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Cross-national comparison of pension contributions

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Finnish Centre for Pensions
FI-00065 ELÄKETURVAKESKUS, FINLAND
Telephone +358 29 411 20
E-mail: firstname.lastname@etk.fi

Eläketurvakeskus
00065 ELÄKETURVAKESKUS
Puhelin: 029 411 20
Sähköposti: etunimi.sukunimi@etk.fi

Pensionsskyddscentralen
00065 PENSIONSSKYDDSCENTRALEN
Telefon: 029 411 20
E-post: förnamn.efternamn@etk.fi

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FOREWORD

This report provides new and comprehensive information on pension contribution levels in different European countries. The report is an updated and extended version of previous comparisons published in 2003 and 2008. The comparison is based on country data compiled by the writers of this report.

We wish to express our thanks for the comments given and the data provided to us by the following persons: Peter Foxman from the Danish Insurance Association, Arnauld d'Yvoire from Observatoire des Retraites, Cécile Volkleber-McPherson from AGIRC-ARRCO, Yves Guegano from Conseil d'Orientation des Retraites, Nicolas Vanni and Julie Tréguier from Ministry of Social Affairs and Health for France, Markus Sailer from the German Pension Insurance, Ole Christian Lien from NAV and Dag Gausdal from SSB Norway, Sibylle Reichert and Anika Kattemölle from the Federation of the Dutch Pension Funds, Inger Johannisson and Hans Karlsson from the Swedish Pensions Agency, Daniel Wallentin from Försäkringskassan, as well as Salome Schüpbach from Swiss Federal Social Insurance Office BSV and Christine Mayrhuber from WIFO in Austria.

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As the authors of this report, we take sole responsibility for the interpretations presented in it and for any possible inaccuracies.

SUMMARY

In this report we compare the level of pension contribution income in nine different European countries; Austria, Denmark, Finland, France, Germany, Netherlands, Norway, Sweden and Switzerland. The aim of the report is to give a comprehensive picture of the total costs of basic and earnings-related pensions. Therefore, individual savings or so called third pillar pension provision is not included in the analysis. Our focus is on the contribution income of statutory and occupational pensions together with the general tax revenues allocated to pension provision. This type of comprehensive comparisons is seldom conducted. Typically international statistics and comparisons only include statutory pension expenditure and contribution income.

In addition to the contribution level, another aim of this report is to study the decomposition of the contributions into the employer's and the employee's shares as well as the share of general tax revenues in pension financing.

There are significant differences in how pension provision is structured, not only between countries but also within a country. In this report, we focus only on a macro-level comparison. The pension contributions have been compared first and foremost in relation to GDP at market prices and to the compensation of employees. For reference the results are also calculated in relation to wage sum and GDP at basic prices. Details about scheme-specific differences in pension financing can be found in the report's country fiches.

In general, the total pension contribution is roughly at the same level in all of the compared countries. The highest contribution levels were found in Denmark and Austria: 16 and 15 per cent of GDP respectively, or 30 per cent of the employee compensation. Correspondingly, the two countries with the lowest pension contributions are Sweden and Germany, even though their position varies somewhat depending on the indicator. The contribution level amounted close to 13 per cent of GDP in both countries. The average level was around 14 per cent of GDP, corresponding to 28 per cent of the employee compensation. On average, the level of pension contributions has increased compared to the results of the previous study almost a decade ago. This is largely due to the ageing population with increased expenditure of old-age pensions.

Our main observation concerns the convergence of the contribution levels of the different countries, when taking into account all basic and earnings-related pension schemes. One of the key results of our report is that, in cross-national studies, it is important to take into account different structures of pension provision and to be aware of the total pension provision. Both significantly affect the results. Thus, a straightforward comparison of statutory pensions is not sufficient since there are comprehensive supplementary pension schemes which are of growing importance in many countries and, in some countries, even broadly equivalent to earnings-related statutory pension schemes.

A decomposition of contributions reveals that employers' contributions tend to represent the greatest share of contributions with the exception of Denmark where the share of tax revenues is dominant. The tax revenues' share of the premium income is significant also in Austria and Germany. Employees contribute the most in the Netherlands and Switzerland and the least in Denmark and Finland.

CONTENTS

1 Introduction

Pension systems are one of the main components of any European welfare state. Pension insurance forms the lion's share of social insurance expenditure, and it is financed through a variety of mechanisms that differ across countries, combining both public and private actors. Their financing touches upon the very core of the welfare state as boundaries between adequacy, sustainability, equality, solidarity and intergenerational equity need to be addressed. Thus, pension systems are being constantly debated by a variety of actors that have vested interests in these issues. As European societies are ageing, we can expect the pension systems to be of increasing interest in the years to come.

In developed countries, pension provision consists of pension schemes that seek to protect the population against poverty in old-age or other social risks, such as disability or the death of the family's breadwinner. In addition to poverty protection, pension schemes also seek to cover income insurance with the aim of maintaining a certain standard of living when one is unable to earn income from employment. These two are the main elements of pension provision, and it is arranged in a variety of ways across the countries.

This variance makes it sometimes difficult to compare pension systems of different countries. Basic poverty protection is usually covered by statutory pension schemes that are part of the so-called first-pillar pension provision[1]. The income insurance component, however, can be arranged through statutory, semi-mandatory or voluntary pension systems that can be part of either the first or the second-pillar (so-called occupational) pension provision.[2] International comparisons usually take into account only the first or second-pillar schemes. This means that in countries where the income insurance provision is covered almost totally by first-pillar pension schemes, the contribution level of such schemes is not comparable to countries with income insurance arranged in second pillar schemes. A more accurate and comparable picture of the pension provision in different countries is thus obtained by analysing aggregate first and second-pillar pensions.

Changing landscape of public-private mix

The public-private mix has been high on the socio-political agenda in many countries already for decades and in its earliest forms already since the creation of pension systems. The evolution of public-private mix, to put it shortly in this context, describes a shift from State to private responsibilities for providing old-age income. This evolution has already taken many steps within pension provision.

Accordingly, one of the main driving forces behind recent pension reforms has been to ensure the fiscal sustainability of the statutory pension systems as well as of the overall public finances. In the face of increasing longevity and decreasing fertility, countries have adjusted their pension systems by cutting pensions, closing early routes to retirement and

1 For the sake of clarity, we refer to first pillar pensions as statutory pensions throughout the report. Sometimes these are called public pensions, but as there is a risk of confusion with public-sector pensions, we have refrained from using that term.

2 As some second pillar pensions are obligatory, we refer to them as mandatory occupational pensions in this report.

raising the retirement ages in order to keep the systems sustainable. The reforms have reduced statutory pension expenditure and thereby also the pressure to increase contribution rates, which is no longer seen as feasible an option as it was some decades ago.

Due to tight constraints on the financing side, especially in the statutory pension systems, countries have taken measures to increase occupational and other supplementary pension provision to secure an adequate level of retirement income also in the future. This development can be seen in pension reforms that have taken place in recent decades, where the goal has often been to increase private and individual responsibility in pension provision (e.g. Ebbinghaus 2011). This has taken place by, for example, transforming defined benefit (DB) plans to defined contribution (DC) plans, or by individualizing the pension provision or making it more incentive-driven through tax or other incentives in order to enhance private pension saving. Sometimes, these reforms have coincided with reductions in the statutory pension provision, such as in Germany in the early 2000s (for example, the Riester-reform).

The reasons for different adaptations to the structure and organization of pension provision across the countries are complex. There are different views on the role of pension systems and the relative importance of their objectives, including poverty relief, and on how risks should be shared within and across generations. The scheme structure also plays an important role in how the objectives are realized. For example, solidarity depends on how the scheme is financed, that is, whether it is a PAYG versus a fully funded scheme and on the other hand on the coverage and selectivity of the scheme.

Furthermore, there are constraints in reforming and changing systems that vary in different countries. Pension systems have been claimed to be path-dependent in terms of the long-term development of pension systems (see, e.g., Andersen 2000; Hinrichs 2000; Hinrichs & Kangas 2003). The end result is that there are several alternative solutions to the public-private mix that exist alongside one another, depending on the specific historical, social, economic, political and institutional context of each country (Barr & Diamond 2008; Barr 2013a,b).

Targeting labour costs

One of the reasons underlying several pension reforms in recent decades is a concern over the effects of increasing labour costs. Given that statutory pension expenditure has risen in most countries due to population ageing, contributions have also tended to go up. This is largely due to PAYG schemes in which the contributions of those currently employed are used exclusively to finance the benefits of those currently drawing pensions.

Perhaps surprisingly, there is little evidence of an increased contribution burden in the statutory pension schemes over the period from 1994 to 2004 (OECD 2011; 2007). One can look for an explanation to this in pension reforms which have obviously succeeded in controlling costs. In addition, governments may have responded to rising pension costs by financing them from general revenues rather than earmarked contributions, or the contribution rates may have remained constant while revenues have been increased by broadening the contribution base. One of the aims has been to reduce the negative employment effects that higher contributions may have and to increase risk sharing by tax-based financing.

According to Goudswaard et al. (2015) the rationale for such policies is a belief that the economic effects of employer contributions, employee contributions and income taxes are different. It is often implicitly assumed that a decrease on the employee side leads to a higher labour supply. Similarly, a decrease in the employer social security contributions or payroll taxes is often assumed to raise the demand of labour, even though empirical studies on the effects are less clear cut (ibid). On the other hand, e.g. Karam et al. (2010) agree that empirical findings appear to be inconclusive although, according to their analysis, higher contribution rates usually reduce the potential output of the economy by distorting labour supply. This strong emphasis on unit labour costs is pronounced in the Eurozone countries where country specific devaluations are no longer possible.

Aims of the report

As the pension systems differ significantly in structure and organization from each other, a wider scope of pension provision is therefore needed, especially in cross-national studies. Despite the importance of occupational pensions, studies of total pension provision and their costs are surprisingly rare. This report seeks to shed more light on this topic and to provide information on the nature, importance and development of total pension costs.

The aim of this report is to show how much national income is needed to pay for pension provision including poverty protection and income insurance components. The scope of the retirement systems for our purposes includes both statutory pension and occupational pension systems covering pension provision for old-age, disability and survivors. The report contains data on aggregate contribution revenues as well as public and private expenditure on pensions. Individual savings, or so called third pillar pension provision, is not included as our focus is on a comparison of pension financing that provides the above mentioned main components of pension provision. This exclusion is also made due to the lack of comparable statistics between the countries, as the difference between pension savings and other type of long-term savings is not that clear-cut in many cases. It has to be pointed out that our analysis refers to the aggregate pension contribution level of a country and that the results cannot be interpreted as a contribution level applicable to an individual employer or employee.

The most common measure of pension costs – statutory pension expenditure – ignores the role of occupational pensions and thus significantly underestimates the total pension expenditure and contributions. However, from the point of view of those who participate in the financing of the pension system, mainly the employers or the employees, but also the State (and other public actors), it is the total contribution income of pension provision that counts, rather than whether it is divided into a statutory (first-pillar) or an occupational (second-pillar) contribution. The interpretation is different from the point of view of public finances which focus on statutory pensions.

Another aim of our report is to look at the division of the total contribution burden caused by pension provision to employers, employees and the State, when taking into account both statutory and occupational pension contributions and general tax revenues in pension financing. This report indicates that statutory pension contributions reveal only a part of the truth about the total costs of pension provision.

In this report, we do not take a stand on the actual incidence of contributions and who ultimately bears the burden. However, it is worth noticing that the actual incidence of contributions may differ greatly from the notional source. Pension contributions which, in a formal sense, are paid by the employer may, in reality, be seen to be paid by the employees since the higher employer pension contributions are compensated by a lower wage increase (Sjögren, Lindquist et al. 2011). In a wider perspective, this may also manifest itself in fewer jobs. Several economic analyses state that levies on employers have been shown to be passed, in part or in full, onto workers. According to, for example, Melguizo and González-Páramo's (2013) analysis of the economic incidence of labour taxes and social contributions, workers bear 60 per cent of the tax burden due to lower net wages in Continental and Anglo-Saxon economies and nearly 90 per cent in the Nordic economies in the long run. In the short run, the incidence on employees is less pronounced.

Structure of pension provision in the reviewed countries

We have compared the pension contribution levels in nine European countries: Austria, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden and Switzerland. Countries represent both Bismarckian and Beveridgean models. Conde-Ruiz and Gonvález (2016) describe the differences of these two models by their aims: Bismarckian systems are designed to ensure a sufficient retirement income for all workers, including groups from low-skilled to highly skilled persons. The Beveridgean pension system, on the other hand, aims to guarantee a minimum pension and, thus, tends to require lower contributions. This usually implies that the average pension provision is supplemented by an occupational or other supplementary pension. However, it needs to be pointed out that since these concepts were created, countries have moved to include both features in their pension systems (see Hinrichs 2011).

Statutory pensions constitute the main part of the total pension provision, but the countries also exhibit important variations in the structure and role of different pension pillars. In the context of the countries in this comparison, mature multi-pillar systems exist in the Netherlands, France, Switzerland and Sweden. A multi-pillar pension system exists also in Denmark, although the model of current occupational pensions has truly existed since the late 1980s. In Norway, we have witnessed a recent shift towards a multi-pillar structure after the pension reforms in 2006 and 2011.

However, in Austria and Finland such a division has not taken place. Reforms in these countries have instead strengthened the statutory part of the pension provision (see, e.g., Blank et al. 2016; Reipas & Sankala 2015). Germany stands in the middle. Policy efforts for changing the landscape of pensions took place in the country at the early 2000s, including the establishment of new voluntary private pension systems as well as an increase in government subsidies together with tax advantages for pursuing voluntary pension savings.

Currently, the understanding in Germany is that only a multi-pillar provision will guarantee a sufficient income in old age (see, e.g., Bundesministerium für Arbeit und Soziales 2007).

Structure of the report

This report is divided into two parts: the first part provides a comparative summary of the main results in the countries studied while the second part consists of more detailed country fiches. In the following chapter, we present the data and methodology, after which, in chapter 3, we turn to an examination of how the overall pension provision is structured and financed. In chapter 4, we present the main results, followed by a discussion of the development that has taken place within the last decade or so. The conclusive summary in chapter 6 is followed by the country fiches.

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 or supervise the supplementary pension schemes. To secure as comprehensive and reliable statistics as possible we have requested some of the figures directly from the authorities of the different countries. The data on GDP and wage sums have been obtained from the OECD database (OECD.Stat).

The total contribution income strives to take into account all contribution income of the different schemes used to finance current and future pension benefits. Thus, for instance, the financing of disability pensions through the sickness insurance scheme in Sweden and France is taken into account. However, due to a lack of statistics, our report does not include book reserve schemes or 'direct pension guarantees' made by employers (in which the employer itself is obliged to pay pension benefits when the employee reaches retirement age or in the event of disability).[3] The country fiches and Annex 2 provide more information about pension schemes included in the comparison.

In addition to the contribution level, we look at the decomposition of the contribution income into the employer's and the employee's shares as well as the share of general tax revenues in pension financing. Our comparison focuses on an analysis of contribution levels and does not strive to extensively compare what kind and what level of benefits the pension contributions finance in each country.

As our aim is to assess the cost of pension provision on a macro-level, we have analysed pension contributions in relation to economy-wide aggregates. We have reported the results first and foremost in relation to compensation of employees and GDP at market prices.

3 Book reserve schemes have been traditionally the most popular supplementary vehicle type in Germany. However, nowadays the number of active members, around 5 million, amounts only to circa 23 per cent of all supplementary pension scheme members and roughly 10 per cent of employed persons (Aba 2015).

Although the wage sum is a more commonly used indicator, compensation of employees is better suited for pension contribution comparisons as it also includes social security contributions paid by the employers. Employers' social security contributions differ greatly among the countries studied and the results are more comparable by using this indicator. GDP at market prices, on the other, has its own deficiencies but as it is more widely used and more familiar indicator than GDP at basic prices, we have chosen it as our main indicator. However, for reference purposes results are also calculated in relation to wage sum and GDP at basic (factor) prices (see more in Annex 3 and 4).

3 Overall structure and financing of pension provision

In the following, the main characteristics of statutory and occupational pension schemes will be shortly presented. More details on the benefits and costs of different pillars can be found in the country fiches.

3.1 Structure, coverage and level of old-age pension provision

Most of the countries studied have a statutory first pillar pension scheme providing basic benefits, but the level of provision varies considerably. In the following we have divided the countries into four different groups based on the design of the old-age minimum pension (see Table 1).

The first group includes Denmark and the Netherlands where the residence-based flat rate pension is universal and provided to all, irrespective of the level of their earnings-related pension. However, in Denmark this applies only to the basic amount, and the pension supplement depends on the combined income of both the pensioner's and the spouse's earned, capital and pension income. As regards the statutory provision in both countries, the national pension is the main source of pension income. The earnings-related pension is arranged by occupational pension arrangements. In Denmark, the combined universal pension and supplement amounted to 36 per cent of the average earnings, while the equivalent percentage in the Netherlands was 27.

The second group consists of the other three Nordic countries. In Finland, as well as in Norway and Sweden, the residence-based national pension and the guarantee pensions are proportional to the amount of statutory earnings-related pension a person receives. In Finland and Sweden, the level of the minimum pension is 20 per cent of the average earnings and in Norway, 30 per cent. The earnings-related pension, which covers all employees and the self-employed, accrues on the basis of age-specific accrual rates in Finland. In Sweden and Norway, it is based on a notional defined contribution (NDC).

In the third group of countries, the statutory pension system does not provide for an unconditional minimum pension for people beyond a certain age. In France, Austria and Switzerland, pension provision is mainly based on an earnings-related pension with a certain minimum level, or a government top-up to the minimum level of old-age pensions for those with the lowest pensions.

In Switzerland, the flat-rate earnings-related first-pillar old-age (AHV) scheme provides a universal coverage because the system covers also individuals who are not in gainful employment (e.g., students, unemployed persons, early-retirees, disability pensioners, non-employed spouses), but who must pay minimum contributions. The amount of the benefit can vary between a minimum (in table 1) and a twice as high maximum that is. In addition, a means-tested pension supplement (Ergänzungsleistungen) is paid from general tax revenues to pensioners with no other sources of income.

In Austria, the so-called “Compensation supplement to pension” (Ausgleichszulage) is a top-up that may apply to low-income pensioners on a partly means-tested basis. In France, a minimum pension for a full career (minimum contributif) is offered only to workers who have reached the minimum contribution period. Otherwise, in order to secure a minimum income, persons who have reached the retirement age may receive a means-tested benefit.

The fourth group consists of Germany, which in contrast to the other countries does not apply any type of specific minimum pension scheme. Instead, the minimum benefit is provided through general social assistance that is not part of the pension scheme and therefore not included in the analysis of this report.

Table 1.
Minimum pension level, 2014.

Country	Pension benefit	Amount per year, EUR	In relation to average earnings, %
Denmark	Basic amount + pension supplement	19,390 (9,510 + 9,880)	36
Netherlands	Basic pension	13,243	27
Norway	Guarantee pension	20,100	31
Sweden	Guaranteed pension	10,390	23
Finland	Guarantee pension	8,921	21
Austria	Minimum contributory pension	12,008	28
France	Minimum contributory pension	8,248	22
Switzerland	Minimum contributory pension	11,610	16
Germany	Social assistance	8,724	19

Source: OECD 2015b.

The importance of occupational pension provision in the total pension provision differs considerably between the countries. In France, Norway and Switzerland, occupational schemes are mandatory and practically all employees are covered by supplementary schemes. In France, the obligatory nature of occupational pensions for private-sector employees has been stipulated in legislation since 1972 and in Swiss legislation since 1985. In Norway, the law was enacted as recently as 2006. Both in Switzerland and Norway, the legislation defines only minimum requirements for the schemes.

Quasi-mandatory schemes, which are negotiated as part of collective agreements, have been established in Denmark, Sweden and the Netherlands where around 90 per cent of the employees are covered by occupational pension schemes.

In Germany, occupational pensions for wage and salary earners in the public sector are based on collective agreements, but in the private sector they have, traditionally, been voluntary benefits provided by the employer. The coverage of these schemes has increased in recent years, standing at around 60 per cent of the employees. Since 2002, the development of occupational pensions has been boosted by giving employees the right to demand that part of their earnings be converted into occupational pension contributions (Entgeltumwandlung). As a consequence, a shift is taking place towards other types of occupational pension arrangements that are linked to the capital market, as well as towards arrangements financed mainly by employees (and no longer employers) and towards defined contribution instead of defined benefit pensions (Schmähl et al. 2014). The major part of existing pension claims are still direct commitments of the employer (Direktzusage) and based on book reserves.

The importance of occupational pension systems in Finland and Austria seem to differ from the general picture sketched above. In both countries, second pillar pensions are of relatively minor importance and consist almost exclusively of voluntary supplementary pension insurance arranged by individual employers.

Table 2.
Type of earnings-related pension scheme, accrual rates and coverage of occupational pensions.

Country	Statutory		Occupational		
	Type of plan	Accrual rate / Contribution rate, %	Type of plan	Accrual rate / Contribution rate, %	Coverage of employees, %
Austria	DB	1.78/ –	DB	-	~20
Denmark	-	-	DC; DB (civil servants)	–/ 12–18	› 90
Finland	DB	1.5–4.5/ –	DB and DC	-	~10
France	DB	1.16/ –	Points (AGIRC/ARRCO) DC (voluntary)	0.51 /–	~90
Germany	Points	0.97/–	DB	-	~ 50*
Netherlands	-	-	DB and DC	1.6 / –	› 90
Norway	NDC	–/18.1	DC (obligatory OTP); DB	– / 2–8	~ 90
Sweden	NDC; DC (premium pension)	–/ 16.0 + 2.5	DC; old contracts DB (private sector); Mixed DC/DB (public sector)	–/ 4.5	› 90
Switzerland	-	-	DC	– / 7–18	~100

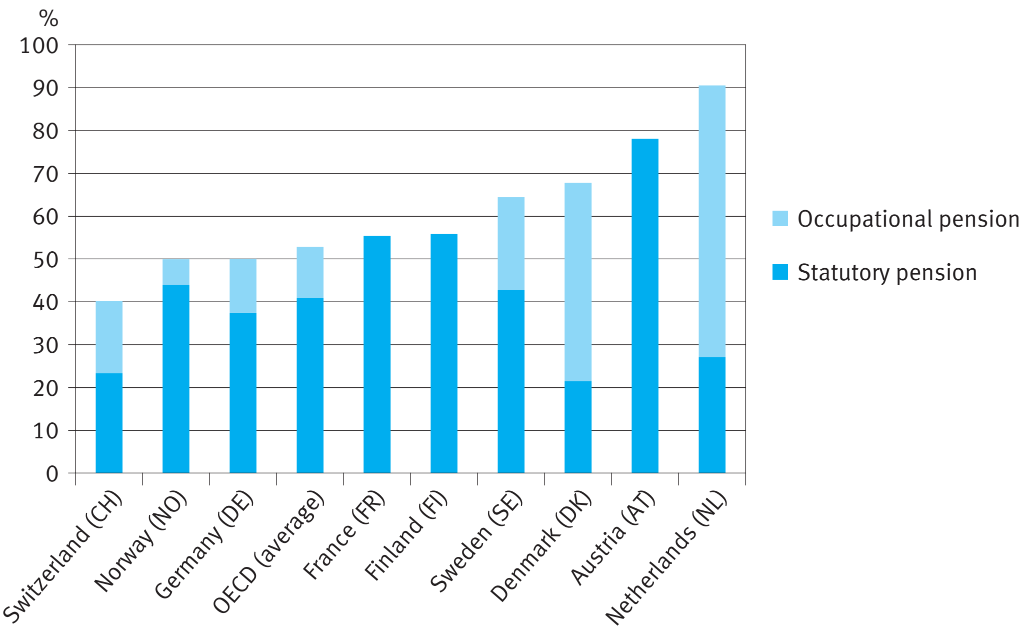
* Data included in this report covers less than 40 per cent of employees as membership in book reserves is not included.
Source: OECD 2015b; national sources.

Even though defined contribution (DC) or hybrid schemes with benefits reflecting the contributions made and the return of investments are increasing popularity among the occupational pension systems, the defined benefit (DB) schemes still have a wide coverage.

In the Netherlands, DB schemes have a dominant presence although there are signs of a shift to DC. However, over 90 per cent of the active members were still in a DB scheme in 2014. In contrast to a pure defined benefit scheme, the Dutch DB schemes have usually conditional indexation, which links the indexation of benefits and accruals to the funding status of the scheme. Likewise, in Germany, France and Sweden DB schemes also have a significant presence.

An estimate of the overall pension provision is provided by OECD's theoretical replacement rate calculations (Figure 1). The calculations are based on rules that applied in 2014 and include the main national scheme for private sector employee's covering both statutory and occupational schemes (for more details, see OECD 2015b.)

Figure 1.
Theoretical replacement rates.[4]



Source: OECD 2015b.

As we can see in Figure 1, the significance of occupational pensions in the total pension provision is high even for average wage earners and increases for higher income groups the Netherlands and Denmark, where the basic pensions are flat-rate benefits. On the other hand, the scope and generosity of statutory pensions have left little room for the development of occupational pensions in Finland and Austria.

4 The calculations assume that a person has a working career from the age of 20 until the national retirement age on average earnings. The figure for France includes both the statutory and mandatory occupational (AGIRC-ARRCO) pensions.

3.2 Financial structure of pensions

3.2.1 Financing of the statutory pension schemes

Minimum pensions

The minimum or basic pensions are tax-financed in the Nordic countries (as are the means-tested benefits in Germany, Austria and France). In the Netherlands, national old-age and survivors' pension insurance schemes are mainly based on employees' contributions with tax revenues covering the deficit[5]. The share of tax financing was close to one third of revenues in 2014.

In Switzerland, the minimum old-age (AHV) and disability (IV) pensions are financed with a combination of contributions, tax revenues and income from the old-age pension fund[6]. Contributions are equally divided between employers and employees. The share of tax revenues is around 30 per cent of revenues.

Earnings-related pensions

Even though the earnings-related pensions operate mainly on the PAYG principle, all the Nordic countries have accumulated funds since the introduction of the schemes. Germany, France and Austria have chosen a different path, with hardly any pension funds. Also in the Netherlands, the only statutory earnings related pension, that is, the disability benefit scheme for employees (WIA), is PAYG financed.

The Danish ATP (the Labour Market Supplementary Pension Scheme) is a fully-funded DC scheme that covers all wage earners. Its assets represent 37 per cent of GDP. Self-employed persons can be covered voluntarily, but only if they have been insured as employees before the entrepreneurship. The contributions to the scheme are independent of the size of earnings but depend on the working hours instead. Employees (one-third) and employers (two thirds) pay flat-rate contributions which correspond to 1 per cent of the average earnings.

ATP's contribution rate has been adjusted very moderately. It remained unchanged from 1996 to 2005, after which it was adjusted in 2006, 2009 and 2016 in order to keep the contribution in line with the average wage development. ATP does not provide disability pensions, and survivors' benefits are paid as a lump sum. In addition, the Danish unemployment insurance fund provides an early retirement pension (efterløn) which is mainly financed by state revenues. An employee has to pay flat-rate contributions in order to be eligible for early retirement.

In Finland, the private-sector pension scheme has been partially funded since the introduction of the scheme in 1962. The public sector pension scheme has been funded since the end of the 1980s. In total, the market value of pension fund assets amounted to 86 per cent of GDP in 2014. The average earnings-related pension contribution rate in the private sector (TyEL, Employees Pensions Act) for 2014 was 23.6 per cent of wages. The

5 In the Netherlands the special disability benefit scheme for the young handicapped (WAJONG) that is solely financed through general taxation.

6 The size of the AHV reserve fund is around 7 per cent of GDP and equals roughly one year's pension expenditure.

employees' pension contribution under the age of 53 is 5.55 per cent and 7.05 per cent for those aged 53–67. There is no ceiling on pension accrual, contributions, or employees' earnings in the earnings-related scheme.

In Sweden, the old age pension scheme has an autonomous structure and is financially separated from the other pension insurance benefits, that is, from disability and survivors' benefits, which are financed with budget funds and employers' contributions. The Swedish earnings-related old-age pension scheme has two tiers: the income pension and the premium pension. The contribution rate is 18.5 per cent of the pensionable income. Contributions are shared between employees (7%) and employers (10.21%)[7]. Employees pay contributions based on their eligible earnings up to a ceiling which roughly equals the average wages. The employers' contributions are levied on the total wage, but only the contribution income up to a ceiling flows into the funds. The part that exceeds the ceiling is a tax rather than a pension contribution and is transferred to the state budget.

The income pension is a notional defined contribution (NDC) scheme financed on a PAYG basis. The contribution rate for this part is 16 percentage points. The premium pension is fully funded with a rate of 2.5 percentage points. AP pension funds that support the benefits of the NDC scheme amount to around 30 per cent of GDP while private pension accounts within the premium pension scheme amount to around 20 per cent of GDP[8].

The financing of the Norwegian old-age pension scheme is not autonomous and self-financing. No earmarked contribution corresponding to the accrual rate of 18.1 per cent paid by employers or employees exist. Instead, the whole pension system is part of the general public economy and financed through general social insurance contributions and tax revenues. Norway does have a State Pension Fund which amounted to around 210 per cent of GDP in 2014. Despite its name, it is not intended to be used only to finance pension expenditure and no contributions are transferred to the fund. According to the fund's financial policy guidelines, the return on the pension fund is used to cover the state budget deficit.

In Germany, statutory pension schemes are financed through employer and employee contributions, together with federal revenues and a very small reserve fund (Nachhaltigkeitsrücklage) that ensures the liquidity of the system. According to the law, if the size of the fund exceeds 1.5 times the monthly expenditure, the contribution rate has to be lowered. Respectively, if the size of the fund declines under 0.2 times the monthly expenditure, the contribution rate has to be raised. At the end of 2014, the fund size amounted to 35 billion euros (1.2 per cent of GDP), which was 1.9 times the monthly expenditure.

The pension contribution in the German general system is evenly split into employer and employee shares. In 2014, the total contribution level was 18.9 per cent, which is paid under the earnings-ceiling of 5,950 euros per month in the old states and 5,000 euros per month in the new states. The contribution rate for the general scheme has an upper limit

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7 Because of the effects of the tax system (the individual pension contribution is not subject to tax), the nominal contributions add up to 17.21 rather than 18.5 per cent. The net contribution, however, is 18.5 per cent (Anderson & Backhans 2013).

8 The AP buffer fund consists of five funds: the 1st to the 4th and the 6th AP fund. However, old-age pension contributions are not directed to the 6th AP fund and pensions are 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 another significant component, the State's 7th AP fund, which administers premium pensions but is not part of the buffer fund.

imposed by law since 2004. The maximum limits are 20 per cent until 2020 and 22 per cent from 2020 to 2030.

The French pension system can be characterized by a relatively high degree of occupational fragmentation, a large number of schemes and a very low reliance on funding. The most comprehensive scheme is the private-sector social security scheme (régime général) that covers all private-sector wage earners who are not covered by a scheme for the relevant profession or industry (around 60 per cent of the workforce). The scheme is financed by social and other contributions as well as by taxes. In addition, the social security scheme finances its deficit by issuing bonds on international markets.

The old age contribution is divided for employees so that a contribution rate of 6.8 per cent is levied up to a ceiling and 0.25 per cent is levied of the total wage. For employers, the equivalent rates are 8.45 and 1.75 per cent. In other regimes, the contribution rates may differ. In 2014, the contribution rate for the old-age and survivor's pensions (including both statutory and occupational components) for an average private-sector employee was around 25.5 per cent[9]. Disability pensions are financed through health insurance with the contributions levied from the total wage. A buffer fund (Fonds de Réserve pour les Retraites, FRR) was established in 1999 to help finance the social security scheme in case of a shortfall in contribution income. Although the initial plan was that it would not start making disbursements until 2020, it started financing the social security system in 2011. The fund is projected to be exhausted in 2024. (Casey 2014).

The Austrian statutory pension system is unfunded and financed with contributions amounting to 22.8 per cent of the earnings (10.25% by the employees and 12.55% by the employers) up to an upper earnings limit. This contribution rate has remained unchanged since 1988. In addition to direct contributions, state revenues play an important role, as well. Under the so-called 'deficiency guarantee' ("bundesbeitrag"), the federal state has to cover some specific elements of the statutory pension system (e.g., the minimum pension and unpaid periods) as well as the deficit from the general budget if the expenditure exceeds the revenues from insurance contributions (Fink 2014).

3.2.2 Financing of occupational pensions

In the following, the financing principles of occupational pensions are presented only for those countries where these are mandatory or form an essential element of total pension provision. In Germany, Austria and Finland occupational pensions are mainly based on voluntary arrangements and are of less importance in total pension provision. However, more details on occupational pension financing for these countries can be found in the country fiches.

In France, most private-sector wage earners are members of two central mandatory occupational PAYG schemes: AGIRC for executives and ARRCO for non-executives. Contributions are paid up to a ceiling that specific for each scheme. In addition to AGIRC-ARRCO, separate occupational schemes exist for many sectors and occupational groups.[10]

9 See Conseil d'orientation des retraites (COR) annual report 2014.

10 Separate schemes exist for non-office holders in the public sector (Ircantec), civil servants (RAFP), farmers (MSA RCO), self-employed people (RSI), liberal professions (CNAVPL), aviation industry (CRPNAC), barristers (CNBF) and other special groups (such as state companies).

The majority of these occupational schemes are based on the PAYG principle. The only fully funded scheme is the civil servants' scheme, RAFP.

In addition to the mandatory occupational pension schemes, there are voluntary supplementary arrangements both for the self-employed and for the employees arranged by their employers[11]. These are usually funded and financed mainly by employers' contributions. (Naczyk & Palier 2010). However, as our report shows, these arrangements still represent a minor part of pension contribution income in France.

In Norway, the occupational schemes are mostly fully funded and employers have been obliged to make a minimum contribution of 2-per-cent of the earnings of their employees to a defined contribution pension scheme since 2006. If employers offer a DB scheme instead, the benefits must be at least of the same level as the expected benefits under the mandatory 2 per cent contribution. Contributions are required up to the value of approximately twice the average earnings.

In Switzerland, the mandatory occupational pension (BV) is fully funded and the contribution rates (7–18%) increase with age. Employers are obliged to cover at least 50 per cent of the cost of occupational pensions. Occupational pension provision has to cover earnings up to at least 5,780 euros per year, and the maximum pensionable salary of employees or the pensionable income of self-employed persons is ten times higher.

In Denmark, pension schemes are fully funded defined-contribution schemes which have become gradually larger as those schemes established in the early 1990s are gradually maturing. The contribution rates usually vary between 12 and 18 per cent depending on collective labour agreements. Rates tend to be higher among highly educated groups (Andersen 2015). As a rule, employers pay two-thirds and employees one-third of the contribution. The contribution levels have been increased successively through an integrated element of periodic collective bargaining (see e.g., Industriens Pension 2016).

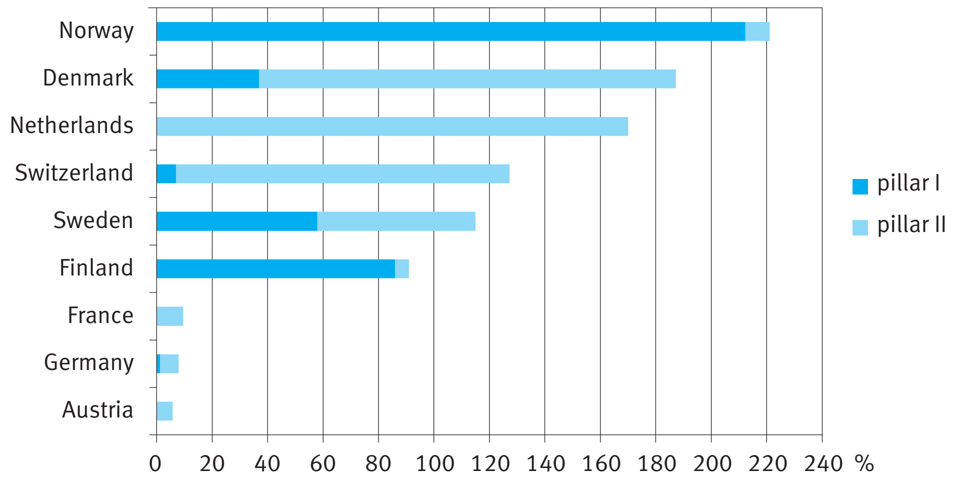
In Sweden, employers alone contribute to the occupational pension scheme. Sweden has four major occupational pension schemes for blue- and white-collar employees in the private sector and for local and central government employees in the public sector. All major schemes have been transformed to DC schemes for coverage below the statutory earnings ceiling and contributions have been largely harmonized between different agreements. In the private sector, pension schemes are converted to DC schemes also for earnings above the ceiling (with transition rules) while, public sector schemes have remained DB for that part. The contribution rates range from 4.5 per cent up to a ceiling and 30 per cent of the wage for the part that exceeds the ceiling, with the exception of DB schemes.

In the Netherlands, collective agreements define the employee and employer shares but not the level of the contribution rate. The changes in the contribution rate depend on the funding ratio of the pension funds, as most of the schemes are DB schemes with a full-funding requirement. The low funding ratios in recent years have resulted in increased contribution rates, from an average of around 15 per cent in 2008 to more than 19 per cent in 2013. However, the 2014 cuts in accrual rates and the raised fiscal retirement age have led to a reduction of the contribution rates in many schemes. In the Netherlands, the employer usually pays around two thirds and the employee one third of the total contribution, but

11 For example, PERCO, PERE, Madelin contracts, "article 82" (DC) and "article 39" (DB).

the shares differ by type of pension arrangement. In company funds, employers pay a larger share than in industry-wide funds.

Figure 2.
*Pension assets (pillars I and II) in relation to GDP in 2014 the countries studied, %.**



* Data on occupational pension assets organised in life-insurance companies are not available for Norway.
Source: OECD 2015c; 2016, Towers Watson 2014 and national sources.

4 Main results

4.1 Pension contributions in relation to wages and GDP

In the following, total pension contributions are analysed in relation to the compensation of employees and GDP at market prices (hereafter GDP). The results in relation to the other two indicators are reported in Annex 4.

When focusing only on statutory revenues, we notice that the contribution income is highest in Austria and Finland, at 14.7 and 13.2 per cent of GDP respectively, or 30.6 and 26.7 per cent in relation to the compensation of employees. The contribution income in relation to GDP is the lowest in the Netherlands (7.4%) and Switzerland (7.9%). In relation to compensation of employees the position of these two countries changes: 13 per cent in Switzerland and 15 per cent in the Netherlands.[12] The result reflects the differences in the structure of the pension system. In contrast to the Netherlands and Switzerland, where statutory pension provides the minimum pension provision, Finland and Austria have a comprehensive statutory earnings-related pension system with the highest share of statutory pension expenditure, among the countries studied (Figure 9).

The differences between the countries diminish markedly when contributions to statutory and occupational pension schemes are both taken into account. In relation to GDP, Austria

12 As regards Switzerland, the higher share in GDP compared to the compensation of employees can be explained by the fact that employee compensation represents a higher proportion (60%) of GDP than in the other countries (50%) (see Annex 2).

(15.4%) stands second, right after Denmark (16.2%). In almost all the other countries, the level of the annual contributions is approximately 13–14 per cent of GDP.

When comparing contribution income to the compensation of employees, Austria stands at 32 per cent and Denmark at 30.6 per cent. For other countries, the level is between 25 and 28 per cent.

Figure 3.
Pension contribution income in relation to compensation of employees in 2014, %.

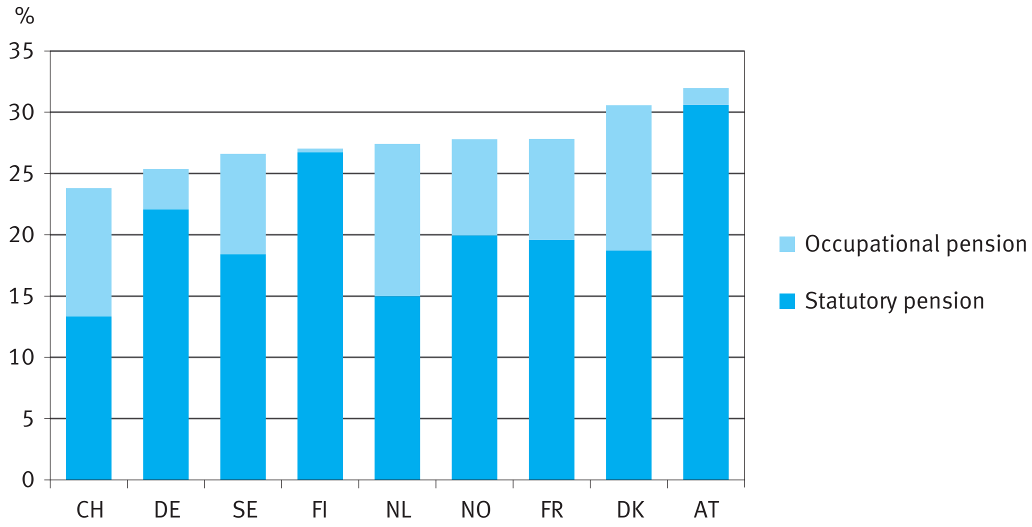
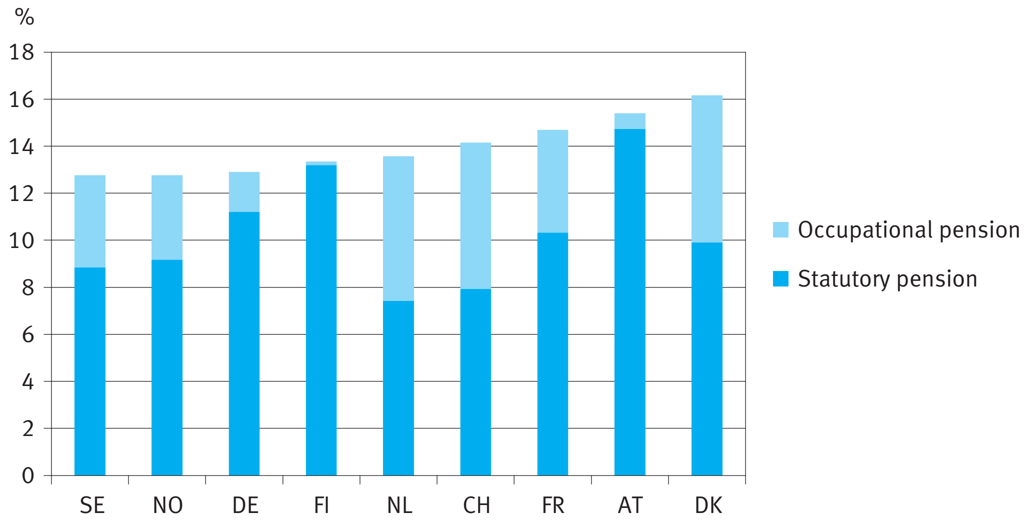


Figure 4.
Pension contribution income in relation to GDP in 2014, %.



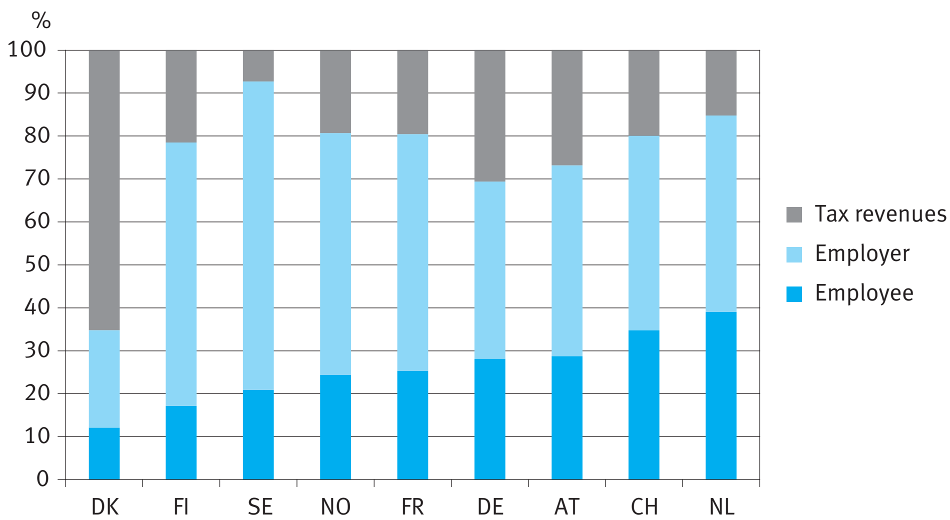
The relative importance of occupational pensions varies from almost negligible (Finland and Austria) to being a significant part of the pension provision. Denmark, the Netherlands and Switzerland have the highest annual contribution flows relative to GDP, (approximately 6 per cent of GDP), due to the near-universal coverage of second pillar pensions. In France, Sweden and Norway, on the other hand, the lower flow is explained by the occupational pensions' supplementary role to statutory earnings-related pensions. The contribution rates of occupational pensions in these countries are lower compared to Denmark, the Netherlands and Switzerland (see section 3.2.2).

4.2 Division of costs – who pays the bill?

From the point of view of employers and employees and against the background of the discussion about labour costs, the key question is: Who pays the contributions?

Regarding the costs to employers and employees, the Danish system looks the most promising at first sight as Denmark has hardly any statutory pension contributions. However, a closer look reveals that statutory pensions are mainly financed by general tax revenues and employers together with employees pay only flat-rate contributions. The contributions consist mainly of payments to occupational pensions, and even though their general trend has been upward in recent years, the contribution share of around 35 per cent of the total contribution income is modest in comparison to many other countries (Figure 5).

Figure 5.
The share of employer and employee contributions together with tax revenues in the financing of the total pension provision in 2014, %.



Overall, in all the countries included in our comparison, the employers' share in financing the pension provision is larger than the employees'. This is most evident in occupational pension provision, even though large variations exist in the relative shares of employer and employee contributions. In total, the employers' share is the largest in Sweden and Finland[13]. Employers contributed significantly also in Norway[14] and France.

13 In Finland part of the burden of employers' contributions will be shifted to employees in 2017–2020 (see, e.g. EurWork 2016).

14 In Norway, no separate pension contribution is levied. In these calculations, the formal incidence of the pension contribution is estimated to correspond to the incidence of the general social insurance contribution.

Employees, on the other hand, pay the largest share in the Netherlands where the residence-based national insurance scheme is mainly financed through employee contribution, instead of tax revenues, as in the Nordic countries (see section 3.2.1). The employees' part of the contribution is the lowest in Denmark and Finland. Austria, Germany, the Netherlands and Switzerland form a group of countries where the shares are more evenly balanced between employers and employees.

The State's role in pension financing is multidimensional. Its role as an employer usually includes central and local government and non-commercial public corporations, where the State participates in the financing by paying explicit employer contributions. In such cases, the State's revenues are taken into account as employer contributions. However, the State is also involved in the financing of certain benefits (e.g. minimum pension, unpaid periods) or pension systems by covering the deficits. In our report, this income is taken into account as general tax revenues.

It is noteworthy that the share of tax revenues is around 30 per cent in Austria and Germany and that the contribution rate has remained unchanged in Austria for nearly 30 years and capped in Germany more than ten years ago. Contributions to the statutory pension insurance are not themselves sufficient for covering entitlements and the difference is made up with tax revenues.

In the Netherlands, a first step using finances from general tax revenues was made in 1997, when the ceiling (18.25 per cent) for a contribution rate was set. Expenditures have grown in the last decades and are projected to increase even further, which would imply that a growing share of statutory pension expenditures is financed out of general tax revenues in the future. In addition, several committees and political parties have suggested to further increase the share of general revenues in the financing of the statutory pension scheme in order to broaden the base for statutory pension financing, to include the elderly (Goudswaard et al. 2015).

Figure 6.
Pension contribution income in relation to compensation of employees in 2014, %.

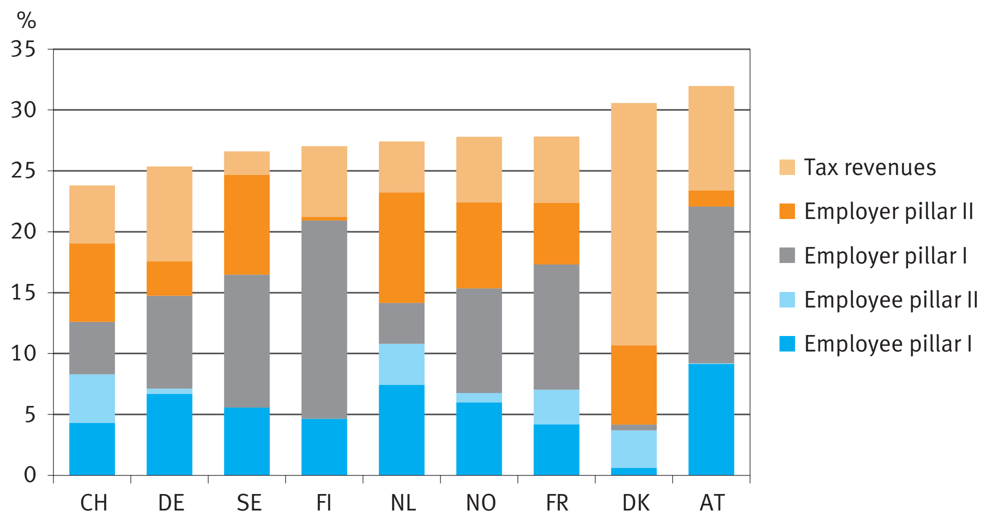
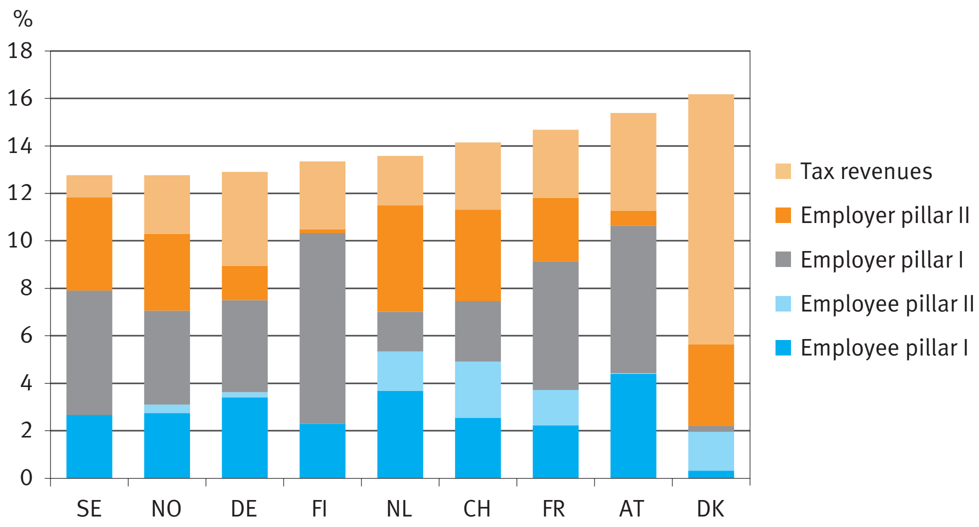


Figure 7.
Pension contribution income in relation to GDP in 2014, %.



4.3 Pension contributions and expenditures

In principle, because statutory pensions are financed on a PAYG basis, the contributions should always equal the benefit and other (e.g. administration) expenditure if no funds are gathered which can be used to finance pension payments and ease the financing burden of employers and employees.[15] Occupational pension schemes, on the other hand, are mainly funded, but the difference between contribution and expenditures varies depending on the rules of funding or the maturing process of the pension schemes. In the following, the contribution income is compared to the expenditure as a whole (Figure 8) and separately for statutory and occupational pension provision (Figures 9 and 10).

The combined first- and second-pillar pension expenditure is relatively close to the contribution income in all of the countries, but the contribution income slightly exceeds the pension expenditure in all countries except in Finland, where they are on the same level.

Looking only at statutory pensions, Figure 9 shows that expenditure and contributions were very close to each other in all of the compared countries. The contribution and expenditure level was the highest in Austria, over 14 per cent of GDP, followed by Finland (13%), that is, in countries with the most comprehensive first pillar pension systems. On the opposite side of the scale is the Netherlands, with a statutory expenditure of 7 per cent in relation to GDP.

15 However, it must be noted that pension expenditures include only benefits paid and not administrative costs. The administrative costs which concern only pension schemes are not available for Norway or Denmark, for example, where pensions are part of the general social security administration.

Figure 8.
Combined statutory and occupational pension contribution income and expenditure, % of GDP.

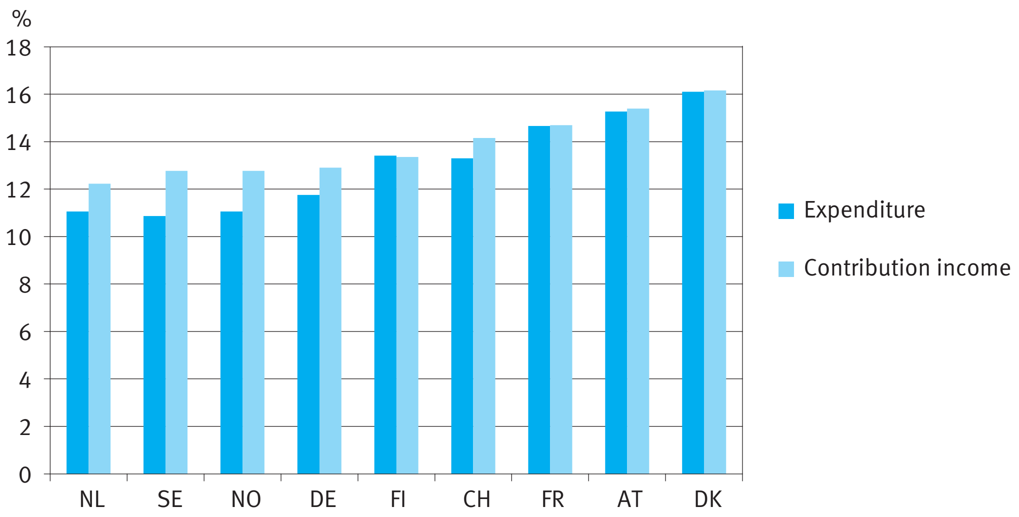
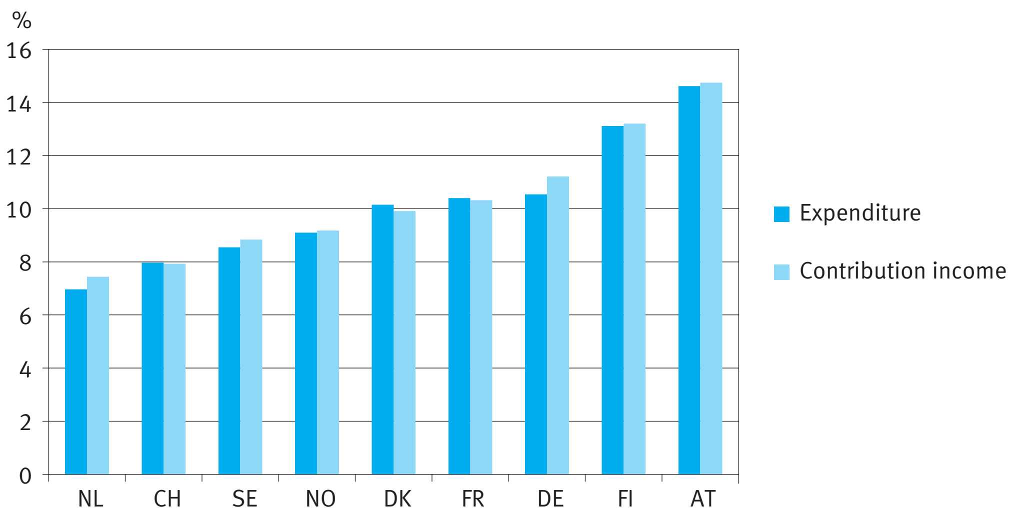


Figure 9.
Statutory pension contribution income and expenditure in relation to GDP in 2014, %.

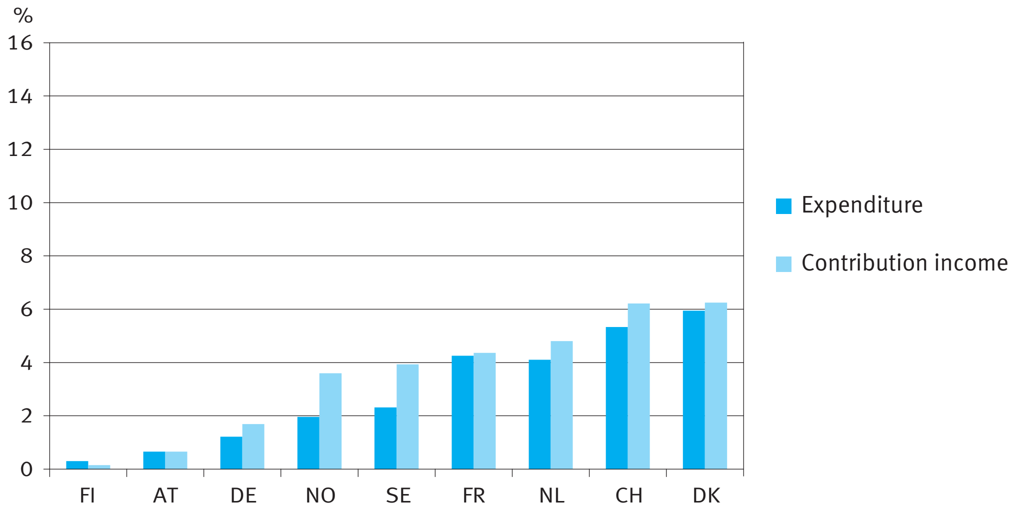


Regarding the occupational pension schemes, the results are somewhat different with contributions generally exceeding the expenditure. In France, the similar level of expenditure and contributions is explained by the PAYG-nature of the schemes. The highest expenditure levels can be found in the countries in which the occupational pension schemes are mature and the coverage and benefit levels are high (Switzerland, Netherlands, Denmark and France).

When looking at the differences between expenditures and contributions it can be noted that, for example, in Norway, the contribution income clearly exceeds the paid benefits. This is largely explained by the fact that compulsory occupational pension saving has been in force only since 2006 (FNO 2015). The differences can also be explained by the difficult economic circumstances regarding the funding of the schemes. This is the case in the

Netherlands, where the main reason for higher contribution rates in relation to expenditure is due to shortfalls in the fully funded DB schemes (Goudswaard et. al. 2010).

Figure 10.
*Occupational pension contribution income and expenditure in relation to GDP in 2014, %.**



* Only pension funds are included for the Netherlands.

Figures 9 and 10 do not reveal the scheme-specific development of payments and contributions that is taking place in the studied countries, and it is not possible to provide a detailed description of every type of national system of pension provision in this summary. More information on this is available in the country fiches. For example, in recent years, the pay-outs in the Danish ATP scheme have exceeded contributions due to the maturing of the scheme. The maturing process will continue over the coming decades, and the gap between the ATP's contributions and pay-outs will gradually widen.

A similar development is currently taking place in the Finnish private sector earnings-related pension scheme, as well as in the Swedish earnings related scheme (see country fiches for more details). However, as these schemes are partly-funded, revenues can be used to finance this gap. In Sweden, the imbalances in the system are settled by decreasing the pensions in payment and the pension accrual using the indexation system as the contribution rate is fixed. However, as discussed previously, the French private-sector social security scheme (régime général) finances its deficit issuing bonds on international markets. The scheme has the same credit rating as the French State, and the accumulated debt is taken over by a separate organization.

5 Discussion

The highest level of contributions was found in Denmark and Austria: 16 and 15 per cent of GDP respectively. The average level was around 14 per cent of GDP. On average, the cost of pensions has increased compared to the results of the previous study almost a decade ago (see Vidlund et al. 2009). This is largely due to the ageing population and the increased costs of old-age pensions.

Even though pension financing and the level of expenditure are sensitive to the age structure of the population, the high share of spending on old-age pensions cannot be fully explained by the age structure alone. This can be seen by comparing pension spending to old-age dependency ratios across the countries. There is a strong relationship, but it is far from deterministic. Sweden, Germany and Finland have worse demographics but significantly lower pension spending than Austria and Denmark. This would imply, that the pension system is more generous in these latter two countries (see e.g. OECD 2013; 2015). In both Austria and Denmark generous pensions have been associated with routes to early-retirement. Traditionally, both countries have had many routes to early-retirement, although recent reforms have tightened eligibility rules or even totally abolished early retirement benefits. A main driving force behind the recent pension reforms has been the need to ensure the financial sustainability of the overall public finances. The reforms have reduced pension expenditure and the pressure to increase contribution rates. However, a great variation between countries can be found when comparing the development in the last decade with future projections.

Decreasing the burden of the statutory schemes

In contrast to the overall increasing trend within the last decade, the statutory pension expenditure in relation to GDP has diminished from 2005 to date in Sweden and Germany, and to some extent also in the Netherlands (Table 6). These changes have had a direct effect on contribution levels as well. Both Sweden and Germany have established balancing mechanisms, which link the amount of pension to economic and demographic developments with the effect of reducing the annual pension adjustment. This financial risk sharing at the expense of the benefit levels has also been actualized in both countries.

In Germany, the benefits were not indexed from 2004 to 2006 or in 2010. In Sweden, pension adjustments have been negative with nominal cuts in pensions in 2010, 2011 and 2014. The growth of the contribution income for the earnings-related old-age pension stagnated in 2008–2010 which, together with a drop in the value of buffer funds has resulted in a negative revaluation of NDC pensions. After this contribution income has continued to rise, but in relation to GDP the contribution level in 2014 was lower than in 2005.

One of the pension reforms affecting the diminished levels of Swedish pension expenditure and contributions has been the disability pension reform in 2003. The cost of the disability pension has dropped the most among the countries under comparison, from 2.6 per cent of GDP in 2005 to 1.2 per cent in 2014. The reduced need for disability pension financing is a general trend experienced in all the countries under review, which also explains the decrease of the Dutch pension expenditures between these two periods.

The downward trend of disability expenditure is the result of restricted eligibility criteria for disability pensions, as well as the fact that the benefit tends to be granted first and foremost for a fixed period of time. Changes in general health trends and in the labour markets have also contributed to the declining disability incidence.

Another structural change from the financial perspective, which may also have some impact on the results of this report, is that the nature of disability is changing. Job-related rehabilitation or activation measures are of growing importance instead of the traditional measure of granting a pension, which is now becoming the last source of income. Instead of pensions, other benefits are granted within, for example, health insurance and unemployment insurance or as part of active labour market or rehabilitation measures. In this report, the costs of rehabilitation benefits are included as far as they are financed through the pension system. However, benefits such as flex-job benefits in Denmark which are intended as an alternative to the disability pension are not included in the overall result of our study. Similar examples can be found from other countries as well.

In order to shed light on the probable changes in the future contribution rates it is useful to look at the long term projections on statutory pension expenditures. In general, the expenditure level is projected to increase in the countries under comparison. In the long-term, Germany and Norway are projected to have the highest increase. However, it is noticeable that in Denmark, Sweden and France, the expenditure is expected to decrease (Table 7) (European Commission 2015).

For France, this decrease is based on reforms that will increase the effective retirement age and reduce the level of benefits. In Sweden, the decrease is mainly due to the automatic balancing mechanism in the NDC-type old-age pension system that prevents any future contribution hikes.

For Denmark the change is more structural. Due to income-testing, the growing role of private pensions diminishes the amount of the national pension.[16] Together with the rising retirement ages, this will significantly reduce the financial burden in the statutory pension scheme and the need for direct tax revenues in the national pension scheme.

Table 6.
Projections of statutory pension expenditure 2040–2060, in % and percentage points of GDP.

Country	2005	2013	2040	2060	Change 2013–40	Change 2013–60
Austria	13.2	13.9	14.7	14.4	0.8	0.5
Denmark	9.6	10.3	8.0	7.2	-2.3	-3.1
Finland	10.4	12.9	13.6	12.9	0.7	0.1
France**	12.8	14.9	13.8	12.1	-1.1	-2.8
Germany	11.1	10.0	12.2	12.7	2.2	2.7
Netherlands	7.4	6.9	8.3	7.8	1.5	0.9
Norway	7.0	9.9	11.4	12.4	1.5	2.5
Sweden	10.4	8.9	7.5	7.5	-1.4	-1.4
Switzerland	8.8	9.6	n.a	10.7*	n.a	1.1
EU28	10.6***	11.3	11.7	11.1	0.4	-0.2

* Refers to 2050. ** France includes both the statutory and mandatory occupational (AGIRC-ARRCO) pensions. *** EU25
Source: European Commission 2015; OECD 2015.

16 The Danish Association of Insurance has projected that payments from pillars II and III will increase over the next decades and exceed those of the national old-age pension by 2030 (Andersen et. al 2014; Nielsen 2011;OECD 2015b.)

Constant contribution rates in the statutory schemes

Our report shows that surprisingly many countries have kept their contribution rates fixed for a longer period of time. This is in line with the observations by the OECD (2013) that report a similar trend since the mid-90s.

However, as our report indicates the stability of the statutory contribution rate is neither a sufficient indicator for the total costs of pension provision nor for the overall financial sustainability of the pension system. Fixed contribution rates together with increasing expenditure can lead to growing use of other sources of financing, such as tax financing and use of funds or broadening the contribution base.

In Austria and the Netherlands the use of tax financing has enabled the statutory pension contributions to remain constant. Especially, in the Netherlands the share of tax financing has increased considerably since the turn of the century and is planned to continue to increase in the future. This is the case also in the Swiss basic pension scheme, where the contribution rates for statutory basic old-age and disability pensions have remained unchanged for decades. Furthermore, the 2020 pension reform proposal includes measures to increase the standard VAT rate for securing the financing of pensions (BSV 2016).

Contribution rate can be also fixed by the design of pension system, without the need for extra financing from other sources. This is the case especially in Sweden where the fixed old-age pension contribution rate (18.5 per cent) is connected to flexibility of the benefits and in the design of the system (NDC-model).

Finland and Germany, where contribution rates are more sensitive to the development of expenditures, have adjusted their pension systems so as to avoid continuous increases in contribution rates. In Germany the contribution rate has fluctuated between 19–20 per cent during the 2000s. Since then it has come down to the current level of 18.7 per cent (in 2016) due to favourable employment and economic growth together with benefit adjustments. However, according to the projections the contribution rate is expected to increase gradually to 21.5 per cent by 2029, still well below the capped levels set in 2004 (see 3.2.1). (BMAS 2015; European Commission 2015.)

In Finland, no specified contribution cap has been set. However, successive pension reforms have clearly sought to stabilize the contribution rate. Also, prefunding provides smoothing of the contribution rates. Thus, the contributions need not to rise in full proportion to the number of retirees.

Stabilizing occupational pension contributions

In recent years, pension funds and insurance companies providing occupational pensions have been significantly affected by the combined effect of low returns on financial markets, increased life-expectancy and an ultra-low interest rate environment. These factors increase the pressure on DB systems, in particular, by worsening their solvency situation. Basically, the solution for these schemes is either to increase contributions, cut benefits or raise the retirement age. For DC schemes the situation is slightly different, as the direct effect does not affect contributions but the individuals' pension capital and, ultimately, benefit levels.

In the light of this development that has taken place within funded occupational pensions, the results of our report can be seen as somewhat surprising. Although the occupational pension contribution income in relation to GDP has markedly increased during the last decade, the growth rate, however, seems to have flattened out in most of the countries during the years 2010–2014. There are several reasons for this observed development. In the following, we have described in more detail some of the measures that have already been taken or are seen to affect the contribution level in the future.

In Denmark, occupational pensions are mainly DC schemes with a guaranteed minimum investment return. Until recently, contribution rates have been increasing. However, already for a few years, the current contribution rates have remained stable. According to Andersen (2015), this trend in contribution rates may be explained by the pension levels already reached and the fact that the current arrangements make it less attractive for some groups to increase their contributions for taxation reasons. In addition, the insurers have been able to renegotiate or unilaterally adjust existing contracts by lowering guaranteed rates for DC schemes, which means less pressure to increase the contribution rates. These developments can also be observed in our report, as the contribution income in relation to GDP increased from 5.3 per cent in 2015 by close to 1 percentage point by 2010. However, from 2010 to 2014, it has remained virtually unchanged. According to the projections by the European Commission (2015), the contribution level is expected to decline slightly in the future.

Also in the Netherlands, the trend of increasing contribution levels shows signs of flattening out. Of the countries under comparison, the Netherlands relies mostly on DB schemes. The funding ratios of many of the country's largest schemes have plunged close to the critical solvency level. Instead of increasing contribution rates, recent measures have included cutting benefits and raising the retirement age. There are also ongoing discussions for stabilizing the contribution rates by moving towards schemes that resemble DC schemes. In short, the historical trend of increasing the contribution rates as a result of low funding ratios seems to have come to an end. Indeed, our results indicate that after a substantial increase (1 percentage point of GDP in 2010–2013), the contribution income decreased by 0.5 percentage points in 2014 compared to that in 2013. Long-term projections also indicate decreasing contributions over the period 2013–2060 (-2.3% of GDP) (The European Commission 2015).

In a similar manner to Denmark and the Netherlands, the contribution income in Sweden is also expected to diminish slightly by 2060[17] (the European Commission 2015). The decrease in occupational pension contributions is due to reforms which have converted DB schemes to DC schemes with lower contribution rates. According to our data, the contribution income in relation to GDP has increased for the period 2010–2014. Nevertheless, comparable data shows that the level in 2014 is roughly the same as it was a decade ago (4 per cent of GDP).

In Germany, the development in the contribution income relative to GDP has stabilized at a level of 1.7 per cent in 2010–2014. This reflects the declining growth in the numbers of active members in occupational schemes. However, the German government has recently

17 For the projection of pensions, the real rate of return on funded pensions equals to the real interest rate of 3 per cent (the European Commission 2014).

proposed a new law for establishing 'pure' DC schemes with the aim of increasing the coverage in the future (BMAS 2016). The new law should take effect in 2018.

In contrast to the stabilizing or even downward trend in many countries included in our comparison, the occupational pension schemes' contributions are increasing in Norway. The main reason for this is that occupational pensions were legislated compulsory in 2006. Even though the coverage has increased in the private sector, the contribution income has not increased with the equivalent rate. The new schemes are DC schemes with contribution rates close to the required minimum. In 2005, the occupational pension contributions were 2.6 per cent while they amounted to 3.6 per cent of GDP in 2014.

In Switzerland, the contribution income shows an upward trend during the period 2010–2014 due to favourable economic development. However, despite the positive development in contribution income, the ageing and the challenging market environment have led to reduced benefits. The main measures, in particular during the above-mentioned five-year period, have included a diminishing of the conversion or annuity rate and a lowering of the required minimum investment return rate, which must be applied to all mandatory contributions made to second-pillar schemes. Furthermore, in order to strengthen the financial sustainability of the occupational pension scheme, the 2020 reform proposal will raise the retirement ages and further reduce the conversion rate. The Swiss government also proposes that the incidence of contribution rates should be adjusted[18], and that the earnings threshold, together with the age of entry into the system, should be lowered. This will effectively broaden the contribution base.

6 Conclusions

One of the key results of our report is that, in cross-national studies, it is important to be aware of the differences of the structure of basic and earnings-related pension provision. Statutory pension contributions reveal only a partial truth about the total costs of pension provision. Thus, a straightforward comparison of only statutory pensions is not sufficient due to the significant role of occupational pension schemes, which in many countries are almost equivalent to earnings-related statutory pension schemes. When discussing labour unit costs, in particular, it is essential to take into account the total pension provision. From an employer's or an employee's point of view it is the total cost of pension provision that counts, rather than whether the contribution income is divided into a statutory (first pillar) or an occupational (second pillar) contribution.

There are significant differences in how pension provision is structured, not only between countries but also within a country. In this comparative summary, our focus was on a macro-level comparison. Details about scheme-specific differences in pension financing can be found in the country fiches.

18 The increase will concern only workers aged between 35 and 44, for whom the rate will rise from 10 to 11.5 per cent and those aged between 45 and 54, for whom the rate will increase from 15 to 17.5 per cent. For those aged 55 and over, a reduction of the contribution rate from 18 to 17.5 per cent has been proposed.

Although there is some variation in the position of the countries when measured by different indicators, some stability can be clearly observed in the results for certain countries. On the basis of our broad outline, it is possible to state that the countries with the highest contribution burden are Denmark and Austria. Interestingly enough, the pension systems are constructed quite differently in these two countries. The Danish system consists of a multi-pillar pension provision, whereas the Austrian system is basically totally constructed on statutory pension provision. This suggests that no optimal size of the different tiers of the pension provision exist. Instead, it is based on negotiations and consensus within a country.

Correspondingly, we can see that the two countries with the lowest pension contributions are Sweden and Germany. However, our main observation concerns the convergence of the contribution levels of the different countries, when taking into account all relevant pension schemes. In addition to demographic and financial background factors, the differences in pension expenditure and contributions can largely be explained by the structural differences of the pension schemes.

A decomposition of contributions reveals that the employers' contributions tend to represent the greatest share of contributions with the exception of Denmark. The employers' share is highest in Sweden and Finland. Overall, occupational pension provision is mainly financed by the employer, in Sweden completely so. Employees contribute the most in the Netherlands and Switzerland and the least in Denmark and Finland. As a rule, the contributions for both the statutory and the occupational pension schemes may at least in part be deducted in taxation. Thus the bill for the employers and the employees is, in reality, somewhat less burdensome.

In all countries, tax revenues are used in pension financing, and, in some countries, the share of general tax revenues in 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 tax revenues' share of the contribution income is significant (approx. 30 per cent) also in Austria and Germany.

To grasp and analyse the initial idea of pensions, that is, to alleviate poverty and to secure income, more attention should be paid to the multidimensional pension landscape in cross-national comparisons. Otherwise, there is a risk of losing essential parts of the pension puzzle.

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Annex 1. GDP, compensation of wages and salaries in 2010–2014

Table 1.
Compensation of employees and wage sum.

Compensation of employees, million (national currency)					
	2010	2011	2012	2013	2014
AT	138,905.2	144,342.8	150,341.9	154,546.9	158,585.6
CH (Swiss Franc)	342,504.6	356,131.9	365,005,0	373,767.2	381,690.4
DE	1,281,963.0	1,337,273.0	1,389,192,0	1,428,342.0	1,482,797.0
DK (Danish Krone)	953,668.0	966,474.0	978,804.0	991,727.0	1,017,199.0
FI	92,404.0	96,828.0	100,288.0	101,169.0	101,388.0
FR	1,040,212.0	1,068,929.0	1,092,356.0	1,107,016.0	1,125,630.0
NL	310,471.0	318,040.0	322,825.0	323,635.0	328,547.0
NO (Norwegian Krone)	1 151 134,0	1,225,068.0	1,308,760.0	1,384.564.0	1,448,144.0
SE (Swedish Krona)	1 600 603,0	1,692,809.0	1,760,363.0	1,813.304.0	1,881,319.0
Wage sum (wages and salaries), million (national currency)					
AT	114,602.2	119,029.5	124,040.1	127,402.3	130,582.7
CH (Swiss Franc)	289,922.8	301,039.1	308,529.4	315,401.8	320,604.7
DE	1,037,105.0	1,086,105.0	1,130,980.0	1,165,739.0	1,211,030.0
DK (Danish Krone)	874,694.0	888,416.0	902,481.0	910,416.0	933,362.0
FI	75,133.0	78,580.0	81,283.0	81,968.0	82,229.0
FR	768,018.0	784,783.0	800,407.0	808,569.0	820,682.0
NL	246,542.0	251,715.0	253,193.0	253,659.0	253,974.0
NO (Norwegian Krone)	942,850.0	1,001,385.0	1,064,203.0	1,124,073,0	1,172,652.0
SE (Swedish Krona)	1,348,429.0	1,423,300.0	1,476,496.0	1,517,038,0	1,573,027.0

Source: OECD.Stat http://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE1 ; OECD (2015a).
1 EUR = 1.2146 CHF = 7.4548 DKK = 8.3544 NOK = 9.0985 SEK (BoF).

Table 2.
GDP at basic and market prices.

GDP Gross value added at basic prices, million (national currency)					
	2010	2011	2012	2013	2014
AT	262,311.4	274,852.2	281,894.5	287,543.4	293,310.7
CH (Swiss Franc)	583,796.2	596,145.2	602,966.3	613,973.5	622,024.0
DE	2,321,695.0	2,428,078.0	2,475,120.0	2,536,860.0	2,623,090.0
DK	1,550,466.0	1,580,292.0	1,607,796.0	1,625,586.0	1,659,579.0
FI	163,620.0	170,454.0	172,417.0	174,407.0	176,689.0
FR	1,800,982.0	1,849,498.0	1,873,450.0	1,899,320.0	1,910,231.0
NL	567,757.0	579,590.0	583,832.0	586,734.0	596,655.0
NO (Norwegian Krone)	2,306,443.0	2,496,919.0	2 656 794,0	2 747 310,0	2,818,780.0
SE (Swedish Krona)	3,094,787.0	3,222,931.0	3 253 975,0	3 333 436,0	3,469,310.0
Gross domestic product at market prices, million (national currency)					
AT	294,627.5	308,630.3	317,055.8	322,878.3	329,295.6
CH (Swiss Franc)	606,145.7	618,324.8	623,943.0	634,854.0	642,255.9
DE	2,580,060.0	2,703,120.0	2,754,860.0	2,820,820.0	2,915,650.0
DK (Danish Krone)	1,798,649.0	1,833,404.0	1,866,779.0	1,886,393.0	1,921,498.0
FI	187,100.0	196,869.0	199,793.0	202,743.0	205,178.0
FR	1,998,481.0	2,059,284.0	2,086,929.0	2,116,565.0	2,132,449.0
NL	631,512.0	642,929.0	645,164.0	650,857.0	662,770.0
NO (Norwegian Krone)	2,590,089.0	2,791,973.0	2,965,208.0	3,068,801.0	3,149,681.0
SE (Swedish Krona)	3,519,994.0	3,656,577.0	3,684,800.0	3,769,909.0	3,918,129.0

Source: OECD.Stat http://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE1; OECD (2015a).
1 EUR = 1.2146 CHF = 7.4548 DKK = 8.3544 NOK = 9.0985 SEK (BoF).

Annex 2. Pension schemes covered in the study

Table 1.
Statutory and occupational pension schemes.

	Statutory (I pillar) pensions	Occupational (II pillar) pensions
DK	Old-age pension (Folkepension), Disability pensions (Førtidspension), ATP, Early retirement pension (Efterløn)	Life insurance companies, company and multi-employer pension funds, banks, Civil Service Pension Scheme
NO	National Insurance Scheme, Pension Insurance for Seamen, Pension Insurance for Fishermen	AFP-pension, obligatory occupational schemes
SE	Old-age, survivors pensions, activity and sickness compensation (disability pensions)	Life insurance companies, funds, The National Government Employee Pensions Board (SPV), (i.e. ITP, SAF-LO, AKAP-KL, PA03 schemes)
NL	General old-age (AOW) and Survivors' pension (ANW), Disability benefit scheme for employees (WIA), Disability benefit scheme for the young handicapped (WAJONG)	Pension funds (industry-wide, occupational and company), insurance company schemes, Premium Pension Institutions
DE	Statutory pension provision (Gesetzliche Rentenversicherung), Civil service pension scheme (Beamtenversorgung), Farmers' Pension Scheme, Pension Scheme for Artists, professional pension schemes (Berufständige Versorgungswerke)	Occcupational schemes in private sector (Pensionskassen, Direktversicherung, Unterstützungskasse, Pensionsfonds) Public sector schemes (ZÖD)
FR	Social Security Scheme (CNAMTS, CNAV & FSV), Civil Servants (FPE), Agricultural sector (MSA), Entrepreneurs (RSI), Regional civil service an d hospitals (CNRACL), and others (incl. FSPOEIE, SNCF, RATP, CNIEG, CANSSM, ENIM, CRPCEN, CNAVPL, CNBF, SASPA.)	Private sector (AGIRC, ARRCO) ja public sector (IRCANTEC, RAFP) salaried, entrepreneurs (RSI), liberal professions (CNAVPL), farmers (MSA RCO), aviation (CNRPAC), barristers' (CNBF) and supplementary pensions (incl. Article 82, 39 & 82, Madelin contracts etc.)
CH	General old-age, survivors' and disability schemes (AHV/IV), pension supplements (Ergänzungsleistungen)	Compulsory and top up BVG-occupational pension
AT	State pensions (APG/ASVG,GSVG/FSVG, BSVG, VAEB, NVG), Compensation supplement (Ausgleichszulage), Early retirement pensions (Korridorpension, Hacklerregelung, Schwerarbeitspension, Langzeitversicherte, Sonderruhegeld); Civil Service Pension scheme	Voluntary occupational pensions
FI	Earnings-related pensions (incl. registered pension), National pension, Guarantee Pension	Voluntary (unregistered) occupational pensions

Annex 3. Differences between indicators

Contrary to the wage sum the compensation of employees includes wages and salaries as well as social security contributions paid by the employers. The wage sum is a commonly used indicator but it may lead to inaccurate interpretations when comparing countries where the employers' and the employees' shares of social security contributions differ. Such a situation arises especially when comparing two countries, where the employer's social security contributions are high in one country (e.g., in France) and low in the other, (e.g., in Denmark). In the latter, 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), which means that the wage sum is proportionally higher in Denmark than in France.

Comparative set-up may be explained by 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 different results (Table 1).

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 contribution incomes in relation to GDP at market prices and GDP at basic prices. 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 (e.g., export subsidies).

GDP at market prices is the most common indicator in comparisons, but due to the different taxation structures, differences may occur. We may assume, for instance, 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 countries, a comparison in relation to GDP at market prices, which includes commodity taxes, leads to a different 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.

Annex 4. Pension contribution income in relation to wage sum and GDP at basic prices in 2014

Figure 1.

Pension contribution income in relation to wage sum in 2014, %.

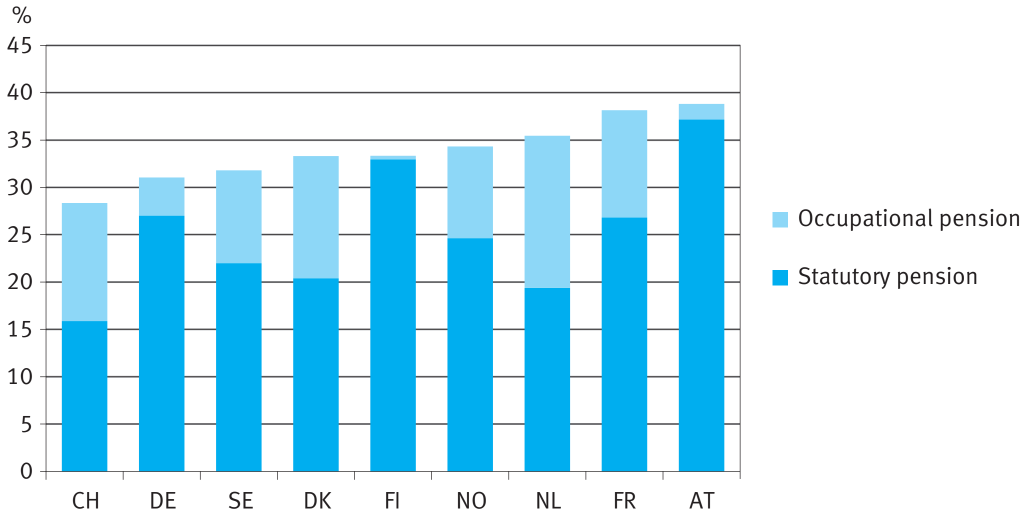


Figure 2.

Pension contribution income in relation to GDP (at basic prices) in 2014, %.

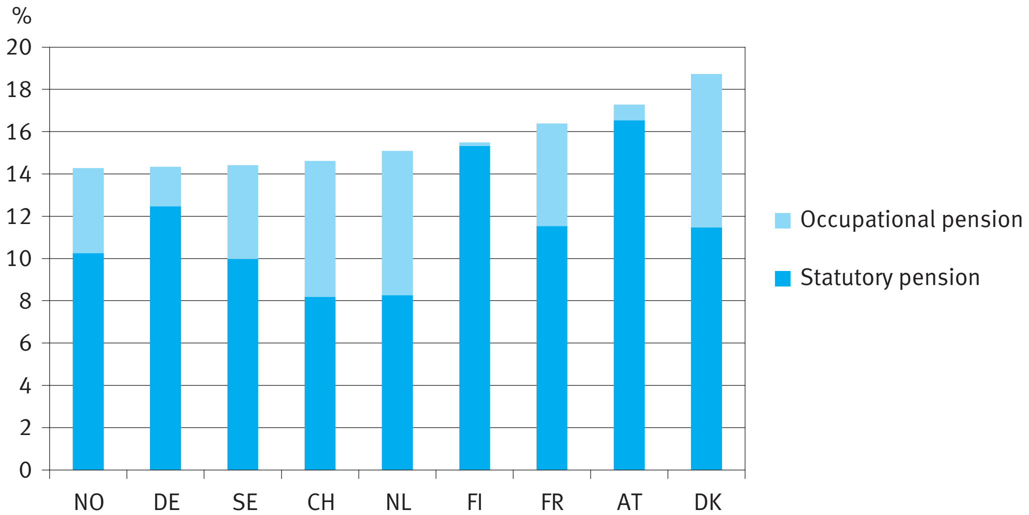


Figure 3.
Pension contribution income in relation to wage sum by division of costs in 2014, %.

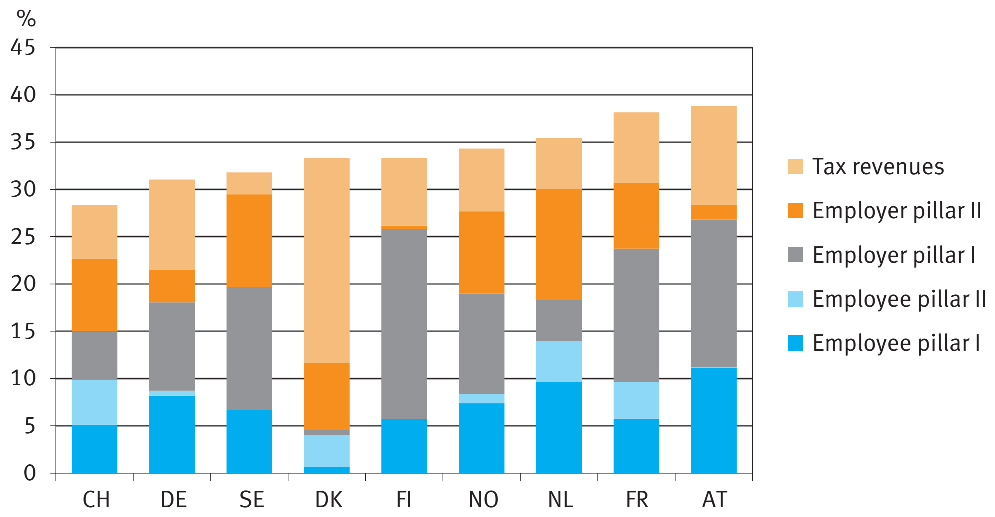
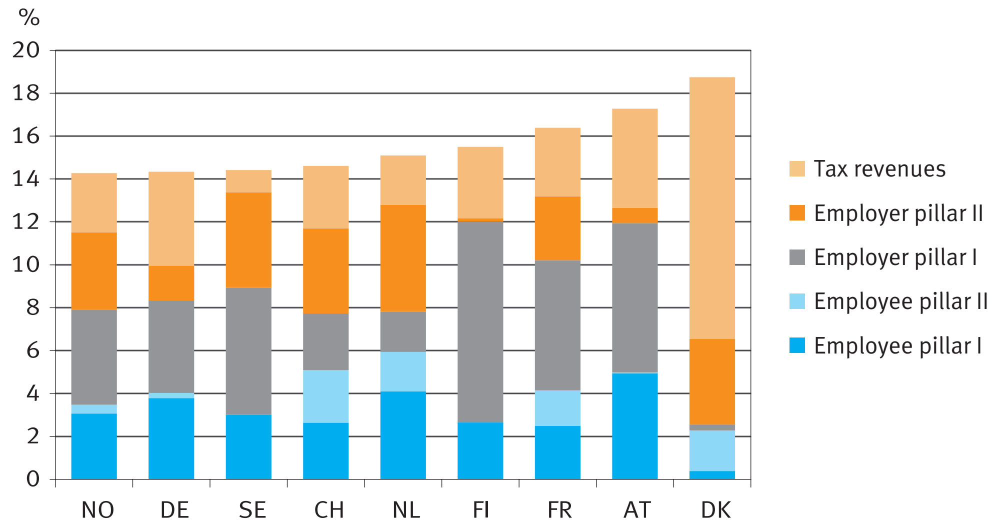


Figure 4.
Pension contribution income in relation to GDP (at basic prices) by division of costs in 2014, %.



COUNTRY FICHES

PENSION CONTRIBUTION LEVEL IN AUSTRIA

Mika Vidlund

Contents

1 Pension contribution level in 2014

The following table presents the total contribution income for pensions in relation to the compensation of employees, the wage sum and GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
State Pensions	7.7	9.30	3.7	4.14
Pensions: Civil Servants	1.5	1.82	0.72	0.81
Night Shift Heavy Labour Pensions	0.0	0.0	0.0	0.0
Occupational Pensions	0.0	0.06	0.02	0.03
Total	9.2	11.17	4.43	4.97
Employers (incl. self-employed)				
State Pensions	11.01	13.37	5.30	5.95
Pensions: Civil Servants	1.84	2.24	0.89	1.00
Night Shift Heavy Labour Pensions	0.03	0.03	0.01	0.01
Occupational Pensions	1.32	1.60	0.63	0.71
Total	14.20	17.24	6.84	7.68
The State's shares and other tax financing				
State Pensions	4.55	5.53	2.19	2.46
Pensions: Civil Servants	4.01	4.88	1.93	2.17
Night Shift Heavy Labour Pensions	0.00	0.00	0.00	0.00
Occupational Pensions	0.00	0	0.00	0.00
Total	8.57	10.40	4.13	4.63
Statutory pensions	30.60	37.16	14.74	16.54
Occupational pensions	1.36	1.66	0.66	0.74
All in total	31.96	38.82	15.39	17.28

2 Data and Methodology

The pension schemes included in this country fiche are the statutory pension schemes and supplementary pension provision in the occupational pension schemes. As with the other countries, we have excluded the third-pillar, individual pension schemes from our comparison.

We have collected the applied data from official sources available to the public. This includes annual reports and statistics available on the relevant organizations' webpages. For Austria's part, this means that we have used mainly the annual reports and statistics provided by the Main Association of Austrian Social Security Institutions (Hauptverband der österreichischen Sozialversicherungsträger). For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries.

The pension contribution level has been calculated by dividing the pension contribution income and possible state subsidy amounts with the OECD data.

In calculating the contribution levels, we have only included the contribution income paid by the employees, employers and the State. We have not considered other possible income. The respective contribution shares for employees, employers and the State are calculated according to the source data.

3 Statutory pension system

The first-pillar statutory pension system (Gesetzliche Pensionsversicherung) is financed on a PAYG principle. It is clearly the most important source of retirement income in the Austrian pension system. It provides old-age pensions, surviving dependents' pensions, as well as disability pensions. In addition, Austria has a rather long and vivid history of different early retirement schemes, which have been modified and largely abolished in reforms in the early 2000s (see, e.g., PVA 2016a).

The statutory general pension system covers, in principle, all people in gainful employment, with the exception of civil servants, who have traditionally been covered by their own systems. However, uniform pension laws were created for all gainfully employed people, including federal civil servants, under the Act on the Harmonisation of Austrian Pension Systems (Pensionsharmonisierungsgesetz), which took effect on 1 January 2005 (Bundesgesetzblatt 2004).

Pension provision is compulsory for employees and the self-employed, as well as for farmers with an income ranging between 395 and 5,285 euros per month in 2014. Employees with wages below the marginal earnings threshold may opt into the old-age insurance scheme on a voluntary basis.

Austrian pensions are regulated by the General Pensions Act (Allgemeines Pensionsgesetzgesetz, APG). Depending on the insurance group, the stipulations are found in the General Social Insurance Act (Allgemeines Sozialversicherungsgesetz, ASVG), the Act on Social Insurance for the Self-Employed (Gewerbliches Sozialversicherungsgesetz, GSVG), the Act on Social Insurance for the Liberal Professions (Freiberufliches-Sozialversicherungsgesetz, FSVG), the Act on Social Insurance for Farmers (Bäuerliches Sozialversicherungsgesetz, BSVG) and the Act on Social Insurance for Notaries (Notarversicherungsgesetz, NVG). (Bundesministerium für Arbeit, Soziales und Konsumentenschutz 2016.)

There are four pension insurance institutions which implement the above legislation. The largest of them is the Pensionsversicherungsanstalt (PVA, in the field of the ASVG), which is the insurance institution for employees. In addition, there are social insurance institutions for railways and mining (VAEB, in the field of the ASVG), for the self-employed in trade and industry (SVA, in the field of the GSVG and FSVG), for farmers (SVB, in the field of the BSVG), for civil or public servants (BVA, in the field of APG and ASVG) and for notaries (in the field of NVG).

In Table 2, the size of each of these specific schemes is indicated with the number of insured persons within each scheme.

Table 2.
Number of insured persons within the different Austrian pension schemes in 2010–2014.

Year average	Total	ASVG	GSVG/ FSVG	BSVG	VAEB	NVG
2010	3,540,529	3,019,221	365,401	155,044	43,100	863
2011	3,607,920	3,078,526	376,763	151,746	43,715	885
2012	3,673,673	3,137,529	386,567	148,666	44,289	911
2013	3,715,733	3,166,706	401,744	146,345	44,820	938
2014	3,758,306	3,201,590	411,740	144,005	45,856	971

Source: Hauptverband der österreichischen Sozialversicherungsträger 2015a.

The Austrian statutory pension system does not provide for an unconditional minimum pension for persons beyond a certain age. However, the so-called income-tested compensation supplement (Ausgleichszulage), that is, the minimum pension, may apply to persons who are entitled to an old-age pension. This benefit is financed by general taxation. Earnings-related pensions can amount to as much as 80 per cent of an individual's average lifetime earnings, providing he or she has paid contributions for at least 45 years.

The retirement age is 65 years for men and all civil servants (also females) and 60 years for women. The female retirement age will be gradually raised to 65 years in the period from 2024 to 2033.

Currently, the statutory pension system comprises a few remaining possibilities for early retirement. The early old-age pension with a long period of insurance (Vorzeitige Alterspension bei langer Versicherungsdauer) with no actuarial deductions is being phased out. Instead, a corridor pension (Korridorpension) and an early old-age pension for long-term contributors (Hacklerregelung) are both provided on the basis of the length of the contribution period (which is longer in the latter) and the requirements of the earliest possible retirement age. Access to these pensions has also been tightened in recent years, and both benefits are deducted for each month of early retirement (see, e.g., Fink 2016.) In 2014, there were 15,800 Korridor-pensioners and over 80,000 long-term contributor pensioners (Hauptverband der österreichischen Sozialversicherungsträger 2015). In 2015, the number of long-term contributors has dropped to less than 70,000 whereas the number of Korridor-pensioners has remained stable (Hauptverband der österreichischen Sozialversicherungsträger 2016).

In addition, regulations on heavy work provide routes to early-retirement. The special early retirement scheme for employees who work night shifts in heavy working conditions (e.g., miners) (Sonderruhegeld), was introduced in 1981 under the Act on Heavy Night Work (Nachtschwerarbeitsgesetz, NSchG). The heavy night work pension bridges the gap between 60 years and the regular retirement age. In 2014, less than 1,500 retirees (0.06% of all retirees) received this form of early pension. For heavy night work, the employer must pay an additional contribution, amounting to 3.7 per cent of the contribution base (see, e.g., Hauptverband der österreichischen Sozialversicherungsträger 2014; Bundesministerium für Arbeit, Soziales und Konsumentenschutz 2014).

The so-called 'heavy labour pension' (Schwerarbeitspension), which came into effect on 1 January 2007, is of more importance: the number of benefit recipients has increased from 1,299 in December 2008 to 6,600 in 2014 and to 10,860 in March 2016 (Fink 2016; Hauptverband der österreichischen Sozialversicherungsträger 2015). The heavy labour pension is reduced for each month of early retirement and can be drawn at the age of 60 at the earliest. Given the regulations on the statutory retirement age, this pension is currently available only for men. The scheme is financed in the same way as are other old-age pension schemes, that is, through a mixture of social insurance contributions and resources from the tax-financed federal budget.

As for early retirement pensions in general, the reform policy with tightened rules applies also to disability pensions. In 2014, the temporary disability pension was replaced by medical and job-related rehabilitation and was completely abolished for people below the age of 50 years (applicants born after 31 December 1963). Currently, the rehabilitation benefit (Rehabilitationsgeld) and the re-training benefit (Umschulungsgeld) are granted instead of a pension (Fink 2016). These benefits are paid out of the pension insurance, which is why we have regarded them as pensions and have thus included them in the overall statutory pension costs in our comparison.

Table 3.
Pension expenditure by benefit in 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Old-age pension	19,396	20,045	21,384	22,544	23,864
+ Compensation supplement (Ausgleichszuslage)	418	418	426	441	462
Disability pension	2,809	2,969	2,995	2,992	2,891
+ Compensation supplement (Ausgleichszuslage)	203	207	211	217	205
Survivors (Hinterbliebenenpension)	3,999	4,063	4,191	4,290	4,388
+ Compensation supplement (Ausgleichszuslage)	353	345	341	340	344
Early retirement with a long insurance period (Vorzeitige Alterspension bei langer Versicherungsdauer)	352	286	207	158	115
+ Compensation supplement (Ausgleichszuslage)	2	1	1	1	0
Other early retirement pensions (Korridorpension, Langzeitversicherte, Schwerarbeitspension)	2,462	2,652	2,686	2,767	2,670
+ Compensation supplement (Ausgleichszuslage)	4	5	5	6	6
Night Shift Heavy Labour Pensions	42	43	44	44	45
Total	30,040	31,034	32,492	33,800	34,991
In relation to GDP, %	9,1	9,4	9,9	10,3	10,6

Source: Bundesministerium für Arbeit, Soziales und Konsumentenschutz; ESSOSS-Datenbank.

The Austrian statutory pension scheme is financed mainly through compulsory contributions (80%) and general taxes (20%). The ratios vary greatly between the different groups. For example, for farmers, only 21 per cent of the financing comes from contributions and 79 per cent from taxes. The importance of the tax-financed component arises from the social targets within the pension system, for which no contributions are made by the insured, as well as from a structural change (a decreasing number of active farmers) (Akis-Rocha et al. 2016).

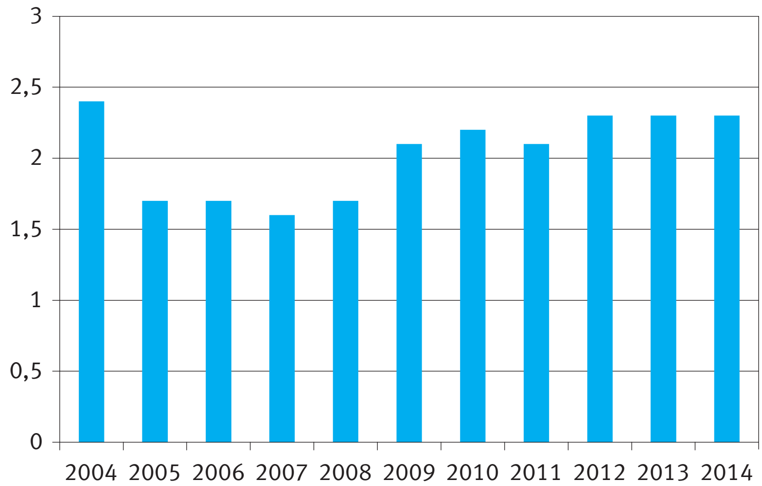
The contribution rate is 10.25 per cent for employees and 12.55 per cent for employers. These rates have remained unchanged since 1988. For the self-employed, the contribution rate has been 18.5 per cent since 2013 and for farmers 16.5 per cent in 2014 and 17.0 per cent in 2015. Table 4 presents the total contribution income together with the expenditure within each scheme.

Table 4.
Total contribution income and expenditure in different schemes in 2014, EUR million.

	Contributions	Expenditure
Total	38,572	38,572
ASVG* (incl. VAEB)	32,870	32,874
VAEB	790	790
GSVG/FSVG	3,404	3,406
BSVG	2,262	2,263
NVG	36	29

* Including Night Shift Heavy Labour Pensions (EUR 45 million).
Source: Hauptverband der österreichischen Sozialversicherungsträger 2015a.

Figure 1.
Share of Bundesbeitrag in relation to GDP in 2004–2014, %.



The pension contributions are supplemented by transfers from other schemes (e.g., unemployment insurance, the Family Burdens Equalisation Fund, FLAF) and a contribution from the federal budget. The federal budget covers periods of insurance such as parental leaves, times in unemployment or military service. Likewise, the State covers the deficits in most statutory pension schemes if needed (Ausfallhaftung des Bundes or Bundesbeitrag). In 2014, this "Bundesbeitrag" amounted to 7,715 billion euros, or 2.3 per cent of GDP. The level has remained unchanged at the 2004 level for the last three years (Figure 1). (Hauptverband der österreichischen Sozialversicherungsträger 2015b.) In addition, the minimum pension (Ausgleichszulage) is covered by the State, that is, by general tax revenues.

In Table 5, the contributions and expenditure relating to the above mentioned schemes covering old-age, early-retirement, disability and survivors' pensions are put together.

It must be noted that, in cross-national comparisons, we have not taken into account the compensation for pensioners' sickness insurance contributions, which has been reduced from the State's income. This same procedure has also been applied in the data for Germany.

Table 5.
Pension contribution income and expenditure in the statutory pension scheme, EUR million.

	2010	2011	2012	2013	2014
Income, total	33,073	34,127	35,736	37,173	38,572
Contribution income, total	25,357	26,291	27,150	28,334	29,601
- Employers	12,675	13,133	13,572	14,206	14837
- Employees	10,371	10,745	11,104	11,623	12,140
- The self-employed	2,311	2,412	2,474	2,504	2,583
State income (Ausfallhaftung des Bundes; Bundesbeitrag)	6537	6,631	7,317	7,404	7,719
State income for compensation supplement (Ausgleichszulagenersätze)	980	976	985	1,005	1,017
Other income	199	230	284	430	234
Expenditure, total	33,052	34,127	35,735	37,171	38,572
Earnings-related pensions	29,017	30,015	31,463	32,751	33,928
Compensation supplement, i.e., minimum pension (Ausgleichszulage)	980	976	985	1,005	1,017
Rehabilitation	785	841	903	952	1,095
Compensation for pensioners sickness insurance contribution	1,363	1,373	1,421	1,473	1,520
Administration	522	535	547	569	593
Other expenditure	342	342	373	376	373

Source: Hauptverband der österreichischen Sozialversicherungsträger 2015a and 2016; Bundesministerium für Arbeit, Soziales und Konsumentenschutz: ESSOSS-Datenbank.

3.1 Civil service pension scheme

Civil servants ("Beamte") have traditionally been covered by their own systems, but nowadays an increasing number of public-service employees (contract staff) are subject to the same social insurance legislation as private sector employees. The pensions of civil servants who were given tenure as of 1 January 2005 or born on or after 1 January 1976 will be governed by the same rules as those used under the general statutory pension scheme (APG/ASVG). (Bundesministerium für Arbeit, Soziales und Konsumentenschutz 2014.)

Part of the pensions for civil servants is financed by contributions, but most of the revenues come from the state budget. The employer contribution for civil servants amounts to 12.55 per cent and the employee contribution from 10.25 to 12.55 per cent, depending on the employee's year of birth (with higher rates for the elderly cohorts) (Federal Ministry of Finance 2014). Table 7 sums up the contributions for this scheme (covering civil servants from the federal, state and municipal levels as well as other public entities such as the Austrian Federal Railways and the Austrian Post). The total contribution income, which also equals the total expenditure, was 3.5 per cent of GDP in 2014.

Table 7.
Contribution income of the civil service pension scheme, million EUR.

	2010	2011	2012	2013	2014
Total	10,494	10,678	11,025	11,343	11,662
Employer	2,962	2,937	2,907	2,974	2,920
Employee	2,410	2,389	2,364	2,416	2,375
State	5,122	5,351	5,754	5,953	6,366

Source: Bundesministerium für Arbeit, Soziales und Konsumentenschutz; Statistik Austria, ESSOSS-Datenbank.

3.2 Voluntary supplementary insurance within the statutory system

The Austrian statutory pension system provides a unique possibility for voluntary pension saving within the general ASVG (Allgemeines Sozialversicherungsgesetz) system. This voluntary supplementary insurance is used by just a handful of companies, usually in combination with another financing method of occupational schemes. Employees (also in combination with the employer) can pay additional pension contributions within a year up to two times the ceiling amount (EUR 5,285 in 2014) into first-pillar schemes. The contributions are increased (like all contributions in the statutory pension account) with the overall annual wage increase. Payments can be made regularly or occasionally. They increase the pension benefit in the same way as do the regular pension contributions. Around 6,000 employees (out of 3.5 million, i.e., 0.2%) were covered by this voluntary supplementary insurance in 2014. However, we have not taken these contributions into account in our comparison since they have been interpreted as third-pillar voluntary private pension contributions.

Table 8.
Contribution income (EUR) and number of employees in voluntary supplementary insurance.

Year	Employees	Contributions (EUR)		Annual change, %	
		Total	Per person	Persons	Contributions
2010	4,379	3,012.639	688	3.6	8.2
2011	3,968	3,322.096	837	-9.4	10.3
2012	4,050	4,240.939	1,047	2.1	27.7
2013	4,533	5,327.059	1,175	11.9	25.6
2014	5,731	10,789.307	1,883	26.4	102.5
2015	7,022	14,819.344	2,110	22.5	37.4

Source: PVA, Pensionsversicherungsanstalt, Jahresberichte.

4 Occupational pension schemes

The second-pillar pension schemes play a limited role in overall provisions, with less than 10 per cent of pensioners receiving an occupational pension at the moment. Nevertheless, the volumes of private pensions have gone up during the past decade. Currently, 770,000 employees are covered by a pension fund, which is around 21 per cent of the employees (FMA 2015, 24). The occupational (pillar II) scheme, based on collective bargaining agreements, is financed mainly by employer contributions. This second pillar is funded. By the end of 2014, the assets in the occupational pension funds amounted to 19.0 billion euros (5.8% of GDP) (FMA 2015).

Occupational pensions were first set up for employees with earnings above the maximum statutory pensionable earnings limit (EUR 5,285 in 2014). These direct pension commitments were almost exclusively financed by balance sheet reserves.

Since the Pension Fund Act (Pensionskassengesetz, PKG) and the Occupational Pensions Act (Betriebspensionsgesetz, BPG) came into force on 1 July 1990, the number of firms with occupational pensions has grown, but occupational pensions still serve as a voluntary complement to statutory first-pillar pensions. Meanwhile, almost all larger companies have transferred their occupational pension schemes to pension funds.

There are three types of occupational pensions:

1. direct pension commitments (“Direkte Leistungszusage”)
2. pension funds (“Pensionskassen”)
3. group life insurance.

The second-pillar system was modified somewhat by the introduction of the new severance pay scheme in 2003, according to which employers must deposit 1.53 per cent of the salary of their employees in the new scheme to a staff provision fund (Mitarbeitervorsorgekassa) set up for this purpose. Employees can withdraw their savings in case their work contract is terminated (providing specific preconditions are met) or keep them until their retirement age. By end of 2013, the assets of the new severance payment rose to 6.2 billion euros (1.9% of GDP).

The scope of occupational pensions is charted by regular surveys. WIFO occasionally carries out independent surveys on the extent of occupational pensions in the private business sector. According to the results of the WIFO surveys, a slow expansion of occupational pensions among private sector firms can be expected in the future (Url 2010; 2012).

The availability of occupational pensions varies strongly between industries: utilities and financial services make extensive use of deferred payments (high-pay branches), whereas hotels and restaurants, construction and trade largely do without occupational pension schemes (low-pay brances) (Url 2010; 2012).

Based on ESSPROS data and previous estimates from WIFO surveys, the annual contributions to occupational pension schemes amounted to roughly EUR 2.2 billion, and the annual occupational pension benefits were of an equal amount in 2014. The contribution income of occupational pensions included in our report thus amounted to around 0.7 per cent of GDP in 2014 (Table 9).

Table 9.
Contribution income of occupational pensions, million EUR.

	2010	2011	2012	2013	2014
Total	1,913	2,030	2,064	2,098	2,164
Employer	1,844	1,959	1,993	2,015	2,089
Employee	69	71	71	83	75
State	0	0	0	0	0

Source: Bundesministerium für Arbeit, Soziales und Konsumentenschutz (2016); Statistik Austria (2016).

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PENSION CONTRIBUTION LEVEL IN DENMARK

Mika Vidlund

Contents

1 Pension contribution level in 2014

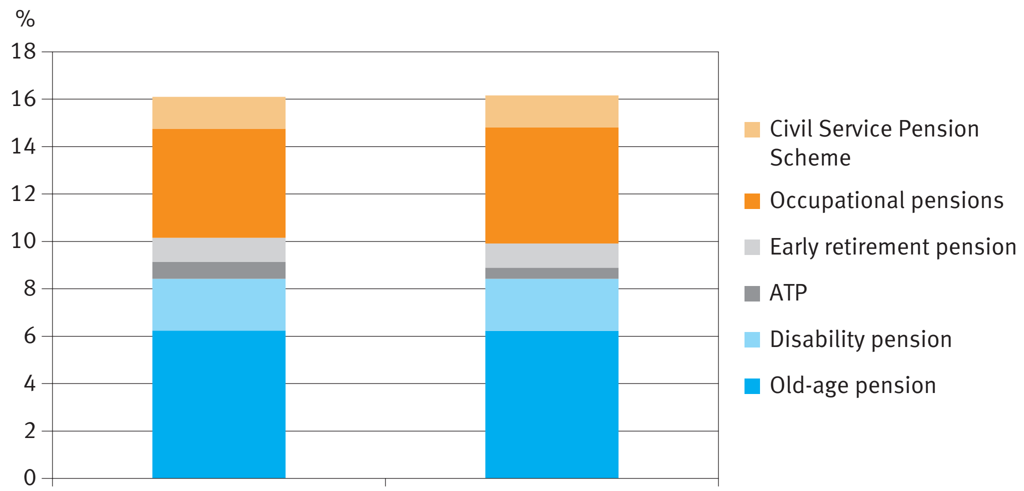
The following table presents the total pension premium income for statutory and occupational pension schemes in relation to the compensation of employees and the wage sum as well as to GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
ATP	0.30	0.33	0.16	0.19
Early retirement pension (Efterløn)	0.30	0.33	0.16	0.19
Occupational pensions	3.10	3.36	1.64	1.90
Total	3.70	4.03	1.96	2.27
Employers				
ATP	0.46	0.50	0.24	0.28
Occupational pensions	6.19	6.73	3.28	3.80
Civil Service Pension Scheme	0.31	0.33	0.16	0.19
Total	6.96	7.56	3.68	4.26
The State's share and other tax financing				
Old-age pension (Folkepension)	11.77	12.83	6.23	7.22
Early retirement pension (Efterløn)	1.62	1.77	0.86	0.99
Disability pensions (Førtidspension)	4.13	4.51	2.19	2.53
ATP	0.13	0.14	0.07	0.08
Civil Service Pension Scheme	2.25	2.45	1.19	1.38
Total	19.90	21.69	10.54	12.20
Statutory pensions	18.72	20.40	9.91	11.47
Occupational pensions	11.84	12.91	6.27	7.26
Of which Civil Service Pension Scheme	2.55	2.78	1.35	1.56
All in total	30.56	33.31	16.18	18.73

Figure 1 provides an overview of the statutory and supplementary occupational pension contributions and expenditures in 2014.

Figure 1.
Statutory and occupational pension contributions and expenditures in 2014, % of GDB.



2 Data and Methodology

The pension schemes included in the study are the statutory pension schemes and supplementary pension provision in the occupational pension schemes. We have not included individual pension provision (so called third pillar), as this is the case with other countries in the comparison as well.

We have collected the applied data from official sources available to the public. This includes annual reports and statistical data available on the relevant organizations' webpages. For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries.

The pension contribution level has been calculated by dividing the pension contribution income and possible state subsidy amounts with the OECD data.

In calculating the contribution levels, we have only included the contribution income paid by the employees, employers and the State. Possible other income is not taken into consideration. The respective contribution shares for employee, employer and the State are calculated according to the source data.

3 Statutory pension scheme

The residence-based national pension scheme is a central part of statutory pension provision. The benefits paid from the national pension scheme are the old-age pension (folkepension) and the disability pension (førtidspension). Survivors' pensions as such are not paid out, but if both spouses receive a benefit from the national pension scheme, the aggregate pensions of both spouses are paid as a surviving spouse's pension (efterlevelsespension) for three months after the death of one spouse. A person who is not entitled to a surviving spouse's pension may apply for a surviving spouse's benefit (efterlevelseshjælp), which is paid as a lump sum[1].

There are no statutory earnings-related pensions in Denmark. The labour market supplementary pension scheme (Arbejdsmarkedets Tillægspension, ATP), which covers wage earners, is a defined contribution scheme, but the contributions are not determined in relation to the earnings but in relation to the time in employment. The benefits paid from the ATP scheme are the old-age pension and the survivors' pension paid as a lump-sum. No disability pension is provided.

In addition, early retirement benefits are provided by the voluntary early retirement pension, VERP, (efterløn) which is paid by the unemployment scheme. The part-time pension (delpension) is available only for those born before 1959. The significance of the part-time pension has been small largely because it has been optional to VERP. For its part, VERP been a common exit pathway from the labour market.

3.1 The national pension scheme

The financing of the national pension scheme is based on the pay-as-you-go principle from the State and the local government budgets. The pension expenditure of the national pension scheme totaled 8.4 per cent in relation to GDP in 2014, including old-age, part-time and disability pensions.

3.1.1 The old-age and part-time pension scheme

The standard old-age pension consists of a basic amount (grundbeløb) and a pension supplement (pensionstillæg). The basic amount is a payment which almost all pensioners receive. It is subject to means testing based on the pensioner's own earnings. The pension supplement, on the other hand, depends on the combined income of both the pensioner's and his/her spouse's earned, capital and pension income. In addition, pensioners with a small or no income alongside the full old-age pension may receive a supplementary benefit for pensioners (ældrecheck). All benefits are taxable income.

In this report, the expenditure of part-time pension is included as part of the national pension scheme's old-age pension expenditure. The precondition for granting a part-time pension has been that the part-time pension recipient does not receive and is not entitled to early retirement pension from the unemployment insurance scheme (efterløn). The significance of the part-time pension in the Danish statutory pension scheme is small and will be phased out. The expenditure was DKK 13 million in 2014.

The old-age pension expenditure of the national pension scheme amounted to approximately DKK 120 billion in 2014, that is, approximately 6.2 per cent in relation to GDP (see table 2).

1 Expenditure for the surviving spouse's benefit (efterlevelseshjælp) is not included. The amount of expenditure was DKK 2.6 million in 2014 (Finansministeriet 2015a, Statsregnskab for finansåret 2014).

Table 2.
Old-age pension expenditure in 2010–2014, DKK million.

	Folkepension (incl. the part-time pension, the pension supplement and supplementary benefits)				
	2010	2011	2012	2013	2014
Expenditure	97,247	103,537	109,154	114,422	119,757

Source: DST 2015.

3.1.2 The disability pension scheme

There has been a steady movement away from passive income support within the disability pension scheme towards more active efforts through the flex job (fleksjob) scheme and the interdisciplinary rehabilitation programmes. A significant reform of the disability pension and the flex job scheme came into force on 1 January 2013. As a result of the reform, access to disability pensions is limited for persons less than 40 years old. Citizens who are below 40 years and at risk of ending up on a disability pension are instead assigned to a "resource process" through an individual, interdisciplinary rehabilitation programme in order to improve their working capacity. At the same time, the flex job scheme has been made more inclusive and targeted to persons with very limited working capacity. The way subsidies are awarded in the scheme has been restructured and, as a rule, flex jobs are now more temporary. (NRP 2015.)

Restructuring the disability pension scheme and changes in other benefit schemes (e.g. sickness, unemployment insurance), including rehabilitation measures, means that the disability pension is more a mix of different benefits than it used to be. Thus, the spectrum of benefits includes much more than the disability pension. For example, the temporary unemployment benefit (ledighedsydelse) for persons accepted to a subsidized flexible employment scheme, and flex jobs are not taken into account in the calculations of this report.

In 2014 the disability pension expenditure amounted to 2.2 per cent of GDP (Table 3).

Table 3.
Disability pension expenditure in 2010–2014, DKK million.

	Disability pension (incl. pension supplement)				
	2010	2011	2012	2013	2014
Expenditure	40,244	41,526	42,276	42,794	42,050

Source: DST 2015.

3.2 The early retirement pension scheme (Efterløn) in unemployment insurance

The early retirement pensions (efterløn) are mainly financed from State funds. A precondition for receiving the early retirement pension is that the employee has paid voluntary early retirement contributions to the unemployment fund. In 2014, the expenditure for early retirement pensions amounted to approximately DKK 19.6 billion, that its, about 1 per cent in relation to GDP. The proportion financed by the State was approximately 84 per cent, and the rest is covered by employees' contributions for early retirement pensions (efterlønsbidrag). Flex-job holders are entitled to the early retirement allowance/flex benefit (fleksydelse), which is comparable to the benefit received by members of the early retirement scheme. In addition, a tax-free benefit (bonus) is paid if retirement is postponed.

Table 4.
Expenditure for early retirement pensions in *2010–2014, DKK million.*

	Early-retirement pension				
	2010	2011	2012	2013	2014
Early retirement pension (efterløn)	20,392	19,226	17,935	17,009	16,128
Early retirement allowance (fleksydelse)	878	1,055	1,223	1,220	1,166
Expenditure total	21,270	20,281	19,158	18,229	17,294
Tax free benefit for later retirement (skattefri præmie)	2,015	2,220	2,303	2,259	2,262
All total	23,285	22,501	21,461	20,488	19,556

Source: Finansministeriet 2015a; DST 2015.

The insured must have been a member of an unemployment insurance fund and paid the voluntary early retirement contributions for 30 years to be eligible for early retirement. Unemployment is not required, however. In 2014, the contribution for a full-time insured was DKK 475 (approx. EUR 64) and for a part-time insured DKK 317 (approx. EUR 43) per month.

Table 5.
Contribution income for early retirement pension in 2010–2014, DKK million.

Early retirement pension				
2010	2011	2012	2013	2014
5,747	5,703	4,297	2,838	3,081

Source: Finansministeriet 2015b.

3.3 Employment-based pension scheme

The labour market supplementary pensions (ATP) are fully-funded defined contribution pensions. The ATP is a mandatory scheme for all wage earners and the vast majority of recipients of transfer income. With 4.8 million active members in total, ATP is Denmark's biggest supplementary pension scheme. A few groups – including the self-employed, recipients of voluntary early retirement benefits and recipients of benefits under the Danish flex job scheme (benefits paid for less demanding, publicly supported jobs) – are not members of ATP, but can opt to pay voluntary contributions. In addition to old-age pension, a lump-sum benefit is paid for surviving spouses, cohabitants and children. The ATP scheme includes no disability pensions.

Contributions are paid for periods of work as well as for periods of unemployment, sickness and maternity allowance, as well as for rehabilitation, activity and different training benefits. Recipients of early retirement pensions and disability pensions (førtidspension), as well as recipients of part-time pensions and early retirement pensions in the unemployment insurance scheme also pay ATP contributions. The insured person pays 1/3 of the contribution and the employer, the municipality, the State or the unemployment fund (depending on the payer of the benefit) pays 2/3. The contribution is determined in different ways depending on the benefit. The contributions levied on the benefits are based on working hours, double working hours or monthly working hours.

The ATP is administered by the independent ATP pension provider. The employer and the employee organisations are equally represented in the administration.

The ATP contribution is a fixed amount (i.e. independent of income) set by the social partners. The contribution is adjusted as and when agreed by the social partners. For a long time, the contribution has remained unchanged and its proportion in relation to the earnings has decreased. The standard ATP contribution was DKK 3,240 (EUR 435) per year from 2009 to 2015. From 1 January 2016, the ATP annual contribution was increased to DKK 3,408 as recommended by the Danish Confederation of Trade Unions (LO) and the Confederation of Danish Employers (DA). (ATP 2014.) It has been agreed that the contribution will be adjusted so that it corresponds to the projected rate of one per cent of the average wage.

In addition to the payable contributions, the benefits are also low. The annual pension averaged EUR 1,865 (DKK 13,900) in 2014. For pensioners who retired at 65 in 2014, the annual pension averaged EUR 2,090 (DKK 15,600). The full annual ATP pension for a 65-year-old who has contributed to ATP throughout his or her working life was EUR 3,220 (DKK 24,000) in 2014, equivalent to 34 per cent of the basic amount of the state old-age pension. This amount was paid to members who had paid the full ATP contribution from the age of 18 until retirement.

Table 6.
ATP contribution rates in 2009–2015, DKK.

Salary period/hours worked	Employer	Employee	Total
Monthly working hours, contribution/month:			
- at least 117 hours	180.00	90.00	270.00
- 78–116 hours (2/3 working time)	120.00	60.00	180.00
- 39–77 hours (1/3 working time)	60.00	30.00	90.00
- less than 39 hours	0	0	0
Weekly working hours, contribution/week:			
- at least 27 hours (full-time)	47.40	23.70	71.10
- 18–26 hours (2/3 working time)	31.60	15.80	47.40
- 9–17 hours (1/3 working time)	15.80	7.90	23.70
- less than 9 hours	0	0	0
Casual employee			
- contribution per hour	1.28	0.64	1.92

ATP received contributions totalling DKK 9.1 billion from wage earners and recipients of transfer income in 2014. About a quarter, 23 per cent, of the contributions were paid by recipients of the transfer income. Beneficiaries of the early retirement pension have to pay the contributions in full themselves. In other cases, the insured person pays one-third of the contribution, and the employer, the municipality, the State or the unemployment fund (depending on the payer of the benefit) pays two-thirds.

Table 7.
ATP contribution income by sources in 2014.

	Employer	Employee	State	Total
People in employment	4,647	2,324	-	6,971
Recipients of unemployment, sickness or maternity/paternity benefits		354 217 84 52	708 433 167 104	1,062 650 250 156
Recipients of disability pension	-	176	371	547
Recipients of early retirement pension	-	122	-	122
Recipients of other transfer income	-	116	231	347
Total	4,647	3,092	1,310	9,049

Source: ATP 2014; Finansministeriet 2015a; Borger.dk 2016.

In 2014, the limited role played by the ATP is highlighted by the size of contributions and benefits relative to GDP. The premium income and the pensions paid amounted to 0.5 and 0.7 per cent of GDP, respectively. As the ATP scheme has reached a mature stage, pay-outs from ATP have exceeded contributions in recent years. The maturing process will continue over the coming decades, and the gap between ATP's contributions and pay-outs will gradually widen (ATP 2014).

Table 8.
ATP contribution income and pension expenditure in 2010–2014, DKK million.

ATP	2010	2011	2012	2013	2014
Contributions	8,293	8,602	8,554	11,587*	9,049
Expenditure	10,170	11,080	11,903	12,741	13,661

* Contribution payments for the year 2013 amounted to DKK 8.8 billion. To this has been added DKK 2.8 billion in contributions from SUPP (Supplementary Labour Market Pension Scheme for Disability Pensioners), constituting savings which were converted into ATP funds on 1 January 2013.
Source: ATP 2013; 2014.

4 Occupational pension schemes

Occupational pension schemes are based on collective agreements and they cover about 90 per cent of the employees. Civil servants have their own pension scheme (tjenestemandspension) (see 4.1). With the exception of that scheme, the occupational pension schemes are fully funded and defined contribution schemes. As a rule, the employer pays 2/3 and the insured person 1/3 of the total contribution. The contributions, and thus also the benefits, differ considerably from each other, reflecting industry- or sector-specific factors, among others.

The majority of occupational pension schemes are administered by life insurance companies (livsforsikringsselskaber). The companies are established as shareholder-owned joint stock companies – some operating on a commercial basis (with shareholders demanding a return) and some on a non-commercial basis. Together with multiemployer pension funds (tvaergående pensionskasser), they have a lion's share of the market for occupational pensions. Multiemployer pension funds are created as member-owned pension institutions and cover industry-wide plans, for example those of nurses. To a minor extent, occupational pension schemes are also administered by company pension funds (firmapensionskassor) and banks. Company pension funds cover the employees of single companies but play a marginal and declining role. Many of them have been closed to new members and, in some cases, to new contributions. (Andersen and Skjodt 2011.) Banks have also had a diminishing role in the last five years as their share of the total occupational contributions has dropped from about 15 to less than 3 per cent (Forsikring & Pension 2016).

The role of occupational pensions in retirees' incomes will increase significantly in the near future, primarily because contribution rates to the occupational pension schemes established in the late 1980s and early 1990s have been increasing steadily as part of successive collective agreements. In addition, schemes are beginning to mature.

The composition of benefits in the occupational pension schemes varies considerably. Typically, a life-long current retirement pension is provided, which may be combined with a rate pension (paid out over 10-25 years) and/or a capital pension (paid out as a lump sum benefit). The disability pension and the survivors' pensions may be added to these. (MoF 2014.)

In 2014, the benefits paid from occupational pension schemes, excluding the civil service pension, amounted to 4.6 per cent of GDP.

Table 9.
Occupational pension contribution income and expenditure in 2010–2014, DKK million.

	2010	2011	2012	2013	2014
Contribution income	88,036	89,616	90,574	91,264	94,208
Pension expenditure	46,342	53,507	56,732	72,336	88,320

Source: Forsikring & Pension 2016; Finanstilsynet 2015.

4.1 Civil service pension scheme

Central and local government civil servants are entitled to benefits under the civil service pension scheme. The civil servants' pension scheme is a defined benefit scheme with special retirement ages. The importance of the civil service pension scheme is diminishing in central government administration since central government employees increasingly come under contribution-financed and contribution-defined occupational pension schemes. This is due to changes in the employment form: new public employees are only hired as civil servants within a narrow set of jobs.

The civil service pension scheme is unfunded, as benefits are part of the expenditure of central and local governments and are thus financed mainly through general tax revenues. The employer pays a pension contribution ranging from 15 to 27 per cent (e.g. Denmark Radio's civil servants; NAVIAIR's air traffic controllers) of the wages (Finansministeriet 2016). In 2014, the civil service pension expenditure amounted to 1.35 per cent of GDP.

Table 10.
Contribution income and pension expenditure of the civil servants' pension scheme in 2002–2006, DKK million.

	2010	2011	2012	2013	2014
Contribution income	3,254.6	4,021.3	3,239.9	3,146.1	3,111.4
Expenditure	23,383.9	23,959.1	24,539.6	25,263.8	25,962.2

Source: Finansministeriet 2015a (§ 36 Pensionsvæsenet).

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PENSION CONTRIBUTION LEVEL IN FINLAND

Marja Kiviniemi

Contents

1 Pension contribution level in Finland in 2014

The following table presents the total pension contribution components in relation to the compensation paid to employees, the wage sum and GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014.

	Compensation of employees	Wage sum	GDP at marketprices	GDP at basic prices
Wage earners				
Privat sector	3.04	3.75	1.50	1.75
Public sector	1.44	1.78	0.71	0.83
Contribution by Unemployment Insurance Fund	0.16	0.19	0.08	0.09
Total	4.64	5.72	2.29	2.66
Employers				
Private sector	9.00	11.09	4.44	5.16
Public sector	5.43	6.69	2.68	3.11
Self-employed persons	1.04	1.28	0.51	0.59
Farmers	0.19	0.23	0.09	0.11
Contribution by Unemployment Insurance Fund	0.63	0.77	0.31	0.36
Total	16.28	20.07	8.04	9.34
State shares and other tax financing				
under the Seafarer's Pensions Act	0.06	0.07	0.03	0.03
under the Self-employed Persons' Pensions Act	0.08	0.09	0.04	0.04
under Farmers' Pensions Act	0.59	0.73	0.29	0.34
under State Employees Pensions Act	2.56	3.15	1.26	1.47
Kela pensions	2.53	3.11	1.25	1.45
Total	5.81	7.16	2.87	3.33
Statutory pensions, total	26.73	32.95	13.20	15.33
Occupational pensions, total	0.30	0.37	0.15	0.17
All in total	27.04	33.32	13.35	15.51

Table 2 presents the pension contributions collected in 2010–2014 to finance statutory earnings-related pensions and so-called Kela pensions (national and guarantee pensions), as well as the contribution income for occupational earnings-related pensions. For comparison, it also includes the pensions paid out under the same categories for the respective years. Annex 1 includes the pension contributions and contribution income that Table 1 is based on.

Table 2.
Pension contributions and pension expenditure in 2010–2014, EUR million.

Pension contributions 2010–2014, EUR million	2010	2011	2012	2013	2014
Statutory earnings-related pensions					
Private sector	11,349	12,187	13,025	13,138	13,445
State share under the Self-employed Person's Pensions Act, the Farmers' Pensions Act and the Seafarer's Pensions Act	646	621	634	705	734
Contributions of the Unemployment Insuranc Fund	602	566	559	660	795
Public sector	6,094	6,292	6,593	6,811	6,965
State share under the State Employees' Pensions Act	2,212	2,264	2,406	2,517	2,592
Total	20,904	21,929	23,217	23,830	24,532
Kela pensions, total	2,495	2,550	2,596	2,615	2,560
Statutory pensions, total	23,399	24,479	25,812	26,445	27,092
Occupational pensions, total	942	379	336	301	306
All in total	24,341	24,858	26,148	26,746	27,397
Pension expenditure 2010–2014, EUR million					
Statutory earnings-related pensions					
Private sector	12,119	12,785	13,728	14,622	15,327
Public sector	7,281	7,642	8,160	8,648	9,031
Total	19,400	20,427	21,888	23,270	24,357
Kela pensions, total	2,495	2,550	2,595	2,615	2,560
Statutory pensions, total	21,895	22,977	24,483	25,885	26,917
Occupational pensions, total	683	650	624	612	620
All in total	22,578	23,627	25,107	26,497	27,537

The pension contributions of private-sector statutory earnings-related pensions, including the State's share of pensions paid under the Self-employed Persons' Pensions Act, the Farmers' Pensions Act and the Seafarer's Pensions Act, as well as the Unemployment Insurance Fund, have been lower than the pension expenditure since the year 2013. The difference is covered by assets from pension funds and their investment returns. For the time being, local government pensions are financed in full with the collected pension contributions. However, through funding in advance, Keva prepares for future pension expenditure and stabilised contributions since, in the near future, the municipal pension expenditure will exceed the contributions paid. The pensions paid by the State are included in the budget of each year. The pension expenditure under the State Employees Pensions Act is balanced with an annual fund transfer from the State Pension Fund. In 2014, the component transferred to the State budget was EUR 16 million higher than the pension contribution of the same year. The financing technique of public-sector pensions is described in more detail in section 3.1.1.

2 Data and methodology

The calculations are based on statistics published by the Finnish Centre for Pensions and the Financial Supervisory Authority, as well as the annual reports of the public sector and the Unemployment Insurance Fund. The wage sums and GDPs stem from OECD statistics. The pension contribution level has been calculated by dividing the pension contribution income with the OECD data.

The pension schemes included in the study are the statutory pension schemes and supplementary pension provision in the occupational pension schemes. Individual pension provision (so called third pillar) are not included in the calculations.

The farmers' special pensions, compensations for military injuries and compensations based on the accident and motor liability insurance have been excluded from the calculations and statistics. The Farmers' Social Insurance Institution paid out farmers' early retirement aids and former farm closure pensions to the amount of EUR 83 million in 2014. The combined amount of military injuries, accidents and motor liability compensations was approximately EUR 0.5 billion. The State funds the farmers' special pensions and the compensations for military injuries. Benefits based on accident and motor liability insurance are covered with insurance companies' or state assets.

3 The statutory pension scheme

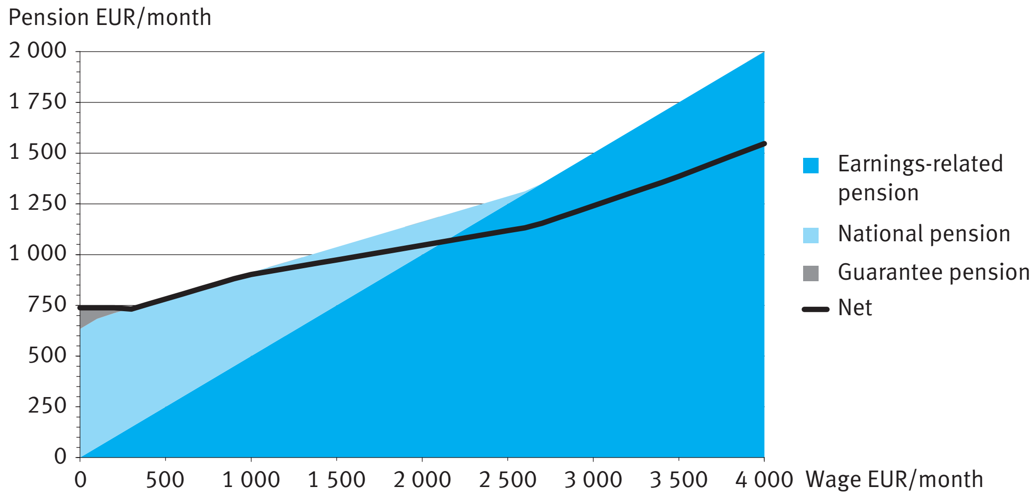
The Finnish statutory pension system consists of the statutory earnings-related and the national pension systems. The guarantee pension offers a minimum pension.

The earnings-related pension scheme covers all persons who work in Finland under an employment contract or as self-employed persons or farmers. The national pension scheme covers all persons who are permanently residing in Finland. At the end of the year under review, a total of 1.4 million pension recipients lived in Finland. Their average total monthly pension amounted to EUR 1,588. Of all pension recipients, slightly less than 60 per cent received only an earnings-related pension and 7 per cent only a national pension paid by the Social Insurance Institution of Finland (Kela). Roughly 36 per cent received both an earnings-related and a Kela pension. The average total monthly pension of retirees receiving a Kela pension was EUR 989.

Earnings-related pension accrues based on valid legislation for nearly all gainful employment and self-employment for the period during which insurance contributions are paid. Both the employer and the employee pay an earnings-related pension insurance contribution. The pension amount depends on the earnings accrued during employment. No upper limit or pension ceiling applies to the paid pension, apart from the limits relating to the insurance of self-employed persons' income from work. At the moment, the old-age retirement age is flexible, between 63 and 68 years.

Figure 1 presents a simplified example that illustrates the structure of the total statutory pension that is based on earnings during working life, assuming that the earnings-related pension amounts to 50 per cent of the earnings. The national and the guarantee pensions are paid out as of age 65. The net pension means the component after income tax, providing the person has no other income.

Figure 1.
Total pension in 2014.



Earnings-related and national pensions are paid mainly based on old-age, disability and the death of the family's breadwinner. Persons who have cut down on their working hours and have turned 60 (or 61 after 2013) have been able to retire on a part-time pension. This pension type will be replaced by a partial old-age pension in the 2017 pension reform. There is no part-time pension in the national pension scheme.

The largest private-sector earnings-related pension act, based on the number of insured persons, is the Employees Pensions Act. Seafarers are insured under the Seafarer's Pensions Act, while the self-employed are insured under the Self-employed Persons' Pensions Act and the farmers under the Farmers' Pensions Act.

The private-sector earnings-related pension providers, that is, the pension insurance companies, company pension funds and industry-wide pension funds, pay out pensions based on employment to those who are eligible for such pensions. The pension insurance companies and three company pension funds handle the pensions of the self-employed. Special pension providers handle the pensions of farmers and seafarers. At year-end 2014, there were 6 pension insurance companies, 14 company pension funds and 6 industry-wide pension funds (incl. those for the self-employed persons).

The most significant public-sector pension acts are the State Employees Pensions Act, the Local Government Pensions Act and the Evangelical-Lutheran Church Pensions Act. Other public-sector actors are governed by regulations that correspond mainly to those of the State Employees Pensions Act. The National Pensions Act, the Act on Guarantee Pensions and the general Survivors' Pensions Act define the grounds for a minimum pension.

Public-sector earnings-related pensions are handled, in the main, by Keva. The State, the Evangelical-Lutheran Church and the Orthodox Church have their own arrangements for pension financing. In addition, the Bank of Finland, the employees at the Social Insurance

Institution in Finland, and the regional government of Åland have their own separate financing arrangements. The national pensions are handled by the Social Insurance Institution of Finland (Kela), which is governed by Parliament.

3.1 Financing of the statutory pension scheme

In Finland, pensions are financed under various principles, depending on the applicable pension act. Earnings-related pensions are financed by statutory pension contributions paid by both the employers and the employees. The main part of the paid contributions is used to finance pensions currently in payment, but part of the contributions is funded and invested for future pension liabilities. The funded assets are used to pay pensions. The earnings-related pension assets currently amount to twice the amount of the wage sum, so the return on investments is a considerable source of income when preparing for future pension liabilities.

The national and the guarantee pensions are financed with tax revenues. In addition, the State finances part of the self-employed persons', farmers' and seafarers' pension expenditure, as well as the pensions accrued under the State Employees Pensions Act for periods of child care and study. The Unemployment Insurance Fund contributes to the earnings-related pension scheme with a statutory annual component based on the paid unemployment allowances, the job alternation compensations and the adult education subsidies. The expenses for pension components accrued during unpaid periods are divided between all pension providers of the earnings-related pension scheme in relation to their insured wage sums.

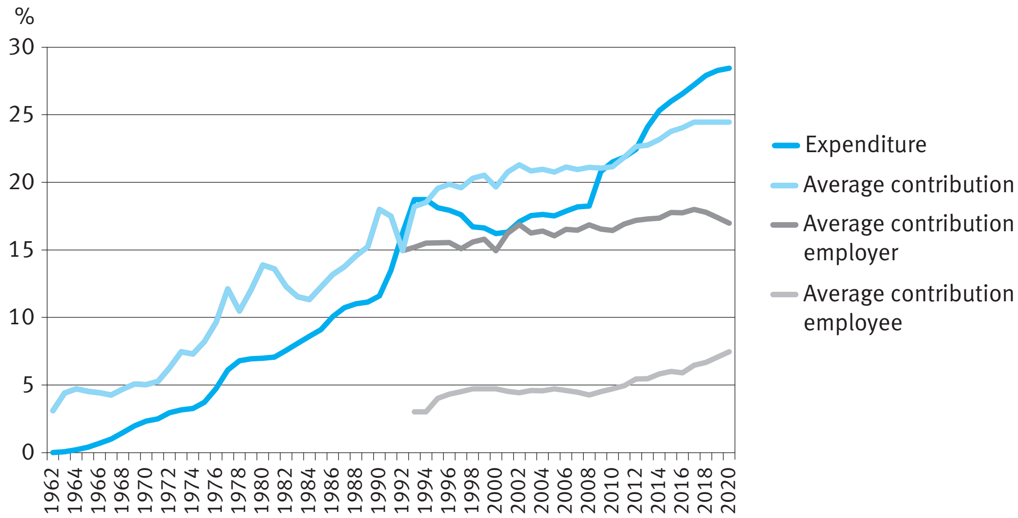
3.1.1 Earnings-related pensions

Private sector

Private-sector earnings-related pensions for wage-earners are financed in two main ways: through earnings-related pension contributions collected in the year in which the pensions are paid and through pension funds, the assets of which have been collected in advance. Each year, the need for collected earnings-related pension contributions depends on the amount of pensions in payment that year and the accrued pension rights. The main part of the contributions under the Employees Pensions Act is paid for by the employers. The employees' share is currently approximately one fourth of the entire contribution.

Finland introduced an employee contribution in 1993 as part of the structural reforms in the 1990s. Shifting part of the burden of employers' contributions to employees was seen as an important device for reviving the economy after a period of a severe recession (see, e.g., Timonen 2003). The employee's earnings-related pension contribution will gradually increase by a total of 1.2 percentage points during the period 2017–2020, as part of the competitiveness pact, while the employer's contribution will decrease correspondingly (see, e.g., EurWork 2016). The average contribution rate will reach 24.4 per cent during the years 2017–2020 (see Figure 2).

Figure 2.
TyEL-expenditure and -contribution in relation to wage sum in 1962–2020.



All private-sector wage earners are covered by the Employees Pensions Act, except for the seafarers. Their share of the total private-sector premium income from wage earners is slightly below one per cent.

Previously, the seafarers' pensions were financed with equally high employer and employee contributions. In addition, the State financed approximately one third of the seafarers' pension expenditure. As of the beginning of 2016, the seafarer's paid smaller pension contributions while their employers paid higher contributions. After the transition period that will last until the end of 2024, seafarers' pensions and contributions will, for the main part, correspond to those governed by the Employees Pensions Act, as the system of lower retirement ages will be abolished.

The pensions of self-employed persons and farmers are not funded in advance. Instead, they are based on the pay-as-you-go principle. The contribution levels under the Self-employed Persons' Pensions Act and the Farmers' Pensions Act are linked to the average level of contributions under the Employees Pensions Act. Pensions for the self-employed are also financed from the State budget. Each year, the State pays the components of the statutory pension expenditure for the self-employed and farmers that are not covered by insurance contributions.

Pensions accrued for periods of caring for one's own children under the age of three and for studies leading to a degree are also financed from the State budget. Pensions accrued based on unemployment benefits, job alternation compensations and adult education subsidies are financed by The Unemployment Insurance Fund.

Both private and public sector employees pay the employee's contribution. The contribution is higher for persons who have turned 53 than for younger ones. The higher contribution is used to finance the higher pension accrual as of age 53. Correspondingly, the employer's share of the contribution for these employees is lower. In 2014 and earlier, the seafarers' share of the contribution under the Seafarer's Pensions Act was half of the entire contribution, regardless of age. The contributions of older self-employed persons and farmers will also rise based on age.

Public sectors

Currently, the public sector pension providers fund part of the earnings-related pension contributions. The funding is not done on an individual level as in the private sector, but collectively in order to avoid individual pension liabilities. Hence, the growth of the funds has not depended on the earned benefits, and the use of the funds has not been tied to any specific individual. Each public sector actor has its own funding principles.

State pensions are paid out of the State budget, to which funds from the State Pension Fund are transferred each year under conditions stipulated by law. The transferred amount equals 40 per cent of the annual State pension expenditure, with a few exceptions. The State agencies account the pension contributions of both the employers and the employees to Keva, which handles State pensions. Keva, in turn, accounts them to the State Pension Fund. The aim is to fund one fourth of the State's pension liabilities. Once this target level is reached, the use of the remaining assets will be separately regulated. At year-end 2014, the funding rate was approximately 18 per cent.

Keva handles municipal pensions. Part of the collected contributions under the Local Government Pensions Act is transferred to the pension liability fund based on an annual decision. Part of the contributions is used to cover the costs of current pensions in payment and administration. For quite a while, the municipal field has collected more in contributions than is needed to cover the earnings-related expenses. This way the pension funds have been increased to meet the needs of future pension expenditure. The fund amounted to EUR 42.3 billion at year-end 2014.

As in the municipal sector, the pensions of the Evangelical-Lutheran Church employees are financed according to the pay-as-you-go principle, under which buffer funds are collected to cover future pension expenditure. The pensions for the employees of Kela are funded by a pension liability fund, as stated in the Act on the Social Insurance Institution of Finland. The financing of the employees of the regional government of Åland, the Bank of Finland and the Orthodox Church is handled in the same manner as the financing of other public sector pensions.

3.1.2 Earnings-related pension contributions

Employers pay the contributions for their employees aged between 18 and 68 years to an earnings-related pension provider of their own choice. The contribution is based on the insured employees' individual earnings. The self-employed and the farmers pay contributions based on their confirmed income to their own pension provider. Table 3 presents the statutory contribution rates, relative to earnings, for the years 2010 to 2014.

Table 3.
Average assessed earnings-related pension contributions in 2010–2014, %.[1]

	Employees Pensions Act			Employee		Seafarer's Pensions Act		
Year	Total	Employer	Employee	Under 53	53 and above	Total	Employer	Employee
2010	21.6	16.9	4.7	4.5	5.7	22.0	11.0	11.0
2011	22.1	17.1	5.0	5.7	6.0	22.2	11.1	11.1
2012	22.8	17.35	5.45	5.15	6.5	22.4	11.2	11.2
2013	22.8	17.35	5.45	5.15	6.5	22.6	11.3	11.3
2014	23.6	17.75	5.85	5.55	7.05	22.8	11.4	11.4

	Local Government Pensions Act			State Employees Pensions Act			Evangelical-Lutheran Church Pensions Act			Employee*	
Year	Total	Employer	Employee	Total	Employer	Employee	Total	Employer	Employee	Under 53	53 and above
2010	28.4	23.6	4.9	25.1	20.2	4.9	31.8	27.0	5.0	4.5	5.7
2011	28.7	23.6	5.1	24.9	19.8	5.15	31.8	27.0	5.2	5.7	6.0
2012	29.1	23.6	5.6	25.0	19.4	5.62	33.7	28.0	5.7	5.15	6.5
2013	29.6	24.0	5.6	24.9	19.3	5.63	33.7	28.0	5.7	5.15	6.5
2014	29.8	23.8	6.0	26.5	20.4	6.09	34.2	28.0	6.2	5.55	7.05

* Local Government Pensions Act, State Employees' Pensions Act and Evangelical-Lutheran Church Pensions Act.

Year	Self-employed Persons' Pensions Act	Farmers' Pensions Act		Self-employed Persons' Pensions Act / Farmers' Pensions Act	
		Farmers	Grant recipients	Under 53	53 and above
2010	20.1	11.1	10.5	21.2	22.4
2011	20.2	11.3	10.9	21.6	22.90
2012	21.1	11.8	11.0	22.5	23.85
2013	20.9	12.9	13.4	22.5	23.85
2014	21.8	13.4	13.0	23.3	24.8

3.1.3 Private sector earnings-related pension contributions

The Ministry of Social Affairs and Health confirms the contribution rates under the Employees Pensions Act each year. The way that the contribution is determined varies slightly between pension insurance companies, industry-wide pension funds, company pension funds, and special pension providers. However, the aim is to proportion the contribution so that, together with the return on pension asset investments, it is enough to cover the expenditure of the funded and pay-as-you-go pension liabilities, as well as the administrative costs and possible premium losses for each year. The funding of the different pension types will be discussed later on (see Partial funding).

1 The contribution under the Local Government Pensions Act includes the total accumulated contribution, not just the contribution based on wages. The contributions under the Employees Pensions Act for the years 2010, 2011 and 2013 include the temporary deductions to contributions. The contribution under the Evangelical-Lutheran Church Pensions Act is an estimation.

The average contribution rate under the Employees Pensions Act was 23.6 per cent of wages in 2014. The labour market organisations negotiate the contribution level. In recent years, the level has been agreed on for several years to come. The employees' contributions were the same for all wage-earners, apart from seafarers, but the employers' components differ slightly according to the size of the employer and the insurance company selected. Employers insuring their employees under the Seafarer's Pensions Act paid a contribution equalling 11.4 per cent of the earnings that form the basis of the insurance contributions. The percentage was the same as for all wage-earners aged 53 or younger. The State's share of the pension expenditure under the Seafarer's Pensions Act was EUR 59 million in 2014.

The contribution rate under the Self-employed Persons' Pensions Act, as well as the basic rate under the Farmers' Pensions Act, corresponds to the average contribution rate under the Employees Pensions Act (excluding the contribution increase for the 53-year-olds). As of the calendar year following the year in which the self-employed or farmers turn 53, their earnings-related contributions increase with the same percentage as does the contribution rate of the 53-year-old employees.

The average contribution rate for the self-employed presented in Table 3 are considerably higher than those of the farmers' contributions. In addition, the total contribution under both acts is clearly lower than the confirmed basic contribution rate. The contributions are reduced mainly by the deduction granted to the newly self-employed and the high number of low-income farmers who pay contributions according to the lowest rate.

The self-employed may pay an additional 10–100 per cent in contributions during prosperous years. Correspondingly, if their income from work drops, they may reduce their contributions by 10–20 per cent. The flexible contribution affects the accrued pension in the same direction for the year in question. New self-employed persons, regardless of age, may receive a 22-per-cent deduction to their contribution under the Self-employed Person's Pensions Act for the four first years of their self-employment. Before 2013, the deduction was 25 per cent.

Farmers' contributions vary depending on their income under the Farmers' Pensions Act, without the aforementioned flexible contributions. In 2014, the contribution for the under-53-year-olds was 12.6 per cent if the annual income was below EUR 26,031.02. The contribution rate rose gradually for an annual income ranging from EUR 26,031.02 to EUR 40,906.96. For an annual income exceeding EUR 40,906.96, it was 23.3 per cent. The equivalent figures for those aged 53 and above were 13.4 and 24.8 per cent. The pensions of researchers and artists receiving a grant are governed by the Farmers' Pensions Act.

The State has financed the main part of farmers' pensions since the onset of the pension system for farmers. In 2014, the State's share of the contribution amounted to EUR 589 million, which equals 78 per cent of the expenditure under the Farmers' Pensions Act. The State's share of the pension expenditure for the self-employed was EUR 67 million, or six per cent of the pension expenditure in 2014.

Partial funding

The contributions collected to finance private-sector earnings-related pensions are used mainly for pensions in payment that year. Part of the contributions under the wage-earners' pensions acts are funded for future pension expenditure. The funding is handled by the earnings-related pension providers based on actuarial principles. The funding technique varies slightly between pension insurance companies, industry-wide pension funds and company pension funds. We have reviewed the contribution under the Employees Pensions Act in earnings-related pension insurance companies.

The average contribution includes separate components for funding and for the pooled pension expenditure. Assets for future old-age pensions are collected through the old-age pension component of the contribution. The non-funded component will be covered, in time, by the pool. Disability pensions are funded only once the pension starts. No separate contributions are collected in advance for survivors' or part-time pensions, which are financed with the provisions for pooled claims. The same provisions are used to cover other disability pension expenses than those covered through funding.

The earnings-related pension contribution also contains components to cover the cost share of the Finnish Centre for Pensions as well as contribution losses. The earnings-related pension providers collect management costs and contribution losses and so-called statutory contributions from employers in advance as separate components. Industry-wide pension funds and company pension funds use a different contribution technique than the insurance companies, which is why not all of the above costs are collected in connection with their insurance contributions and support fees.

Table 4a presents the main average components of the contributions under the Employees Pensions Act from 2010 to 2014. The total contributions are smaller due to deductions granted to the policyholders and temporary contribution deductions.

Table 4a.
Average components of the contribution under the Employees Pensions Act, 2010–2014, %.

	2010	2011	2012	2013	2014
Old-age pension component (funded)	2.9	2.9	2.9	2.9	2.9
Disability pension component (funded)	1.3	1.0	1.0	0.9	0.9
Pooling component (payg)	17.1	18.0	18.3	18.9	19.3
Other components*	1.0	0.9	0.9	0.9	0.9
Estimated bonuses	-0.3	-0.4	-0.3	-0.4	-0.4
Temporary deduction**	-0.4	-0.3	0.0	-0.4	0.0
Average pension contribution	21.6	22.1	22.8	22.8	23.6

* Includes the component for contribution losses, cost shares and statutory fees. ** Restitution of the surplus of disability contributions.

The components of the contribution under the Employees Pensions Act presented in Table 4a have been classified according to the partially funded technique. Table 4b presents the 2014 projection of the Finnish Centre for Pensions on the insurance contribution classified by pension type, taking no other special financing technique features into account than the customer bonuses. In the assessment, the pooling component of the contribution under the Employees Pensions Act has been separated into different components. The total contribution under the Act has been presented according to how the expenses are covered by pension type.

Table 4b.
The projected pension-specific components of the average contribution under the Employees Pensions Act in 2014, %.

	2014
Old age pension	19.1
Disability pension	2.1
Survivors' pension	1.8
Part-time pension	0.1
Other components*	0.9
Estimated bonus	-0.4
Average pension contribution	23.6

* Includes the component for contribution losses, cost shares and statutory fees.

3.1.4 State earnings-related pension contributions

The State's employer contributions are determined according to the calculation criteria of the state pension contribution. The contributions are used to cover only those pension liabilities that have arisen after the founding of the State Pension Fund. The pensions are paid annually out of funds reserved in the State budget for these costs. Contrary to the private sector, the individual state pensions do not include funded components. The employers' contribution rates are specific to each agency, institution and corporation.

The contribution under the State Employees Pensions Act partly consists of a tariff contribution and partly of the employer's pension contingency, depending on the number of employees. The contributions include components for old-age, disability and survivors' pensions, as well as administrative expenses. The employee contribution rates corresponded to those in the private sector: 5.55 and 7.05 per cent in 2014. During the year under review, pension contributions were collected to the amount of EUR 1.7 billion, of which the employees' share was EUR 398 million. The pension expenditure under the State Employees Pensions Act was 4.3 billion, with the State's share at EUR 2.6 billion.

The employers' pension contributions under the State Employees Pensions Act have been divided into three different tariff categories. The contribution is determined as a weighted average of the contributions of employees belonging to different categories. In 2014, the tariff-based contribution rates, including the administrative component (0.38%) were 23.8 per cent in the general category, 31.3 per cent in the reduced occupational or individual retirement age category, and 32.3 per cent in the category for those eligible for a military pension. When taking into account all contributions paid by the State and all payers, the total contribution accounted for approximately 26.5 per cent of the wage sum under the State Employees Pensions Act. The total contributions for the period 2010–2014 have been presented in Table 3.

3.1.5 Local Government earnings-related pension contributions

The total contribution in 2014 of the local government employees and other employer groups covered by the Local Government Pensions Act was 29.8 per cent of the wage sum under the Local Government Pensions Act. The local government pension contribution consisted of the employee's and the employer's wage-based components, as well as any possible component based on pension expenditure and early retirement pension expenditure.

The average wage-based contribution was 22.9 per cent of the earnings under the Local Government Pensions Act. The employer's wage-based component of the contribution was 16.9 per cent. In addition, a local government employer pays a contribution based on the early retirement pension expenditure when an employer retires for the first time on a disability pension or a cash rehabilitation benefit. This insurance contribution equals the level of the disability pension contribution under the Employees Pensions Act. The contribution paid by the local government employers amounted to 0.9 per cent of the wages.

In addition to the above, Keva's member corporations that were established before the year 2005 (the municipalities, the federations of municipalities, communal corporations) paid a contribution based on pension expenditure that amounted to 6 per cent of the wage sum. This contribution was due to the former pension accrual rates, which were higher than the present ones.

The contribution rates paid by employees were the same as in the other sectors: 5.55 per cent of the earnings for employees under the age of 53 years and 7.05 per cent for those aged 53 or above. The average contribution component of the employees of various ages was thus 6.0 per cent of the earnings.

3.2 National and guarantee pensions

The Social Insurance Institution of Finland pays old-age, disability, unemployment and survivors' pensions to people who qualify for such pensions. Kela also pays out a child increase and a front-veteran's supplement in addition to either a national or an earnings-related pension. The guarantee pension offers a minimum pension to persons who live in Finland.

The size of the national pension depends on, among other things, the applicant's family status and other income from earnings-related pensions. A person living alone receives a higher pension than one who is co-habiting or married. Previous residence abroad reduces the pension.

The number of people receiving a national pension has gone down year by year. Currently, a greater number of retirees receive only an earnings-related pension. Nearly two thirds of all recipients of the national pension are women. At year-end 2014, nearly half (43%) of all pension recipients also received a national pension. Seven per cent of them received only a national pension.

The guarantee pension was paid out to 101,500 persons. Approximately half of them were over 60 years of age. The guarantee pension was granted only if the pension income amounted to EUR 736,64 or less. The average monthly guarantee pension amounted to EUR 128 and the average monthly national pension to EUR 303. The pension of a single person living on a national pension alone amounted to EUR 634 per month.

During the period under review, Kela paid pensions to a total amount of EUR 2,560 million. The national pension accounted for EUR 2,336 million and the guarantee pension for EUR 157 million. Kela paid survivors' pensions to the amount of EUR 32 million and child increases to the amount of EUR 6 million. The front-veteran's supplement amounted to EUR 30 million.

The benefits and administrative costs paid for by the National Pension Insurance Fund are financed from the State budget and the return from the Fund's investments. Employers and the insured do not pay a separate national pension contribution. The State also covers Kela's expenses relating to the guarantee pension.

4 Occupational pensions

Statutory pensions are supplemented with voluntary supplementary pensions arranged for by employers or the employees themselves. The valid supplementary pension arrangements are either unregistered pensions or arrangements registered with the Finnish Centre for Pensions. At the moment, the employer can take out supplementary pension insurance for its employees with a life insurance company. Usually, the pension is a group pension insurance but, occasionally, it is individual pension insurance. Several company pension funds and industry-wide pension funds also pay out supplementary pensions. However, the compensation paid based on them count for only a fraction of the total annual pension expenditure.

Until the end of 2000, the employer could improve its employees' pension benefits through a registered supplementary provision that was tightly linked to the employment relationship and the statutory basic pension provision. It was a provision regulated by conditions approved by the Ministry of Social Affairs and Health and one that employers could use to improve the pension benefits of a certain group of employees. The self-employed also had the right to their own supplementary pension arrangements, which were linked to their income from self-employment.

A less regulated way to improve employees' pension provision is the group pension insurance taken by the employer from a life insurance company. This insurance is not linked to the statutory basic pension provision. In such unregistered pension insurance policies, the benefits and the conditions for receiving the pension may be determined more flexibly. However, the insured group of people must be defined also for these insurances based on, for example, the line of business. The group-specific retirement ages and time spent in retirement must be agreed on, even if the content of this type of supplementary provision can be determined more freely than in registered supplementary pensions. For example, the unregistered group pension insurance may include only an old-age pension, which is either for life or for a fixed term. The retirement age can be agreed separately for each group. The insurance may also include separate disability or survivors' pension provision.

In general, unregistered group pension insurance policies include the right to a paid-up policy, that is, to the accrued supplementary pension after the employment has ended. The right can be linked to the duration of the employment relationship or it can be partial, for example, 50 per cent of the accrued supplementary pension. However, the right to paid-up policy is not automatic, so the employee may lose his or her supplementary pension benefit when changing jobs or, for example, if he or she is dismissed.

In unregistered insurances, the premiums are determined either based on the targeted total pension level or the agreed premium bases. Contrary to earnings-related pension insurance companies, life insurance companies may have divergent calculation criteria. The grounds on which the premiums are determined must be the same for all members of a specific group of employees and may thus not be individual.

Table 5 includes the aforementioned contribution income and pension expenditure data for the period 2010–2014 that relate to supplementary pensions and that are included in this report.

Table 5.
Contribution income and pension expenditure of occupational pension insurance, 2010–2014, EUR million.

Pension contribution income of occupational pensions 2010–2014, EUR million					
	2010	**2011**	**2012**	**2013**	**2014**
Registered pensions					
Supplementary pensions under Employees' Pensions Act	16	13	13	11	10
Occupational pensions (group pension insurance)					
Life insurance companies	911	318	319	278	279
Company pension funds	29	49	16	22	26
Industry-wide pension funds	2	12	1	1	0.8
Total	958	392	349	312	316
Pension expenditure of ocuupational pensions 2010–2014, EUR million					
	2010	**2011**	**2012**	**2013**	**2014**
Registered pensions					
Supplementary pensions under Employees' Pensions Act	209	209	214	216	216
Occupational pensions (group pension insurance)					
Life insurance companies	507	374	384	378	375
Company pension funds	163	236	199	218	227
Industry-wide pension funds	13	40	41	16	18
Total	892	859	838	828	836

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Annex 1. Pension contribution income 2010–2014, EUR million

Table 1.
Division of pension contribution income in 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Wage earners					
Privat sector	2,310	2,528	2,869	2,888	3,085
Public sector	1,077	1,163	1,313	1,345	1,462
Contribution by Unemployment Insurance Fund	100	122	122	120	158
Total	3,487	3,813	4,304	4,353	4,704
Employers					
Private sector	8,105	8,616	9,012	9,066	9,120
Public sector	5,017	5,129	5,280	5,466	5,504
Self-employed persons	774	879	973	997	1,049
Farmers	160	164	171	187	191
Contribution by Unemployment Insurance Fund	502	444	437	539	637
Total	14,559	15,232	15,873	16,255	16,501
State shares and other tax financing					
under the Seafarer's Pensions Act	49	52	54	57	59
under the Self-employed Persons' Pensions Act	97	44	23	68	77
under Farmers' Pensions Act	501	525	557	579	598
under State Employees Pensions Act	2,212	2,264	2,406	2,517	2,592
Kela pensions	2,495	2,550	2,596	2,615	2,560
Total	5,353	5,435	5,635	5,837	5,887
Statutory pensions, total	23,399	24,479	25,812	26,446	27,092
Occupational pensions, total	942	379	336	301	306
All in total	24,341	24,858	26,148	26,747	27,397

PENSION CONTRIBUTION LEVEL IN FRANCE

Niko Väänänen

Contents

1 Pension contribution level in France

The following table presents the total pension contribution income for statutory and occupational pension schemes in relation to the compensation of employees and the wage sum as well as to GDP in 2014.

Table 1.
Pension contribution in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Employees				
Statutory	4.20	5.76	2.22	2.48
Occupational	2.55	3.50	1.35	1.50
Supplementary	0.29	0.40	0.15	0.17
Total	7.05	9.67	3.72	4.15
Self-employed persons				
Statutory	0.58	0.79	0.30	0.34
Occupational	0.61	0.83	0.32	0.36
Supplementary	0.27	0.37	0.14	0.16
Total	1.45	1.99	0.77	0.85
Employers				
Statutory	9.70	13.30	5.12	5.72
Occupational	3.89	5.33	2.05	2.29
Supplementary	0.29	0.40	0.16	0.17
Total	13.88	19.04	7.33	8.18
Taxes & other contributions				
Statutory	5.08	6.97	2.68	3.00
Occupational	0.35	0.49	0.19	0.21
Total	5.44	7.46	2.87	3.20
All in Total	27.82	38.15	14.68	16.39

The total contribution income for pensions is 38.15 per cent relative to the wage sum. Basic pension schemes receive the highest income (26.82 per cent), followed by occupational schemes (10.15 per cent) and supplementary schemes (1.17 per cent). In relation to GDP at market prices, the total pension contribution income is approximately 16.4 per cent.

Supplementary pensions do not hold a big role in the overall pension provision; however it is clearly visible that, for the self-employed, the supplementary contribution component is much bigger than for wage earners. This suggests that supplementary pensions are more important in the old-age provision for the self-employed than for wage earners.

2 An overview of the French pension system

The French pension system has two distinct features when assessing it in the European pension landscape: a large number of different schemes and a low reliance on funding.[1] The French pension system is essentially made up of a large number of statutory pay-as-you-go schemes that are financed with social security contributions and taxes.

The French pension landscape is constructed on a two-tier architecture. Thus, an average pension consists of two statutory parts: a statutory pension complemented with a mandatory occupational pension. There are financial equalization mechanisms between the various schemes in both pillars.[2]

The way the pension schemes function varies according to the sector of activity. The most comprehensive scheme (régime général) covers all private-sector wage earners who are not covered by a scheme for the relevant profession or industry. It also covers certain other groups (such as students and recipients of certain benefits). In 2014, this scheme covered 69 per cent of the active workforce.[3] The general scheme offers basic social insurance against a variety of risks. Some of the industry- or profession-wide schemes include sickness, disability, occupational injuries and old-age pension. However, if they include only old-age pension insurance, the régime général offers insurance against the other social risks.

The occupational schemes are mandatory. Their rules are negotiated either between the social partners or between the social partners and the State. The central organizations for the occupational pension schemes for wage earners in the private-sector are Association générale des institutions de retraite des cadres (AGIRC), covering only managerial and executive staff, and Association pour le régime de retraite complémentaire des salariés (ARRCO), covering all categories of employees. Most occupational pension providers for wage earners are members of these two central organizations. In 2019, AGIRC and ARRCO will merge into a single entity (régime unifié). They were established by social partners and are financed based on the pay-as-you-go principle.

In the same manner as private-sector employees, the self-employed and civil servants contribute to a basic social security pension scheme and to a mandatory occupational scheme.

Supplementary pension schemes exist in France and are provided on a voluntary basis by the employers. In our study, we have included schemes that have an occupational character, that is, in which the employers or both the employers and the employees finance the pensions. We have also included supplementary pension schemes for the self-employed.

In addition, a minimum old-age provision is guaranteed by a means-tested benefit Allocation de solidarité aux personnes âgées (ASPA) for the elderly who do not qualify for a contributory pension or whose pensions are low.

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1 The only fully funded pension scheme is RAFP (Retraite additionelle Fonctionnaire Publique), the mandatory occupational pension scheme for civil servants.

2 In the first-pillar, there is a general demographic equalization. The schemes with better contributor-to-pensioner ratios help the schemes with worse contributor-to-pensioner ratios. In the second-pillar, an equalization mechanism exists between the two biggest schemes, AGIRC and ARRCO.

3 This figure excludes unemployed people. Source: CNAV, Abrégé statistique 2015, p. 26.

3 Data and methodology

The tables in this section offer detailed data on the pension contribution income of the first (statutory) and second pillar (occupational) pension schemes in France. We have taken into account the income for old-age, disability and survivors' pension. The data are retrieved from the publication series Les comptes de la sécurité sociale. We have used the reports of September 2015, September 2014 and September 2012. If we have not been able to retrieve the data from these publications, we have used the yearly reports of the pension scheme in question. The data on supplementary pension arrangements stem from the series Les retraités et les retraites by the Ministry of Social Affairs and Health.

This report's figures are not totally comparable with the previous pension contribution level report on France (Bach-Othman 2009) for two reasons. Firstly, this report includes all the basic and occupational schemes, the 2009 edition included only the largest, and secondly, this report includes information on supplementary pensions that are missing from the previous edition.

We start by looking at the total income of statutory, occupational and supplementary pensions. Then we move on to a more detailed analysis of the different schemes and relate it to GDP and the wage sum.[4]

Income from pension funds have not been taken into account in this study as it is a compound income from contributions that have been paid into the system earlier. Similarly, we have ignored the fact that France finances the deficit of its private-sector pension system (régime général) by issuing bonds on international markets. In the same vein, we have not taken internal transfers between the pension schemes into account, as they are not new pension income but constitute transfers of pension contributions from one scheme to another. We have concentrated mainly on the paid benefits and have left out administrative costs when assessing the expenditures of the statutory schemes.

As there are many pension schemes in France, we have grouped some of them under a common denominator (e.g. the self-employed) in the tables in this section.

We have looked more closely at the origin of the contributions and have traced them to four different sources:

1. employee contributions
2. self-employed persons' contributions
3. employers' contributions
4. taxes and other social contributions (incl. FSV & AVPF).

4 Financing the pension systems

4.1 Total pension contribution

Comparing the pension contribution rate between the different French schemes is not

4 For comparative purposes, the OECD database has been the source for all GDP, employee compensation and wage figures in this study.

purposeful as the calculation base differs and the contributions cover different social risks. However, to gain an idea of the size of the average contribution, the following table presents the contribution rates for an average private-sector wage earner.

Table 1.
Contribution rates in 2014.

Total old-age contribution	Employee, %	Employer, %
Statutory old-age		
- without ceiling	0.25	1.75
- up to median salary	6.80	8.45
Occupational (AGIRC-ARRCO)		
- up to median salary	3.05	4.58
AGFF	0.80	1.20

Source: Cleiss.

The old-age pension contribution fee to the régime général in France has stayed relatively stable since 1990, when it was slightly below 15 per cent. In 2014 it was 15.25 per cent. The contributions to the mandatory occupational pension schemes have grown from 4 per cent in 1990 to 6 per cent in 2014. However, the contribution rate above the ceiling has increased significantly from 8 per cent in 1994 and is currently at 16 per cent for both schemes (COR 2009).

The COR[5] (Conseil d'orientation des retraites) calculates that the total contribution, including both statutory and occupational pensions, for an average worker in the private-sector was 25.5 per cent in 2014.[6] The real pension contribution is somewhat higher as the figure from COR excludes the association pour la gestion du fonds de financement (AGFF) contribution that is 2 per cent. It is used to finance mandatory occupational pensions. Furthermore, COR does not take into account health insurance contributions that are used to finance, among other things, disability pensions.

In comparison, the OECD (2016) gives a total pension contribution rate of 21.25 per cent for an average wage earner.[7] The statutory contribution component for employees is 6.8 per cent and for employers 8.45 per cent. These components are supplemented by the occupational pension contribution that is divided equally (3 per cent and 3 per cent) between both parties. However, it is noteworthy that the total contribution fee in OECD's account is significantly smaller than the one presented by COR. These examples highlight the difficulty of ascribing one precise contribution rate for an average wage earner.

Furthermore, some other social contributions, such as the contribution sociale généralisée (CSG) and the contribution au remboursement de la dette sociale (CRDS), are used to finance pensions. However, the commonly agreed guideline stipulates that the mandatory pension contribution rate should not exceed 28 per cent.

5 A pensions advisory council in charge of monitoring the mid- and long-term prospects of the pension system.
6 COR: Rapport annuel du COR – 2014, p. 47.
7 OECD: Pensions at a Glance – 2016, p. 177 (Table 9.1).

Figure 1.
Share of basic, occupational and supplementary pension contribution income.

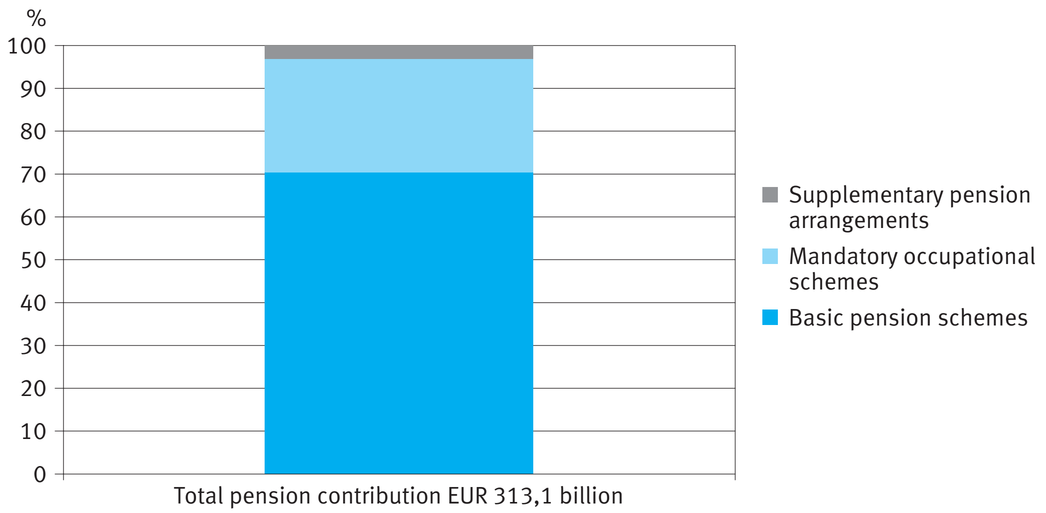
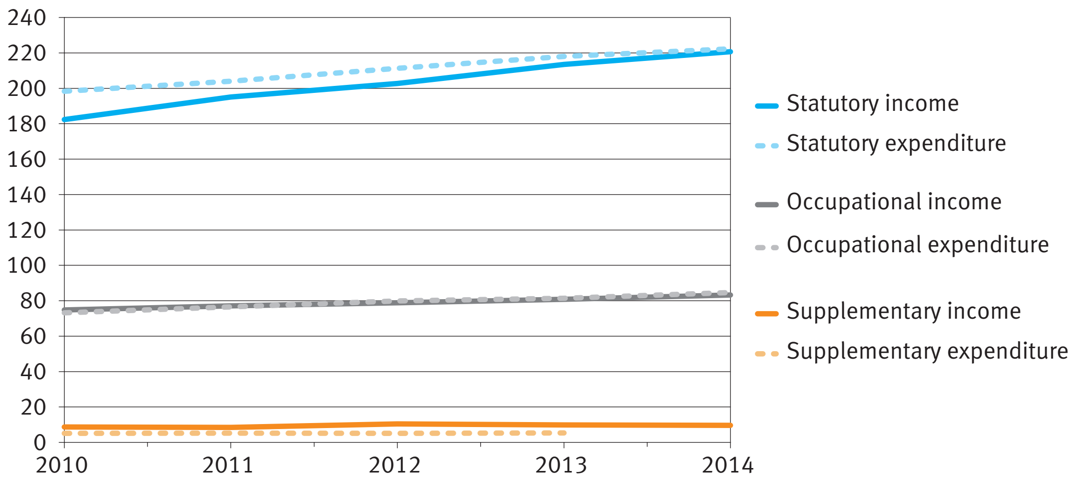


Figure 2.
Income and expenditure (EUR billion) in statutory, occupational and supplementary pension schemes in 2010–2014.



The total contribution income is EUR 313.1 billion, which counts for 38.2 per cent of the wage sum and 14.7 per cent of GDP (in market prices). The basic pension schemes account for 70 per cent of the total pension income. Some 26.5 per cent of the income is derived from mandatory occupational pension schemes and, finally, 3 per cent of the income comes from supplementary pension arrangements.

The main part of the pension income comes from the statutory basic pension schemes that amount to EUR 220.2 billion. The single largest statutory scheme is the régime general, with EUR 91.15 billion in contribution income.

The two major private-sector occupational pension schemes (AGIRC and ARRCO) together account for a total contribution income of EUR 70.7 billion. The total occupational contribution income is EUR 83.3 billion.

The total contribution income of the supplementary schemes is EUR 9.64 billion.

Looking at the time series we note that the deficit of the statutory pension schemes has narrowed from roughly EUR 18 billion to EUR 2 billion in 2014. Occupational contribution income and expenditure have fluctuated from a surplus of EUR 1 billion to a deficit of EUR 0.5 billion. The financing of employer-sponsored supplementary pension schemes has shown a significant surplus during the whole period.[8]

4.2 Statutory basic schemes

The basic French pension schemes are financed by a variety of sources. Most importantly, employees and employers pay pension and other social contributions. Some unemployment periods are financed by employer and employee contributions through Unédic[9]. In addition, a part of the revenue from taxes is used to finance social security. The State finances the deficit of the public sector pension schemes. There is also one major fund, the Old-age Solidarity Fund (Fonds de Solidarité Vieillesse, FSV), that finances pension schemes. In the social security scheme, the disability pension is paid from health insurance. Therefore we have taken into account income from the organisation responsible for health insurance Caisse nationale de l'assurance maladie des travailleurs salariés (CNAMTS), that corresponds to the share of paid disability benefits (pension d'invalidité).

The private-sector social security scheme (régime général) finances its deficit by issuing bonds on international markets. Agence centrale des organismes de sécurité sociale (ACOSS) is in charge of issuing short-term bonds. The accumulated debt is taken over by Caisse d'amortissement de la dette sociale (CADES), which issues long-term bonds. In addition, the reserve fund (Fonds de Réserve pour les Retraites, FRR) finances the pension system with the capital allocated to it. As financing through the financial markets falls out of the scope of our report, we do not go into further analysis of these organizations and their role in securing the financing of the system. However, these external financing mechanisms explain why the pension expenditure of the basic schemes is higher than the pension income.

FSV receives most of its income from the general social contribution (contribution sociale généralisée, CSG). CSG is a tax-like contribution paid from salaries, unemployment benefits, pensions, sickness allowances, inheritance and capital gains and gambling games. FSV receives part of its financing from other social contributions, taxes, transfers from Office for Family Allocations (caisse d'Allocations familiales, CAF) and other sources. FSV is used to finance minimum pensions, unemployment periods in the régime général and pension top-ups for children.

CAF, the social insurance body responsible for family benefits, pays the contributions for stay-home parents that would otherwise not acquire pension rights. This insurance for

8 The supplementary pension expenditure is an estimation based on the data available.

9 Unédic is a paritarian unemployment insurance association established in 1958 by social partners and managed by them.

stay-home parents is called assurance vieillesse du parent au foyer (AVPF). In Table 2, the income paid into the system by CAF is allotted to other social contributions, taxes and state financing. CAF also finances FSV. The State takes care of contributions for some categories of work contracts, certain regions and some other cases (i.a. young entrepreneurs).

Table 3.

The different sources of pension income in statutory basic pension schemes.

Basic Pension Schemes	2010	2011	2012	2013	2014
Employee pension contributions (EUR billion)	38.69	39.89	41.92	45.34	47.31
(% of total)	21.4	20.6	20.7	21.3	21.5
Self-employed pension contributions (EUR billion)	5.26	5.59	5.72	6.12	6.47
(% of total)	2,9	2.9	2.8	2.9	2.9
Employers' pension contributions (EUR billion)	93.96	98.7	102.43	105.67	109.18
(% of total)	51.9	50.8	50.6	49.5	49.6
Other social contributions (AVPF, CSG), taxes (EUR billion)	43.05	49.94	52.54	56.16	57.28
(% of total)	23.8	25.7	25.9	26.3	26.0
All in Total	180.96	194.12	202.61	213.28	220.18

Table 2 shows us that the major sources of financing are the employers' contributions that represent approximately 50 per cent of the total income. The second biggest source of funding comes from taxes and other social contributions. Their share is approximately 26 per cent of the income. Employees' contributions represent roughly 21.5 per cent and self-employed contributions approximately 3 per cent of the total income.

The total pension contribution and other income to the basic pension schemes represent 26.8 per cent of the wage sum and 10.3 per cent of GDP in market prices.

In the basic pension schemes, the income from the employee contributions is EUR 47.3 billion. Self-employed persons' contributions total EUR 6.5 billion and the contributions paid by the employers are worth EUR 106.1 billion. The employee contribution counts for approximately 5.8 per cent of the wage sum, and the employer's contribution for13.3 per cent of the wage sum.

It is noteworthy that, in 2014, as regards the statutory pension schemes, 89.4 per cent of the active workforce was insured in wage earners' schemes and 10.6 per cent in schemes for the self-employed.[10] However, the pension contributions of the self-employed represent only 4 per cent of the total pension contributions to the basic pension schemes.

Basic pension schemes receive EUR 57.2 billion from other social contributions and taxes. This amount equals 7 per cent of the wage sum.

10 Including CAVIMAC. Information from abrégé statistique 2016, p. 26.

4.3 Mandatory occupational schemes

Table 4.
The different sources of pension contributions in occupational pension schemes (EUR billion).

Pension schemes	2010	2011	2012	2013	2014
Employee contributions (incl. AGFF)					
Agirc	6.86	7.18	7.27	7.34	7.66
Arrco	17.28	17.84	18.18	18.50	18.83
Other*	1.93	1.98	2.05	2.15	2.24
Total	26.07	26.99	27.50	27.99	28.73
Self-employed contributions					
RSI & RCO & CNBF	2.30	2.43	2.26	2.62	2.86
CNAVPL & AVS (Liberal workers' complementary)	3.32	3.42	3.73	3.78	3.95
Total	5.62	5.85	5.99	6.40	6.81
Employers' contributions (incl. AGFF)					
Agirc	11.12	11.64	11.80	11.91	12.42
Arrco	25.92	26.76	27.27	27.75	28.24
Other	2.64	2.71	2.79	2.94	3.08
Total	39.68	41.11	41.85	42.60	43.74
Other social contributions (Unédic) and taxes					
Agirc	0.81	0.52	0.70	0.68	0.69
Arrco	2.47	2.44	2.58	2.79	2.90
Other	0.20	0.21	0.25	0.38	0.40
Total	3.48	3.18	3.53	3.84	4.00
All in Total	74.84	77.13	78.87	80.83	83.28

* The other section in this table refers to the schemes of CRPNAC (aviation), MSA RCO (farmers), IRCANTEC (contractual public employees) and RAFP (civil servants).

The total pension contribution income from the occupational schemes is EUR 83.3 billion, or 10.1 per cent of the wage sum and 3.9 per cent of GDP at market prices.

We have included the contribution from the AGFF fund in the employer and employee contributions. AGFF's function is to finance full pensions (retraite à taux plein) that are awarded before the retirement age on the basis of a full working career. Both employees and employers finance AGFF as part of their occupational pension contributions.

The State participates in the financing of the occupational pension schemes by paying the contribution for certain unpaid periods (such as unemployment through FSV). The farmers' occupational scheme is also partly financed with taxes on tobacco. Unédic participates in the financing of pensions for unemployment periods.

In the occupational schemes, the employees', employers' and self-employed persons' contributions provide nearly 95 per cent of the total income. Taxes share (including taxes, Unédic and FSV) is 5 per cent of the total income of the occupational schemes.

4.4 Supplementary pension arrangements

In addition to the statutory and mandatory occupational schemes, employers can offer supplementary arrangements to their employees as well as two arrangements that offer pension insurance for self-employed people. In this study we have included the supplementary pension arrangements that have an occupational character (i.e. in which the contributions are paid by the employer alone or together with the employee). Payments to pension arrangements under Article 82 and Article 39 are made by employers only. There are some other supplementary pension arrangements for civil servants and wage earners but, because of their individual and non-occupational nature, they fall outside the scope of this study.

As the contributions are reported only as a total sum, it is impossible to specify the contribution income between the employer and the employee. The only available specification is for Perco (where 29.6 per cent of the contribution income came from the employer in 2014). As we lack information concerning the other schemes, we have used this specification for them as well (with the exception of the arrangements under Article 39 and Article 82, which are fully sponsored by the employer). Therefore our data of the supplementary pension schemes is not precise but gives an overview of the contribution income with a rough specification of the division between the employer and the employee.

Table 5.
The different sources of pension contribution income in supplementary occupational pension schemes.

Pension schemes	2010	2011	2012	2013	2014
Employee contributions					
PERCO, PERE, REPMA and other	0.94	1.17	1.30	1.34	1.39
Article 83	1.78	1.64	1.83	1.84	1.90
Total	2.72	2.81	3.13	3.18	3.29
Self-employed contributions					
Madelin Contracts	2.33	2.47	2.75	3.01	2.77
Farmers’ Contracts	0.23	0.24	0.26	0.27	0.26
Total	2.55	2.71	3.01	3.29	3.03
Employers’ contributions					
PERCO, PERE, REPMA and other	0.51	0.61	0.66	0.66	0.67
Article 83	0.76	0.70	0.79	0.79	0.79
Article 39 & Article 82	2.18	1.64	2.89	1.93	1.86
Total	3.45	2.95	4.33	3.38	3.32
All in Total	8.73	8.48	10.47	9.84	9.64

The total pension contribution paid into these arrangements was EUR 9.6 billion. The contribution component for the arrangements of the self-employed (Contrats Madelin and Contrats exploitants agricoles) was EUR 3.0 billion. Wage earners’ supplementary pension arrangements’ component was EUR 6.6 billion euros. The biggest arrangements are those under Article 83 and Article 39, as well as that of PERCO.

In 2014 the collective and self-employed persons' supplementary pension contributions counted for 3.1 per cent of the total pension contribution income. Supplementary pension contributions amounted to 1.2 per cent of the wage sum and 0.5 per cent of GDP at market prices.

The contributions for the pension schemes for the self-employed are paid in full by the self-employed themselves.

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PENSION CONTRIBUTION LEVEL IN GERMANY

Antti Mielonen

Contents

1 Pension contribution level in 2014

The following table presents the total pension contribution income for statutory and occupational pension schemes in relation to the compensation of employees, the wage sum and GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
Statutory pensions*	6.70	8.20	3.41	3.79
Occupational pensions	0.43	0.53	0.22	0.24
Total	7.13	8.73	3.63	4.03
Employers				
Statutory pensions*	7.62	9.33	3.87	4.31
Occupational pensions	2.84	3.48	1.45	1.61
Total	10.46	12.81	5.32	5.92
Tax financing				
Statutory pensions*	7.74	9.47	3.93	4.37
Occupational pensions	0.03	0.04	0.02	0.02
Total	7.77	9.51	3.95	4.39
Statutory pensions*	22.06	27.00	11.21	12.47
Occupational pensions	3.30	4.05	1.69	1.87
All in total	25.36	31.05	12.90	14.34

* Includes special pension schemes.

2 Data and Methodology

The pension schemes included in this section are the statutory schemes, special pension schemes and occupational pension schemes provided by the employer (betriebliche Altersversorgung, Zusatzversorgung). As with the other countries, we have excluded the third pillar schemes (private Altersvorsorge), such as the Riester-renten, from our comparison. It should be noted that this approach differs from our previous comparison (Vidlund et. al 2009), where the Riester-renten were included. Also different from the previous comparison is that we have not included the state subsidy to the pensioners' sickness insurance scheme (Beiträge des Staates, KVdR) in the contribution level calculations.

We have collected the applied data from official sources available to the public. This includes annual reports and statistical data on the relevant organizations' webpages. Most of the contribution data is collected from the Sozialbudget, published by the Bundesministerium für Arbeit und Soziales (BMAS). The Sozialbudget includes comprehensive data for the statutory and special pension schemes as well as the occupational schemes.[1] For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries.

The pension contribution level has been calculated by dividing the total premium or pension contribution and possible state subsidy amounts with the OECD data on GDP, wage sum and employee compensation amounts. In calculating the contribution levels, we have only included the contribution income paid by the employees, employers and the State. Possible other income (e.g., investment income) is not taken into consideration. The respective contribution shares for employees, employers and the State are calculated according to the source data. Self-employed persons' contributions are considered as employee contributions due to the statistical reasons.

3 Statutory pension schemes

The statutory pension provision (Gesetzliche Rentenversicherung) forms the backbone of the German pension system. It covers approximately 90 per cent of the working population with around 36.2 million active members at the end of 2013. It is divided into two branches: the general pension scheme (Allgemeine Rentenversicherung) that includes the main part of the working population (35.7 m) and the pension scheme for miners, railway and seafaring personnel (Knappschaft-Bahn-See, KBS) with a small number of insured members (0.5 m).

3.1 Benefits

The statutory pension benefits include old-age, disability and survivors' benefits. Counselling, medical and vocational rehabilitative measures and an allowance to meet the contributions to the pensioners' sickness fund are also available.

The old-age pension can be paid out from different ages depending on the time a person has been insured. The regular old-age pension (Regelaltersrente) requires at least five years of insurance time. The retirement age in 2014 was 65 years and 3 months. It will increase gradually until it is 67 years in 2031. This pension benefit is based on points that accrue from earnings under the earnings limit, but also from unpaid periods, such as childcare. The average monthly old-age pension was EUR 805 per month in 2014. The retirement age in the KBS scheme can be lower and the average benefits higher (DRV Bund 2015).

The gross replacement rate of the 'standard' pension was 48.1 per cent in 2014. This is a theoretical replacement rate of a 45-year-career with an average salary. Legislation sets a lower limit to the replacement rate of the standard pension: 46 per cent by 2020 and 43 per cent by 2029. Pension projections indicate a decline from 48.1 per cent in 2014 to 44.6 per cent by 2029, just above the limit set in the legislation. If the replacement rate

1 It should be noted that the Sozialbudget data follow SNA standards and are entered when the payments are due, not when the money is actually transferred. Also, the contribution data does not cover the book reserve schemes (Direktzusage/Pensionszusage), and in this respect the results somewhat underestimate the total contribution income in the occupational pension sector.

projections indicate a decline under the limit, the government is obligated to come up with policy proposals to ensure that the benefit level stays above the threshold (BMAS 2015a).

3.2 Financing

The financing of the statutory pension schemes is based on the pay-as-you-go (PAYG) principle with employer and employee contributions and transfers from the federal government. The general pension scheme has a buffer fund (Nachhaltigkeitsrücklage) which ensures the liquidity of the system as the revenue from the contributions is affected by seasonal and business-cycle-related fluctuations.

The pension contribution in the general system is evenly split into employer and employee components. In 2014, the total contribution level was 18.9 per cent, with 9.45 per cent components for employers and employees alike under a contribution ceiling of EUR 5,950 per month in the old states and EUR 5,000 per month in the new states.[2]

The KBS scheme has a higher total contribution rate and contribution ceiling, but the employees pay the same rate as in the general scheme. In 2014, the total KBS contribution rate was 25.1 per cent, with the employer's component being 15.65 and the employee's 9.45 per cent. The contribution ceiling was at EUR 7,300 per month in the old states and EUR 6,150 per month in the new states. The federal government covers the difference between contribution income and expenditure.

In the general scheme, those with monthly earnings of less than EUR 450 (Minijobs) have different contribution rates. Employers pay 15 per cent and employees the difference between 15 and the total rate, that is, 3.9 per cent of the earnings income in 2014. Employees can apply for an exemption from contributions, but this means reduced disability benefits. Earnings between EUR 450 and 850 (Midijobs) have a reduced employee component that ranges from 3.9 to 9.45 per cent. Contrary to Minijobs, employees cannot be exempted from their contribution component. An employment lasting for less than 50 working days is totally exempt from pension contributions.

The self-employed who are mandatorily covered by the statutory scheme pay selected contributions: either a fixed monthly amount of EUR 530 (EUR 452 in the new states) or an income-related contribution at 18.9 per cent (corresponding contribution amounts EUR 85–1,125). Those self-employed who are voluntarily insured in the statutory scheme can pay contributions according to their choosing within the same limits as the income-related contribution.

The contribution rate in the general scheme has upper notional limits. The maximum rates are 20 per cent until 2020 and 22 per cent from 2020 to 2030. If the rate is projected to exceed these limits, the federal government is obligated to launch correcting measures. However, the projected contribution rate is calculated to remain under the legal limits during the years 2020–2030 (see Table 2 below).

In the shorter time frame, the general scheme contribution rate is influenced by the size of the buffer relative to the scheme expenditure. According to the law, if the size of the

2 The contribution ceilings are indexed annually according to the increase in the average wage.

fund exceeds 1.5 times the monthly expenditure, the contribution rate has to be lowered. Respectively, if the fund size declines to under 0.2 times of the monthly expenditure, the contribution rate has to be raised. At the end of 2014, the fund amounted to EUR 35 billion, which was 1.91 times the monthly expenditure.

Table 2.
*Statutory pension schemes' key figures for 2010–2014.**

	2010	2011	2012	2013	2014
Total contribution rate, %					
- general scheme	19.9	19.9	19.6	18.9	18.9
- KBS	26.4	26.4	26.0	25.1	25.1
Employees' contributions (Sozialbeiträge der Versicherten), EUR million	80,687	84,502	87,000	87,134	90,754
Employers' contributions (Sozialbeiträge der Arbeitgeber), EUR million	83,497	86,812	88,630	88,361	91,640
State subsidy (Zuschüsse des Staates)**, EUR million	82,097	81,903	82,759	82,503	84,286
Total income, EUR million	246,281	253,217	258,389	257,998	266,680
Pension expenditure (Einkommensleistungen,Sachleistungen), EUR million	234,541	235,660	239,541	242,630	249,598

* Includes the Artists' pension scheme. ** Not including Beiträge des Staates. Sources: BMAS Sozialbudget 2011–2014, tabelle III-1, Rentenversicherungsbericht 2015.

According to the projections by the BMAS, the fund size is going to decline considerably during 2015–2020. This development is due to the contribution rate being lowered from 18.9 per cent in 2014 to 18.7 per cent in 2015, where it is expected to stay until 2020, even though the benefit expenditure will rise more than the income from contributions and government transfers throughout the period. As the buffer fund will have been almost depleted by 2020, the contribution rate is projected to increase in the following years.

In the KBS scheme, the contribution rate was also lowered from 25.1 in 2014 to 24.8 in 2015, where it is expected to remain until 2020. After that, it is expected to increase to 28.5 per cent by the year 2029.

Table 3.
*Projected contribution rates (%) and buffer fund size (EUR billion) in the statutory schemes.**

	2016	2020	2025	2029
General scheme, %	18.7	18.7	20.4	21.5
KBS, %	24.8	24.8	27.1	28.5
Buffer fund, EUR billion (times monthly exp.)	29.5 (1.47)	7.3 (0.32)	6.0 (0.22)	6.9 (0.22)

* Projection with wage convergence (Lohnangleichung) between new and old states. Source: BMAS Rentenversicherungsbericht 2015.

4 Special schemes

For some special groups there are separate, compulsory pension schemes that replace membership in the general pension scheme. These schemes include the Civil Service Pension Scheme (Beamtenversorgung), the Farmers' Pension Scheme (Alterssicherung der Landwirte), the Pension Scheme for Artists (Künstlersozialversicherung) and several professional pension schemes (Berufständige Versorgungswerke) that cover, among others, physicians, pharmacists, architects, notaries and lawyers.

4.1 Civil Service Pension Scheme (Beamtenversorgung)

The Civil Service Pension Scheme covers the local and central government civil servants as well as military personnel, judges and the officials of privatized companies in Post, Postbank, Telekom and Bahn. At the end of June 2014, the Beamtenversorgung had 1.85 million active members (dbb 2016).

The Civil Service Pension Scheme is basically a PAYG scheme funded by the relevant organization's contributions (employer) and State subsidies. Civil servants do not have to pay pension contributions, although a very small part of the revenue comes from this source. Since 2007, the funding of the scheme has been directed towards capital funding, as the contributions of new civil servants are placed in the fund called Versorgungsfonds.

Table 4.
Civil Service Pension Scheme key figures 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Employers' contributions (Sozialbeiträge der Arbeitgeber -unterstellt)	15,235	15,340	15,106	20,497	20,546
Employees' contributions (Sozialbeiträge der Versicherten)	251	251	251	251	251
State subsidy (Zuschüsse des Staates)	26,658	27,498	29,499	25,936	28,233
Income Total	42,144	43,089	44,856	46,684	49,030
Pension expenditure (Einkommensleistungen)	43,303	44,334	46,163	47,973	50,366

Source: Sozialbudget 2011–2014; Tabelle III-1.

4.2 Farmers' Pension Scheme (Alterssicherung der Landwirte)

The farmers' pension scheme was established in 1957 to provide a basic income for retiring farmers handing over their farm to the next generation. Therefore, the old-age pension is paid only once the handover has been made. The pension benefit is relatively low and supposed to be topped up by private or statutory pensions or other income.

The farmers and adjacent professions, including their families, are compulsorily insured in the Farmers' Pension Scheme. The scheme is a PAYG scheme funded with member contributions and state subsidies that cover the deficit between contribution income and expenditure.

The members pay a flat-rate contribution according to their membership status. Farmers and their spouses pay a full-rate contribution while other family members working on the farm pay a half-rate contribution. The contribution amount is linked to the development of the average wage in the general pension scheme. In 2014, the full contribution was EUR 227 per month in the old states and EUR 192 per month in the new states. In case a member has a low income, the State pays part of the contribution as a subsidy that ranges from EUR 9 to 136 per month. The highest subsidy is paid when the annual income is below EUR 8,220 and the lowest subsidy for income between EUR 14,981 and 15,500 (BMJV 2013).

The number of insured members has declined by half from 450,000 to 224,000 from 1998 to 2014. At the same time, the number of pensioners has risen, albeit more modestly, from around 550,000 to over 600,000 persons in 2014 (SVLFG 2015). This development has increased the State's share of the financing. In 2014, the member contributions amounted to 21 per cent and the State contributions to around 79 per cent of the total income.

Table 5.
Farmers' Pension Scheme key figures 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Employees' contribution (Sozialbeiträge der Versicherten)	640	644	640	605	597
State subsidy (Zuschüsse des Staates)	2,310	2,251	2,233	2,228	2,204
Income Total	2,950	2,895	2,873	2,833	2,801
Pension expenditure (Einkommensleistungen, sachleistungen)	2,877	2,793	2,796	2,751	2,708

Source: Sozialbudget 2011–2014; Tabelle III-1.

4.3 Artists' Pension Scheme (Künstlersozialversicherung)

Self-employed artists and writers have their own compulsory pension scheme – the Künstlersozialversicherung. Insured artists are those who create, perform or teach music or visual arts as well as writers, authors and journalists. In 2014, there were just over 181,000 active members in the Künstlersozialkasse.

The Artists' Pension Scheme is a PAYG scheme financed by employee contributions (Versichertenbeitrag), a levy on client companies and customers (Künstlersozialabgabe) and a State subsidy (Zuschuss des Bundes). The artists' contribution (classified in this context as an employee contribution) is set at the same level as the general scheme's employee contribution, that is, at 9.45 per cent in 2014. The company and customer levy is 5.2 per cent and the rest is financed by the State. The contributions are paid from an annual income of between EUR 3,900 and 71,400 (new states EUR 60,000).

The Artists' Pension Scheme is a statutory pension scheme and the contribution income is included in the figures presented in Table 1.

4.4 Professional pension schemes (Berufständige Versorgungswerke)

The professional pension schemes for liberal professions exist for the members of special professional associations (Berufskammern). These include physicians, pharmacists, architects, notaries, lawyers, tax consultants, veterinarians, chartered accountants, dentists and psychotherapists. In 2014, there were around 950,000 active members in the close to 90 different schemes. Around 50 per cent of the active members are doctors; the second largest group is notaries, followed by architects, dentists, pharmacists and veterinarians.

The professional pension schemes are fully or partly funded with contributions paid by members (here classified as employees) and to some extent, employers. The state does not take part in the financing. In 2014, the member contributions amounted to close to 91 per cent of the total contributions.

Table 6.
Key figures of the professional pension schemes 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Employees' contributions (Sozialbeiträge der Versicherten)	6,615	6,812	7,211	7,552	7,710
Employers' contributions (Sozialbeiträge der Arbeitgeber)	675	695	735	770	786
Income Total	7,290	7,507	7,946	8,322	8,496
Pension expenditure (Einkommensleistungen)	3,731	3,848	4,250	4,539	4,657

Source: Sozialbudget 2011–2014; Tabelle III-1.

5 Occupational pension schemes (Betriebliche Altersverorgung)

Due to an increasingly weaker demography that affects the benefit level of the statutory pension provision in the future, the role of the occupational pension has become more important in Germany in securing adequate living standards in old-age. To this end, the government has made significant changes to the legislation and rules governing the occupational pension provision in the last 20 years (e.g., BMAS 2014).

One way to increase the role of occupational pensions has been the introduction of the employees' right to allocate part of their salary (tax-free) to occupational pension schemes (Entgeltumwandlung). Traditionally, the occupational pension provision provided by the employer has been voluntary, though often organized by the social partners through collective agreements. Since 2002, however, with the introduction of the salary conversion, all employees have had a basic right to an employer-organized occupational pension.

The salary conversion has increased the occupational pension coverage in the private sector, especially within small companies. Traditionally, this type of pension provision has been more common among large companies. The active memberships (aktiv Versicherte) in the private sector occupational schemes numbered 9.5 million at the end of 2001 and close to 14.8 million in 2013.[3]

In the public sector, those who are workers or employees (Arbeiter und Angestellten) but not civil servants have their own occupational pension schemes – the Zusatzversorgung im öffentlichen Dienst. The ZÖD schemes are based on collective agreements. With few exceptions, they include as compulsory members (regardless of status and gender) all workers and employees of the public sector on the federal, regional and municipal level, as well as of churches. ZÖD funds had around 5.3 million active members at the end of 2013. The figure has increased only marginally (+ 0.2 million) since 2001.

In addition to the private sector schemes and the ZÖD in the public sector, there are a few small schemes that cover special groups, such as the members of parliament (Altersentschädigung der Bundes- und Landtagsabgeordneten) and State and local government members (Altersversorgung der Regierungsmitglieder), the occupational pension scheme for employees in farming and forestry (Zusatzversorgung in der Land- und Forstwirtschaft, ZLA) and workers in the iron and steel industries in Saarland (Hüttenknappschaftliche Zusatzversicherung im Saarland, HZV).

All in all, according to the BMAS (2015b), the occupational pension schemes in the private and public sectors covered around 60 per cent of those compulsorily insured in the social security system at the end of 2013.

5.1 Pension benefits and implementation

An occupational pension benefit may include benefits payable at old age, in the event of the death of the family's breadwinner or disability. It may also include a temporary pension that bridges the gap between early retirement (after age 62) and old-age retirement. For taxation reasons, retirement benefits are mainly paid in the form of pensions, although lump-sum payments are not forbidden (Aba 2015). Average benefit

There are five different vehicles that employers can choose between in the private sector occupational pension provision:

- **Pensionskasse** is a special insurance company with the sole purpose of managing pension plans for one or many employers. The beneficiaries have a direct claim against assets, which are separated from the sponsoring company. In 2013, the Pensionskassen had 4.8 million active members.
- **Direct pension promise** (Direktzusage/Pensionszusage) is a traditional, single-employer scheme where employers promise to pay their employees a certain amount once they retire. Pensions are financed through internal book reserves. In 2013, there were 4.6 million active members in direct pension promise arrangements (including support funds).
- **Direct insurance** (Direktversicherungen) is an insurance contract between a single employer and an insurance company in favour of the employees. In 2013, there were 4.9 million active members in direct insurance pension arrangements.

3 An individual may be a member of several pension schemes at the same time. On average, German employees belonged to 1.2 pension schemes/person in 2014. The figure for individual members is therefore lower.

- **Support fund** (Unterstützungskasse) is a separate legal entity set up as an association, company or as a foundation. A support fund can be formed by one or more companies. The employees have no legal claim against underlying assets but directly against the sponsoring employer.
- **Pension fund** (Pensionsfonds) is a separate legal entity formed either as a joint-stock company or as a mutual pension fund association. Pension funds can be set up by a single company, a financial services provider or by an employers' association and the unions as an industry-wide pension scheme. In 2013, there were 0.45 million active member in pension funds.

5.2 Financing

Occupational pension provision is mostly funded in the private sector. The schemes have traditionally been defined benefit schemes (Leistungszusage), but hybrid schemes that mix the characteristics of defined benefit and defined contribution schemes have been possible since 1999. Pure DC schemes in which the employees carry the full investment risks are not allowed under the Occupational Pensions Law (BetrAVG).

Hybrid schemes include the contribution-oriented defined benefit scheme (beitragsorientierte Leistungszusage), which guarantees a minimum annual return for the contributions, and the contribution-oriented scheme with a guarantee for the sum of nominal contributions at retirement (Beitragszusage mit Mindestleistung).

In the public sector, the schemes are usually based on the PAYG principle. However, the public sector ZÖD schemes were fully PAYG schemes until the 1999 pension reform, after which some of the funds (Zusatzversorgungskassen) switched to capital funding.

In principle, private sector pension schemes can be financed solely by the employers, by both the employers and the employees or the employees alone. Traditionally, the employers have covered most of the contributions, but the employee participation in financing has risen since 2002 after the introduction of the employees' right to salary conversion. In 2001, 54 per cent of the occupational schemes were solely employer financed, whereas the figure dropped to 31 per cent by the end of 2011 (aba 2013).

In the public sector ZÖD schemes, the employee contributions were introduced in the reform of 1999 but the (public) employer carries the main responsibility for the scheme's financing. The State also contributes through state subsidies in the ZÖD and special group schemes.

The different vehicles for private sector pension provision have different rules for tax-effective contribution limits. Contributions to the **pensionskassen**, **direct insurance** and **pension funds** are exempted from taxes and social security contributions by up to 4 per cent of the statutory pension scheme contribution ceiling (old states). In 2014, this resulted in a combined maximum employer and employee contribution of EUR 238 per month (or EUR 2,856 per year). In addition, for pension commitments made since 2005, an extra annual lump-sum contribution may amount to a maximum of EUR 1,800. In sum, the tax-free contributions can amount to EUR 4,656 (BMAS 2014).

With the internal pension vehicles, the **direct pension promise** and **support funds**, the employer can deduct contributions or allocations to the pension scheme without an upper limit. In addition, the contributions made by the employers are not considered as taxable income to the employees. However, through salary conversion, the employee contributions have the same tax-effective limits as in the Pensionskassen.[4] The contribution rules make the direct pension promise and support fund better-suited to higher income employees than the other, more limited vehicles.

On average, in the old states, the employer contributions in the manufacturing industries (Produzierenden Gewerbe) amounted to 4.2 per cent of the gross salary or wages in 2014. In the new states, only 1.2 per cent was contributed to the occupational pension provision. The figure for Germany as a whole was 3.9 per cent.[5] There is also a considerable variation in contribution rates between different industries and sectors (Table 7).

Table 7.
Private sector employer contribution rates in the service sector (Dienstleistungssektor) in 2014, % of salary or wages.

	Trade (Handel)	Transport and storage (Verkehr und Lagerei)	Financial services (Finanzdienstleistungen)
2014	1.5	3.8	10.0

Source: Schröder (2015).

The ZÖD financing and contributions vary by fund. The biggest fund, the VBL (Versorgungsanstalt des Bundes und der Länder) with around 1.8 million active members, has different funding methods based on the location of the employer. The compulsory VBL scheme is a PAYG-financed scheme in the old states, and the total contribution rate has been 7.86 per cent of the insured salary since 2002. The contribution is divided into an employer's component of 6.45 and an employee's component of 1.41 per cent. In the new states, the scheme is a partly funded scheme with employers paying 1 per cent as a PAYG-contribution and the capital-funded contribution of 4 per cent being split evenly into employer and employee components (VBL 2015).

4 The allocations made in the direct pension promise schemes are not included in the contribution statistics by BMAS, nor in the final contribution rate calculations.

5 The figures do not include salary conversion (Entgeltumwandlung).

Table 8.
Key figures of the occupational pension schemes 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Employees' contribution					
(Sozialbeiträge der Versicherten)					
- Private sector (Betriebliche Altersversorgung)	4,622	4,678	4,474	5,057	5,134
- Public sector (Zusatzversorgung)	1,132	1,190	1,228	1,241	1,290
Employers' contribution					
(Sozialbeiträge der Arbeitgeber)					
- Private sector (Betriebliche Altersversorgung)	28,420	28,100	30,420	29,664	29,811
- Public sector (Zusatzversorgung)	10,818	11,030	11,813	11,947	12,322
State subsidies					
(Zuschüsse des Staates)					
- Public sector (Zusatzversorgung)	545	526	505	498	480
Income Total	45,537	45,524	48,440	48,407	49,037
Pension expenditure					
(Einkommensleistungen)					
- Private sector (Betriebliche Altersversorgung)	23,600	23,240	3,620	24,980	25,090
- Public sector (Zuzatzversorgung)	9,745	9,929	10,135	10,297	10,477

Source: Sozialbudget 2011–2014; Tabelle III-1.

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PENSION CONTRIBUTION LEVEL IN THE NETHERLANDS

Antti Mielonen

Contents

1 Pension contribution level in 2014

The following table presents the total pension contribution income for statutory and occupational pension schemes in relation to the compensation of employees, the wage sum and GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
Statutory pensions	7.43	9.61	3.68	4.09
Occupational pensions	3.36	4.34	1.66	1.85
Total	10.79	13.95	5.34	5.94
Employers				
Statutory pensions	3.37	4.36	1.67	1.86
Occupational pensions	9.06	11.71	4.49	4.99
Total	12.43	16.07	6.16	6.85
Tax financing				
Statutory pensions	4.20	5.43	2.08	2.31
Occupational pensions	-	-	-	-
Total	4.20	5.43	2.08	2.31
Statutory pensions	15.00	19.40	7.43	8.26
Occupational pensions	12.42	16.05	6.15	6.84
All in total	27.42	35.45	13.58	15.10

2 Data and Methodology

The pension schemes included in the contribution calculations in this section are the Dutch statutory pension schemes and the supplementary pension provision in the occupational pension schemes. As with the other countries, we have excluded the third-pillar, individual pension schemes from our comparison.

We have collected the applied data from official sources available to the public. This includes annual reports and statistics available on the relevant organizations' webpages. For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries.

The pension contribution level has been calculated by dividing the total pension contribution and possible state subsidy amounts with the OECD data. As regards the pension scheme for the young handicapped (Wajong), however, we have calculated the pension contribution level according to the pension benefit expenditure, as the scheme is solely financed through tax revenues with no specific pension contribution.

In calculating the contribution levels, we have only included the contribution income paid by the employees, employers and the State. We have not considered possible other income, such as investment or interest income. The respective contribution shares for employees, employers and the State are calculated according to the source data. However, the data regarding the insurance sector and premium pension institutions only specify the total contribution amounts, so in these cases we have divided the total contribution amounts into employer and employee shares according to the respective shares in the company funds.

3 Statutory schemes

The statutory pension provision consists of national insurance schemes and the employee insurance scheme. The national insurance schemes are the old-age pension scheme (Algemene Ouderdomswet, AOW), the survivor benefit scheme (Algemene nabestaandenwet, Anw) and the disability benefit scheme for young handicapped persons (Wet arbeidsongeschiktheidsvoorziening jonggehandicapten, Wajong). The employee insurance scheme (Wet werk en inkomen naar arbeidsvermogen, WIA) covers disability benefits for the working population.

3.1 Old-age pension scheme (AOW)

The old-age pension benefit provides a basic state pension for people who have lived or worked in the Netherlands and have reached the AOW retirement age. Pension accrues at a rate of 2 per cent per year, with a full pension after 50 years of coverage. The AOW retirement age has risen gradually from 65 years in 2012 to 65 years and 6 months in 2016. In 2021 it will reach 67 years, after which the retirement age will be connected to life expectancy with possible further increases.

In 2014, the gross full pension benefit for a single person was EUR 1,074.25 per month. In addition, there is a holiday allowance of EUR 70.16 per month that is paid out in May. The benefit is not reduced by supplementary pensions or work income.

The old-age pension scheme is a PAYG-scheme that is financed by employee contributions and state subsidies. The employee contribution is levied on earned income and housing income under the contribution base of EUR 33,363 in 2014 for those under the AOW retirement age.

The pension contribution is part of the income taxation system, as the two lowest tax brackets consist of income tax, social security contributions to the medical expenses insurance scheme (AWBZ) and pension contributions to the AOW and Anw schemes. The tax authority (Belastingdienst) collects the contributions and forwards the revenue to SVB (Sociale Verzekeringsbank), which is the implementing body of the AOW and Anw schemes.

Table 1 presents the income tax rates and social security contribution rates for persons younger than 65 in the year 2014. It should be noted that the nominal contribution rates of 17.9 per cent for the AOW scheme and 0.6 per cent for the Anw scheme do not represent the effective rates in general, as several tax credits apply to the AOW- and Anw-contributions.

Table 1.
Tax rates and social security contribution rates for persons under 65 in the Netherlands in 2014.

Income (EUR)	Income tax, %	AOW, %	Anw, %	AWBZ, %	Social security contributions total, %	Total, %
0–19,645	5.1	17.9	0.6	12.65	31.15	36.25
19,645–33,363	10.85	17.9	0.6	12.65		42
33,363–56,531	42					42
above 56,531	52					52

Source: Rijksoverheid (2014a).

In 1997, the government decided to cap the AOW contribution rate to a maximum of 18.25 per cent. However, the contribution rate has remained stable, just below the cap, at 17.9 per cent since 1999. Coupled with increasing pension expenditure, the fixed contribution rate has resulted in a deficit between the contributions and expenditure from 2000 onwards.

To cover for the deficit, the State's share of the financing has increased substantially during the last 15 years. In 2002, the State covered slightly more than one tenth of the expenditure, whereas in 2014, the share was close to one third. The increasing role of general budget financing has been motivated, in part, by intergenerational solidarity, as the pension beneficiaries will thus also take part in the increasing costs of the ageing society (CBS 2010).

Table 2 shows the development of the different income components and benefit expenditure in the AOW scheme from 2010 to 2014. The employee contributions show a rather steady rise until 2014, when the contribution amount dropped compared to the previous year. A rise in the State's share has compensated for the reduced employee contribution amount. The pension benefit expenditure has risen steadily during 2010–2014.

Table 2.
AOW scheme's key figures 2010–2014, % and EUR million.

	2010	2011	2012	2013	2014
Contribution rate, %	17.9	17.9	17.9	17.9	17.9
Employee contribution	18,208.4	20,599.4	22,413.7	24,033.3	23,377.3
State subsidy	11,102.6	8,222.1	10,788.8	7,658.5	11,073.1
Total income	29,311	28,821.5	33,202.5	31,691.8	34,450.4
Pension benefit expenditure	28,618	29,995	31,415	32,719	34,119

a: Net contribution with tax credits (totaal premiebaaten). b: Includes the state subsidy that compensates the scheme for the tax allowances (BIKK, Bijdrage in de kosten van kortingen) and the general state subsidy (Financiering door het rijk).
Sources: Jaarverslag SVB 2010–2014.

3.2 Survivor benefit scheme (Anw)

The survivor benefit scheme provides benefits for those whose partner or parent has died. The benefit is payable to a the surviving spouse who has not reached the AOW retirement age and whose child(ren) is/are under 18 years of age, or whose capacity for work has been reduced by at least 45 per cent. An orphan's benefit is payable to children under the age of 21 who have lost both parents. If they have lost only one parent, a supplement to the widow(er)'s benefit is paid instead.

The Anw benefit is income-dependent, meaning that income from other benefits is deducted fully whereas income from work only partially. In 2014, the full widow(er)'s benefit was EUR 1,127 per month and the benefit for a single parent EUR 1,405 per month. The orphan's benefit was EUR 361–721 per month, depending on the age of the beneficiary. In addition to the aforementioned benefit amounts, a holiday allowance is paid once a year which amounted to EUR 27–108 per month, depending on the benefit.

Similarly to the AOW scheme, the Anw scheme is financed through employee contributions under the contribution base (see Table 1) and a possible state subsidy. As the amount of beneficiaries has declined significantly during the last ten years, with a corresponding drop in the expenditure, it has been possible to lower the contribution rate from 1.25 per cent in 2006 to 0.6 per cent in 2014. No state subsidy has been required since 2013.

Table 3.
Anw pension contribution rate, contribution income and pension expenditure in 2010–2014, % and EUR million.

	2010	2011	2012	2013	2014
Contribution rate, %	1.1	1.1	1.1	0.6	0.6
Employee contribution*	1,314.3	1,375.4	1,484.3	867.5	1,032.7
State subsidy**	47.7	72.7	68.3	0.3	0.0
Total income	1,362	1,448.1	1,552.6	867.8	1,032.7
Pension benefit expenditure	1,137	1,040	901	764	625

* Net contribution with tax credits (totaal premiebaaten). ** Includes the state subsidy that compensates the scheme for the tax allowances (BIKK, Bijdrage in de kosten van kortingen) and the general state subsidy (Financiering door het rijk).
Sources: Jaarverslag SVB 2010–2014.

3.3 Disability benefit scheme for the young handicapped (Wajong)

The Wajong scheme supports young disabled persons and students who became disabled during their studies. It helps them find and keep a job with a regular employer. If they are unable to earn enough from this work, they will be eligible for income support.

The Wajong income support is a supplement to the salary. It is calculated on the basis of the amount of salary earned by the young handicapped person. The total income amounts to at least 75 per cent of the minimum wage.[1] Students and pupils receive an income support of 25 per cent.

1 The minimum wage varies from EUR 449 to 1,495 per month according to age. The highest rate is for those 23 years or older and lowest for those aged 15 years (Rijksoverheid, 2014b).

Wajong is implemented by the Employee Insurance Agency (UWV). It is financed through state funding, that is, general taxation, with no contributions from employees or employers. In calculating the contribution level, we have used the benefit expenditure data as it provides for a comparable result with a contribution-financed scheme.

Table 4 presents the benefit expenditure data of the Wajong scheme for the years 2010–2014. The number of beneficiaries has risen from around 150,000 in 2005 to around 250,000 in 2014. Accordingly, the benefit expenditure (in nominal terms) has risen in the same period from around EUR 1,600 to just over 2,700 million in 2014.

Table 4.
Wajong pension scheme expenditures in 2010-2014, EUR million.

	2010	2011	2012	2013	2014
Pension benefit expenditure (uitkeringen)	2,508	2,621	2,265	2,446	2,710
Other expenditure (e.g., administrative expenses)*	277	293	450	471	453
Total costs	2,785	2,914	2,715	2,917	3,163

* Not included in the overall contribution level calculations. Sources: UWV Jaarverslag 2010–2014.

3.4 Disability benefit scheme for employees (WIA)

The disability benefit scheme for employees (Wet werk inkomen naar arbeidsvermogen, WIA) is the only earnings related statutory pension scheme in the Netherlands. WIA is divided into two separate systems: the WGA system is for the temporarily and/or partially disabled with an incapacity rate of at least 35 per cent and the IVA system for those with a permanent incapacity rate of at least 80 per cent. The WIA scheme is administered by the Employee Insurance Agency (UWV).

The IVA benefit is 75 per cent of the previous income, with a maximum daily wage of EUR 197 (EUR 51,414 per year) in 2014 for benefit calculations. The WGA benefit is 70-75 per cent of the previous pay subject to the same maximum limit as with the IVA benefit. The WGA benefit is pay-related for 3–38 months, followed by a lower benefit if the person is not working or earning more than the threshold limit (SZW 2014).

The WIA scheme is financed solely by employer contributions on a PAYG-basis. In 2006, the contribution was divided into two parts according to the new disability pension scheme. The WAO/WIA basic contribution finances the IVA benefit and benefits paid by the former, now defunct disability scheme WAO. This basic contribution is the same for all employers. In 2014, it was 4.95 per cent under the contribution base of EUR 51,414.

The Return to Work Fund -contribution (gedifferentieerde premie Werkhervattingskas, Whk) finances the WGA benefits. It depends on the size, disability history and business sector of the employer. Also, the Whk contribution has different components for temporary employees (WGA flex) and regular employees (WGA vast).[2] These components are summed

2 In addition, the Whk contribution has a sickness insurance component for temporary workers (Zw-flex). The employer can opt out of the WGA scheme and bear the insurance risk for 10 years of new benefits. This means that the employer does not have to pay for the WGA vast contribution component.

up to form the total Whk contribution rate of the employer. On average, that rate was 0.66 per cent in 2014 (not including the sickness insurance component).

For large employers, the Whk components are individual and calculated according to the employer-specific disability rate differences with the average rates. However, these are subject to minimum and maximum limits, with the minimum being no less than one quarter and the maximum no more than four times the average rate. In 2014 the limits for the WGA-vast component were 0.12–1.96 per cent and for the WGA-flex component 0.04–0.68 per cent. For small employers, the Whk components are determined according to the business sector of the employer. For mid-sized employers, the contribution components are determined as a weighted average of sectoral and employer-specific rates.

Employers can also opt out of the public system and carry the partial or temporary disability risk themselves.[3] In this case, the employer does not have to pay the Whk-vast component (in 2016 also Whk-flex) but bears instead the cost of new benefits for 10 years. In 2013, 28 per cent of the employers chose to opt out of the public scheme (UWV 2013).

Table 5 presents the time-series for the WAO/WIA basic contribution income and Whk contribution income as well as the combined benefit expenditure of the WIA, WAO and WAZ schemes.[4] The contribution income only includes premium income (premiebaten) from employers. Other income (overige baten) is not included.

The total contribution income declined during the period 2010–2013. This corresponds with the lowering of the contribution rate of the basic contribution from 5.77 to 4.65 per cent. The Whk contribution rate has remained quite stable during 2010–2013. In 2014, the rates for the basic contribution and the Whk contribution were, however, slightly raised.

This overall declining trend in the contribution rates and income is related to a reduction in the number of beneficiaries from around 630,000 in 2010 to around 570,000 in 2014, with a close to EUR 1,000 million reduction in benefit expenditure.

Table 5.
WIA scheme's key figures 2010–2014.

	2010	2011	2012	2013	2014
WAO/WIA basic contribution rate, %	5,77	5.10	5.05	4.65	4.95
Whk average contribution rate, %	0.53	0.55	0.53	0.52	0.66
Annual contribution base, EUR	48,716	49,297	50,064	50,853	51,414
WAO/WIA basic contribution income, EUR million	10,662	9,622	9,887	8,083	10,182
Whk contribution income, EUR million	653	552	513	637	896
Total contribution income, EUR million	11,315	10,174	10,400	8,720	11,078
Pension expenditure*, EUR million	9,586	9,464	8,478	8,466	8,674

* Uitkeringen. Sources: Belastingdienst, UWV 2010–2014.

3 If the employer decides to opt out, he can still insure the disability risk with a private insurer.
4 The WAZ scheme was a disability scheme for the self-employed which was closed from new beneficiaries in 2004.

4 Occupational pension schemes

Although there is no statutory earnings-related (old-age) pension scheme in the Netherlands, the coverage of occupational pension provision is more than 90 per cent, and so almost every working person in the Netherlands is covered by a pension scheme that supplements the statutory pension provision, that is, an occupational pension scheme.

4.1 Organization and benefits

Despite the high coverage rate, there is no statutory obligation for employers to provide supplementary pension provision. The high coverage rate is achieved by the quasi-mandatory nature of the schemes. This means that, in case the employer decides to provide a pension plan, the employees are obligated to participate. Also, upon request from the social partners, the Ministry of Social Affairs and Employment (SZW) can make participation in a collective pension fund mandatory for all employers in a sector or profession.

According to the De Nederlandsche Bank (DNB), more than 75 per cent of the active members in the supplementary schemes are participants of industry-wide pension funds. The other types of supplementary pension provision include company-specific funds, professional group pension funds and insurance companies. A small number of participants are members of a relatively new vehicle: the premium pension institution.

Table 6.
Number of active members (million) and schemes.

	2010	2011	2012	2013	2014
Industry-wide funds					
- members	5.001	5.083	5.057	4.984	4.892
- schemes	119	123	114	108	101
Company funds					
- members	0.745	0.706	0.659	0.620	0.597
- schemes	704	652	545	482	427
Occupational funds					
- members	0.053	0.053	0.056	0.057	0.050
- schemes	15	15	13	13	12
Insurance companies					
- members	0.978	1.004	1.023	1.021	0.971
- schemes	36,108	40,808	41,855	40,953	40,963
PPI					
- members	n.a.	n.a.	n.a.	n.a.	n.a.
- schemes					

Source: DNB Pension schemes table T8.11, Direct pension arrangements table RR1.

In contrast to the insurance companies, pension funds are non-profit organizations. Operating as foundations, they are independent legal entities and do not form part of the sponsoring company. That is why the pension funds will not be directly affected if the company faces financial difficulties.

Premium pension institutions were established in 2011 to enable the management of cross-border pension schemes. However, the PPIs are only savings vehicles that do not pay out benefits. At retirement, the acquired capital has to be used to buy an annuity or another pension product from an insurance company.

During the last ten years, there has been a significant consolidation among the pension funds. The total number of pension schemes administered by the pension funds has declined from around 1,000 to 540 in 2014.[5] The largest drop has been among the company schemes, which have been reduced from around 800 to 427 in 2014.

Traditionally, the pension schemes administered by pension funds have been defined benefit (DB) schemes.[6] Also in 2014, over 90 per cent of the active members were still in DB schemes and less than 10 per cent in defined contribution (DC) or mixed schemes. The schemes administered by insurance companies were, however, 50 per cent defined contribution schemes and the PPI schemes are purely DC by legislation. The biggest change in the Dutch supplementary pension scheme characteristics during the last ten years has been the near complete shift from final-pay into average-pay in the benefit calculation among the DB schemes.

The benefits in the supplementary pension schemes usually include old-age, disability and survivors' benefits but the benefit palette can differ per scheme. The pension accrual rates have upper limits imposed by the tax legislation. In 2014, the maximum tax-deductible accrual rate in the average pay schemes was 2.15 per cent (1.9 per cent for final pay). The average accrual rate was 1.93 per cent according to DNB (2014). The maximum old-age pension can be 100 per cent of the final wage.[7]

The normal retirement age in the 2nd pillar schemes was raised from 65 to 67 years in 2014. However, in most cases it is possible to receive the pension earlier with an actuarial reduction to the benefit. Also, it may be possible to postpone retirement according to the scheme's regulations. In the future, the retirement age will increase according to the development of life expectancy.

4.2 Funding

The supplementary pension provision is fully funded, and since 2007, the funding regulations concerning pension funds have been specified in the FTK provisions (Financieel Toetsingskader – Financial Assessment Framework) of the Pension Act. The framework was revised at the beginning of 2015, but as the time-span in this report only extends up to the year 2014, we will describe in the following the old framework that was in place until 2015.

5 The available statistics lists only schemes from 2007 onwards. Hence, schemes are used here instead of funds.

6 It should be noted that, in contrast to a pure defined benefit scheme, the Dutch DB schemes have usually conditional indexation, which links the indexation of benefits and accruals to the funding status of the scheme.

7 The rates include the statutory (AOW) old-age pension and it is therefore the combined accrual rate for the 1st and 2nd pillar pensions.

The FTK states that the assets have to be market-valued and the liabilities discounted against the risk-free term structure of market interest rates (swap curve). The pension funds operating a DB scheme have to have a funding ratio of assets and liabilities of at least 105 per cent. In addition, they need to keep a reserve at a level that ensures with a 97.5 per cent certainty that, within one year, the value of assets will exceed the value of liabilities. The required ratio that meets the certainty level is approximately 125 per cent.

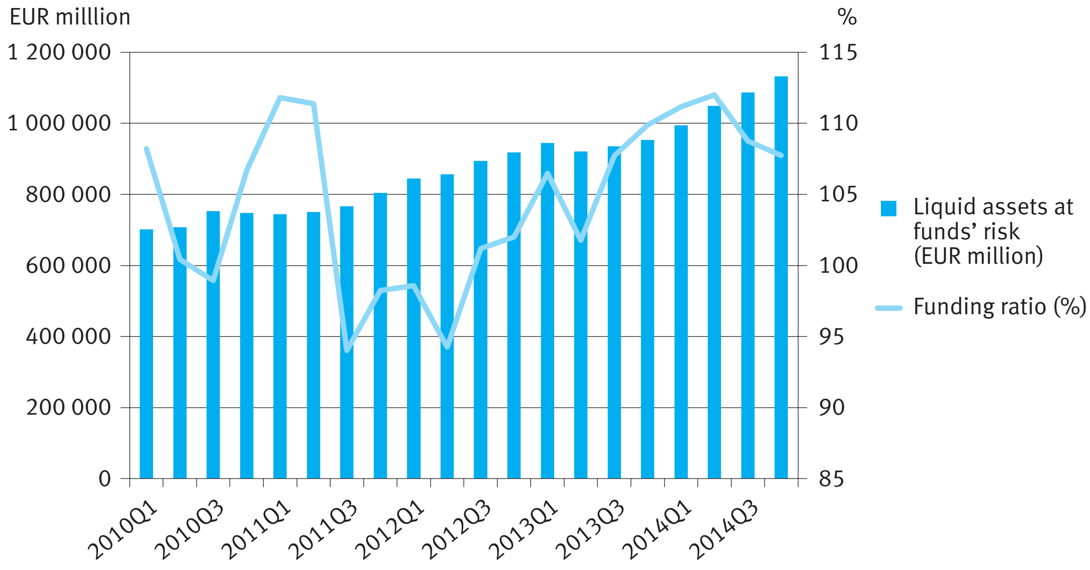
The methods for improving the funding ratio are listed in the following (in the order of severity of the shortfall):

- increasing contributions for the employee and employer or possible voluntary donations from the employer in case of a single-employer scheme
- cutting indexation
- cutting pension rights.

The funding ratio has fluctuated greatly during the last ten years. After the dot-com collapse in the beginning of the 2000s, the pension funds went through a period of recovery, but since 2007, the funding ratio has dropped considerably from the peak rate of around 150 per cent, as there have been several negative shocks affecting the value of assets and interest rates, including the financial crisis and the euro crisis. The increasing life expectancy has also contributed to the rise in the value of the liabilities (see Beetsma et al. 2015).

Despite these negative effects, the total value of funds rose to an all-time high of more than EUR 1,100 billion in the latter part of 2014, and the funding ratio has recovered slightly from the deficit values of 2011–2012. At the end of 2014, the funding solvency ratio of pension funds stood at 108 per cent.

Figure 1.
Assets and funding ratio of pension funds in 2010–2014.



Source: DNB statistics table T8.8.

4.3 Contribution rates, income and pension benefit expenditure

The pension contribution in the DB schemes is a fixed percentage of gross income regardless of age, gender, income or health of the member. Combined with the same accrual rate for all employees, the DB pension systems place a strong emphasis on solidarity between young and old members as well as between men and women (see Steenbeek & Van der Lecq 2007). The contributions to the DB schemes are scheme-specific and tax-deductible as long as the accrual rates remain under the aforementioned limits.[8]

In contrast to the DB schemes, the contribution rates in the DC schemes are age- and benefit-specific with maximum limits defined in the tax code. The limits are based on the DB scheme benefit levels. The allowed rates are lowest for employees aged 15–19, whose pension scheme comprises of old-age pension only. In 2014, this rate was 3.8 per cent of the pensionable salary. Respectively, the highest rate of 31.9 per cent can be applied to 65–66 year-old employees whose pension includes old-age pension and survivors' pension. The maximum tax-effective contribution rates for employees aged 19–65 are in between these limits (Towerswatson 2013).

The pension scheme contributions are only levied on wages and salaries above the so-called AOW offset. The offset is based on the AOW benefit amount, but it varies across the schemes. The legislation sets the minimum limits depending on the scheme's accrual rates, benefit calculation and marital status.

Table 7.
Minimum AOW offsets in 2014.

Career average system		Final pay system	
–1.95%	11,005 EUR	–1.7%	11,005 EUR
1.95–2.05%	12,251 EUR	1.7–1.8%	12,251 EUR
up to maximum accrual: EUR 13,449–19,618, depending on marital status			

Source: Centraal Aanspreekpunt Pensioenen.

The division of the pension contribution into employer and employee shares has been traditionally such that the employer pays around two thirds and the employee one third of the total contribution, but the shares differ according to the type of pension arrangement. In company funds, the employer's share has been larger than average, and in industry-wide funds, smaller than average.

According to DNB statistics, employees paid 36.2 per cent and employers 63.8 per cent of the total contributions in the industry-wide funds in 2014. In the company funds, employees paid only 12.4 per cent while the employers' average share was 87.6 per cent. In the occupational funds, the figures are the other way around, as the members are mostly independent professionals without employers. Due to a lack of statistics, we have applied

8 Starting from 2015, the annual pensionable salary with tax-deductible contributions is limited to EUR 100,000.

the division of employer and employee contributions in the company funds to insurance companies' and PPI arrangements' contribution incomes, as well.[9]

According to the Goudswaard Committee report (2010), the contribution rates in the supplementary pension schemes were quite stable between the early 1990s and the beginning of the 2000s. After the dot-com crisis in 2001, the pension contributions started to increase sharply, and since then, the level has been consistently higher than in the 1980s and 1990s. The reasons behind the higher level are, among others, a statutory requirement for cost-effective contributions, increasing life-expectancy and demographic ageing, as well as lowering of the interest rates used to calculate liabilities (a change from a four per cent fixed-rate to a variable risk-free market rate).

Table 8 lists the average pension contribution rates of 25 large pension funds in the Netherlands.

Table 8.
Contribution rates in a survey of 25 funds in 2007–2014, % of the pensionable salary.

	Employer	Employee	Total
2007	9.9	5.4	15.3
2008	9.6	5.5	15.1
2009	10.3	5.7	16.0
2010	10.5	5.8	16.3
2011	10.9	6.0	16.9
2012	11.3	6.2	17.5
2013	12.5	6.7	19.2
2014	11.2	6.4	17.6

Source: DNB (2014, 2012).

As Table 8 shows, the average contribution rates dropped in 2014 for the first time since 2008. The decline was influenced by the reduction of the maximum accrual rate of the average pay schemes from 2.25 per cent to 2.15 per cent and a rise in the normal retirement age from 65 to 67 years.[10] The decline in the contribution rate in 2014 is also evident in Table 9 below, which lists the total contribution income and the benefit expenditure for the years 2010–2014.

9 With the insurance companies, we have used statistics from the Dutch Association of Insurers with no separation of the contribution to employee and employer shares. Also, the DNB statistics on PPI arrangements lists only total contribution income.

10 The maximum accrual rates have been lowered again in 2015. For more information see, for example, European Commission (2015) and DNB (2014).

Table 9.
Contribution income and benefit expenditure 2010–2014, EUR million.

	2010	2011	2012	2013	2014
Industry-wide funds					
- Employer contributions	13,558	14,103	15,272	16,026	15,022
- Employee contributions	7,988	8,335	8,806	9,198	8,517
- Total contributions	21,546	22,438	24,078	25,224	23,539
- Benefit expenditure	16,801	17,516	18,331	18,864	19,477
Company funds					
- Employer contributions	5,845	6,811	6,840	7,704	6,702
- Employee contributions	816	883	885	875	951
- Total contributions	6,665	7,694	7,725	8,579	7,653
- Benefit expenditure	6,821	6,927	6,918	6,924	6,925
Occupational funds					
- Employer contributions	61	63	49	37	36
- Employee contributions	394	424	472	482	474
- Total contributions	454	486	521	519	510
- Benefit expenditure	617	648	685	717	750
Insurance companies	7,500	8,900	7,900	8,600	8,700
- Total contributions	-	-	-	-	-
- Benefit expenditure*					
PPI					
- Total contributions	-	-	28	113	380
- Benefit expenditure*	-	-	-	-	-
Total contributions	36,166	39,519	40,252	43,035	40,682

* Data not available. Sources: DNB statistics table t8.4ey, t14.2ek, the Dutch Association of Insurers.

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PENSION CONTRIBUTION LEVEL IN NORWAY

Antti Mielonen

Contents

1 Pension contribution level in 2014

The following table presents the total pension contribution income for statutory, supplementary and early-retirement pension schemes in relation to the compensation of employees, the wage sum and GDP in 2014.

Table 1.
*Pension contributions in relation to wages and GDP in 2014, %.**

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
National insurance pension	5.96	7.37	2.74	3.06
Seamen and Fishermen	0.03	0.03	0.01	0.01
Occupational pensions	0.78	0.97	0.36	0.40
Total	6.77	8.37	3.11	3.47
Employers				
National insurance pension	8.16	10.07	3.75	4.19
Seamen and Fishermen	0.05	0.06	0.02	0.03
AFP pension	0.38	0.47	0.18	0.20
Occupational pensions	7.04	8.70	3.24	3.62
Total	15.63	19.30	7.19	8.04
Tax financing				
National insurance pension	5.27	6.51	2.42	2.71
Seamen and fishermen	0.01	0.01	0.00	0.00
AFP pension	0.11	0.13	0.05	0.06
Total	5.39	6.65	2.47	2.77
Statutory pensions + AFP	19.96	24.65	9.18	10.26
Occupational pensions	7.83	9.67	3.60	4.02
All in total	27.79	34.32	12.78	14.28

* Due to rounding, some figures may not add up precisely.

2 Data and Methodology

We have collected the applied data from official sources available to the public. This includes annual reports, statistical data on the organizations' web pages as well as official state budgets. In addition, we have used statistics from Statistics Norway (SSB). For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries. For the exchange rates, we have used the Bank of Finland annual average rates.

The pension contribution level has been calculated by dividing the total premium or pension contribution and possible state subsidy amount with the OECD data. However, there are some exceptions to this method. The statutory pension scheme contribution level has been calculated according to the pension expenditure, as there is no separate pension contribution and the national insurance contribution is used to finance other social security benefits in addition to the pension scheme benefits. Also, in the supplementary schemes, we have used pension expenditure instead of contributions with the State Pension Fund because the pension scheme contribution does not cover the expenditure and the financing of the scheme is based on the pay-as-you-go (PAYG) principle.

As regards the question of who carries the costs of statutory schemes, we have calculated the shares for employees, employers and the State according to the social insurance income distribution as represented in the state budget. As for occupational schemes, we have used an estimate based on premium calculation rules and statistics on pension funds for the respective employer (90%) and employee (10%) shares.

3 Statutory pension scheme

The National Insurance Scheme (Folketrygd, NIS) includes old age, disability and survivors' pension benefits. The pensionable age has been flexible since 2011, ranging from 62 to 75 years, but there is a minimum requirement for pension accrual when drawing the pension before 67. Furthermore, the pension can be drawn fully or partially with no deductions to the pension when working. The disability pension was reformed in 2010 when the temporary disability benefit, the rehabilitation allowance and the occupational rehabilitation benefits were merged into a single work assessment allowance. In calculating the pension contribution level, we have included the work assessment allowance, even though the benefit is not entirely a pension benefit.

In addition to pension benefits, NIS includes other social security benefits, such as unemployment and sickness allowances. In 2014, the pension benefits amounted to approximately 72 per cent of the total national insurance expenditure.

The national insurance scheme is financed by contributions paid by employees, self-employed persons and other members, employers' and the State. The scheme is a PAYG-scheme, although the Government Pension Fund directs revenue to the state budget that can be used as part of NIS financing.

The national insurance contribution is divided into employee (trygdeavgift) and employer contributions (arbeidsgiveravgift). The self-employed and pensioners pay national insurance contributions, as well. The employer contribution level depends on the place and type of business. The municipalities are divided into insurance zones according to their geographical location and financial situation. The employee, pensioner or self-employed contribution (trygdeavgift) is levied on the total income when the annual income exceeds NOK 39,600. However, the contribution cannot exceed more than 25 per cent of the part of the personal income which exceeds the threshold. The employer contribution is levied on the total wage sum without a lower limit.

Table 2.
National insurance contribution in 2014, % of income or wage sum.

	2014	
Employee		
- 17–69 years	8.2	
- Under 17 or older than 69	5.1	
Pension income, etc.	5.1	
Employer	Regular business	Agriculture and fishing
- Zone 1	14.1	14.1
- Zone 1a	14.1	10.6
- Zone 2	10.6	10.6
- Zone 3	6.4	6.4
- Zone 4	5.1	5.1
- Zone 4a	7.9	5.1
- Zone 5	0	0
Self-employed		
- Normal contribution	11.4	
- Fishing, hunting or childcare	8.2	

Source: Skatteetaten.

Table 3.
National insurance (Folketrygd) income, NOK million.

	2014	2013	2012	2011	2010
Employee (trygdeavgift)	119,936	111,686	104,279	102,436	91,936
Employer (arbeidsgiveravgift)	164,015	157,744	147,538	138,542	130,416
State*	105,977	98,670	96,750	88,195	86,798
Total	389,928	368,100	348,567	329,173	309,150

* Difference between social insurance expenditure according to the state budget and contribution income. Source: Finansdepartementet (2015).

Table 4 lists the National Insurance benefit expenditure as well as the War pension benefit expenditure included in the contribution level calculations.

Table 4.
*Pension benefit expenditure, NOK million.**

	2014	2013	2012	2011	2010
Old age pension	179,197	164,602	150,525	135,496	121,088
- Basic pension (grunnpensjon)	60,345	56,249	52,264	48,196	44,116
- Pension supplement (tillegspensjon)	113,329	102,369	92,269	81,517	71,063
- Deferral credit (ventetillegg)	8	13	18	25	34
- Pension credit (særtillegg)	5,514	5,972	5,973	5,758	5,875
Disability benefits	98,836	97,690	95,874	92,513	87,241
- Basic pension (grunnpensjon)	24,264	23,427	22,670	21,232	20,125
- Pension supplement (tilleggspensjon)	37,075	35,930	35,930	33,117	31,426
- Pension credit (særtillegg)	2,328	2,238	2,238	2,118	2,045
- Work assessment allowance (arbeidsavklaringspenger)	35,169	36,123	35,918	36,032	28,032
- Temporary disability benefit (tidsbegrenset uførestønad)					1,598
- Rehabilitation allowance (rehabiliteringspenger)					1,867
- Occupational rehabilitation (attføringspenger)					2,136
- Anticipatory benefit (foreløpig uførepensjon)		-28	-7	14	13
Survivors' benefits	2,301	2,449	2,401	2,505	2,485
- Basic pension (grunnpensjon)	1,227	1,293	1,263	1,307	1,295
- Pension supplement (tilleggspensjon)	972	1,044	1,033	1,085	1,080
- Special credit (særtillegg)	95	105	98	107	103
- Other credits (utdanningsstønad, Stønad til barnetilsyn)	7	8	7	6	7
War pension (krigspensjon)**	433	490	549	599	655
Total	280,767	265,231	249,349	231,113	211,469

* Due to rounding, the figures may not add up precisely. ** Not part of the NIS benefits. Source: NAV.

4 Supplementary pension schemes

Supplementary pension schemes include private and public sector occupational pension schemes and collectively agreed labour market pensions (AFP). In addition, seafarers and fishermen have early retirement pension schemes.

4.1 Occupational pension schemes

Since 1.1.2006, occupational pension scheme membership has been obligatory for private sector employees. In the public sector, membership in an occupational scheme has been obligatory even before that. As a result, the coverage of the schemes is close to universal; only self-employed and small companies with no more than two part-time employees are exempt from the membership requirement. At the end of 2013, there were around 2.3 million active members in the occupational pension schemes in Norway (Fafo 2014). The figure corresponds to a coverage rate of approximately 90 per cent of employed persons.

Private sector schemes are today mostly defined contribution (DC) schemes, which were allowed (taxwise) as of the beginning of 2001. At the end of 2013, there were 1.13 million active members in the private sector DC schemes, as opposed to 0.29 million members in the defined benefit (DB) schemes. In contrast, the public sector schemes are all DB systems with 0.88 million active members at the end of 2013.

The schemes are fully funded in the private sector and also in the public sector, except for the state employees' pension schemes, which are PAYG-financed. Public and private schemes differ with respect to integration with the national pension scheme. Public pension scheme benefits are integrated, that is, the occupational pension is deducted so that the total pension benefit is 66 per cent of the wage for a full 30-year working life, including the national pension. In contrast, private sector pensions are supplementary to the national pension and are not deducted.

Besides integration and financing, pension schemes in the public and private sectors differ also in relation to the AFP-labour market pension as well as the retirement age. The AFP pension is an early retirement, fixed-term benefit in the public sector. In the private sector, it is nowadays a supplementary benefit that is payable for life. The (normal) retirement age is 67 in the public sector. The retirement age in the private sector concurs with that of the national pension scheme, from 62 to 75 years.

Occupational pension benefits always include an old-age pension, and within DB-schemes, usually also disability and survivors' benefits. The last two benefits, however, are not mandatory and depend on the insurance contract that the employer has made with the insurance provider. In DC schemes, disability and survivor's benefits are less frequent, although the disability benefit has become more popular during the last few years, with around half of the schemes offering the benefit in 2013. Public sector schemes offer the complete set of benefits.

4.1.1 Private sector occupational pension schemes

The 1.4 million active members of the private sector occupational pension schemes are divided between life insurance companies and pension funds. Life insurance companies hold the main part of the market share with 80 per cent of the premium income, as opposed to a 20 per cent share for the pension funds.

According to fno.no, there were nine active life insurance companies at the end of the third quarter in 2015 that offered occupational pension products for private sector companies. In terms of premium income, the largest of these were Storebrand Livsforsikring, DNB

Livsforsikring and Nordea Liv. Pension funds have declined in number during the last few years. At the beginning of 2014, there were 51 private sector pension funds.

Private sector schemes are regulated in separate laws for the DC schemes (Lov om innskuddspensjon) and the DB schemes (Lov om foretakspensjon). In addition, since the beginning of 2014, companies have been able to opt for a hybrid pension scheme, regulated by a new law (Lov om tjenestepensjon). Together with the law for obligatory membership (OTP), these laws define, for example, the (minimum) conditions for pension contributions that a scheme must fulfill in order to qualify as an occupational pension scheme with tax deductibility.

The limits for the DC schemes were adjusted at the beginning of 2014 with the aim of raising the eventual maximum benefit level of defined contribution (and hybrid) schemes to the level of defined benefit schemes, that is, to 60–70 per cent of the wage. Besides the higher level of the benefit, the new limits are better suited to the reformed national pension scheme that was adopted in 2011.[1] The combined contribution rate for the national pension scheme and the occupational DC schemes can therefore have a maximum rate of 25.1 per cent up until the maximum insured wage of 12 times the basic amount (G), that is, NOK 1,047,936 (EUR 125,435) in 2014.[2]

Table 5.
Private sector pension scheme contribution rules.

	Defined contribution (innskuddspensjon)	Hybrid (tjenestepensjon)	Defined benefit (ytelsespensjon)
Total contribution	Min. contribution: 2% of wage between 1–12 G Max. contribution: 7% between 0–12 G and 18.1% between 7.1–12 G	Similar limits to DC but higher contribution requirement for women to compensate for longer life expectancy	The amount that is required to finance the current year's accrued pension rights.
Employee's share	Usually not applied. Max. 4% of wage and half of total contribution.	Max. half of total contribution.	Usually not applied. Max. 4% of wage and half of the employer's share.
Self-employed/ freelance workers	Max. 4% of 1–12 G income	-	-
Pension schemes must continue the old-age benefit accrual or contribution also during disability (premie/inskuddsfritak).			

Source: Akademikerne.

According to Fafo (2014), the majority of active members in the DC schemes have had contribution levels close to the minimum statutory limit. In 2008, the contribution rate for close to 60 per cent of the active members was at the lowest limit allowed by law, at 2 per

1 This includes the national pension scheme benefit. There is a three-year transition period during which the old limits can still be used. Source: Regjeringen.no, Fno (2015).

2 G (grunnbeløpet) = social security basic amount. 1 G was, on average, NOK 89 502 in 2014. Exchange rate according to Bank of Finland's average yearly rate for 2014: EUR1 = NOK 8.3544.

cent. However, FNO (2015) reports that the contribution rates have risen since, but 42 per cent of the active members in DC schemes were still insured with the minimum contribution rate at the end of 2014.

Contrary to the traditional DC schemes, the new hybrid schemes allow for an indexation of the pension capital according to wage increases. They also make it possible to include an inheritance gain to the annual return. Hybrid schemes must apply the same contribution limits as the traditional DC schemes, but for women, the contribution rate has to be higher than for men to compensate for women's longer life expectancy. The extra contribution has to be such that the resulting pensions will be the same for both men and women without exceeding the aforementioned maximum limits. In addition to the employer contribution, employees can take part in financing, if they decide collectively to contribute (at least 2/3 in favour). Depending on the contract, a single employee can still opt out from the contribution if at least two thirds of the employees contribute. The employee contribution cannot exceed 50 per cent of the contribution limits, and the total contribution from the employer and employee must remain within the limits mentioned above (Lov om tjenestepensjon).

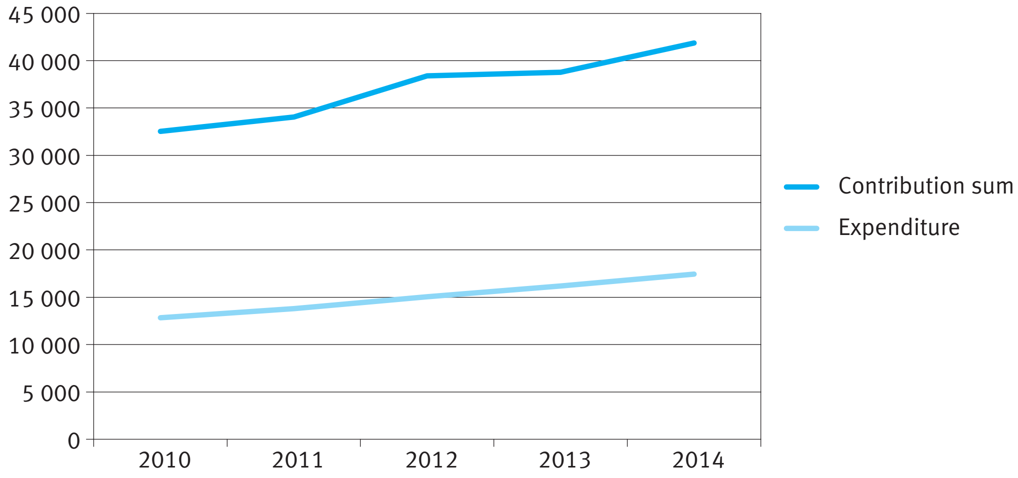
In contrast to the DC and hybrid schemes, the annual contribution rate for the DB schemes varies according to the amount that is required to finance the current year's accrued pension rights for each member, with no specific limit for the employer contribution rate. The contribution is calculated for each member separately according to rules approved by Finanstilsynet (The Financial Supervisory Authority of Norway).

The rules take into account, for example, mortality rates and life expectancies, increases in wages, as well as the age and gender of the insured. In addition, the rules specify that the DB schemes cannot use a higher interest rate than that issued by the Finanstilsynet in determining the projected asset return. This rate (beregningsrente) is also used as a minimum guarantee for the pension assets in the scheme: when the return on assets is higher than the guarantee rate, the excess return can be used for indexation of the pensions in payment or placed in buffer funds to cover possible future contribution shortfalls. The pension contribution also includes a risk premium (risikopremie) to cover the survivor's and disability risks and an indexation premium (reguleringspremie) to cover the indexation of pension rights.

Looking at the development of some of the factors affecting the contribution rate, it is clear that there has been a constant pressure to raise the contribution levels for DB schemes in recent years. For example, the maximum return or guarantee rate has been lowered gradually during the last 10–15 years from 4 to 2 per cent, which is where the rate has been since the beginning of 2015. In addition, mortality tables have been revised in 2008 and again in 2014 to account for the increased longevity. Furthermore, the Norwegian insurance companies and pension funds will start to apply the Solvency II regulations as of the beginning of 2016 with stricter solvency requirements. These factors have resulted in increased pension contribution income in the DB schemes by around 16 per cent during the years 2010–2014 despite a decrease in the active membership figures by a similar percentage (table 6).

In the same time period, the contributions in the DC schemes have increased by more than 50 per cent. Compared to the 21 per cent increase in the active members, it is clear that the average contribution rate has increased as well. The higher contribution limits that have been in place since 2014 have not, however, had a significant impact on the contribution level for that year.

Figure 1.
Pension contribution and expenditure in private sector occupational schemes 2010–2014, NOK million.



Source: SSB.

Table 6.
Private sector occupational pension premiums according to provider and scheme type in 2010–2014, NOK million.

	2010	2011	2012	2013	2014
Life insurance companies	25,507	27,110	29,562	30,959	33,720
Pension funds	7,019	6,922	8,836	7,817	8,143
DC	11,108	12,276	14,464	16,738	17,043
DB	21,418	21,756	23,934	22,038	24,820

Source: SSB.

4.1.2 Public sector occupational pension schemes

Public sector occupational pension provision is obligatory and covers the state and local government officials as well as employees in public corporations. There are different pension schemes for different sectors and employee groups. Pension schemes are based either on legislation, as with the state employees, or on collective agreements, which is the case for municipal employees.[3] Despite multiple pension schemes, the pension benefits and rules are quite similar for each of the groups.

3 The State Pension Fund law (Lov om Statens pensjonskasse) applies to state employees while the current main collective agreement (KS Hovedtariffavtalen) applies to the local government sector.

Public sector occupational pension provision is arranged in pension funds and life insurance companies. The market has gone through a substantial consolidation in the last few years as the last two private insurance companies (Storebrand and DNB) that offered occupational pension insurance for the public sector decided to leave the market in 2013.[4] Presently, the public sector occupational pension market has only two main pension providers. These are the Kommunal Landspensjonskasse (KLP), organized as a mutual life insurance company that administers mostly local government pension schemes, and the State Pension Fund (SPK), which administers the state and school personnel pension schemes and some other employee groups as well.[5] In addition, there are around 20 local government pension funds that cover the remaining public sector pension market.

Looking at the financing techniques of the schemes, there is a basic difference between the state and local government pension schemes, as the state occupational pension benefits are mainly PAYG-financed, whereas the local government pensions are pre-funded.

Pension contribution rules for the public sector pension schemes are defined in the collective agreements and relevant laws.[6] Usually, employees are required to pay two per cent of their salary to the pension schemes. The employer covers the rest of the contribution in the local government schemes, but within the PAYG-financed SPK schemes, the employer contribution can be non-existent or insufficient to cover the remaining expenditure. In this case, the State covers any shortfalls through the state budget. According to SPK, the employer contribution is usually 5–6 times the employee contribution, which translates to 10–12 per cent of the salary.

The local government pension contribution is an insurance premium that has to be both age and gender neutral (which is not the case in the private sector). The premium includes different components. The regular annual premium component (ordinær årspremie) covers accrued old-age liability, as well as risks for disability and death. This part of the total premium is the same for all employers in a pension scheme (fellesordningen). The interest rate guarantee component (rentegarantipremien) covers the guaranteed rate of return for investments, and the indexation component (reguleringspremie) covers the wage and social security basic amount (G) increases. Special single premiums (særskilte engangspremier) cover for benefits that cannot be calculated beforehand, such as early retirement pension take-up (AFP) and gross pension guarantee (bruttogarantien) to compensate for missing national pension scheme benefits. Finally, there are also components for the administration costs (administrasjonstillegg, administrasjonsreservepremie). According to KLP, the most fluctuating part is the indexation component, which can represent around 50 per cent of the total premium. The total premium in KLP schemes has varied between 18–23 per cent of the pensionable salary (pensjonsgrunnlag) during the last few years.[7]

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4 In 2013, Storebrand and DNB Livforsikring decided to leave the public occupational pension market, but it will take two to three years to complete the withdrawal.

5 SPK administers schemes for state employees, teaching personnel, pharmacists (private and public) and members of parliament and the government as well as those employed in State-owned corporations and in the research sector. KLP administers pension schemes for counties, municipalities and municipal corporations, health organizations, nurses (private and public sector), and hospital doctors. In addition, the pension providers administer, together with NAV, public sector AFP early retirement schemes.

6 KLP and local government pension funds apply insurance law (Lov om forsikringsvirksomhet) and the State Pension Fund law has provisions for pension contribution in SPK schemes.

7 KLP (2014a): Presentations by KLP.

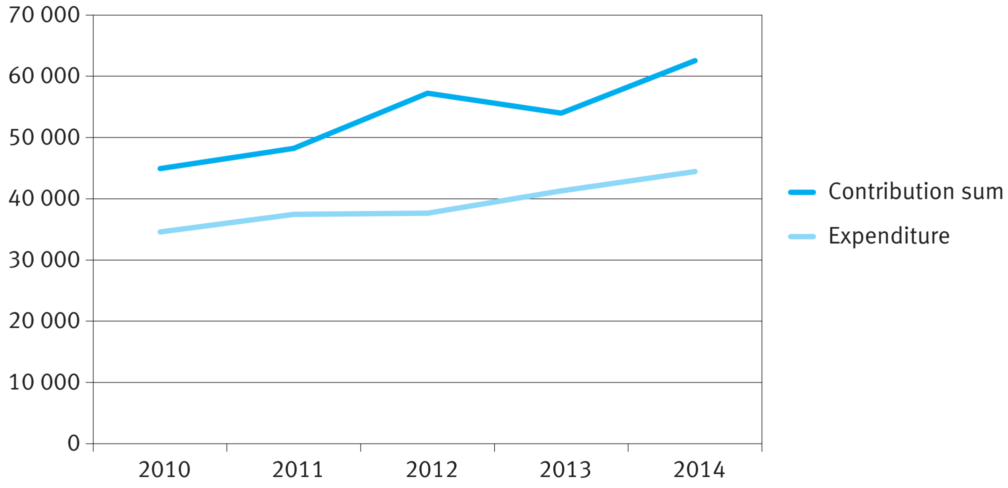
Table 7 presents the public sector pension premium income for public sector pension providers during the five-year period of 2010–2014. The amounts are total contributions as there is no data available with separate employee and employer shares. The trend with the collected pension premiums has been a quite regular growth except for the year 2013, when the contribution sum for pension funds and life insurance companies declined by 8–11 per cent. The decline was caused by a significant reduction in the indexation premium as wage increases were estimated to be lower than in 2012.[8]

Table 7.
Public sector occupational premium income and pension expenditure 2010–2014, NOK million.

	2010	2011	2012	2013	2014
Premium income					
Statens Pensjonskasse (SPK)	11,632	11,357	12,339	13,773	14,906
Life insurance companies (incl. KLP)	28,335	31,440	38,455	34,252	40,180
Local government pension funds	4,953	5,430	6,445	5,916	7,469
Pension expenditure					
Statens Pensjonskasse (SPK)	19,764	21,142	19,763	22,278	23,841
Life insurance companies (incl. KLP)	12,755	14,068	15,453	16,352	17,718
Local government pension funds	2,044	2,261	2,415	2,642	2,880

Sources: SSB, SPK (2015).

Figure 2.
Pension contribution and expenditure in public sector occupational schemes, NOK million.



Sources: SSB, SPK (2015).

8 KLP annual report (KLP 2014b) states that the indexation premium income was NOK 8.3 billion in 2013 whereas the year before it was NOK 11.6 billion. On the contrary, the regular premium income increased from NOK 15.7 to 16.6 billion from 2012 to 2013.

4.2 AFP

AFP (avtalefestet pensjon) is a collective-agreement-based supplementary pension scheme. Before 2011, the private sector AFP pension was a fixed-term early retirement benefit, payable from 62 to 67 years of age, but the new AFP benefits granted from 2011 are supplementary old-age pensions that are payable for life. However, the public sector AFP pension is still an early retirement pension scheme.

In the private sector, the AFP pension benefit accrual is 0,314 per cent of the pensionable income (1–7.1 G) between the ages from 13 to 62 years. The benefit is adjusted similarly to the national pension scheme with changes in life expectancy. In the public sector, the AFP-benefit is calculated in the same way as the old-age national pension with an additional AFP bonus for the ages from 62 to 65. From the ages from 65 to 67, the public sector AFP pension is 66 per cent of the final salary or the same as earlier, whichever is more profitable for the beneficiary. The AFP scheme covers all of the public sector employees, whereas only around 40 per cent of the private sector employees are covered by it.

The public sector AFP pension expenditure is financed by the occupational pension premium contributions or by the State, whereas in the private sector, the financing of the scheme is separate from the occupational schemes.

The private sector AFP scheme is financed through employer contributions and state subsidies. The requirements for state subsidies are defined in the AFP state subsidy law, which came in to force in 2010.[9] According to the law, the State covers one-third of the new AFP scheme pension expenditure and the employers the remaining two-thirds. The State also covers 100 per cent of the new AFP compensation supplement (kompensasjonstillegg), which is an extra benefit for those born between 1944 and 1962.

In addition to who covers the costs, the law states that the contributions must be sufficient, not only for the current pension expenditure but also for building up a buffer fund for future pension expenditure. As a result, the premium income has exceeded the employers' share of the expenditure, and the fund value has tripled from 2012 to 2014, reaching NOK 13 billion at the end of that year.

The old scheme has been phased out during 2011–2015. As the new AFP scheme implementation has progressed, the employer contribution rate has been steadily increased from the 2011 level of 1.4 per cent to 2.2 per cent of the pensionable salary between 1 and 7.1 basic amounts (G) in 2014. Respectively, the old AFP-scheme contributions have been significantly decreased.[10] Table 8 presents the total premium income and pension expenditure divided into employer and state shares. The figures are combined for the new and old private sector AFP schemes.

9 The law on AFP state subsidy (AFP–tilskottsloven) and additional statutes define the other financing conditions.

10 The 2016 contribution rate for the new AFP is 2.5 per cent. The old scheme is financed, in addition to the state subsidy, through flat-rate contributions connected to the number of hours worked by the employee and a 25 per cent own risk component for every starting pension. The monthly contribution for the old AFP ranged from NOK 38 for employees working 4–19 hours per week to NOK 66 for employees working more than 30 hours in 2014. In 2010, the contribution ranged from NOK 235 to 410.

Table 8.
Private sector AFP-scheme income and pension expenditure, NOK million.

	2014	2013	2012	2011	2010
Premium and other income*	5,527	5,142	4,365	3,950	4,038
Pension expenditure					
- State subsidy	1,561	1,732	1,661	1,573	1,315
- Employers' share	2,092	2,442	2,941	3,573	3,595

* Includes premium income (premie inntekter), old AFP employer's own risk contributions (egenandeler, endring fremtidig egenandel) and other income (annen inntekt). Source: AFP Årsrapport.

4.3 Early retirement pension schemes

The special early retirement pension schemes for specific occupational groups consist of the Seafarers' and the Fishermen's pension schemes.

4.3.1 Seafarers

The Pension Insurance for Seamen (Pensjonstrygden for sjømenn, PTS) is a mandatory, early retirement pension scheme for those working as seafarers or in offshore duties. The primary purpose of the pension scheme is to pay the seaman's pension to seafarers. The seaman's pension is a supplementary benefit to the national pension and it is payable between 60 and 67 years of age for those who have acquired a sufficient number of pensionable months on Norwegian-registered ships.

The pension scheme is PAYG-financed with contributions from the employees and shipping companies. Also, the State finances some of the pension expenditure and guarantees the scheme. The employee contribution is divided into two groups according to rank. The crewmen's monthly contribution is 0.91 per cent and officers' contribution 1.17 per cent of the basic amount (G). The shipping company pays the employer's contribution, which is 3.3 per cent of the gross salary or 1.5 times the employee contribution for those working on fishing or hunting vessels.

Table 9.
Seamen's pension scheme income and pension expenditure, NOK million.

	2014	2013	2012	2011	2010
Premium income					
- Employee	350	341	306	289	278
- Employer	728	706	640	596	570
- State	81	124	296	619	493
Total	1,159	1,171	1,242	1,504	1,341
Pension expenditure	1,090	1,144	1,219	1,481	1,325
- Administration costs	39	36	35	36	32

Source: Pensjonstrygden for sjømenn.

4.3.2 Fishermen

The pension scheme for fishermen (Pensjonstrygden for fiskere, PFF) is a mandatory, early retirement pension scheme similar to that of seafarers. The pension benefit is payable between 60 and 67 years of age for those with an insurance period of at least 15 years. The pension scheme is a partly funded system, financed through member premiums (here employee), fish sales duties and fund assets and returns. The State guarantees the benefits in the scheme.

The member premiums are fixed rate and they are paid twice a year. For 2014, the total employee premium was NOK 6,305. Income from fish duties and from the liquidity fund (Likviditesfond, LF) covers the rest of the scheme expenditure. The fund's share of the expenditure has increased to 58 per cent of the total expenditure in 2014. With the current rate, it is expected that the fund can be exhausted in 2018. At the end of 2014, the fund assets were NOK 315 million, a reduction of around 41 per cent from 2010.

Table 10.
Fishermen's pension scheme income and pension expenditure, NOK million.

	2014	2013	2012	2011	2010
Premium income					
- Employee (member)	31	30	31	30	29
- Taxes	32	36	40	34	28
Total	63	66	71	64	58
Expenditure	142	143	142	142	139
Fund's market value at year end	315	374	426	464	536

Source: Garantikasssen for Fiskere.

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PENSION CONTRIBUTION LEVEL IN SWEDEN

Mika Vidlund

Contents

1 Pension contribution level in 2014

The following table presents the total contribution income for pensions in relation to the compensation of employees, the wage sum, and GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
General pension contribution	5.56	6.65	2.67	3.01
- On earnings	5.22	6.24	2.51	2.83
- On income transfers	0.34	0.40	0.16	0.18
Occupational pensions	0.00	0.00	0.00	0.00
Total	5.56	6.65	2.67	3.01
Employers (incl. self-employed persons)				
Old-age pension	8.34	9.97	4.00	4.52
- on income transfers	0.83	0.99	0.40	0.45
Disability pension	1.88	2.25	0.90	1.02
Survivor's pension	0.69	0.83	0.33	0.38
Occupational pensions	8.19	9.79	3.93	4.44
Total	19.10	22.84	9.16	10.36
The State's shares and other tax financing				
Guaranteed pension (old-age and survivor's pension)	0.90	1.08	0.43	0.49
Disability pension	0.54	0.65	0.26	0.29
Unpaid periods (pensionable amount)	0.49	0.59	0.24	0.27
- incl. State's share for income transfers				
Total	1.94	2.32	0.93	1.05
Statutory pensions	18.41	22.01	8.84	9.98
Occupational pensions	8.19	9.79	3.93	4.44
All in total	26.60	31.80	12.76	14.42

2 Data and Methodology

The pension schemes included in the study are the statutory pension schemes and supplementary pension provision in the occupational pension schemes. We have not included individual pension provision (so called third pillar), as this is the case with other countries in the comparison as well.

We have collected the applied data from official sources available to the public. This includes annual reports and statistical data available on the relevant organizations' webpages.

For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries.

The pension contribution level has been calculated by dividing the pension contribution income and possible state subsidy amounts with the OECD data.

In calculating the contribution levels, we have only included the contribution income paid by the employees, employers and the State. Possible other income is not taken into consideration. The respective contribution shares for employee, employer and the State are calculated according to the source data.

In comparison to previous report (see Vidlund et al. 2009) occupational pension coverage is now more comprehensive than the data in 2005. In 2005 occupational pension contributions were reported to be 2.47 per cent in relation to GDP (at market prices), whereas with the use of current data it would have been 3.9 per cent of GDP. The current data in this report is the same that is used by Pensionsmyndigheten. Otherwise, the statistics used are based on the same data as in 2005 and thus comparable to results of the previous report.

3 Statutory pension scheme

3.1 Old-age pension scheme

3.1.1 Earnings-related pension

In the old-age pension scheme, the income pension component of the earnings-related old-age pension is based on pay-as-you-go financing. The premium pension is based on full funding. The pensions are financed through employee and employer contributions. In addition, the State finances pensions for periods for which pension accrues on the basis of calculated earnings (e.g. periods of child care). The old-age pension scheme is administered by the Swedish Pensions Agency (Pensionsmyndigheten).

Of the 18.5-per-cent pension contribution, 16 percentage points are deposited in the four buffer funds of the income pension system: the First, Second, Third and Fourth National Pension Funds. Each fund receives one fourth of the contributions and finances one fourth of pension disbursements. In addition, there is the Sixth National Pension Fund, one of the buffer funds in the income pension system, that receives no contributions and pays no pensions.

The buffer fund – that is, the First–Fourth and Sixth National Pension Funds – valued EUR 130 billion (SEK 1,185 billion), or 30 per cent, of GDP in 2014.

Table 2.
Old-age pension buffer funds in 2010–2014, billion SEK.

2010	2011	2012	2013	2014
895	873	958	1,058	1,185

The fully funded premium pension system is administered by 103 different fund management companies. At the end of the year 2014, there were a total of 851 funds for insured to choose between. The state-administered Seventh National Pension Fund (AP7 Såfa) manages the default option for those who have not actively chosen a fund. It is also the biggest fund in the premium pension system. The market value of the fund was approximately EUR 27 billion (SEK 246 billion) in 2014. The total amount of assets in the funds of the premium pension system amounted to EUR 83 billion (SEK 759 billion), or 19 per cent of GDP, at the end of 2014. (Pensionsmyndigheten 2015a.)

Table 3.
Capital managed in the premium pension system, billion SEK.

2010	2011	2012	2013	2014
408	393	471	602	759

Sources: Pensionsmyndigheten 2013a-2015a; 2011-2015b

The contribution incomes of the income pension scheme totalled SEK 235,316 million, that is, about 14.96 per cent in relation to the wage sum in 2014. Contribution incomes allocated to the premium pension scheme (SEK 35,380 million) amounted to approximately 2.2 per cent of the wage sum (Table 5).

Table 4.
Contribution incomes and expenditure for old-age pensions in the income pension scheme in 2010–2014, million SEK.

	2010	2011	2012	2013	2014
Employer contributions	91,844	97,152	100,781	102,827	107,066
Contributions for the self-employed	2,647	3,319	3,843	3,765	2,374
Employee's general pension contribution	86,171	93,196	97,050	101,244	104,546
Central government old-age pension contribution	23,112	20,771	20,905	19,662	21,330
Total	203,774	214,438	222,579	227,498	235,316
Expenditure	220,203	219,682	236,039	253,966	255,111

Sources: Pensionsmyndigheten 2013a-2015a; 2011-2015b.

The contribution income from the wage earner's general pension contribution was SEK 104,546 million, including the wage earner's share of the contribution income levied on income transfers: SEK 6,339 million in 2014. The contribution income from income transfers (e.g. sickness allowance, unemployment allowance, parental allowance) totalled SEK 15,461 million (see table 6).

Pension also accrues for certain periods for which the insured person does not have an income of the aforementioned type. In that case, the basis for the pension and the pension contribution is the calculated earnings (pensionable amount). Pension qualifying amounts or unpaid periods, that is, periods of childcare, study and military service, totalled SEK 9,030 million in 2014.

Table 5.
Contribution incomes and expenditure for old-age pensions in the premium pension scheme in 2010–2014, million SEK.

	2010	2011	2012	2013	2014
Employer contributions	25,909	27,702	29,027	30,068	31,186
Contributions for the self-employed	747	944	1,105	1,097	693
Employee's general pension contribution	0	0	0	0	0
Central government old-age pension contribution	3,794	3,381	3,460	3,415	3,501
Total	30,450	32,027	33,592	34,580	35,380
Expenditure	1,365	1,906	2,299	3,196	4,456

Sources: Pensionsmyndigheten 2013a-2015a; 2011-2015b.

In addition, calculated contribution incomes for pensions also accumulate for the period of sickness and activity compensation (corresponding disability pension in other countries). The calculated earnings are determined on the basis of the difference between the earnings which the earnings-related compensation was based on and the paid compensation. The calculated contribution incomes amounted to SEK 6,679 million in 2014. In the calculations in this report, this contribution income is included as part of the employer contribution that is levied in order to finance disability pensions (for further details, see disability pension).

Table 6.
Contribution incomes for transfer payments and pension qualifying amounts in 2014, million SEK.

	Employee	Employer	State	Total
Income transfers	6,339	8,848	274	15,461
Pension-qualifying amounts (unpaid periods)	0	6,679	9,030	15,709
Total	6,339	15,527	9,304	31,170

Sources: Pensionsmyndigheten 2013a-2015a; 2011-2015b.

3.1.2 Guaranteed pension

The guaranteed pension is financed from general tax revenues. The old-age pension expenditure amounted to SEK 16,539 million in 2014 (approx. 0.9% in relation to GDP). The calculations in this report assume that the employer's contribution income which exceeds the ceiling is used to finance the costs for old-age pensions granted from the guaranteed pension scheme. The employer's old-age contribution for the share which exceeds the earnings ceiling, and which is therefore to be transferred to the national budget, amounted to SEK 16,769 million, including the self-employed persons' share in the contribution income of SEK 364 million.

Table 7.
Proportion of the old-age pension contribution allocated to the national budget and old-age pension expenditure of the guaranteed pension scheme financed from the national budget in 2010–2014, million SEK.

	2010	2011	2012	2013	2014
From the old-age contribution to the budget	14,093	15,249	15,632	16,753	16,769
Proportion financed through other tax revenues	4,141	3,236	2403	-2	-230
Total old-age pension expenditure of the guaranteed pension scheme	18,234	18,485	18,035	16,751	16,539

Sources: Pensionsmyndigheten 2013a-2015a; 2011-2015b; Regeringskansliet 2015.

3.2 Disability insurance scheme

Sweden has no disability pension scheme as such. Since the beginning of 2003 the sickness compensation (sjukersättning) and young people's activity compensation (aktivitetsersättning), which are paid from the sickness insurance scheme, have replaced the previous disability pension (förtidspension) payable from the pension scheme and the sickness benefit (sjukbidrag) paid as a temporary disability pension. The earnings-related sickness and activity compensations are financed through sickness insurance contributions.

In order to estimate the contribution income for disability pensions, the expenditure component which can be classified as disability pensions has been separated from the total expenditure of the sickness insurance scheme. The disability pension expenditure, and at the same time contribution incomes, amounted to approximately 1.2 per cent in relation to GDP in 2014.

Table 8.
Disability pension expenditure payable from the sickness insurance scheme in 2010–2014, million SEK.

	2010	2011	2012	2013	2014
Sickness and activity cash benefits (sjuk- och aktivitetsersättning)	50,440	45,632	43,297	41,900	39,432
Pension qualifying amounts (Statliga ålderspensionsavgifter)	10,422	8,514	7,685	6,975	6,679
Total	60,862	54,146	50,982	48,875	46,111

Sources: SCB 2015; Regeringskansliet 2015: Pensionsmyndigheten 2011–2015b.

3.3 Survivor's pension scheme

Survivors' pensions are financed through the State budget. A survivor's pension contribution is levied from employers and self-employed persons, amounting to 1.17 per cent of the total wage sum. Since 2003 the contribution is only used to cover earnings-related survivor's pensions. The contribution also covers most of the administrative costs. The guaranteed component of the survivor's pension is financed through tax revenues.

However, in recent years the contribution income has exceeded the pension expenditure and the surplus is annually allocated to the general budget. As this surplus is not funded nor used for pensions, the contribution income has been adjusted to the level of expenditure in the calculations of this report. The survivors' pension expenditure amounted to 0.35 per cent in relation to GDP in 2014.

Table 9.
Total contribution income and expenditure of the survivor's pension scheme in 2010–2014, million SEK.

	2010	2011	2012	2013	2014
Survivor's pension (employer)	20,362	14,771	15,250	15,692	16,216
Survivor's pension (self-employed)	687	476	452	442	467
State (guarantee component)	643	586	538	491	471
Total income	21,692	15,833	16,240	16,625	17,154
Total expenditure	15,682	14,952	14,734	14,379	13,544

Source: Pensionsmyndigheten 2015; Regeringskansliet 2015.

4 Occupational pension schemes

Second pillar pension benefits are determined by collective bargaining agreements. Contributions to all types of occupational pension schemes are fully financed by employers. Employees can choose how the defined-contribution pension contribution is invested. Occupational pension schemes are not mandatory by law, but employers who are covered by collective agreements have to apply these rules and their employees are thus covered.

The most extensive occupational pension schemes in the private sector are the supplementary pension scheme for salaried employees, or white-collar workers (ITP), and the pension scheme for wage earners, or blue-collar workers (SAF-LO). The ITP plan is based on a collective agreement between the Confederation of Swedish Enterprise (Svenskt Näringsliv) and the Federation of Salaried Employees in Industry and Services (PTK). The SAF-LO is negotiated between the Swedish Employer's Federation and the Swedish Trades Union Confederation. In addition to these two, the banking and insurance sector as well as, for example, the cooperative system have their own occupational pension schemes.

Public-sector employees have their own arrangements. The most extensive occupational pension scheme for state employees is PA-03 and, from 2016 onwards, PA-16 (Tjänstepension);

for local government employees, the KAP-KL and, since 2014, the AKAP-KL scheme. After recent reforms (ITP in 2007; AKAP-KL in 2014; PA-16 in 2016), the benefit provisions are more or less the same and the pension plans are largely standardized.

Over 90 per cent of employees are covered by occupational pension plans and around 85 per cent by the four major collective schemes mentioned above. In the following, the main features of these schemes and data included in the comparison are presented in brief.

4.1 Private sector pension plans

In most cases, the private sector occupational pension schemes are funded schemes. The SAF-LO collective pension plan is a defined-contribution scheme. The pension contribution rate is 4.5 per cent of the wages, up to a maximum of EUR 3,990 (SEK 36,312) per month (i.e. 7.5 income base amount, IB). However, in 2014, employers received a repayment of 0.75 percentage points of the contribution for SAF-LO pensions on wage portions up to 7.5 income base amounts, and the contribution invoiced was 3.75 per cent (Fora 2015a; Svenskt Näringsliv 2015). If the employee's salary exceeds the above mentioned level, the contribution is 30 per cent of the exceeding amount. The pension contribution is based on the entire salary.

The ITP scheme has two plans after the 2007 reform. ITP1 is a new defined contribution (DC) plan for employees born in 1978 or later, while ITP2, the original plan, is a defined benefit (DB) plan for employees born before 1978. ITP2 is supplemented by the defined contribution pension ITPK (ITP-Komplettering), which amounts to 2 per cent of the wage. However, new companies in collective agreements can also opt to allow the ITP1 plan to encompass all salaried employees, including those born before 1979[1].

In ITP1 (DC) the contribution rates are similar to those in the SAF-LO pension plan. In ITP2 (DB), the contribution amount is calculated on an individual basis. On average, it amounted to 12.2 per cent of the pensionable payroll in 2014. The contribution normally varies between 5 and 20 per cent. (Svenskt Näringsliv 2015.) The amount of the contribution to be paid depends on the age of the employee, the income level, the retirement age and whether the employee has previous pension rights. Salaries up to a ceiling of EUR 16,000 per month (SEK 145,250, i.e. 30 IB) are covered. The benefit target rate varies depending on the wage level (see table 10).

There are three methods available to companies to fund pension benefits: pension funds, pension insurance policies and book reserves. However, their use is influenced by the type of plan concerned (whether it is ITP or SAF-LO), and in some cases, even specific pension providers have to be used.

The majority of occupational pensions are administered by life insurance companies, and in both schemes the employee can choose the savings form and the insurance company in which the contribution are invested. However, in the ITP1 scheme, at least half of the

1 In addition, in ITP1, an employer may agree with a salaried employee who receives a pensionable wage exceeding ten times the income base amount (SEK 581,000 in 2015) that a different pension system is applied to the portions of the wage between 7.5 and 30 times the income base amount, known as an alternative ITP. This means that the traditional ITP plan is partially replaced. This is known as a "tiotaggarlösning" (ten-fold earner solution) (Svenskt Näringsliv 2015).

contribution is invested in traditional pension insurance. In that case, the insurance company that is responsible for investing the pension capital and the wage earner is guaranteed a certain basic pension. (Svenskt Näringsliv 2015.)

Table 10.
Private sector occupational pension plans ITP and SAF-LO.

Agreement	Eligibility	Defined benefit or defined contribution	Benefits/Contribution rates*
SAF-LO	Private-sector employees from age 21	Defined-contribution	4.5% of the wage
ITP2	Private-sector white-collar workers from age 28	Defined-benefit	Target rate: 10% of the wage < 7.5 IB 65% of the wage 7.5–20 IB 32.5% of the wage 20–30 IB
ITPK		Defined-contribution	2% of the wage
ITP1 (new)	Private-sector white-collar workers from age 25 (persons born in 1979 and later)	Defined-contribution	4.5% of the wage < 7.5 IB 30% of the wage > 7.5 IB

IB = Income base amount (SEK 58,100 in 2015).

Every five years, life insurance companies issue a tender for new contribution. Currently, in the ITP scheme, four companies are given a mandate (for a period of July 2013 to September 2018) for traditional insurance pension provision and five for unit-linked pensions. Alecta is a default provider for those scheme members making no choice (Collectum 2015). Alecta, formerly SPP, was the monopoly insurer for the ITP scheme during the years 1960–2006 (Alecta 2015).

Likewise, in SAF-LO three companies are given a mandate for traditional insurance and ten for unit-linked pensions for new contribution for a period of 2014 to 2018 (Fora 2015b). AMF Pension is a default provider for those scheme members making no choice. AMF Pension held a monopoly over the SAF-LO scheme for the period 1973–1997. (Fora 2015c.)

The main arrangement for book reserves concerns the defined benefit ITP2 pension plan. If the ITP pension is financed on the basis of book reserves, the company must take out credit insurance for the pension liabilities with the insurance company PRI Pensionsgaranti. Since PRI Pensionsgaranti requires that the companies are sufficiently creditworthy, it is mainly large and middle-sized companies which have arrangements based on book reserves. About 2 million salaried employees in 33,000 companies have ITP coverage. PRI Pensionsgaranti administers pension commitments under ITP plans for about 1,000 companies. Over 30 per cent of active salaried employees and one third (SEK 150 billion) of the value of retirement pensions accrued within the ITP 2 plan are financed in-house using the book reserve method. (PRI Pensionsgaranti 2014.)

Table 11.
Number of employees of the four largest occupational pension schemes in 2011.

Scheme	No. of employees
ITP	885,786
SAF-LO	1,223,135
KAP-KL, AKAP-KL	1,114,818
PA03	243,934
Total	3,467,673
Employed people (25–64 years)	4,026,200
Coverage rate	86%

Source: AMF 2012; SOU 2011, 12.

4.2 Public sector pension plans

In occupational pension schemes for state and local government employees, the pension is partly determined as a defined-benefit pension and partly as a defined-contribution pension. For income parts below the ceiling, the schemes offer DC type pensions. For income components above the ceiling, the public sector schemes still offer mainly DB type pensions. The DB component is financed through the pay-as-you-go principle, whereas the DC part is totally funded.

However, since 2014, a new DC pension agreement (AKAP-KL) applies to municipal or county council employees born in 1986 or later. The former agreement (KAP-KL) is a mix of DB and DC schemes for those born before 1986. It has its origin in 2006, when it replaced the preceding PFA dating back to 1998. In AKAP-KL, the employer pays an amount equivalent to 4.5 per cent of the wage up to a wage limit of 7.5 income base amounts (IB). When the wage exceeds 7.5 IBs, the amount is 30 per cent of the exceeding part of the wage up to 30 IBs.

Likewise, for state employees, a new DC scheme (PA16) is applied for those born in 1988 or later as a result of an agreement reached in November 2015 (Arbetsgivarverket 2015). The current agreement (PA 03) is a mix of DB and DC schemes for those born before 1988. As for its main principles, the current agreement does not differ much from the agreement in AKAP-KL or in the private sector. Table 12 sums up the main features of the different versions of the four major occupational pension agreements within the public sector.

In recent years private and public sector pension schemes have to an increasing extent been changed towards defined-contribution schemes, and at the same time personal pension accounts based on the individual's own choice have been introduced. At the same time, this trend has meant a decentralisation of the administration. Following the pension reforms and decentralisation of the administration, a distinction between different sectors can no longer be made. Nowadays contributions of the local government and the state employees' occupational pension schemes are allocated to the same market as those of the actors that handle private sector supplementary pensions and that compete with each other. In the public sector, SPV is still the key administrative authority as regards state employees' occupational pensions, as is the local government pension provider (KPA) in the case of local government employees’ pensions. KPA Pension is the leading pensions company in the local authority sector and administrates approximately 80 per cent of local government pensions.

Table 12.
Public sector occupational pension plans.

Agreement	The agreement covers	Defined benefit or defined contribution	Benefit/contribution rates*
KAP-KL	Local government employees from age 28	Defined-benefit	Target rate: 55% of the wage 7.5–20 IB 27.5% of the wage 20–30 IB
	Local government employees from age 21	Defined-contribution	4.5% of the wag
AKAP-KL (new)	Local government employees (no minimum age) (persons born in 1986 and later)	Defined-contribution	4.5% of the wage ‹ 7.5 IB 30% of the wage 7.5–30 IB
PA 03	State employees from age 28	Defined-benefit	Target rate: 60% of the wage 7.5–20 IB 30% of the wage 20–30 IB
	State employees from age 23	Defined-contribution	2.5% of the wage (individual investment choice)
		Defined-contribution, Kåpan Tjänste	2.0% of the wage (compulsory, no individual choice)
PA16 (new)	State employees from age (no minimum age) (persons born in 1988 and later)	Defined-contribution	2.5% of the wage ‹ 7.5 IB 20% of the wage › 7.5 IB (individual investment choice)
		Defined-contribution	2.0% of the wage ‹ 7.5 IB 10% of the wage › 7.5 IB (compulsory, no individual choice)
		Flex-retirement	1.5% of the wage

* IB = Income base amount (SEK 58 100 in 2015).

4.3 Contribution income of private and public sector occupational pensions

The data used to calculate the contribution income of the supplementary pension schemes are statistical data from the Swedish Financial Supervisory Authority (Finansinspektionen, FI), Insurance Sweden (Svensk Försäkring) and Statistics Sweden (SCB). The statistical data cover the data on contribution income for the key actors in the private and public sector (life insurance companies[2], funds). In order to calculate the contribution incomes for the state employees’ occupational pension scheme, the statistics are supplemented by statistical data published by the National Government Employees Pensions Board (Statens Pensionsverk SPV) and the association which administrates defined contribution pensions (Kåpan Pensioner). Kåpan Pensioner (called Försäkringsföreningen för det statliga området,

2 Incl. the most significant actor of the local government pension scheme, the local government pension provider (KPA).

FSO, up to 2005), is responsible for the administration of the defined-contribution premium pension (Kåpan) of state employees' occupational pensions, if the insured person does not make an active choice as regards the investments. Kåpan Pensioner is a mutual society and it is not included in the information and statistics that cover life insurance and pension companies.

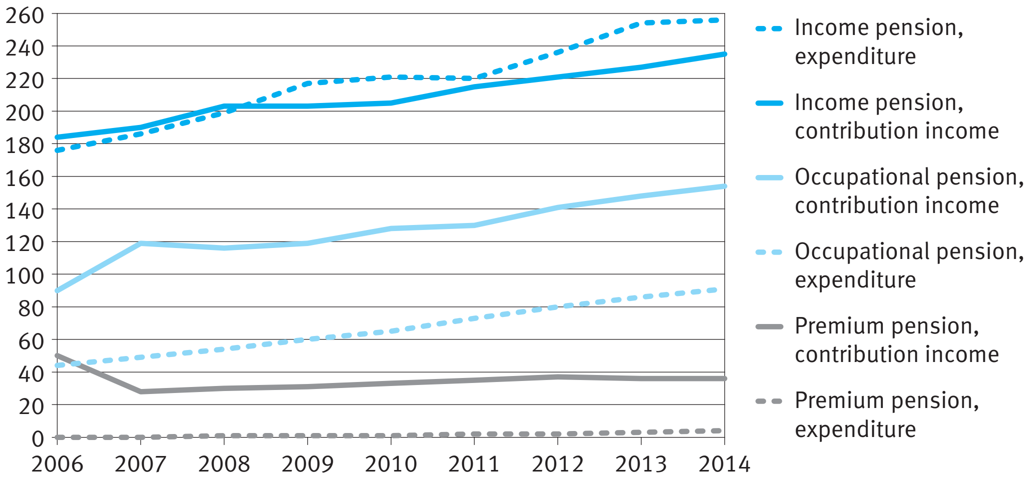
According to the above mentioned statistics, the contribution income of the occupational pension schemes totaled SEK 154 billion in 2014 (see table 13). Figure 1 compares the development of contribution income and expenditure in occupational pension schemes to the statutory earnings-related old-age pension scheme in 2006–2014.

Table 13.
Contribution income for occupational pensions in 2010–2014 (billion SEK).

	2010	2011	2012	2013	2014
Contributions	128	131	141	148	154
Expenditure	63	75	80	86	90

Source: Karlsson 2015; Pensionsmyndigheten.

Figure 1.
Contribution income and expenditure in statutory earnings related old-age pension scheme and occupational pension schemes in 2006–2014, billion SEK.



Source: Karlsson 2015; Pensionsmyndigheten.

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PENSION CONTRIBUTION LEVEL IN SWITZERLAND

Mika Vidlund

Contents

1 Pension contribution level in 2014

The following table presents the total premium income for pensions in relation to the compensation of employees, the wage sum and GDP in 2014.

Table 1.
Pension contributions in relation to wages and GDP in 2014, %.

	Compensation of employees	Wage sum	GDP at market prices	GDP at basic prices
Wage earners				
Old-age and survivors' pension insurance (AHV)	3.92	4.67	2.33	2.41
Disability pension scheme (IV)	0.38	0.45	0.22	0.23
Occupational pensions (BVG)	3.99	4.75	2.37	2.45
Total	8.29	9.87	4.93	5.09
Employers				
Old-age and survivors' pension insurance (AHV)	3.92	4.67	2.33	2.41
Disability pension scheme (IV)	0.38	0.45	0.22	0.23
Occupational pensions (BVG)	6.47	7.71	3.85	3.97
Total	10.77	12.83	6.40	6.61
The State's shares and other tax financing				
Old-age and survivors' pension insurance (AHV)	2.78	3.31	1.65	1.70
Disability pension scheme (IV)	0.74	0.88	0.44	0.45
Supplementary benefits (Ergänzungsleistungen)	1.23	1.46	0.73	0.75
Total	4.74	5.65	2.82	2.91
Statutory pensions	13.34	15.89	7.93	8.19
Occupational pensions	10.46	12.46	6.22	6.42
All in total	23.81	28.34	14.15	14.61

2 Data and Methodology

The pension schemes included in the study are the statutory pension schemes and supplementary pension provision in the occupational pension schemes. We have not included individual pension provision (so called third pillar), as this is the case with other countries in the comparison as well.

We have collected the applied data from official sources available to the public. This includes annual reports and statistical data available on the relevant organizations' webpages. For the GDP, wage sum and employee compensation figures, we have used OECD data from the OECD.stat database, as it provides for comparative results across the reviewed countries.

The pension contribution level has been calculated by dividing the pension contribution income and possible state subsidy amounts with the OECD data.

In calculating the contribution levels, we have only included the contribution income paid by the employees, employers and the State. Possible other income is not taken into consideration. The respective contribution shares for employee, employer and the State are calculated according to the source data.

3 Statutory pension scheme

The Swiss statutory or first pillar pension scheme consists of old-age and survivors' pension insurance (AHV) and general disability insurance (IV). The latter covers everyone who lives or works in the country, including self-employed persons. The AHV/IV scheme is a basic pension scheme ensuring a minimum income. Entitlement to a pension presupposes that contributions have been paid for a certain minimum period of time, but this does not make up the whole employment-based pension, since contributions are levied from everyone who lives in the country, regardless of whether the person is working or not.

The statutory pension consists of a flat-rate component and an earnings-based component (and possible increments). The pension limits (min-max) in 2014 were set at CHF 1,170 (EUR 960) and CHF 2,340 (EUR 1,920) per month, respectively, corresponding to approximately 20 and 40 per cent of the average wage. Within these limits, the amount of the benefit is related to contributions paid during employment. In individual cases, if the minimum cover provided by pension insurance is not sufficient or the person is not entitled to a pension, discretionary supplementing pensions (Ergänzungsleistungen) may be paid out.

The financing of earnings-related pensions is based on the pay-as-you-go principle. The pensions are financed through the insured persons' and the employers' contributions as well as state subsidies. The contributions are levied from the whole wage without any upper earnings limit. In addition, interest-rate yields on the fund for old-age and survivors' pension insurance are also used to finance these pension benefits.

3.1 Old-age and survivors' pension

The old-age and survivors' pension (AHV) contribution rate for both the employer and the employee is 4.2 per cent of the gross salary. The contribution rate (8.4%) has remained unchanged since 1975 (BSV 2016c). For the self-employed, the contribution rate depends on the level of earned income. The contribution rate varies from 4.2 to 7.8 per cent. The first rate applies to an annual income level of up to CHF 9,400. If the annual earnings exceed CHF 56,200, the contribution rate is 7.8 per cent. A sliding scale for the contribution is applied to intermediate income levels.

Individuals who are not in gainful employment (e.g. students, unemployed persons, early-retirees, disability pensioners, non-employed spouses) must pay minimal contributions. The contribution is determined on the basis of the aggregate amount of income and property. An annual contribution varies according to the income from CHF 392 to CHF 19,600 (i.e. 50

times the minimal contribution). However, the contributions of the non-working spouse are considered to have been paid if the working spouse has paid contributions corresponding to at least twice the minimum contribution.

The amount of contribution income collected totaled CHF 29,942 million or 4.7 per cent of GDP in 2014. The AHV has a separate budget and a small reserve fund. By law, the fund must cover one year's expenditure. The old-age buffer fund valued CHF 44.8 billion, that is, about 7 per cent relative to GDP or 109.6 per cent of the annual total (pension and administration) expenditure in 2014. The pension expenditure amounted to 6.3 per cent of GDP.

By rule, the Confederation covers 19.55 per cent of the annual total expenditure. The Confederation acquires this sum through direct federal (CHF 5,026 million) and value-added taxes (VAT) (CHF 476 million) as well as taxes on tobacco products (CHF 2,257 million) and alcohol (CHF 230 million). Revenue of the tax on gambling casinos (CHF 285 million) was 0.7 per cent of total expenditure. In total, these Confederation revenues amounted to 1.3 per cent of GDP.

Since 1999, the AHV has also been receiving one percentage point of VAT, in line with the rule that 13.33 per cent of the total annual revenue of VAT is allocated to old-age and survivors' insurance. VAT constitutes more than one fifth (CHF 2,323 million) of the total State subsidy to the AHV scheme (Schweizerischen Sozialversicherungsstatistik 2016). VAT revenues amounted to 5.7 per cent of the total expenditure and 0.4 per cent of GDP in 2014.

In total, the state revenues amounted to 26 per cent (CHF 10,598 million) of the AHV scheme expenditure, or nearly 1.7 per cent of GDP in 2014.

Table 2.

Old-age and survivors' pension insurance: income and expenditure, CHF million.

	2010	2011	2012	2013	2014
Income (total)	**38,495**	**39,041**	**40,824**	**40,884**	**42,574**
Employer	13,730.5	14,153	14,437.5	14,769.5	14,971
Employee	13,730.5	14,153	14,437.5	14,769.5	14,971
State	9,776	10,064	10,177	10,441	10,598
- incl. Confederation	7,156	7,439	7,585	7,815	7,989
- incl. VAT and casinos	2,620	2,624	2,592	2,626	2,609
- incl. cantons	0	0	0	0	0
Capital income	1,247	667	1,766	894	2,027
Other income	10	4	6	9	6
Pension expenditure	**35,925**	**37,350**	**38,300**	**39,607**	**40,714**
Other benefits	517	497	312	174	-45
Administration costs	162	206	185	195	197
Expenditure total	36,604	38,053	38,798	39,976	40,866
Buffer fund	44,158	40,146	42,173	43,080	44,788

Source: BSV 2016a.

3.2 Disability pension

The disability pension contribution totals 1.4 per cent of the gross wage. The employer and the employee pay half of the contribution each. The contribution rate has remained unchanged since 1995 (BSV 2016d). For the self-employed, the disability contribution is 0.754–1.4 per cent depending on the amount of earnings based on the same thresholds as in AHV. The annual contribution for those not in gainful employment varies from CHF 65 to CHF 3,250, according to the income amount. Contributions (CHF 5,018 million) covered 54 per cent of the total disability insurance expenditure (see table 3).

The State's share of the expenditure was nearly 53 per cent in 2014, and its share of the total revenues was 48 per cent. For the last three years in a row, the disability insurance budget has been in surplus as the contribution income has increased while the expenditure level has remained rather stable, with decreasing disability pension expenditures. Since the mid-1990s, the financial situation of the disability insurance has run in a deficit. The deficit has been covered by transfer payments from the old-age and survivors' pension schemes. Several measures have been implemented in the past ten years or so to balance the budget of disability insurance which had a deficit of CHF 12,843 million, or 2 per cent of GDP, in 2014 (BSV 2016c; OECD 2014). Disability insurance has an independent fund with a value of CHF 5,000 million, or 0.8 per cent of GDP.

Table 3.
Disability pension insurance: income and expenditure, CHF million.

	2010	2011	2012	2013	2014
Income (total)	8,176	9,454	9,889	9,892	10,177
Employer	2,302.5	2,372.5	2,420	2,475.5	2,509
Employee	2,302.5	2,372.5	2,420	2,475.5	2,509
State	3,476	4,607	4,780	4,804	4,867
- Incl. Confederation	3,476	3,565	3,504	3,508	3,576
- Incl. VAT	-	855	1,090	1,117	1,119
- Incl. Confederation, debt interest *	-	186	186	179	172
Investment income	0	21	201	77	238
Other	95	82	69	59	54
Expenditure (total)	9,220	9,457	9,295	9,306	9,254
Benefits (total)	8,450	8,529	8,341	8,354	8,301
- Pension expenditure (incl. ordentliche and ausserordentliche renten)	6,080	6,073	5,941	5,892	5,773
Interest on capital	162	299	299	287	275
Administrative costs (Verwaltungs- und Durchführungskosten)	609	629	655	664	678

* From 2011–2017, debt interest owed by the IV (disability) scheme to the AHV-pension scheme is financed by the Confederation.
Source: BSV 2016e; BSV 2016b.

The ordinary federal contribution to disability insurance was set to be 37.7 per cent of the annual IV expenditure until 2013. The financing mechanism was reformed in 2014. As of that year the Confederation has had to cover a minimum of 37.7 per cent and a maximum of 50 per cent of the annual total expenditure. Moreover, there was a temporary hike in the VAT rate in 2011 in favor of disability insurance. From 2011 to the end of 2017, a percentage of the total annual VAT revenue is allocated to disability insurance. This percentage amounts to 4.99 per cent from 2012 to 2017 (3.98% in 2011). (Swiss Confederation 2011-14; 2016.) In 2014, the income revenue from VAT to the disability pension scheme was CHF 1,119 million, that is, 23 per cent of the total State subsidy (CHF 4,867 million) (BSV 2016e).

Part of the contribution income is used for other benefits than pensions. To exclude the effect of other benefits than pensions in our cross-country comparison, we have equalized the level of pension contribution income to correspond to the level of pension expenditure (excluding administrative costs). The disability pension expenditure (CHF 5,773 million) was 62.4 per cent of the total expenditure, or 0.9% of GDP, in 2014.

3.3 Discretionary supplementary pensions

The supplementary benefits (Ergänzungsleistungen) are non-contributory, means-tested benefits for the elderly, surviving spouses and children and the disabled. Generally speaking, supplementary benefits are additional to AVS/AI pensions, but in some cases they are paid regardless of entitlement to a pension. These benefits are financed through tax revenues from the Confederation and the cantons. The annual income is equal in size to the expenditure.

State subsidies for supplementary pensions payable through the old-age and survivors' pension scheme (AHV) as well as through the disability pension scheme (IV) are presented in the following (table 4). The amount collected to finance supplementary pensions was 0.73 per cent of GDP in 2014.

Table 4.
Discretionary supplementing pensions: income and expenditure, CHF million.

	2010	2011	2012	2013	2014
in AHV	2,324	2,439	2,525	2,605	2,712
Confederation	599	612.9	644	668	696
cantons	1,725	1,826.2	1,880.1	1937	2016
in IV	1,751	1,837	1,911	1,923	1,967
Confederation	638	657,3	686,4	678	702
cantons	1,113	1,179.5	1,225	1,245	1,264
Total expenditure	4,075	4276	4,436	4,528	4,679

Source: BSV 2016f.

4 Occupational pension schemes

Mandatory occupational pensions are fully-funded defined contribution pension plans. The act concerning mandatory occupational pension provision (Bundesgesetz über die berufliche Alters-, Hinterlassenen- und Invalidenvorsorge, BVG) took effect in 1985. The act is a framework act, which determines the minimum requirements for occupational pension provision arranged by the employer. All pension funds must therefore fulfill the requirements of the mandatory pillar 2 part. The employers may still freely arrange pension provision of a higher level than the minimum level required by law.

Employer-specific occupational pension schemes have been common in Switzerland for decades. Already before the BVG act took effect, the schemes covered an estimated two-thirds of the wage earners. As regards the schemes which were in operation in 1985, the act thus often meant only some adjustments to the scheme. However, some of the occupational pension schemes were abolished or were left as schemes offering voluntary occupational pension provision. They were later replaced by a scheme which met the criteria of the BVG act.

According to the BVG act, membership in the occupational pension scheme is mandatory for all employees older than 17 years who are covered by the social security system and whose annual earnings in 2014 exceeded CHF 21,060[1] (CHF 21,150 in 2016) (See Figure 1). The disability and survivors' pension provision has to be arranged for persons who have reached the age of 17. Coverage by old-age pension provision starts from 1 January after reaching the age of 24. However, fixed-term employment contracts of less than three months are not covered by insurance.

Insurance is not compulsory for self-employed persons but they have the right to take out voluntary insurance under the BVG act.

The contributions vary from 7 to 18 per cent of the insured person's salary, depending on his or her age (old-age credits) (table 5). The employer's contribution must at least match the employee's.

Table 5.
BVG contribution rates.

Age	Contribution rate, %
25–34	7
35–44	10
45–54	15
55–64/65	18

Source: BSV.

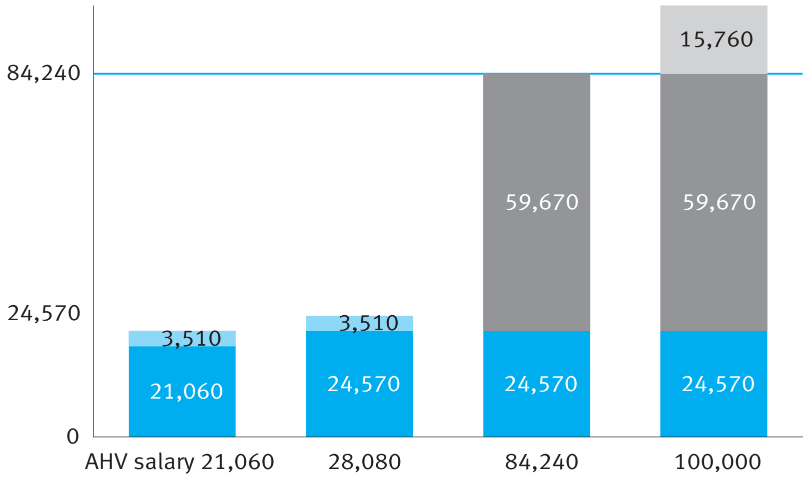
The following figure 1 describes more closely the salary level that had to be insured in 2014. An effective annual salary ranging from CHF 21,060 to CHF 84,240 was insured. The amount of the annual salary ranging from CHF 24,570 to CHF 84,240 equals the pensionable salary and is also known as the coordinated salary. The minimum coordinated salary is

1 6/8 of the maximum AHV retirement pension.

CHF 3,510[2]. If the annual salary exceeds CHF 21,060, the pensionable salary amounts to at least CHF 3,510.

Occupational pension provision should cover earnings up to at least CHF 84,240[3] per year (CHF 84,600 in 2016). The maximum pensionable salary of employees or the pensionable income of self-employed persons is ten times the upper threshold (CHF 842,400).

Figure 1.
Pensionable annual salary in BVG, 2014.



Note: The minimum pensionable BVG salary is always CHF 3,510 for salaries ranging from CHF 21,060 to CHF 28,080.
Source: BSV.

The contributions levied for the occupational pension scheme totaled CHF 54.3 billion, or 8.4 per cent in relation to GDP, in 2014 (table 6). However, in this report, the part of the contribution income which is not used to finance pensions has been excluded. The proportion of the occupational pension is only about 74 per cent of the contribution income related to the benefit in question. Thus, the pension contribution income was 6.3 per cent of GDP in 2014. The pension expenditure was 5.3 per cent of GDP. The value of the funds in 2014 was approximately CHF 770 billion (EUR 634 billion), that is, about 120 per cent in relation to GDP.

2 1/8 of the maximum annual AHV-retirement pension.
3 Three times the maximum annual AHV-retirement pension.

Table 6.
Occupational pension scheme: income and expenditure, CHF million.

	2010	2011	2012	2013	2014
Contribution income total	46,336	46,739	48,030	53,364	54,256
Employer	25,432	25,337	25,196	25,563	28,354
Employee	15,782	16,423	16,944	17,334	17,753
Additional contributions (Eintrittseinlagen)					
Employer	1,039	1,228	2,077	6,219	5,218
Emloyee	4,083	3,702	3,812	4,248	2,931
State	-	-	-	-	-
Capital income	15,603	14,704	15,294	14,227	15,292
Other revenue	168	111	103	92	87
Revenue total	62,107	61,554	63,427	67,682	69,635
Expenditure (pensions and capital benefits)	30,912	316,28	32,657	33,228	34,273
Administration and implementation costs	3,554	3,655	3,999	4,005	4,630
Other expenditure (Net withdrawal payments, and net payments to insurance funds)	11,089	9,954	13,000	13,285	12,299
Expenditure total	45,555	45,237	49,672	50,518	51,202
Capital	617,500	620,600	667,300	712,500	770,300

Source: BSV.

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