *Example of comparison of contributions in relation to wages.*

	Country 1	Country 2
GDP	200	200
Compensation of employees	100	100
Social security contributions	40	40
Employer contributions	40	20
Employee contributions	0	20
Wage sum	60	80
Pension contributions	20	20
- % of wage sum	33%	25%
- % of compensation of employees	20%	20%
- % of wage sum excl. employee's share	33%	33%
- % of GDP	10%	10%

Source: Olsson 2007.

Corresponding differences between countries may occur when comparing premium incomes in relation to GDP at market prices. GDP at market prices is the commonest indicator in comparisons, but due to the different taxation structures differences may occur. We may, for instance, assume that country 2 in the following table starts financing social expenditure through increased VAT instead of direct income taxation. In that case, even if the pension contribution is of the same size in the two comparison countries, a comparison in relation to GDP at market prices, which includes commodity taxes, leads to a differing interpretation of the pension contribution amounts of these countries.

Table 2. *Example of comparison of contributions in relation to GDP.*

	Country 1	Country 2
GDP, market prices	200	220
Value-added tax	0	20
GDP, basic (factor) prices	200	200
Pension contributions	20	20
- % of GDP at market prices	10%	9%
- % of GDP at basic prices	10%	10%

Source: Olsson 2007.

The following table presents the aforementioned background figures in each country's national currency. The table also states separately the contribution burden for the employer as the difference between the compensation of employees and the wage sum.

Table 3. *Background data in 2005, billions national currency*.*

	CH	FR	UK	DK	NO	NL	FI	SE	DE
Compensation of employees	284.5	891.1	685.2	818.9	799.8	252.2	77.1	1483.7	1130.2
Wage sum	-	654.7	576.6	756.7	654.3	196.6	61.6	1080.3	912.0
difference	-	236.4	108.6	62.2	145.5	55.6	15.5	403.3	218.3
difference, %	**-**	**26.5**	**15.9**	**7.6**	**18.2**	**22.1**	**20.1**	**27.2**	**19.3**
GDP,									
- market prices	455.6	1710	1224.5	1554.0	1903.8	505.6	157.4	2670.5	2241.0
- basic (factor) prices	459.3	1531.3	1138.6	1318.3	1725.3	449.0	136.6	2330.2	2022.5

- no statistical data available.
* 1 EUR = 1.6567 CHF = 0.68380 GBP = 7.4491 DKK = 8.01 NOK = 9.2788 SEK.
Source: OECD (2007a).

3 Structure of pension provision in the comparison countries

The structure of pension provision in the comparison countries differs considerably, although in all the countries statutory provision constitutes the main part of total pension provision. Statutory pension provision may be based on residence and/or employment. Of the countries included in the comparison, the Nordic countries and the Netherlands have residence-based provision. The pension granted on the basis of residence may be a minimum pension which is reduced by the earnings-related pension, like the Finnish residence-based national pension and the Swedish guarantee pension (garantipension), which secures an income if the person is not entitled to an earnings-related pension or if the earnings-related pension is small. The Norwegian basic pension (grunnpensjon) is paid to everyone, but following the 2010 pension reform the basic pension will become a guarantee pension, which is reduced by the earnings-related pension. In Denmark and the Netherlands the residence-based pension is the "main pension" as regards statutory provision, and its level is considerably higher than the level of the statutory minimum pension in the other countries.

In Switzerland and Great Britain statutory pension provision consists of flat-rate basic pensions and earnings-related supplementary pensions. The basic pension covers everyone who resides in the country, and pension entitlement arises through payment of contributions for a certain minimum period (national insurance scheme). In Switzerland contributions are levied from everyone, also from those who are not in the labour market.

One special feature of Great Britain is the so-called opting-out arrangement. The employer may replace statutory earnings-related provision by arranging provision of a corresponding level for the employees in the employer's own pension plan. The employee may also opt out of the statutory scheme and arrange personal supplementary pension provision for himself.

In Germany and France pension provision is mainly earnings-related pension provision based on contributions. In order to secure a minimum income a means-tested benefit may be paid to persons who have reached the age of 65. Also in Great Britain the income of the pensioners with the lowest income is secured through income-tested minimum benefits (see Table 4).

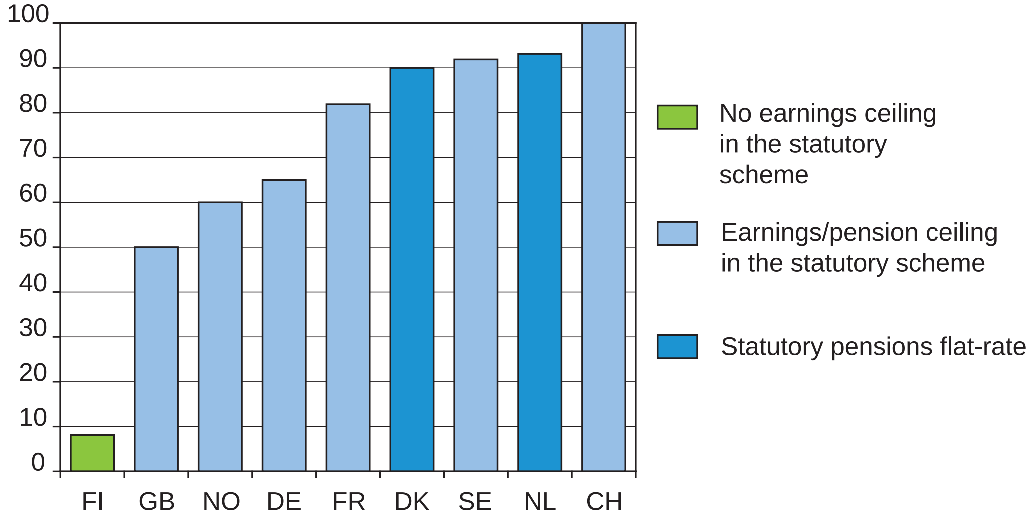
Table 4. *Main features of pension provision in the comparison countries.*

	Statutory pension provision			Supplementary pension provision	
	Minimum pension	Earnings-related pension		Mandatory supplementary pension schemes	Supplementary pension provision arranged by the employer covers at least 50% of the employees
		Flat-rate component	Earnings-based		
Netherlands	x	–	–	x	x
Great Britain	–[a]	x	x	–	x
Norway	x	–	x	x	x
France	–[a]	–	x	x	x
Sweden	x	–	x	x	x
Germany	–[a]	–	x	–	x
Finland	x	–	x	–	–
Switzerland	–[b]	x	x[b]	x	x
Denmark	x	–	x[c]	x	x

a) Means-tested benefit.
b) The earnings-related pension consists of a flat-rate component and an earnings-related component. The statutory pensions should secure a minimum income, when needed means-tested benefits may also be paid.
c) ATP scheme defined contribution, flat-rate contributions.

The importance of occupational pension provision in total pension provision differs considerably between the countries. Occupational pension provision may be mandatory, in which case it is often based on labour market agreements or otherwise mandatory for the firms in a particular industry. Supplementary provision arranged voluntarily by the employer for the employees is also common. Figure 1 presents the scope of occupational pension provision by country.

Figure 1. *Scope of occupational pension provision, % of employees.*



The scope of supplementary pension provision varies from about 50 per cent to almost 100 per cent of employees, with the exception of Finland. Finland is a clear exception with its scope of less than 10 per cent. Supplementary pension schemes which are mandatory for the employees exist in Sweden, Norway, Denmark, France, Switzerland and the Netherlands. Some of the schemes are mandatory supplementary pension schemes based on labour market agreements, such as the Swedish private-sector SAF-LO and ITP schemes and the public-sector PA-03 and KAP-KL schemes. In France the most extensive mandatory supplementary pension schemes are the employees' ARRCO scheme and the AGIRC scheme for personnel with a managerial position. In Denmark the mandatory collective schemes based on labour market agreements cover most wage earners. Some supplementary pension schemes are mandatory only for firms in certain industries. In the Netherlands approximately 90 per cent of the workforce are covered by supplementary pension schemes decreed mandatory for that particular industry. In Switzerland mandatory supplementary pensions are mainly employer-specific. In Norway the Act on supplementary pensions, which complement the national insurance scheme, took effect at the beginning of 2006, and nowadays supplementary pensions are mandatory for all employees. The public-sector supplementary pension schemes have already before this in practice covered all wage earners. Of the private-sector employees, about 40 per cent had supplementary pension provision before 2006. As regards Norway the percentage share stated in Figure 1 is an estimate of the scope of supplementary pension schemes for all employees before the 2006 Act entered into force. Supplementary pension provision arranged voluntarily by the employer plays a significant role especially in Germany, where supplementary pension provision covers approximately 65 per cent of the employees, and in Great Britain, where an estimated fifty per cent of the employees are covered by supplementary provision.

The significance of occupational pensions is linked to the level of statutory pension provision. Table 5 summarises the earnings ceilings of the statutory pension schemes and the average wages in 2005. The pensionable earnings have an upper limit in the statutory pension schemes of Great Britain, France, Sweden and Germany. In France and Sweden the earnings ceiling is almost at the same level or only slightly higher than the average wage, in which case the significance of occupational pensions in total pension provision increases. In Germany and Great Britain the wage ceiling is higher than the average wage, and occupational pensions have traditionally been arranged voluntarily by the employer, not mandatory as in France and Sweden. In the Netherlands and Denmark the basic pensions are flat rate, which increases the need for supplementary pensions and their significance in total pension provision. In Switzerland the pension ceiling of the statutory pension scheme, i.e. the maximum amount of the pension in relation to the average wage, is fairly low, which means that the mandatory supplementary pension complements the basic pension. In simplified terms you could say that the so-called basic pension corresponds to the Finnish residence-based national pension and the mandatory BVG supplementary pension scheme to the earnings-related pension scheme. In Switzerland old-age pension contributions are levied on the whole wage as regards the basic pension and mandatorily up to annual earnings of about 47,000 euros as regards the supplementary pension, after which payment of contributions is voluntary. In Norway there is a staggered earnings ceiling with an upper limit of approximately 7,500 euros per month. However, of the earnings which exceed about 3,750 euros per month only one-third is taken into account as pensionable earnings. After the 2010 pension reform pension will accrue linearily, but at the same time the earnings ceiling is lowered to about 5,000 euros per month. Of the analysed countries Finland constitutes a clear exception, as its earnings-related pension scheme has no ceiling.

Table 5. *Employees' average wage and upper limit for pensionable earnings in the statutory pension schemes in 2005.*

	Average wage, €/month	Earnings ceiling €/month
Netherlands	3220	2530[a], pensions flat-rate
Great Britain	3570	3985
Norway[b]	3946	7500
France	2542	2516
Sweden[c]	2843	3138
Germany	3474	5200[d]
Finland	2723	No ceiling
Switzerland[b]	3731	Pension ceiling approx. 1310
Denmark	3580	ATP contribution flat-rate, no ceiling.

a) Maximum amount of the wage for the AOW old-age pension contribution.
b) Contributions levied on the whole wage.
c) Employer's share of the contribution levied on the whole wage.
d) In the states of Western Germany.
e) Arbejdsmarkedets Tillaegspension, occupational pension scheme.
Average wage data: OECD (2007b).

The supplementary pension schemes have an earnings ceiling in Sweden (the defined benefit supplementary pension scheme for white-collar workers (ITP)) and France and Norway (see Table 6). In Norway the earnings ceiling is currently of the same size as the earnings ceiling of the statutory pension scheme. In the other countries there is no upper limit or the the limit is clearly higher than in the statutory pension scheme.

Table 6. *Wage ceiling in mandatory supplementary pension schemes in 2005.*

	Wage ceiling, €/month
Netherlands	No upper limit
Norway	7500
France	
- AGIRC	20100
- ARRCO	7500
Sweden	
- SAF-LO	no upper limit
- ITP	11800
Switzerland	No upper limit*
Denmark	No upper limit

* Supplementary pension provision should cover earnings up to annual earnings of at least approx. 47,000 euros.

Due to the large differences in the scope of supplementary pension provision there are especially well-founded reasons to analyse the pension schemes as a whole, including both statutory pension provision and mandatory and voluntary occupational pensions, when comparing pension contribution levels in different countries. Comparing only the contribution level of the statutory pension schemes gives an inadequate picture of the total contribution burden in different countries.

4 Financing pension provision

4.1 Pension contributions in the comparison countries

4.1.1 Pension contributions in relation to wages

In the following, total pension contributions are analysed in proportion to each contry's wage sum and compensation of employees. The premium incomes are divided according to the party that is financing the pension expenditure, except the premium incomes of occupational pensions. In all the comparison countries occupational pensions are mainly financed by the employers. In Sweden the employer alone finances the mandatory supplementary pensions. In the other countries wage earners participate in the financing to varying degrees. A summary of the employer's and the employee's contributions for supplementary pensions is provided by the calculation examples in chapter 5.

In Great Britain and Norway no separate pension contribution is levied. Instead pension expenditure is financed through a general social insurance contribution, which is used to finance both pensions and other social security benefits. The figures in the report which describe the pension contribution are estimates of the size of the pension contribution based on pension expenditure. In addition, the formal incidence of the pension contribution is estimated to correspond to that of the financing of social expenditure. This assumption does not affect the contribution level.

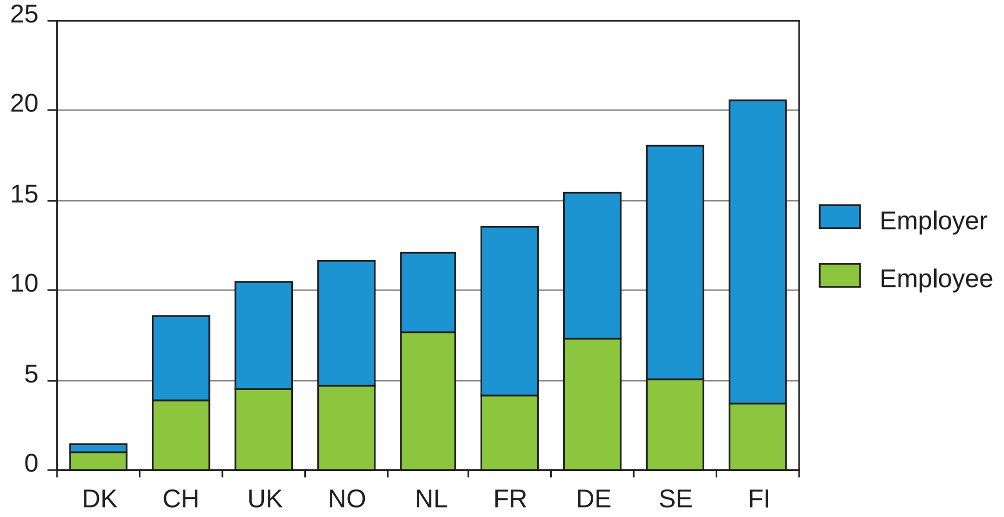
In Sweden and France the benefits which are comparable to the statutory disability pensions in other countries are financed from the health insurance scheme. For instance, in connection with the Swedish pension reform at the beginning of the 2000s the activity compensation (aktivitetsersättning) and the sickness compensation (sjukersättning) replaced the disability pensions, which had previously been paid from the pension scheme. The premium incomes include an estimate of the size of the disability pension contribution based on the expenditure of the health insurance scheme.

When comparing just statutory pension contributions to the wage sum, Finland and Sweden have the highest pension contributions. In both countries the pension contribution is approximately 25 per cent of the wage sum. The country with the lowest contributions, slightly under two per cent of the wage sum, is Denmark. Denmark has a flat-rate ATP contribution in DKK based on the working hours, and the premium income accumulating from this contribution is less than one per cent of the wage sum. The rest of the contribution correspondingly consists of the employee's early retirement contribution (efterlön) in DKK paid into the unemployment insurance scheme. The earnings-based SP retirement savings contribution of one per cent has not been levied in 2004-2008.

When comparing the contributions to the compensation of employees the position of the countries does not change. However, the difference between Finland and Sweden increases somewhat, and Finland exceeds the 20-per-cent mark, whereas Sweden remains below this mark. (see Figure 2).

As regards statutory provision the employer's share of the contribution is larger than the employee's share in all other countries except Denmark and the Netherlands. In Germany the contribution is divided equally. In the Netherlands statutory pension provision is almost solely based on a residence-based national insurance scheme. However, in contrast to, for instance, Denmark and Sweden the scheme is not financed through tax revenues, but instead the national insurance scheme is mainly financed through employee contributions.

Figure 2. *Statutory employer and employee contributions, % of the compensation of employees in 2005.*



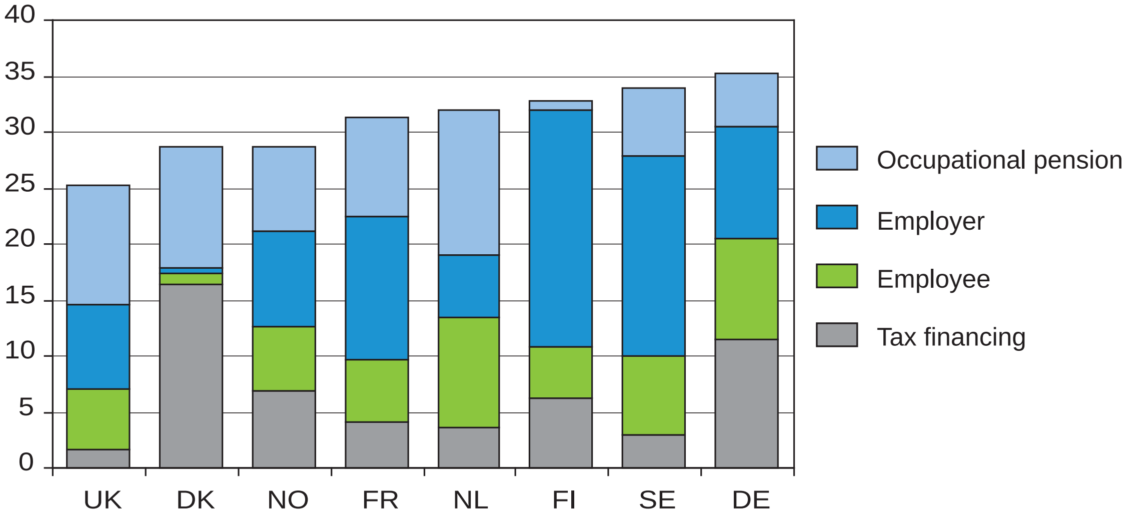
In Denmark almost the whole statutory pension provision (residence-based national pensions) and a considerable part of total pension provision are financed from tax revenues. The State's share in pension financing is considerable also in Germany. In Germany the State's share of the premium income of statutory pension insurance was approximately one-third in 2005.

In Norway the State's share of the financing of the expenditure of the whole national insurance scheme, and thus presumably also of statutory pension expenditure, is about 32 per cent. In Switzerland the State's share (including the cantons) of the premium income is approximately 36 per cent, when mandatory supplementary pensions are not included. If the supplementary pension schemes are taken into account, the State's share of the financing is approximately 22 per cent. In France the State's share of the premium income of the general social insurance scheme is about one-fourth and of the premium income of the whole statutory pension insurance 18 per cent. The State's share of the premium income was 19 per cent in Finland and the Netherlands, 12 per cent in Great Britain and 11 per cent in Sweden.

When the contributions for occupational pensions are included in addition to statutory pension contributions and tax financing, the outcome is that the total contribution levels of the different countries near each other. The contribution burden caused by pensions is considerably more homogenous in the different countries than indicated by a comparison of just statutory contributions.

In relation to the wage sum the total pension contributions are the highest in Germany, where the contribution level exceeds 35 per cent. Sweden, Finland, the Netherlands and France make up the following group, where the contribution level exceeds 30 per cent of the wage sum. In Great Britain the contribution level stays at 25 per cent.

Figure 3. *Pension contributions in relation to the wage sum.**

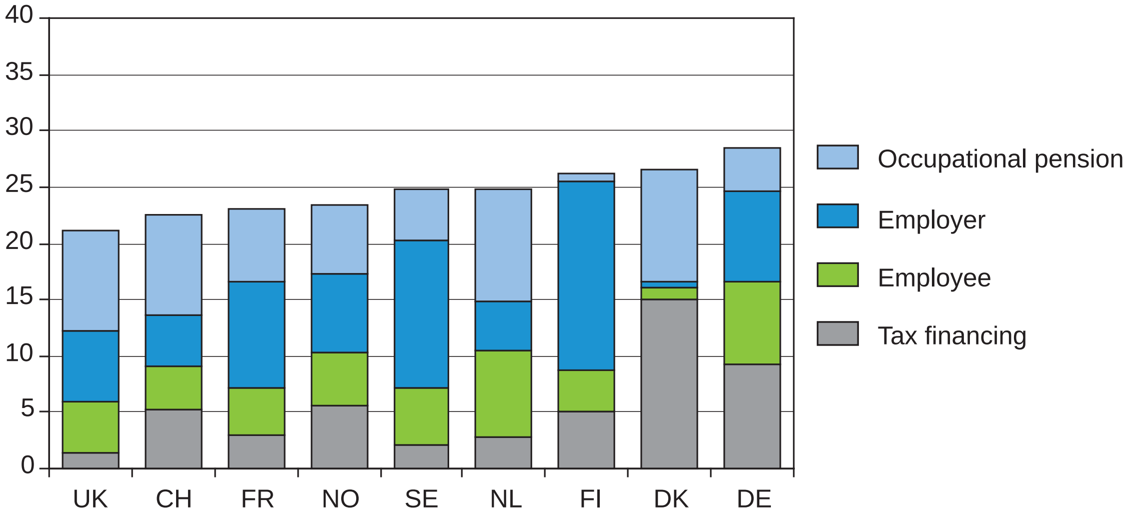


* The OECD statistics do not include the Swiss wage sum.

The differences between the countries diminish, when we compare the pension contributions to the compensation of employees instead of the wage sum. In almost all the countries the premium incomes are approximately 25 per cent. In Great Britain the premium income stays at 21 per cent. In Germany the contributions are still the highest, but Sweden's and Denmark's position in the comparison changes significantly. The results for Denmark indicate that the employer contributions are very low and that the tax burden falls especially on the employees (see Table 3; Kurjenoja 2005). The differences between the countries are small, however.

From the viewpoint of the comparison the main point is the converging of the contribution levels in the different countries. Due to the cross-section character of the data not too much attention should be paid to the position of the countries. The cross-section data are limited, since they describe the situation only at a certain point in time, and for instance as regards Sweden and Norway the premium incomes of occupational pensions in 2005 are clearly smaller than in 2006. In Norway a background factor of the growth in premium incomes for pensions is the fact that occupational pensions became mandatory in 2006.

Figure 4. *Pension contributions in relation to the compensation of employees.*



4.1.2 Pension contributions in relation to GDP

When pension contributions are compared to GDP, the countries with the highest pension contributions (approx. 14% of GDP) are Germany, Switzerland, Denmark and Sweden. As regards Switzerland the high share in GDP compared to the compensation of employees can be explained by the fact that in Switzerland the compensation of employees in relation to GDP is higher than in the other countries. Correspondingly, Swiss GDP at basic prices is higher than GDP at market prices (see Table 3) and explains the country's position in Figure 6. As regards the other countries, their positions remain more or less the same, as the premium income for pensions for Denmark, Germany and Sweden is about 16 per cent of GDP at basic prices.

Figure 5. *Pension contributions in relation to GDP at market prices in 2005.*

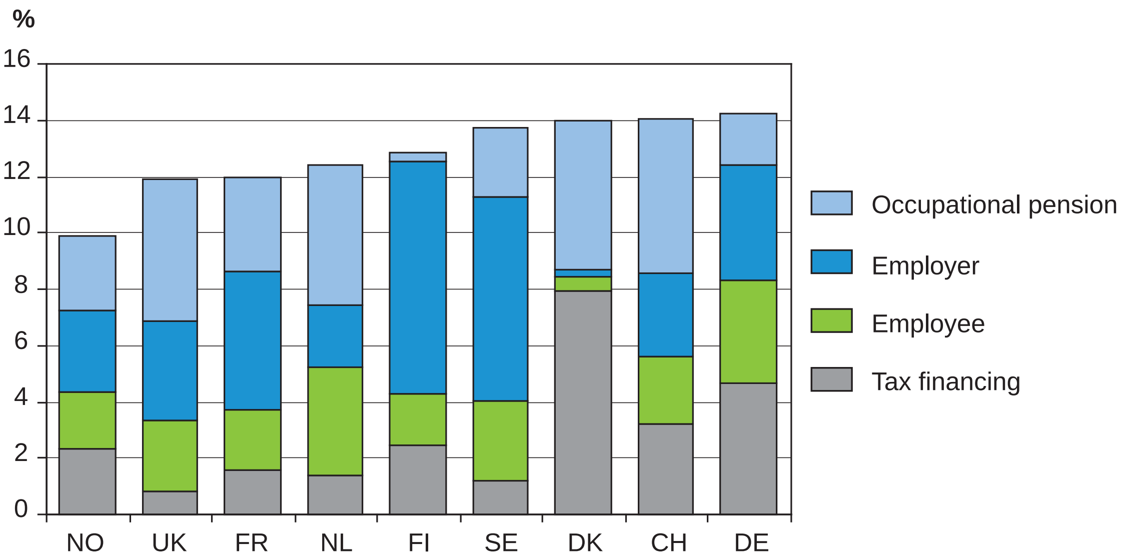
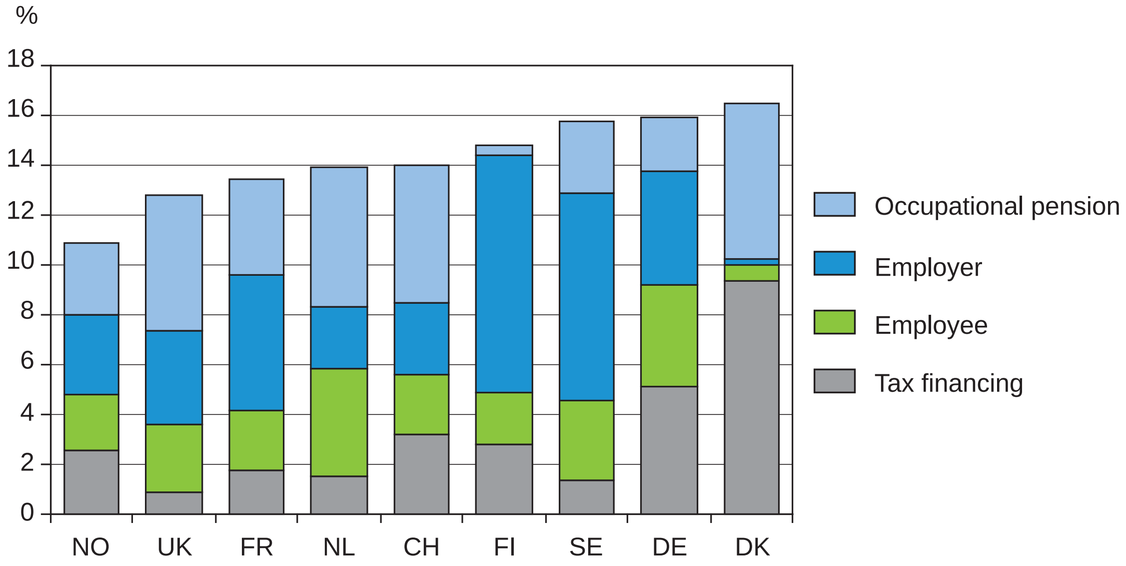


Figure 6. *Pension contributions in relation to GDP at basic prices in 2005.*



4.2 Statutory pension expenditure

A contribution level comparison gives an indication of the contribution burden due to pension provision for employers, employees and the State at a given time. Too far-reaching conclusions should not be drawn from the contribution level comparison, since the comparison does not reveal which year's pensions the contributions are used to finance. Some countries fund part of the pension contribution to finance future pension expenditure. Correspondingly, it is on the basis of the contribution level also not possible to directly draw any conclusions on the level of pension benefits which the pension schemes of the different countries can offer. A comparison of statutory pension expenditure still sheds some light on this question.

The increase in pension expenditure in any case generates pressure to increase premium incomes in each comparison country. The pressure to increase pension expenditure is mostly due to the change in population structure, i.e. population ageing. Background factors are the simultaneous increase in longevity and decrease in birth rates, and as a consequence a decreasing number of persons of working age. The old-age dependency ratio – the number of persons aged over 65 in relation to the number of persons aged 15-64 – which measures this development, is projected to increase in the EU countries from slightly under 25 per cent in 2004 to approximately 53 per cent in 2050. The timing of population ageing differs in the different countries. In Finland the old-age dependency ratio is expected to almost double from the current 25 per cent by 2030. After that the growth stabilises and in 2050 Finland falls below the EU average (Eurostat 2005).

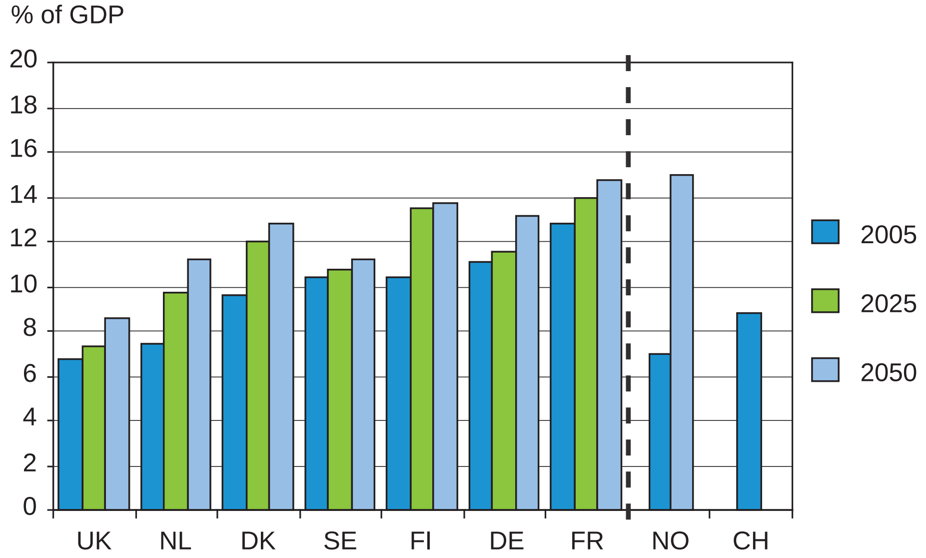
It has likewise been estimated that the old-age dependency ratio of the non-EU countries Norway and Switzerland will almost double and the development is thus comparable to that of the EU countries, even though the countries are clearly below the EU average in the comparison. In Norway the old-age dependency ratio was about 22 per cent and in Switzerland nearly 24 per cent in 2005 (BFS 2007; SSB).

Figure 7 relates the pension expenditure projections up to 2050 published by the Working Group on Ageing Populations AWG of the EU Economic Policy Committee ECP. The figure has been supplemented by Norway and Switzerland, which were included in this analysis. The figures are thus not necessarily comparable. The Norwegian data are based on a national projection of the development of pension expenditure before the 2010 pension reform. The Swiss 2005 pension expenditure is based on the statistical data of this report and includes statutory basic pension provision without mandatory supplementary pension provision.

As regards France the statutory pension expenditure includes the mandatory supplementary pensions AGIRC and ARRCO. In this report they are categorised as supplementary pension schemes. The figures for Sweden include benefits classifiable as disability pensions payable from the health insurance scheme in the same manner as in this report. The figures for Denmark include the statutory pensions, including the early retirement scheme, but not the ATP pension. In contrast, the occupational pension scheme for local government officials and civil servants has been included in the pension expenditure. The German pension expenditure is not as broad in scope as in this study. The figures do not, for instance, include the statutory pensions of farmers and independent professionals.

In the year of comparison statutory pension expenditure varied from slightly under 7 per cent in Great Britain to slightly under 13 per cent in France, when measured in relation to GDP at market prices. In Finland pension expenditure amounted to 10.4 per cent of GDP. Finnish pension expenditure is projected to increase to 13.7 per cent of GDP in 2050. (AWG 2006.) Of the OECD countries the largest increase in statutory pension expenditure is forecasted for Norway, to approximately 15 per cent of GDP by 2050. It is estimated that the Norwegian old-age pension reform in 2010 will reduce pension expenditure by about one-fifth. (see Belloine and Bibbee 2006; Risku and Vidlund 2008.) Pension expenditure in Norway amounted to approximately 7 per cent of GDP in 2005, which was the lowest percentage of the compared countries, together with Great Britain and the Netherlands.

Figure 7. *Statutory pension expenditure in the comparison countries in 2005 and projection for 2050.*



Source: AWG (2006); Risku and Vidlund (2008).

Even though pension expenditure cannot directly be considered an indicator of the pension level, it is, however, possible to say something also about the level of pension provision on the basis of pension expenditure. For instance, the reason for the lower pension expenditure in Great Britain is not the favourable age structure of the country's population, but the low level of statutory pension provision. For their part, the fact that despite a more favourable age structure than the other EU15 countries, pension expenditure in the Netherlands and Denmark (see Eurostat 2005) does not lag behind that of the countries with earnings-related pension schemes, gives an indication of the level of the national pension scheme in the Netherlands and Denmark. The differences even seem to diminish when comparing pension expenditure in 2050. One reason for the different trends is the reforms carried out in the other countries, which reduce the level of statutory pension provision in relation to, for instance, the wage level (see also ISG 2006).

4.3 Pension assets in the comparison countries

The countries differ from each other as regards the extent to which premium income is funded to cover future pension expenditure. In Finland the statutory pension scheme is partly funded and private-sector pension assets have partly been funded already since the introduction of the scheme. Of the private-sector pension contributions (TEL/TyEL) about one-fourth is funded and the rest is used to finance pensions in payment. In the public sector (the State and municipalities) the funding of pensions was started at the end of the 1980s. In Finland statutory pension assets amounted to about 59 per cent of GDP in 2004. Compared to the other EU countries the statutory pension assets in proportion to GDP are the highest in Finland. (see Figure 8.)

In the other Nordic countries funds have also been accumulated for a long time. The Danish ATP scheme is fully funded and Sweden has accumulated buffer funds (AP pension funds[1]) since the inception of the statutory pension scheme. Previously the benefits paid from the AP funds were old-age, disability and survivors' pensions. In contrast, in the current pension scheme, which was reformed at the turn of the millennium, the AP funds only act as buffer fund for the old-age pensions payable from the earnings-related pension scheme (income pension). In addition, in Sweden a fixed proportion of the old-age pension contribution (premium pension) is funded into private pension accounts. These assets have been diversified into approximately 800 funds.

In Norway the small-scale national insurance fund (Folketrygdfond) has existed since the establishment of the national insurance scheme. In contrast, the current pension assets are mainly based on the Petroleum Fund (Petroleumfond), which started operations in 1990 and which has grown strongly since the mid-1990s. The current State Pension Fund (Statens pensjonsfond) was established in 2006 following the fusion of the former Petroleum Fund and the national insurance fund. The pension fund amounted to slightly less than 80 per cent of GDP[2] in 2005. Despite its name the State Pension Fund is not intended to be used only to finance pension expenditure. Returns on the pension fund are used to cover the state budget deficit. According to the financial policy guidelines defined in 2001, the proportion of the real-term return on the fund which may be used for budget purposes is in the long term on average 4 per cent per year. However, the operating principle of the fund is to accumulate assets for future generations for the eventuality of a permanent reduction in petroleum income as a result of a decrease in production.

The other extreme as regards financing of statutory pensions is represented by Germany and Great Britain, where statutory pensions are in practice not funded at all and the statutory scheme is thus fully based on pay-as-you-go financing. Germany has previously had a buffer fund which covers the pension expenditure for a few months, but the fund has been dissolved and its assets have decreased steadily over the initial years of the 2000s. At the end of 2005 the fund was smaller than ever before in the past 30 years, only about 10 per cent of the monthly pension expenditure.

In France (FRR, Fonds de Réserve des Retraites) as in many other EU countries separate buffer funds were established at the end of the 1990s to finance the increase in pension expenditure following from population ageing and to reduce the need to increase contributions. A deadline for the dissolution of these funds has typically been set. Thus the temporary buffer

1 The AP buffer fund consists of five funds: 1st–4th and 6th AP fund. However, old-age pension contributions are not directed to the 6th AP fund and pensions are also not paid from this fund. In other respects each fund receives one-fourth of the premium income for old-age pensions and they also finance one-fourth of the old-age pension expenditure. In addition, the Swedish pension scheme includes as a significant component the state 7th AP fund, which administrates premium pensions but which is not part of the buffer fund.

2 In Norway the concept mainland GDP is commonly used (GDP in the economy without the oil and gas industry). In relation to mainland GDP the pension fund amounted to 104 per cent in 2005.

funds only smooth the coming pension expenditure peak. In France the deadline for the fund has been set at 2020, after which the pension assets are intended to be used to finance the pension expenditure of the private-sector pension schemes (CNAVTS, MSA, ORGANIC, CANCAVA). Assets that have been transferred to the fund are tax revenues and surpluses from other social security funds. The fund amounted to about 1.5 per cent of GDP in 2005.

In the Netherlands the increasing pension expenditure of the statutory old-age pension scheme (AOW) has partly been taken into account through the AOW buffer fund, which was established in 1997. This buffer fund is increased annually through assets intended to cover the EMU debt (gross debt of public corporations). Like in France, the intention is to dissolve the fund as of 2020. The value of the buffer fund amounted to slightly under 5 per cent of GDP in 2005.

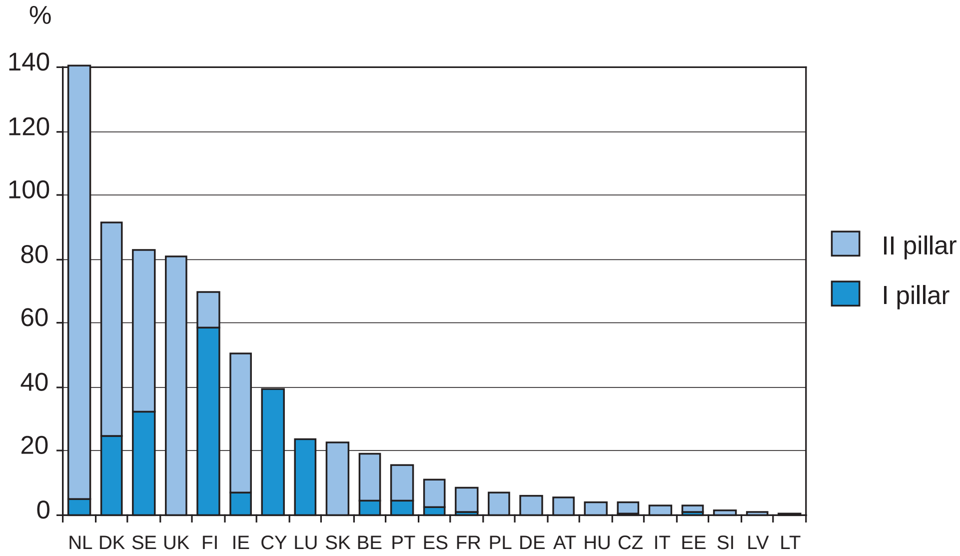
In Switzerland the statutory buffer fund amounted to about 6.5 per cent of GDP. In addition, Switzerland has a separate equalisation fund, which corresponds to approximately 4.7 per cent of GDP. Switzerland and the Netherlands differ from the other comparison countries as regards the extensive occupational pension funds. In both countries the supplementary pension schemes are mandatory and fully funded, and the value of the funds was over 120 per cent of GDP in 2005. Supplementary pension schemes play a central role in both countries due to the structure of the statutory pension scheme. In the Netherlands there is no statutory earnings-related pension scheme and in Switzerland statutory earnings-related pension provision is low in relation to the average wage.

Supplementary pension schemes play a significant role also in Great Britain, France, Denmark and Sweden. In Great Britain the level of statutory pension provision is low, so there is a clear need for complementing pension arrangements. However, supplementary pension schemes are voluntary and cover only about half of the wage earners. By contrast, in Sweden and in practice to a large extent also in Denmark supplementary pensions are mandatory. The structure of the Danish pension scheme is in fact comparable to the Dutch pension scheme. In Denmark supplementary pension schemes are still on the increase, since the broad, fully funded occupational pension schemes did not take effect until the initial years of the 1990s. However, it can be assumed that in the near future the picture will be very similar to the Dutch one when measured by pension assets. Supplementary pension schemes are also on the increase in Norway, as they became mandatory from the beginning of 2006.

France is an interesting exception to the other countries, since the mandatory supplementary pension schemes AGIRC and ARRCO function according to the pay-as-you-go principle and the schemes have only a small buffer fund.

The pension assets in Figure 8 do not include book reserves, but book reserves play a significant role especially in the German supplementary pension arrangements. According to the data of the EFRP (European Federation for Retirement Provision 2005), book reserves in Germany amounted to about 11 per cent of GDP in 2005.

Figure 8. *Pension assets (I and II pillar) in relation to GDP in the EU countries in 2004.*



As regards Finland the share of the State Pension Fund has been added to the data (6.6 percentage points), which is not included in the source data below.
Source: EFRP (2005); AWG (2006); OECD (2005).

5 Pension contributions in relation to average wage

In the following, pension contributions paid for private-sector wage earners in 2005 are presented. The examples include the pension contributions payable for the average wage and for the double average wage. There are no examples for low-income employees, since the contribution rates do not change significantly compared to middle-income employees. The calculations do not include the proportion financed through tax revenues, so as regards, for instance, Denmark the contributions are low. When calculating the contribution rates, the upper and lower limits of the wage set for the levying of contributions have been taken into account. In all the other comparison countries except Finland the statutory pension scheme has an earnings ceiling for the pensionable earnings (see Table 5). However, the earnings ceiling is not applied in all countries when levying pension contributions. The effect of the earnings ceiling becomes apparent for high-income employees, whose statutory pension contributions are lower in proportion, but instead they are replaced by contributions paid to the supplementary pension schemes.

As regards Finland the calculations do not include supplementary pension contributions, since the scope of the schemes is narrow. The statutory pension contribution stated in the table includes the average contribution under the Employees Pensions Act TyEL. The employer’s contribution varies by company and by pension act. The insured person’s contribution, on the other hand, depends on the person’s age. The TyEL contribution was 4.6 per cent for persons aged under 53 and 5.8 per cent for persons who have reached the age of 53. The employer also pays a residence-based national pension contribution. In the private sector the average national pension contribution paid by the employers amounted to 2.09 per cent of wages in 2005.

The Dutch supplementary pension contribution describes the contributions of the largest occupational pension fund, the public-sector employees’ pension fund ABP. In 2005 the contributions paid into the ABP fund constituted slightly under 30 per cent of all contributions paid into pension funds. The ABP scheme is a defined benefit scheme.

The British example includes three cases. The first example assumes that the employee is only covered by statutory pension insurance. In the second example the employee is covered by statutory basic pension insurance, but the earnings-related pension has been replaced by a defined benefit (DB) supplementary pension arranged by the employer. The third example is otherwise similar, but the substituting supplementary pension arranged by the employer is a defined contribution (DC) pension. The statutory contribution paid for persons covered by substituting supplementary pension schemes is lower. In the defined contribution scheme the statutory contribution is higher than in the defined benefit scheme, but part of it is returned to the employee’s supplementary pension scheme in connection with the final taxation. The amount restituted depends on the employee’s age, and the amount increases with age. The contributions for supplementary pension provision may vary fairly widely, because the contributions are agreed on separately in each company, and even within the company the contribution (and thus the benefit level) may vary. The British Government (GAD, Government Actuary Department) regularly conducts surveys on employer-specific pension plans. The calculation examples use the weighted average of the contribution dispersions of the GAD survey from 2005.

In Norway there is no statutory pension contribution as such, and thus the statutory pension contribution is based on an estimate based on pension expenditure. As regards supplementary pension provision the insured person is assumed to be covered by a defined contribution scheme, and the contribution rate has been calculated on the basis of the minimum and maximum contributions determined in the Supplementary Pensions Act.

As regards France the example describes the contributions for an employee who is covered by the general social security scheme and the mandatory supplementary pension schemes (ARRCO/AGIRC). The statutory contribution includes an old-age and survivors' pension contribution as well as a disability pension contribution, which has been estimated on the basis of health insurance expenditure. The employee's statutory contribution further includes the estimated CSG tax share, which is levied from wage earners and used to finance pensions. Furthermore, the AGFF contribution, which is levied from employers and employees and which is used to finance early supplementary pensions where no early retirement reduction is made, is also described.

In the case of Sweden the examples include the contribution percentages for the supplementary pension schemes for both private-sector blue-collar workers (SAF-LO) and white-collar workers (ITP). The supplementary pension scheme for blue-collar workers is a defined contribution scheme, whereas the supplementary pension scheme for white-collar workers is mainly a defined benefit scheme, supplemented by a small defined contribution component. In the scheme for white-collar workers the contribution is determined individually on actuarial grounds, and the contribution usually varies between 5 and 20 per cent. The contributions in the table concern a 28-year-old white-collar worker who has not previously accrued a corresponding supplementary pension. The calculations include the statutory old-age and survivors' pension contribution as well as the share estimated as disability pension contribution on the basis of health insurance expenditure.

Table 8. *Pension contributions in relation to the private-sector average wage in 2005, %.*

Country	Statutory pensions		Occupational pensions		Total		
	Employee	**Employer**	**Employee**	**Employer**	**Employee**	**Employer**	**Total contributions**
Netherlands	10.45	7.27	5.31	12.64	15.76	19.91	35.67
Britain							
- statutory	9.10	7.50	–	–	9.10	7.50	16.60
- DB	6.20	6.10	4.4	16.0	10.6	22.1	32.7
- DC	8.3	6.1	2.7	6.3	11.0	12.4	23.4
Norway	4.45	8.76	–	2.0–5.15	4.45	10.76–13.91	15.21–18.36
France	7.60	10.10	3.85	5.78	11.45	15.88	27.33
Sweden							
- SAF-LO	7.0	17.64	–	4.84	7.0	22.48	29.48
- ITP	7.0	17.64	–	6.50	7.0	24.14	31.14
Germany	9.75	9.75	0.25–0.30 –	2.2–2.69	10.0–10.05	11.95–12.44	21.95–22.49
Finland	4.8	18.89	2.31	–	4.8	18.89	23.69
Switzerland	4.90	4.90	3.30	3.06	7.21	7.96	15.17
Denmark	1.71	0.56		6.60	5.01	7.16	12.17

Table 9. *Pension contributions in relation to the double private-sector average wage in 2005, %.*

Country	Statutory pensions		Occupational pensions		Total		
	Employee	**Employer**	**Employee**	**Employer**	**Employee**	**Employer**	**Total contributions**
Netherlands	5.22	4.12	6.69	15.93	11.91	20.05	31.96
Britain							
- statutory	10.0	4.20	–	–	10.0	4.20	14.20
- DB	8.3	3.5	4.4	16.0	12.7	19.5	32.2
- DC	9.5	3.5	2.7	6.3	12.2	9.8	22.0
Norway	4.45	8.39	–	2.0–6.18	4.45	10.39–14.57	14.84–19.02
France	4.36	6.04	7.86	12.01	12.22	18.05	30.27
Sweden							
- SAF-LO	3.86	17.64	–	4.17	3.86	21.81	25.67
- ITP	3.86	17.64	–	17.0	3.86	34.64	38.50
Germany	7.3	7.3	0.12–0.15	1.10–1.34	7.42–7.45	8.4–8.64	15.82–16.09
Finland	4.8	18.89	–	–	4.8	18.89	23.69
Switzerland	4.90	4.90	2.96	3.93	7.86	8.83	16.69
Denmark	0.86	0.28	3.30	6.60	4.16	6.88	11.04

As regards Germany the table includes the statutory pension contribution and the contribution for supplementary pension provision arranged by the employer. The contribution for supplementary pensions varies depending on whether pension provision has been arranged with a pension insurance fund, a pension fund or an insurance company. The contributions for supplementary pensions have been estimated by measuring the average contributions paid into the different schemes in relation to the average wage. The figures do not include the employee's voluntary contribution for the Riester pension, which for a middle-income employee amounted to 1.8 per cent in 2005, using the minimum contribution as the contribution rate and taking into account the State financing for the Riester pension. Estimated for the double average wage the contribution for the Riester pension was 1.4 per cent.

For Switzerland the figures for the occupational pensions include the mandatory supplementary pension under the BVG Act. The supplementary pension scheme is a defined contribution scheme. Since age affects the contribution level in the supplementary pension scheme, the comparison concerns a person aged 34-44 describing the average wage earner. In the Swiss supplementary pension scheme the pension contributions are mandatory up to annual earnings of CHF 77,400, but voluntary contributions are quite commonly paid for the exceeding part of the earnings. Since the ceiling is very close to the earnings level of a middle-income wage earner, an analysis without taking into account the effect of the ceiling probably gives a more realistic view of the contribution burden for the pensions. Therefore the table presents the contributions for Switzerland without the contribution ceiling.

In Denmark the supplementary pension contributions vary between the different schemes, and the contribution chosen for the example is the most typical supplementary pension contribution in 2005 for persons who are members of the labour market organisation LO.

The examples for the Netherlands, the United Kingdom (DB) and Sweden (ITP) indicate that the contributions are high in defined benefit supplementary pension schemes. As the costs for pensions have risen in recent years due to, among other factors, increasing longevity, the fulfilling of pension promises in defined benefit schemes currently puts considerable pressure on the companies. For cost reasons supplementary pension schemes have in recent years to an increasing extent been changed to defined contribution schemes.

In Sweden the ITP scheme was changed to a defined contribution scheme in 2007 for persons born after 1978. In the new scheme the ITP contribution amounts to 4.5 per cent of the wage for the amount which falls below the earnings ceiling and 30 per cent of the wage for the amount which exceeds the earnings ceiling. This reform also means changes for the contribution of the SAF-LO scheme, where the contribution will gradually be raised to the same level as the ITP contribution by 2012.

In Great Britain the coverage of defined contribution schemes is increasing strongly. In recent years the employers have commonly increased the employees' pension contribution in order to ease the financing pressures. In most defined benefit schemes the employees pay a pre-determined fixed contribution and the employers balance the contribution amounts.

The examples support the view provided by the macro level comparison that, when the comparison includes both statutory pension contributions and contributions for occupational pensions, the cost burden caused by pensions in different countries is much more homogenous than indicated by a comparison of just statutory contributions.

6 Main results and comparison to previous study

Four different indicators were used in this report in order to obtain as comparable results as possible. One single clear-cut answer to the question which of the indicators is the most useful is not easy to give. Each country has its own particular features when comparing the financing of the pension schemes. From this viewpoint comparisons in relation to the compensation of employees and to GDP at basic prices are probably most broadly suited to an analysis of the total contribution burden in different countries. One of the key results of this report is that in international comparisons it is important to be aware of the entity of the pension contributions. This entity may significantly affect the results, as indicated in this report.

Another main result of the comparison is the converging of the contribution levels of the countries, when the total contribution burden of the pension schemes is compared instead of just the statutory contributions. For example in Denmark, where the statutory employer and employee pension contributions are the lowest among the compared countries, the total contributions in relation to the compensation of employees and to GDP was one of the highest among the comparison countries.

The different indicators change the position of the countries, and the most visible change can be observed for Denmark, due to the different financing mode of the statutory pension scheme. Even though there is some variation in the position of the countries when measured by different indicators, some stability can clearly be observed in the results for certain countries. On the basis of this broad outline it is possible to state that the country with the highest contribution burden is Germany, followed by Denmark, Sweden and Finland. In Germany there is in practice no advance funding of pensions, and most of the contributions are thus used to finance the pensions of current pensioners. In the Nordic countries the situation is in this respect not quite that serious, since a considerable proportion of the total pension contribution is funded in order to finance future pensions.

Correspondingly, it is possible to state that the country with the lowest pension contributions is Great Britain, even though when measured in relation to GDP the premium incomes for pensions are in Norway even lower than in Great Britain. Norway's shifting position for different indicators can be explained by the country's high GDP in relation to the wage sum and the compensation of employees. The low contributions in Great Britain can, for their part, be explained by the low level of statutory benefits. As regards Great Britain one fact worth keeping in mind is the heterogeneity of especially the supplementary pension schemes and the resulting uncertainty factors related to the possibilities of obtaining data. The calculation examples indicate that the pension contributions in Great Britain are high, when supplementary pension provision is arranged in a defined benefit scheme.

In all the comparison countries the occupational pensions are mainly financed by the employers. Also as regards statutory provision the employer's contribution share is higher than the employee's share in all other countries except Denmark and the Netherlands. In Germany the contribution is divided equally. As a rule, the pension contributions for both statutory and supplementary pension schemes are at least partly deductible in the taxation. For this reason the contribution burden for employers and employees is in reality smaller than described here. In all the countries the State participates in the financing, and in some countries the State's share of the financing of statutory pension schemes is considerable. For instance, in Denmark the statutory pension scheme is in practice financed fully through tax revenues. The State's share of the premium income is significant (approx. one-third) also in Germany and Norway.

As stated in the introduction to the report, similar international comparisons of pension contribution incomes are very rare. In its publication on the effects of population ageing the AWG working group also compared the amounts of pension contributions, and in the following we compare the results of this report to the results of the AWG working group (see AWG 2006). The contributions published by the AWG working group describe primarily statutory employer and employee contributions ("social security pensions, contributions"), which to differing degrees are supplemented by data on contributions paid into occupational pension schemes ("total pension contributions"). The figures of this report and those of the AWG report differ from each other, in part even significantly. Even though the figures are partly affected by the fact that the comparisons use GDP figures for different points in time[3], one of the main reasons for the differences is that, almost without exception, the pension contribution figures of the AWG report do not include state subsidies or the share of general tax financing. For instance, the comparison figures for Denmark are completely missing, since the statutory pension is in practice financed fully through tax revenues. On the other hand, the AWG comparison figures do also not include the ATP pension.

Secondly, the results differ from each other due to the structural differences of the pension schemes and the resulting interpretation of what a pension is. For instance, in Sweden and France the benefits comparable to disability pensions in other countries are paid from the health insurance scheme, and in the AWG comparison the premium incomes of the health insurance scheme have not been taken into account as pension contributions. However, as regards Sweden they are included in the aforementioned pension expenditure comparisons. Furthermore, except the Netherlands and France (AGIRC and ARRCO), the supplementary pension contributions are included only in part or not at all in the AWG calculations. As regards the Netherlands the AWG calculations include also the premium incomes for group life insurance.

3 In the AWG report GDP at 2004 prices projected to 2005.

Table 10. *Pension contributions in relation to GDP at market prices in 2005 and comparison to the AWG calculations.**

	Statutory pensions		Total pension contributions	
Country	**ETK**	**AWG**	**ETK**	**AWG**
Netherlands	6.04 (7.42)	6.5	11.01 (12.39)	12.9
Britain	6.04 (6.84)	5.8	11.08 (11.88)	5.8
Norway	4.89 (7.24)	–	7.51 (9.86)	–
France	7.05 (8.61)	12.8	10.19 (12.0)	12.8
Sweden	10.06 (11.28)	7.7	12.53 (13.75)	9.0
Germany	7.78 (12.41)	7.5	9.59 (14.23)	7.5
Finland	10.08 (12.53)	9.1	10.37 (12.82)	9.1
Switzerland	5.34 (8.55)	–	10.84 (14.05)	–
Denmark	0.75 (8.71)	–	6.0 (13.96)	–

* The contribution figures in brackets include the State's share.

In the following the results of this report are compared to the contribution level comparison published by the Finnish Centre for Pensions in 2003, where the macro level comparison figures concerned the year 2000. A comparison of total contributions in Table 11 indicates that no large differences have emerged in premium incomes between these years. The comparisons have been carried out in relation to GDP at market prices and the wage sum, because GDP at basic prices and the compensation of employees were not used in the 2003 publication. In France the contribution level in 2005 is lower, and in Denmark higher, than in the previous comparison measured by both indicators. As regards France the premium income in 2005 does not e.g. include employer-specific supplementary pensions, which in 2000 had a premium income of approximately 5 billion euros. The contribution level is thus in reality slightly higher than the level stated in this report. As regards Denmark the increase in premium incomes is a consequence of the increase in the premium incomes of occupational pensions. The contributions of the occupational pension schemes have been increased steadily since the 1990s.

Table 11. *Pension contributions in relation to GDP at market prices and the wage sum in 2000 and 2005.*

	Contributions in relation to GDP		Contributions in relation to the wage sum	
Country	**2000**	**2005**	**2000**	**2005**
Sweden	14.9	13.75	33.5	33.96
Germany	14.5	14.23	33.2	35.24
Denmark	13.1	13.96	26.8	28.67
France	13.1	12.0	34.3	31.36
Finland	13.0	12.82	34.6	32.76
Britain	11.9	11.88	25.0	25.23

7 Summary

This report aims at giving an indication of the total contribution burden caused by pension provision, when taking into account both statutory pension contributions and contributions to the supplementary pension schemes and the State's share in pension financing. The report indicates that statutory pension contributions reveal only a partial truth about the total costs of pension provision. The main observation is the convergence of the contribution levels of the different countries, when the comparison includes all pension schemes.

In addition to demographic and financial background factors, the differences in statutory pension expenditure and contributions can largely be explained by the structural differences of the pension schemes. International statistics and comparisons, almost without exception, concern only statutory pension expenditure and contributions. In many countries supplementary pensions are very significant, and excluding them from the comparisons distorts the overall picture of the country's pension system.

In Finland supplementary pension schemes are rare, since Finland is one of the few countries where the wage earner's statutory earnings-related pension accrual is not restricted through earnings or pension ceilings. In Finland the statutory pension contributions constitute almost on their own the whole contribution. If only statutory pension contributions are compared, the Finnish contribution level is the highest.

If, on the other hand, the premium incomes of supplementary pension schemes and the State's share are also included in the comparison, Finland's position changes significantly. Measured by total pension contributions the countries with the highest pension contributions are Germany and Denmark. The differences between the different countries also clearly diminish. In Denmark the whole statutory pension scheme is in practice financed through tax revenues, and it is complemented by the supplementary pension schemes, whose premium incomes increase year by year. The German premium incomes are increased especially by the extensive state support. As regards Germany the comparison is made even more interesting by the pension contribution ceiling agreed on in connection with the 2004 pension reform, and the maximum amount of the pension contribution was set at 20 per cent of the wage by 2020 and 22 per cent of the wage by 2030. In the year of comparison the pension contribution was 19.5 per cent and currently 19.9 per cent, of which the employer and the employee pay half and half. However, the agreed pension contribution does not give an accurate indication of the real costs of the scheme.

Of the compared countries, Sweden and the Netherlands have also fixed their pension contribution rate. The Swedish earnings-related pension scheme is a defined contribution scheme and the old-age pension contribution has been fixed at 18.5 per cent of the pensionable earnings. In the Netherlands the agreed maximum amount for the contribution levied from the wage earners in order to finance the old-age pension payable from the national pension scheme is 18.25 per cent of the earnings which fall below the wage ceiling. At present the contribution is 17.9 per cent. The Netherlands has in its pension strategy stated that the current (and agreed) contribution level will in the future not suffice to finance the increasing pension expenditure, and one solution presented is to cover the deficit from tax revenues.

The projections for statutory pension expenditure presented in the report indicate that there are pressures to increase pension contributions in all the countries. In recent years these pressures have been felt especially in Germany, where there is in practice no advance funding of pensions and the contributions also have maximum amounts. So far this has been reflected in reductions in pension levels, since index adjustments of the pensions have been foregone several years, and in the increasing demand for supplementary pensions (Riester pension).

A comparison of pension costs becomes even more difficult as the variation in the pension schemes increases. For instance, as regards the EU12 countries, a comparison is made more difficult by the reforms carried out in the statutory old-age pension schemes. Part of the pension is determined according to the principle of defined contribution in fully funded private pension accounts. In international comparisons these privately managed fully funded pensions have been classified as so-called second-pillar pension schemes and they are thus often excluded from the comparisons. This is so despite the fact that these pensions are, as a rule, financed through statutory pension contributions and, furthermore, participation in these schemes has, almost without exception, been decreed mandatory for the younger age groups of the working population.

Grasping the whole picture of pension schemes is important in international comparisons of pension provision. More attention should be paid to this observation when pension costs are compared between different countries. The complete picture of the contribution burden could further be supplemented by a comparison of the benefit level.

The comparison of pension contributions is made more difficult by the lack of extensive statistical data on occupational pension schemes. This is one of the reasons why the Finnish figures in this report are based on more extensive statistics than the comparison countries.

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