

Privatising Pensions and its Consequences for the Sustainability of Public finance.

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Social expenditure data tend to focus primarily on publicly administrated programs. Data on the costs of mandated and voluntary arrangements are at best fragmented. In a self-proclaimed attempt to limit the costs increases in areas such as health-care, sickness benefits, and old age provisions, governments have sought to encourage these non-public forms of provision. The amount of tax revenue forgone in promoting these forms of provision can be significant and the distributive implications also tend to be neglected, even though they play an important part in reinforcing inequalities amongst pensioners, and between the sick and the healthy. This paper explores the consequences of this shift from public transfers to voluntary and mandated private arrangements in the area of old age and survivor pensions.

The paper will make use of a cross-national design strategy, which compares expenditure trends in (1) countries with sizeable *voluntary* programs with (2) countries that extensively rely more upon *mandating*, and (3) countries in which *public statutory* programs are still by far the main form of provision. The paper seeks to demonstrate that the costs to the exchequer and the economy, and the resulting inequalities, are both mediated by the organisation of the schemes, and by the role played by associations and their embeddedness in the system of industrial relations. Thus, in countries in which occupational welfare is embedded in a system of collective agreements, coverage is expected to be higher – especially if unionisation is high or if collective agreements are subject to administrative extension by the government. But higher coverage is also expected to increase the total costs of such non-public forms of welfare provision – again both for the exchequer as well as for the employers – but at the same time it is also likely to result a more inclusive less unequal welfare system. The shift from statutory to occupational arrangements normally tends to fragment the solidaristic risk redistribution of the social security system, but the extent to which this fragmentation occurs depends upon the way occupational schemes are organised.

In this paper we will focus on the costs question of the argument, and not investigate the distributional aspects. We will primarily make use of the OECD's SOCX data base, which recently has been updated so that it now offers data for the period from 1980 up to 2003 (OECD, 2007a). Even though the EU's ESPROSS database¹ is in some respects more comprehensive, if one is interested in total social expenditure (De

¹ *European System of Integrated Social Protection Statistics* (ESSPROS), a database published by the Statistical Office of the European Union (Eurostat).

Deken & Kittel, 2007), the advantage of SOCX is that (1) it is not limited to European Union countries (which is important if one does not want to limit the case of the Anglo-Saxon variety of welfare capitalism to one or two cases); and (2) because it at least tries to make a distinction between public and private expenditure, as well as between mandated and voluntary programmes (even though, as we will argue, the latter categorisation proved to be not very workable).

Three Worlds of Pension Finance?

Public versus private pension provision.

In this paper we will make a distinction between three types of pension regimes. In specifying these types, we look primarily at the method of financing, the mode of administering the funds, and contractual origins of pension arrangements. It is not our intention to add on to the numerous attempts to design pension regime typologies (see for example the ‘pillar models’ of the World Bank (1994), the European Commission (1997), or the OECD (1998); or matrix of ‘tiers’ and ‘pillars’ as proposed by Anderson & Immergut (2007)). Rather than developing yet another comprehensive classificatory scheme, we merely want to set the stage for analyzing the interaction of pension arrangements with the system of industrial relations, in particular with respect to the cost effects of privatisation.

The central dimension of our analysis is the distinction between *public* and *private* forms of provision. This distinction, however, may be less clear cut than it might appear at first sight. We will start by adopting the OECD’s point of view, as expressed in its most recent publication on this matter, where it is argued that public pension plans are “...statutory programs administered by general government (that is central, state and local governments, as well as other public bodies such social security institutions)” (OECD, 2005: 12). Private pension plans, on the other hand may be “administered directly by a private sector employer acting as the plan sponsor, a private pension fund or a private sector provider.” (OECD, 2005: 12).

The distinction between public and private is relatively independent from other institutional or functional dimensions of pension regimes, such as whether pension benefits are flat-rate or earnings related with or without indexation to prices or wages; whether the schemes are organised on a defined benefits or defined contributions

basis; whether plans externally funded, run as an insurance, based on book reserves or run on a pay-as-you-go basis (with or without a sizeable reserve buffer); whether the scheme is provided as part of an employment relation or whether it originates in a voluntary individual decision from the plan's participant and/or the plan's sponsor. Some of these dimensions, though, are intimately intertwined with the public private divide we are interested in. For example, most private pension plans tend to involve some kind of funding (via external pension funds or internal book reserves) (the only exception to this rule seems to be the French ARCO and ARGIC schemes, that are only capable of guaranteeing their PAYG benefits because those schemes are embedded in a long-term government mandate). This necessary condition does not seem to operate in the other direction though: funded schemes can be administered by general government, as the case of central provident funds in some Asian countries demonstrate (the most prominent example being Singapore's CPF), and can be part of some transitional arrangements like the reserve funds in the ATP system in Sweden (until the most recent pension reform in that country) or the old age funds in Belgium (the *Zilverfonds*) and the Netherlands (the *AOW-fonds*) that solely invest in state bonds to anticipate costs for the statutory pension scheme when the peak of ageing will be reached around 2030.

However, in Europe, North America and Australia, publicly controlled funded schemes that invest their savings on the capital market, so far are the rare exception, as governments in these parts of the world seem to be wary of giving the state such a strong leverage on investment capital. In these countries, funded schemes take the form of autonomous pension funds or are administered by private sector insurance companies.

Operationalising the public private distinction.

In order to operationalise the public private divide we have decided to devise a compound index that consists of four indicators. Each indicator is marred with its own measurement problems and ambiguities in terms of classification – in particular for countries, such as Finland, that developed a hybrid pension system. But it is our expectation that by combining four different indicators, we may iron out some of these ambiguities.

As a first indicator we will use the standard replacement rates offered by statutory pension schemes. The idea behind this indicator is that generous statutory schemes

will ‘crowd out’ private forms of provisions (for a critical assessment of this argument, see Pedersen, 1999). Calculating replacement rates, however, turns out to be a complicated matter, which is reflected in the very different estimates that can be found in the literature. Some estimates include only the first pillar of strictly public pensions, whereas others seem to treat the sum of public and mandated schemes as a statutory benefits.

The problem is that such additions are not done in a consistent way in one and the same study. Thus, for the Netherlands, the OECD (2005) adds the public basic pension (the AOW) and the benefits of the mandated occupational funds (even if its expenditure data base, as will argue further on, the OECD considers the latter not to be ‘mandated’, but be ‘voluntary’ private programmes). For Switzerland, on the other hand, the OECD only takes into account the basic pension of the AHV (even if in its SOCX expenditure data base, the benefits paid by Swiss occupational schemes are considered to be part of the ‘mandated’ category).

In some of its internal reports the European Commission (EC) did try to estimate separately the replacement rates of statutory (‘first pillar’) and occupational (‘second pillar’) schemes (see SISG SCP, 2006). But EC and the OECD only provide a more or less comparable basis for average incomes (‘average earnings’ in the case of the EC and ‘average production worker wage’ in the case of the OECD). If one wants to estimate the replacement rates for those earning more than the APW, the OECD uses fixed multiplications of the APW as a reference income (for example, ‘twice APW’), while EC uses complicated dynamic income models (such as ‘income growing from 100% of average earnings to 200%’). As a consequence OECD and EC replacement rates cannot be compared. Moreover, the pillar-specific replacement rates of the EC are gross rates, whereas what in the end matters for our argument are the net replacement rates. Finally, the EC does not break down replacement rates for Austria France, Germany, Greece, Italy, Luxembourg, Portugal and Spain, because they formed what it refers to as a “negligible proportion” (European Commission, 2006). The five countries where the EC does report separate ‘first’ and ‘second’/‘third’ pillar replacement rates shows rather inconsistent figures as becomes evident in Table 1.

Table 1. Comparison of pension pillars and replacement rates.

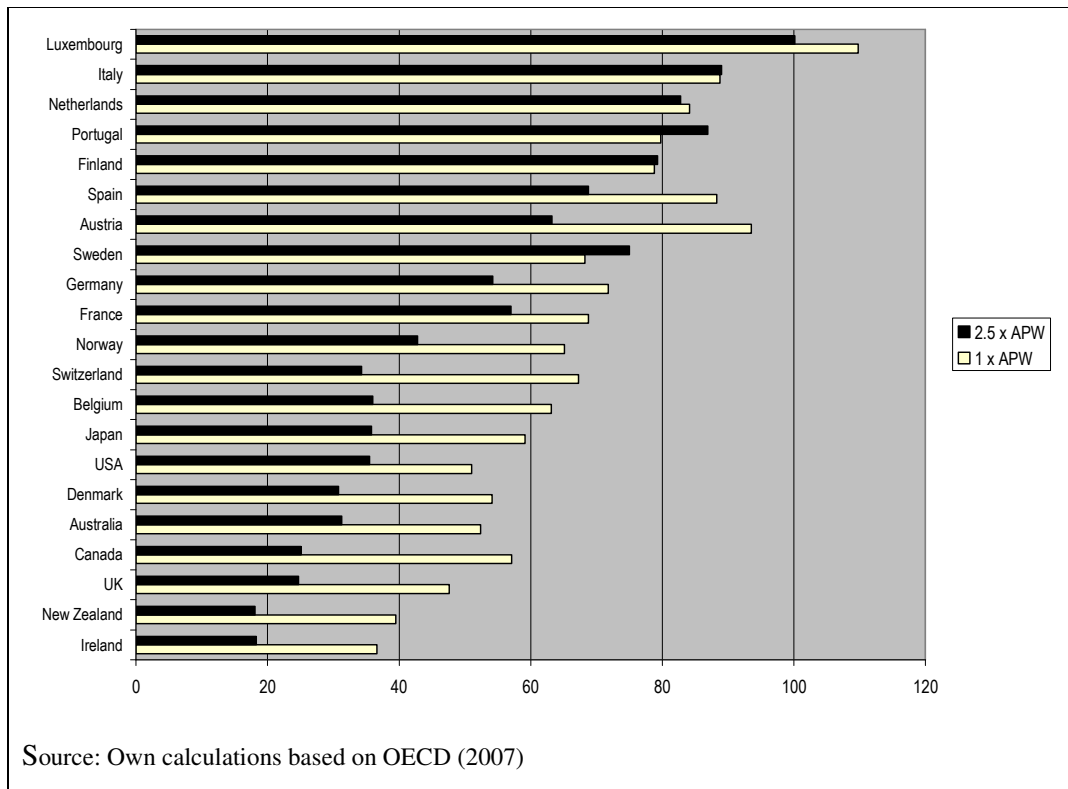
	OECD Net 1x APW	OECD Gross 1 x APW	100% APW European Commission Social Protection Committee			Rising from 100% APW to 200% APW European Commission Social Protection Committee			OECD Gross 2 x APW	OECD Net 2x APW
			1st Pillar Gross	2nd&3rd Pillar Gross	All Pillars Gross	1st Pillar Gross	2nd&3rd Pillar Gross	All Pillars Gross		
Netherlands	84.1	68.3	29.6	41.1	70.7	14.8	55.2	70	68.3	83.8
Denmark	54.1	43.3	45.1	3.6	48.7	22.6	3.4	26	23.8	35.5
Sweden	68.2	64.8	53	14.7	67.7	36.1	32.9	69	66.2	83.4
Belgium	63.1	40.7	39	4	43	27	3	30	26.2	42.7
Ireland	36.6	30.6	31	36	67	16	51	67	15.3	21.9
United Kingdom	47.6	37.1	17	50	67	8	50	58	22.5	29.8

For some countries, in particular the Netherlands and Switzerland, the OECD rate not only takes into account the statutory pensions but also the private occupational schemes (making it not a very good indicator for the room for occupational provisions).²

In spite of these caveats, we decided to use the OECD net rates for our compound indicator (OECD, 2007b). In Figure 1 we report the OECD replacement rates for someone who earned one time the APW and someone who earned two and a half times the APW. The countries are ranked on the basis of the average of these two rates, and it is that average we will retain for our compound index.

² In addition, the replacement rates reported by the OECD (for 2005) are quite different from the rates that Lyle Scruggs has calculated for 2002. In Scruggs calculations some countries have much lower replacement rates than the ones reported by the OECD. In some cases like the Netherlands and Switzerland (both 40% lower) this is likely to be related to the aforementioned problems of including or not the private occupational schemes. In other cases it is more difficult to account for the differences: France (24% lower), Finland (22% lower), or Australia (43% lower). But Scruggs also reports for some countries significantly higher replacement rates than the OECD: the US (21% higher), the UK (20% higher) or Belgium (19% higher). Finally for some countries Scruggs rates are pretty similar to the OECD's ones (e.g. Italy, Germany, New Zealand, Ireland).

Figure 1. Room for private pensions: replacement rates statutory pension benefits

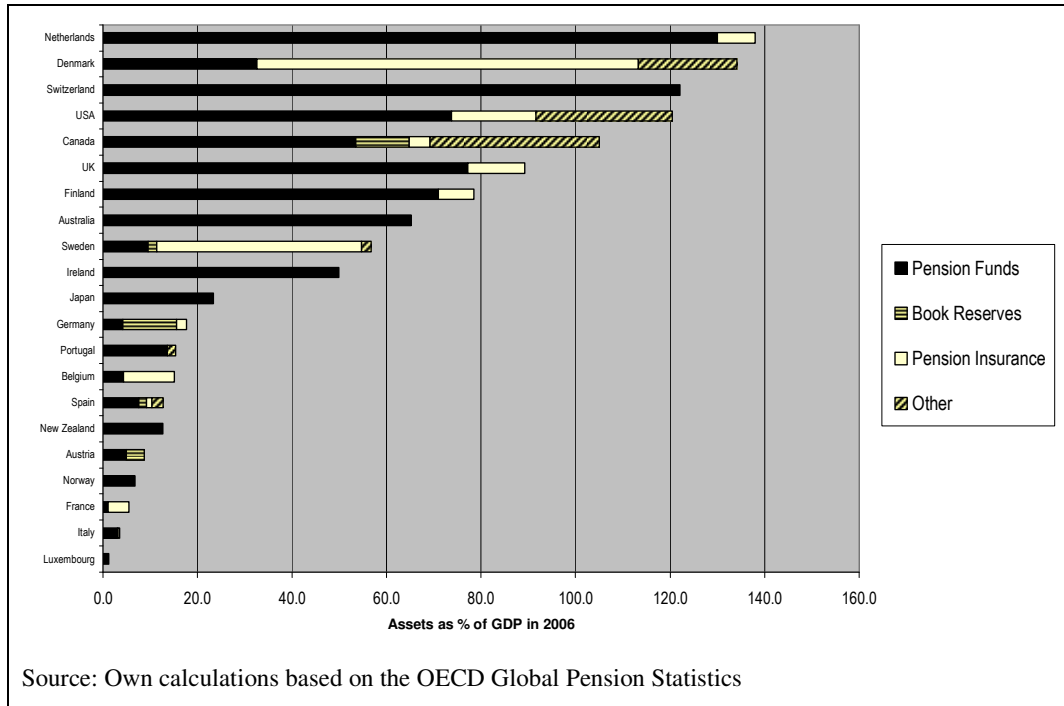


A second indicator that measures the extent of pension privatisation, builds upon the observation made above private pensions tend to be pre-funded. The magnitude of private pensions thus can be measured in terms of their financial assets as a percentage of a country's GDP. Here again our indicator is marred by a number of methodological and interpretation problems. A first problem is *which* assets are to be included. Most studies only take into account funding by autonomous pension funds. That would leave out most of the assets accumulated in countries that use pension insurance contracts as the main financing vehicle for funded pensions (e.g. Denmark, Sweden and Belgium) or that also rely upon book reserves (e.g. Germany, Austria, Luxembourg and Canada). Recently, the OECD has finally started to report in its financial markets statistics the magnitude of these other financing vehicles, but reporting remains incomplete.

Another problem is that some if one takes this indicator at face value, some schemes that in our first indicator were classified as 'public', now end up in our 'private' category. This is for example the case for the funds accumulated by the TEL scheme in Finland, which though legislated (and hence in that respect can be considered as

statutory), relies on a form of pre-funding where the accumulate assets are administered by private investment companies (and from this perspective can be considered to amplify the role of private markets in the country's pension provision). Finally, a third problem is that our second indicator is sensitive to two factors that are not directly related to the differences in the current role of markets. The size of assets as much reflects (i) the maturity of the funded schemes (and not only the current setup of the pension arrangements); and (ii) the strictness of the rules the legislator or the regulator imposes upon those schemes (with more strictly regulated – and hence less privatised – schemes having more assets than less regulated regimes). It therefore does not come as surprise that countries, where both factors play an important role (such as the Netherlands and Switzerland), come out on top of our ranking, whereas countries where pre-funding is of recent origin (like Finland, or for that matter Germany) have sizeable but less impressive assets. It also explains that the Netherlands, Switzerland and Denmark score higher in terms of this index of 'privatisation' than more archetypical liberal market economies such as the USA and the UK. On the other hand, this kind of bias operates opposite to the one we expected in our first indicator (and might compensate some its the inadequacies). Figure 2 rank-orders countries on the basis of the volume of their financial assets broken down according to the type of investment vehicle, in the year 2006.

Figure 2. The importance of private pensions in terms of financial assets of pension funds in 2006

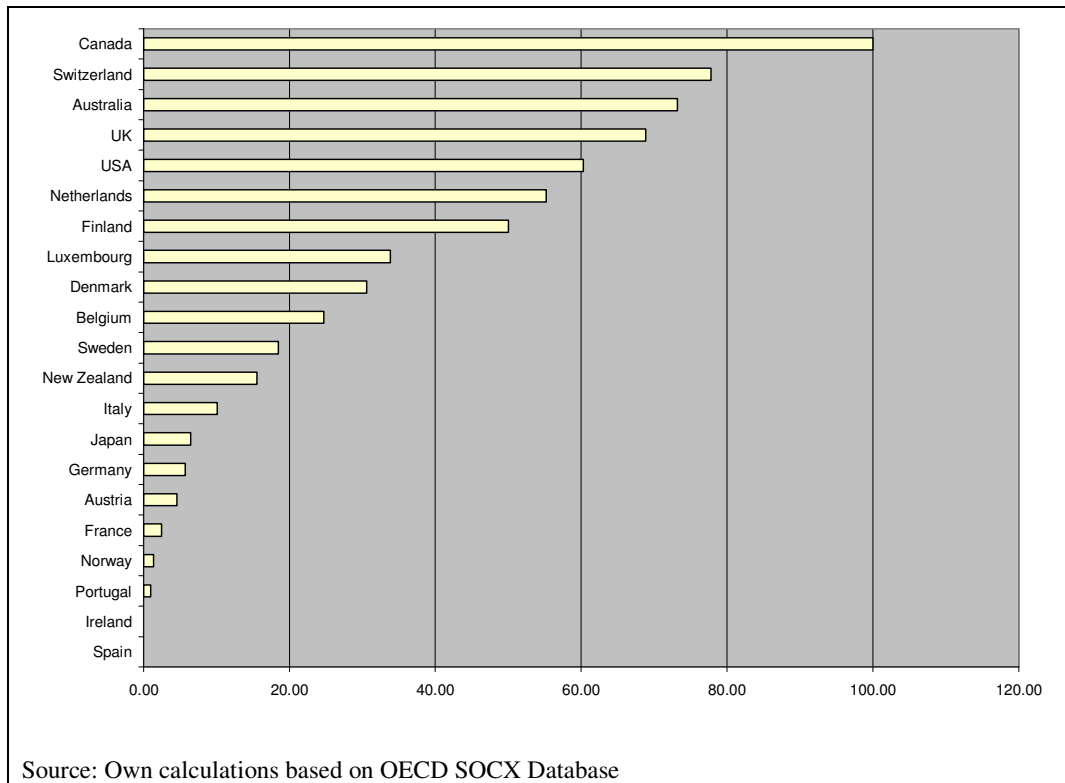


As a third indicator of the importance of private pensions we use the ratio between public and private expenditure as reported by the OECD (SOCX). As we will argue later more in detail, there are some problems with the OECD’s classification of expenditure. Thus even if the earnings related part of the Finish pension system is administered by private insurance companies, the OECD considers the expenditure that is involved as ‘public’, because it is the state that mandates inclusion into the scheme as well as the conditions of entitlement. The private administration of the Finnish scheme only affects the sponsors of the scheme, i.e. primarily the employers³: in so far that the larger the income that the provider (who is selected by the employer) achieves, the greater the amount it is capable of granting employers in bonuses, that reduce the final pension contribution (Risku, 2003: 88). Paradoxically, what in Figure 3 is represented as ‘private’ expenditure for Finland, actually are expenditures paid to former civil servants by autonomous state sponsored funds (i.e. VEL, KVTEL and KiEL). This peculiar classification is a consequence of the application of the guidelines for System of National Accounts (SNA93): “... social insurance schemes

³ In 2003, employees paid about 4.6 per cent of their wages, whereas the employers’ share varied between 13 and 35 per cent of wages, depending upon the pension provider (Lindell, 2003: 73)

organized by government units for their own employees, as opposed to the working population at large, are classified as private funded schemes ... and are not classified as social security schemes.” (SNA, 1993 § 8.63) In other words, if pension payments for former civil servants go via autonomous funds (such as separate pension and/or insurance companies) and the government “does not make up the deficit on a regular basis” (Queisser, et al., 2007: 553), they are considered to be a form of private expenditure (even if the state is the sponsor of those funds and the beneficiaries are former civil servants). On the same grounds, SOCX categorises civil servant pensions in Australia, Canada, Denmark, Sweden, the UK and the Netherlands as a form of ‘private’ social expenditure.

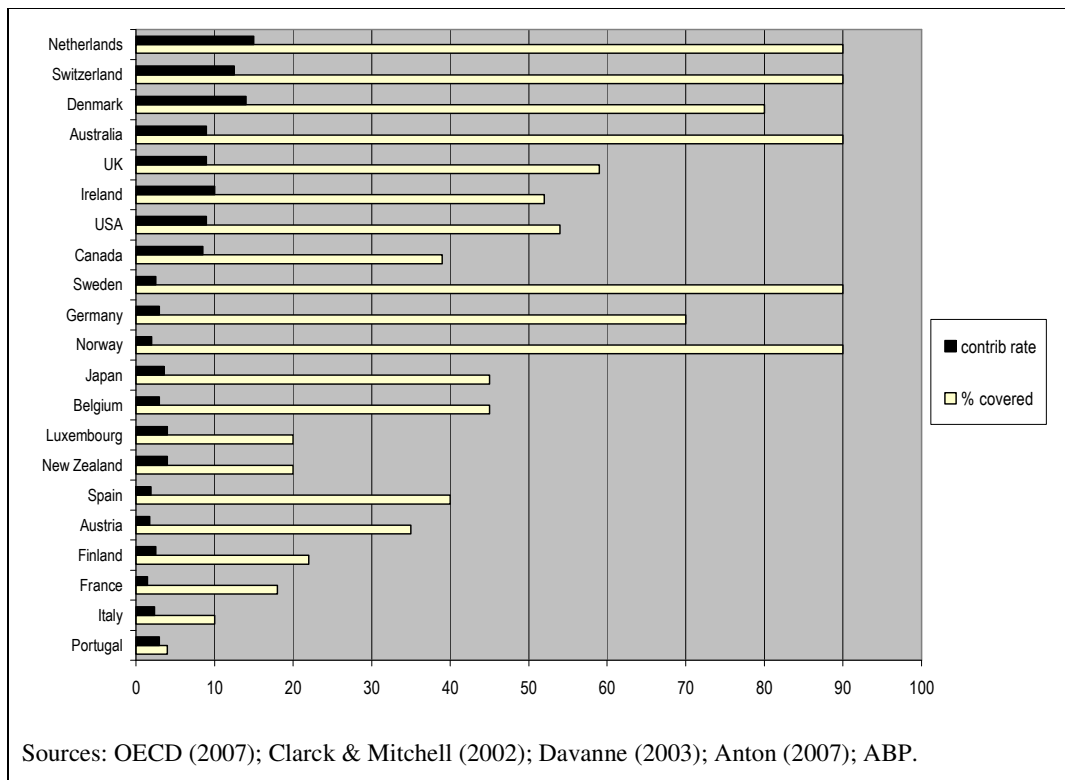
Figure 3. The importance of private pensions: private expenditure as a percentage of public expenditure in 2003



Finally as fourth indicator of pension privatisation, we use the coverage rate of private pension schemes and the contribution rates for the largest schemes (OECD, 2007b: 77). The OECD data only seem to take into account funded ‘private’ schemes: for France, for instance, the figure does not take into account the ARCO and ARGIC

schemes.⁴ For a country like Finland, on the other hand, the privately managed pension fund assets are part of the statutory earnings related ‘public’ benefits, which explains the low score of this country on our fourth indicator (in other words schemes like TEL are not included here). In case the OECD reports variable contributions rates we use the average of the minimum and maximum rate. In Figure 4 the countries are ranked on the basis of a factor, that was calculated by multiplying contributions by coverage (i.e. the two factors depicted in the figure). It is that factor that will be incorporated into our compound index.

Figure 4. The importance of private pensions in terms of coverage and contribution rates around 2004



Because each of our four indicators is marred with measurement reliability and classification errors for some of the countries, we decided to develop a compound index, which should at least reduce this problem. For the compound index we standardised each of our four indicators on a scale from 0 to 10 (as to maintain the relative distance between our cases) and than added theses four scores into one single

⁴ Otherwise coverage would not close to 100 per cent compared to the mere 17 per cent mentioned in *Pensions at Glance* (the higher figure stems from a study by Daily & Turner, 1992).

score (thus attributing to each indicator the same weight) (for the replacement rate indicator we reversed the values, so that the lowest value reflected the least room for privatisation). In table 2 we give an overview of the original non standardised values of the four components of our compound indicators, as well as the total score, i.e. the sum of the standardised values.

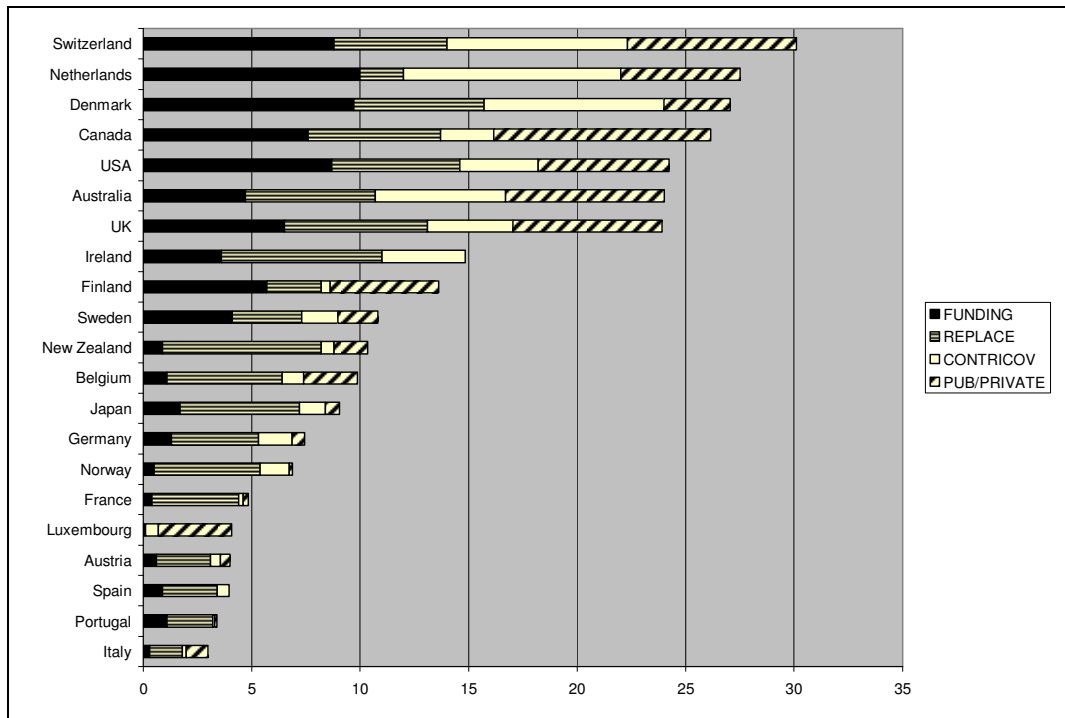
Table 2 The composition of the compound index of pension privatization

	Pension Investments as % of GDP	Replacement Rates average 1xAPW2,5xAPW	Private Expenditure as % Public Exp.	Contributions x Coverage	COMPOUND INDEX OF PRIVATIZATION
Switzerland	122.1	51	77.80	1125	7.5
Netherlands	138.0	83	55.20	1350	6.9
Denmark	134.2	42	30.60	1120	6.8
Canada	105.0	41	100.00	332	6.5
USA	120.5	43	60.30	486	6.1
Australia	65.2	42	73.20	810	6.0
UK	89.2	36	68.90	531	6.0
Ireland	49.9	27	0.00	520	3.7
Finland	78.5	79	50.00	55	3.4
Sweden	56.8	72	18.50	225	2.7
New Zealand	12.6	29	15.60	80	2.6
Belgium	15.1	50	24.70	135	2.5
Japan	23.4	47	6.50	162	2.3
Germany	17.7	63	5.70	210	1.9
Norway	6.8	54	1.40	180	1.7
France	5.5	63	2.40	27	1.2
Luxembourg	1.2	105	33.90	80	1.0
Austria	8.7	78	4.60	61	1.0
Spain	12.7	79	0.00	76	1.0
Portugal	15.4	83	0.10	12	0.8
Italy	3.5	89	10.10	24	0.7
Standard Deviation					2.4
Median					2.6

In figure 5 we represent the total scores of countries broken down according to the scores of the four standardised components of our compound indicator. It becomes evident that there is a clear divide within our sample of countries. Seven countries stand out as scoring well above the average when it comes to the degree to which their pension schemes are privatised: Switzerland, the Netherlands, Denmark, Canada, the USA, Australia and the UK all have scores of more than one standard deviation above the median. Finland and Ireland also still score above the average, but in a less pronounced way and for different reasons. In the case for Finland this is because of the relative high degree of funding (with funds being administered by private sector

actors), and because of a relative score on private expenditure (because the schemes catering for civil servants are considered to be private). In the case of Ireland, this is probably due to a reporting error at the OECD (as in terms of the other indicators this country looks pretty similar to the UK, but records an implausible zero on private expenditure – in spite of sizeable pension fund assets).⁵

Figure 5. The importance of private pensions: compound indicator



Voluntary and mandated private provision.

Some institutional characteristics of pensions systems are hard to capture in numbers. Thus even though countries like the Netherlands and Switzerland score equally high on our indicators of private pension provision, as nations like the United Kingdom, the United States, and Canada, they are quite different in terms of the social embeddedness of their private pension provision. Whereas in the latter countries the non-statutory provisions originate in voluntary contracts, the former extensively rely

⁵ The World Bank in its Pension Reform Primer also reports tax expenditures on pensions in Ireland for the year 1990 of similar magnitude as those found in the US, i.e. about 2.5% of total tax revenue (Whitehouse, 1999). One could argue that funded schemes (and tax credits) are of recent origin, and that pension funds have not reached the stage that they are actually paying out benefits. But the size of pension fund assets suggests this not that likely.

on various forms of government mandating limiting the room for decision of the contracting parties.

Martin Rein and John Turner make a distinction between three forms of mandating (Rein & Turner, 2001): (1) governments can mandate employers and employees to finance statutory social security by parity spread contributions; (2) governments can mandate the social partners to administer statutory social security schemes (this is often a consequence of the first form of mandating because the entrenched ownership claims); (3) governments can mandate employers and employees to set up their own private but collective (industry-wide or company based) schemes. When we use the terms ‘mandating’ or ‘mandated’ in this paper, we primarily refer to the third meaning of Rein and Turner. Whereas in the case of countries that we will label as ‘voluntarist’, pension schemes are primarily set up at the initiative of the employer, in the countries that we label as ‘mandated’ those schemes are the result of collective agreements that are embedded in a neo-corporatist system of interest intermediation.

In the following three figures we have investigated this kind of institutional complementarity (Crouch, et. al, 2005), by plotting our index of pension privatisation against Alan Siaroff’s compound index of ‘corporatism’ (Siaroff, 1999)⁶ (Figure 6), Peter Hall and David Soskice’s index of ‘economic coordination’ (Hall & Gingerich, 2004) (Figure 7), and Siaroff’s index of ‘economic integration’ (Siaroff, 1999)⁷ (Figure 8).

⁶ Alan Siaroff developed a compound index to express the extent to which various authors in the neo-corporatism literature (a.o. Philippe Schmitter, Roland Czada, Gerhard Lehmbuch, Colin Crouch, Manfred Schmidt, Hans Keman, Gary Marks, Jeffrey Sachs, Lars Calmfors, Richard Layard, Geoffrey Garrett and Peter Lange) have scored countries on their scale of corporatism.

⁷ Siaroff defines integration as a “long-term co-operative pattern of shared economic management involving the social partners and existing at various levels such as plant-level management, sectoral wage bargaining, and joint shaping of national policies in competitiveness-related matters (education, social policy etc.)”

Figure 6: Pension privatisation and corporatism

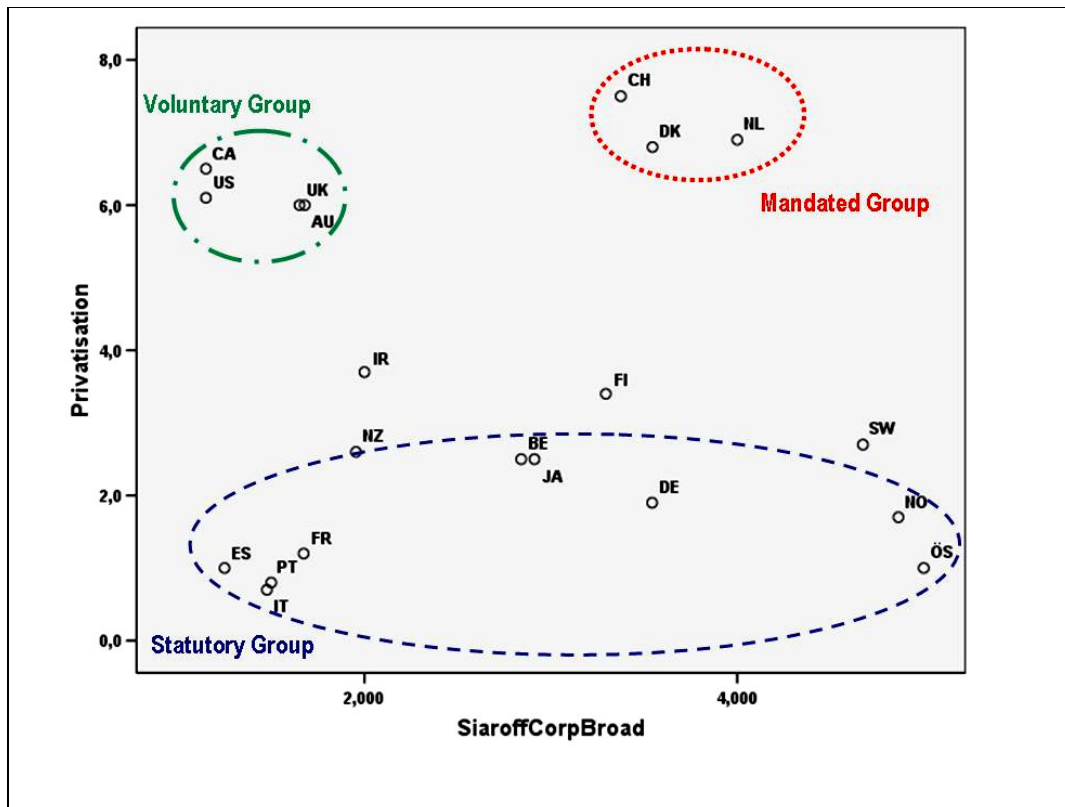


Figure 7. Pension privatisation and coordination in the varieties of capitalism.

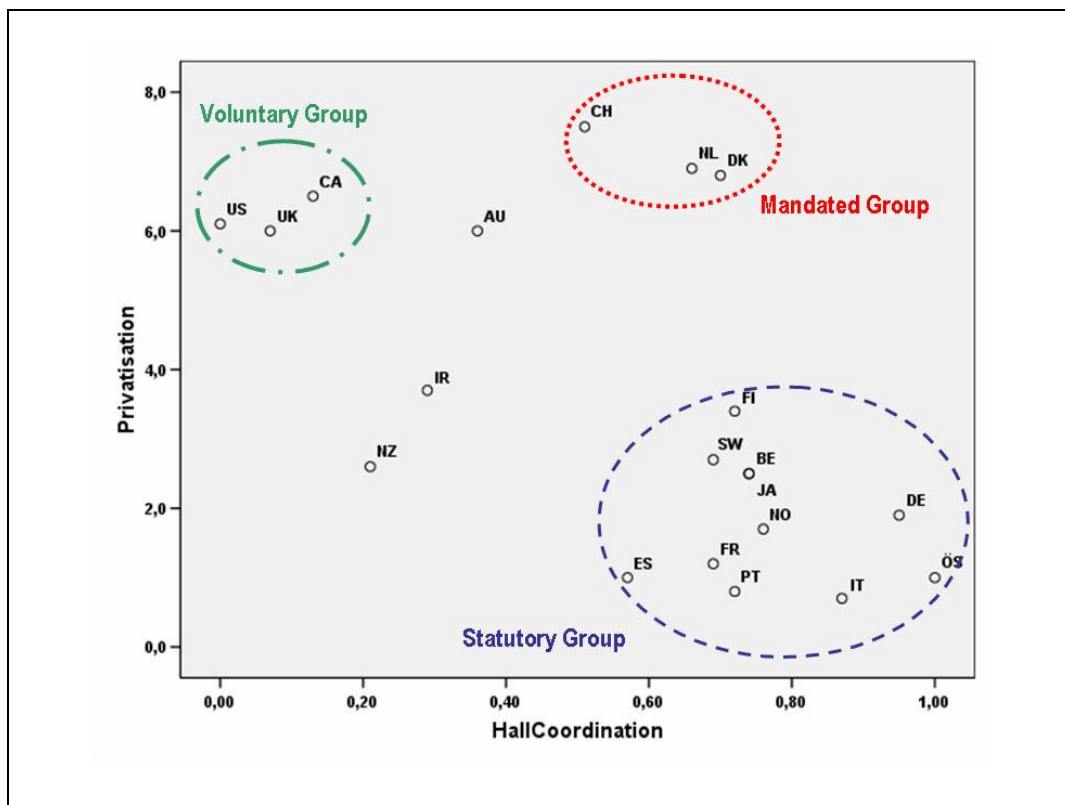
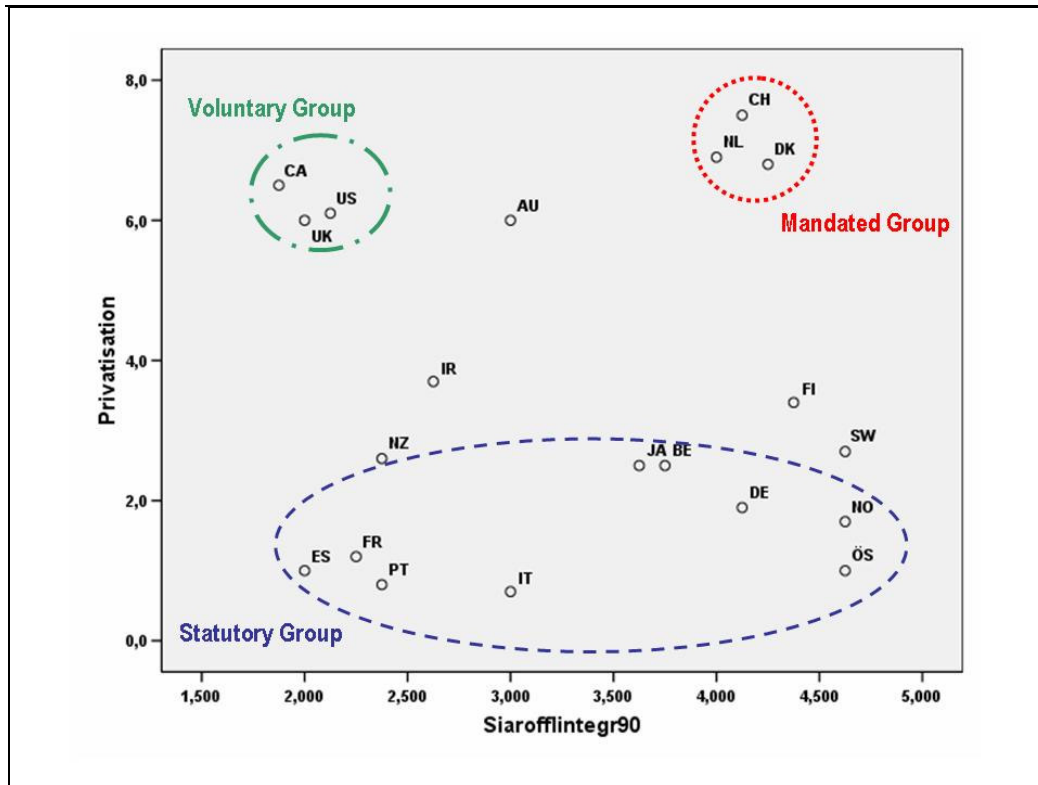


Figure 8. Pension privatisation and socio economic integration.



All three plots show a similar picture of clustering of the countries with extensive ‘private’ pension schemes: the USA, the UK and Canada systematically cluster in a group scoring low on corporatism/coordination/integration; whereas Switzerland, the Netherlands and Denmark score high on these indicators. Australia is a more mixed case: it is close to the ‘voluntarist’ group with respect to compound index of ‘corporatism’, but takes a more intermediate position when it comes down to the socio-economic ‘coordination’ and ‘integration’ indices. This is probably related to the way in which one assesses the system of wage arbitration, and how one weights the relative high levels of trade union density rates (which Australia had up to the 1990s). In addition, Australia’s superannuation schemes are often cited as one of the paradigmatic cases of formal mandating (see for example Rein & Turner, 2001). Other ambiguous cases are Ireland (for the aforementioned reason regarding the SOCX data for this country), and New Zealand: both countries lie in between the ‘voluntarist’ and the ‘statutory’ group. Finally Finland and Sweden display a higher degree of pension ‘privatisation’ than the other countries in the ‘statutory’ group, as

well as a degree of ‘corporatism’/‘coordination’/‘integration’ similar to the countries in the mandated group, but still fall short of the characteristics of a true mandated system, because ‘statutory’ schemes remain the dominant form of provision (Sweden), or because the privatisation score is the result of ‘private’ elements build into the ‘statutory’ scheme (Finland).

From the seven countries with sizeable ‘private’ pensions, we selected three countries where these arrangements originate from ‘voluntary’ contracts (the United States, the United Kingdom and Canada), and three countries where ‘private’ pension provision is embedded in government ‘mandated’ system and/or a coordinated system of industrial relations (the Netherlands, Switzerland and Denmark). In addition, we will also sometimes add Australia to the ‘mandated’ group as its pension system has some features of that found in that group. We decided not to include Finland on a systematic basis in our analysis, because it turned to be an even more complicate case than Australia, to assign to one of our groups: the private features of its pension system that are responsible for the relative high score on our privatization index, are intimately intertwined with its ‘statutory’ pillar. The Australian superannuation scheme on the other hand, while formally forming an unambiguous case of mandating, does not seem to be embedded to the same extent as the other countries of the ‘mandated’ group in a ‘corporatist’ system of industrial relations or in a ‘coordinated’ or ‘integrated’ political economy. The Australian case nevertheless will be incorporated into our overall analysis (for example for adjusting expenditure figures for population ageing – see below), but only occasionally be added to our ‘mandated’ group.

We will compare the expenditure trends in the ‘voluntary’ and ‘mandated’ groups with a cluster of four countries we have termed the ‘statutory’ group, in which ‘private’ pensions only seem to play a subordinate role in the pension regimes: Germany, France, Austria and Belgium.

Analysing Expenditure Trends

The following analysis uses social expenditure data as reported in the SOCX database of the OECD. The OECD defines social expenditure as:

“The provision by public and private institutions of benefits to, and financial contributions targeted at, households and individuals in order to provide support during circumstances which adversely affect their

welfare, provided that the provision of benefits and financial contributions constitutes neither a direct payment for a particular good or service nor an individual contract or transfer.” (OECD, 2007: 6)

When one tries to assess the financial burden of old age and survivor pensions using the OECD’s data, one is faced with two methodological problems. Both problems are related to the ‘public’ versus ‘private’ divide in the pension regime. A first problem is that SOCX focuses on expenditures. This does not pose too much problems whenever the pension regime is entirely run on a pay-as-you-go basis, as in that case one can assume that contributions (and subsidies of the government) for one particular year will more or less correspond to the expenditures of that year; and that consequently, one can use expenditure data as a proxy for the financial burden for the state or for the economy at large. Once one enters the world of funded pension schemes, things become more complicated: during the period that a funded scheme is in the process of being built up, the total volume of expenditures (the value of benefits) will be significantly lower, than the total volume of the financial burden (the value of contributions/taxes). In other words, until a funded scheme has matured, expenditure data might dramatically underestimate the current cost to society of financing the pension system (just as under a mature system with a declining population of pensioners, expenditure data might overestimate the current costs of the system). The second problem with the SOCX expenditure data, is that they exclude administration costs. Those costs tend to be much higher in private systems, when compared to statutory ones – especially if they are organised on a ‘voluntary’ decentralised basis (see for example, Orszag, 1999).

In comparing expenditure trends between our three groups of countries, we have modified the raw SOCX data in two ways:

- (1) **Age adjusted expenditure:** For all 10 countries in our analysis, we apply a control factor that corrects public expenditure for the size of the population over 65. The idea behind this factor is that expenditure levels and expenditure trends in a country to a large extent depend upon the size of population of pensioners, and consequently is not that much related to the architecture of the pension regime in a country. This is particularly the case for the PAYG part of the system: in the case of funded schemes, expenditure trends are less reflecting the size of the pensioners’ population, as they are as much a

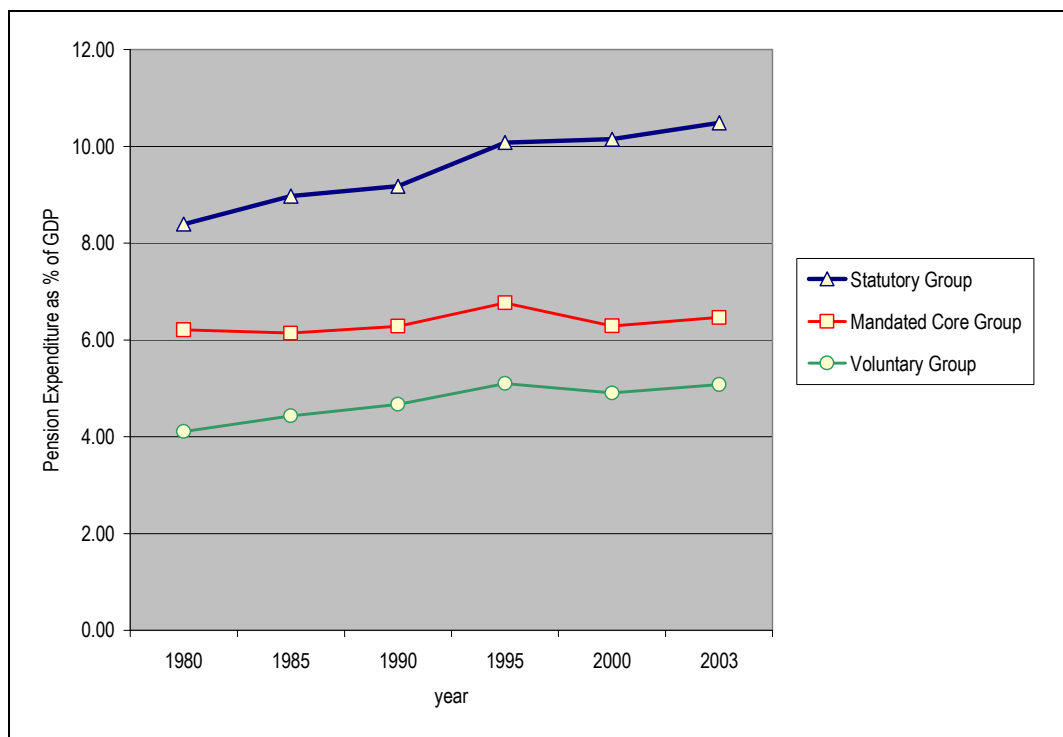
consequence of the building up of pensions claims in the past. That is why we apply our demographic factor only to public expenditure as this mostly concerns pay-as-you-go schemes, whereas in case of private provisions (especially in the way in which it is defined by the OECD), the schemes are of a funded nature. Our demographic adjustment factor was calculated by dividing the expenditure percentage by the share of the population in a country over 65 and multiplied by average of the share of the population over 65 in all 10 countries. In other words, what this factor does is to inflate the cost relative to GDP in countries with a favourable demographic structure (i.e. with a comparatively smaller pensioner population), while it deflates the relative costs in countries that are more faced with an ageing population. The expenditure data we depict in Figure 10 and in Figure 12, 13 and 14, should only be read as indicators of the relative financial burden to the economy, not as real expenditures. In the other figures we use the unadjusted expenditure data.

- (2) **Weighted averages:** rather than merely working with averages, we applied a weight to each country in group reflecting the size of its population. Thus in the group with sizeable voluntary private pensions, the expenditure percentage of the US counts much more than that of Canada; and in the group with a dominant statutory provision, the German score is much more important than the expenditure rate in Austria.

Non-weighted unadjusted versus weighted and adjusted public expenditure.

If we compare our three groups by simply averaging the public expenditure of the countries belonging to a group, without taking into account the size of the country or the size of population aged 65 or more in that country, the ‘statutory’ group has by far the highest expenditure as well experienced the past decades the steepest increases, with the pension system in ‘voluntary’ group burdening the economy the least. These are often the kind of figures cited in various pension reform studies to corroborate the alleged superiority of a system with a more important role for private forms of provision.

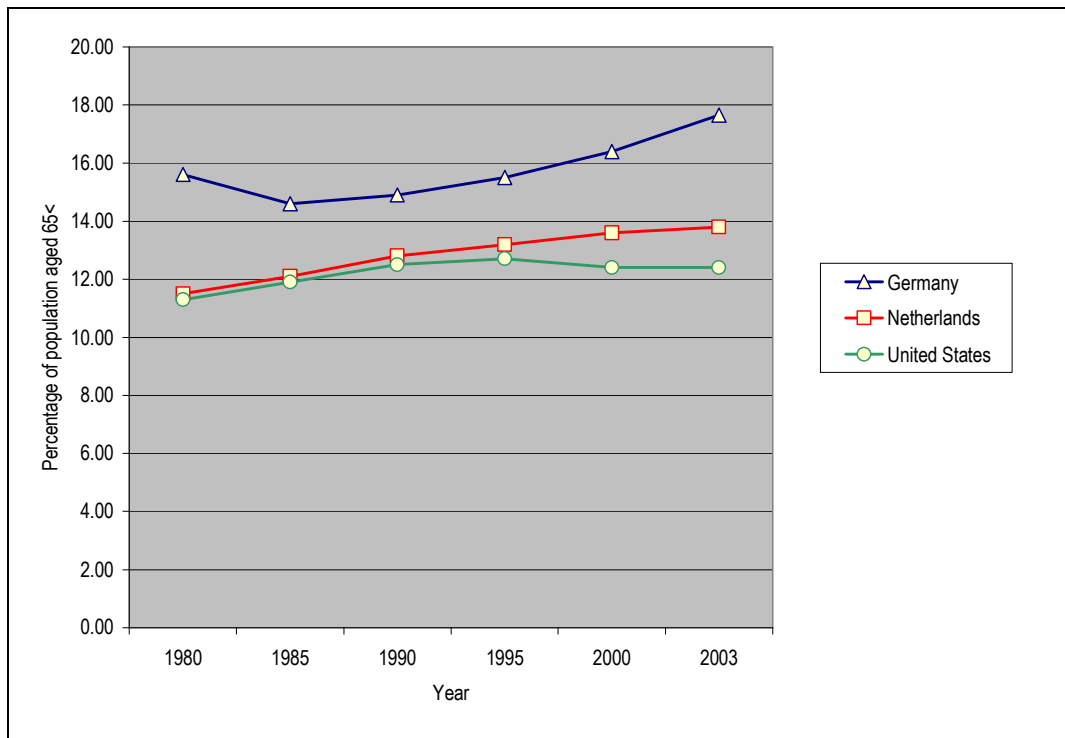
Figure 8. Public pension expenditure trends – not weighted population size and unadjusted for aging of population.



Source: Own calculations based on OECD SOCX Database.

But a substantial part of these differences is simply due to the different demographic structures in the countries. In Figure 9 we have plotted the development of the share of the population over 65 in three countries belonging to three different groups. Especially the United States is blessed with a more favourable age structure, which is the more so important given the weight this country should (and will) have in the group averages we will be reporting (that are weighted for population size). Other countries in the voluntary group, the UK and Canada are more faced with the problem of an aging population, but these countries will have less a weight in the ‘voluntary’ group average given their smaller population size. In the ‘mandated’ group, Denmark and Switzerland have on average an older population than the Netherlands; while in the ‘statutory’ group France fares better than Germany. Nevertheless, the sort of different trend in terms of ageing depicted in Figure 9, are the rationale behind our strategy to adjust public expenditure data for population structure.

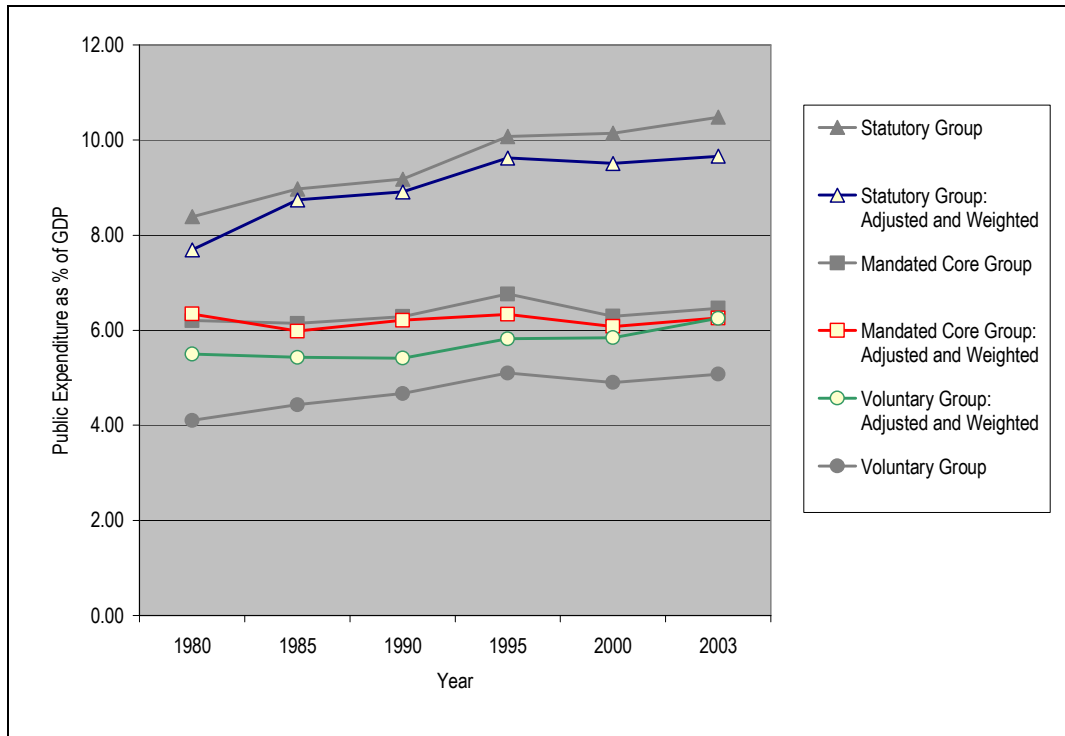
Figure 9. The evolution of the share of the population aged 65 or more.



Source: OECDStat.

Figure 10 depicts expenditure adjusted for the old-age dependency ratio (population over 65 as a percentage of the total population), and before they are averaged also weights the scores of the different countries in a group according to their population size. The between group differences in terms of public expenditure now become far less pronounced. Especially the 'voluntary' group moves up in terms of its relative expenditures levels, and now boats levels similar to those found for the 'mandated' group.

Figure 10. Public pension expenditure trends weighted and adjusted for 65<.

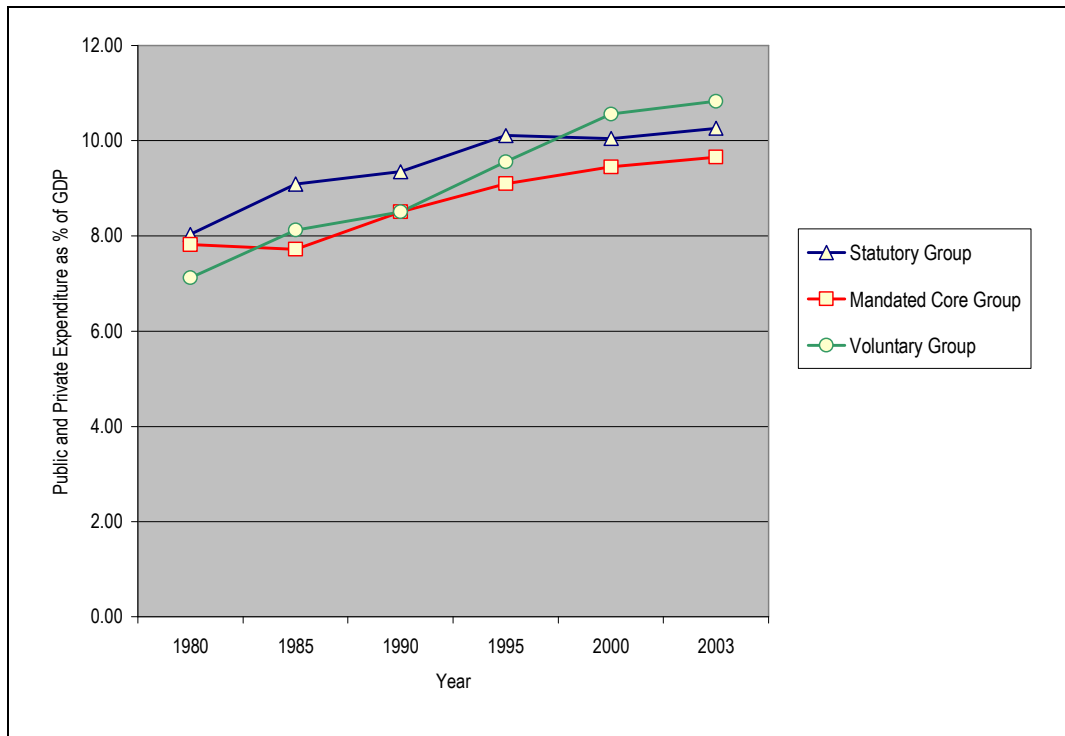


Source: own calculations based on OECD SOCX and OECDStat.

Bringing in private social expenditure.

Public expenditure only tells part of the story. Over the past years, the role of private institutions and providers in income security in old age and health care has been spurred by alleged demographic and budgetary problems, and by deliberate attempts made by governments of various ideological signature, who all have sought to shift the burden of retirement provision and health care from the public to the private sphere. Data on private expenditure – whether made in the context of collective wage agreements or on an individual contractual basis – are at best fragmented. During the past years, the OECD has sought to improve reporting in its SOCX database, but as we argued above, the distinction between ‘voluntary’ and ‘mandated’ forms of ‘private’ provision remains inconsistent. That is why we have decided to lump the two together.

Figure 11. The sum of public and private pension expenditure trends weighted and adjusted for 65<.

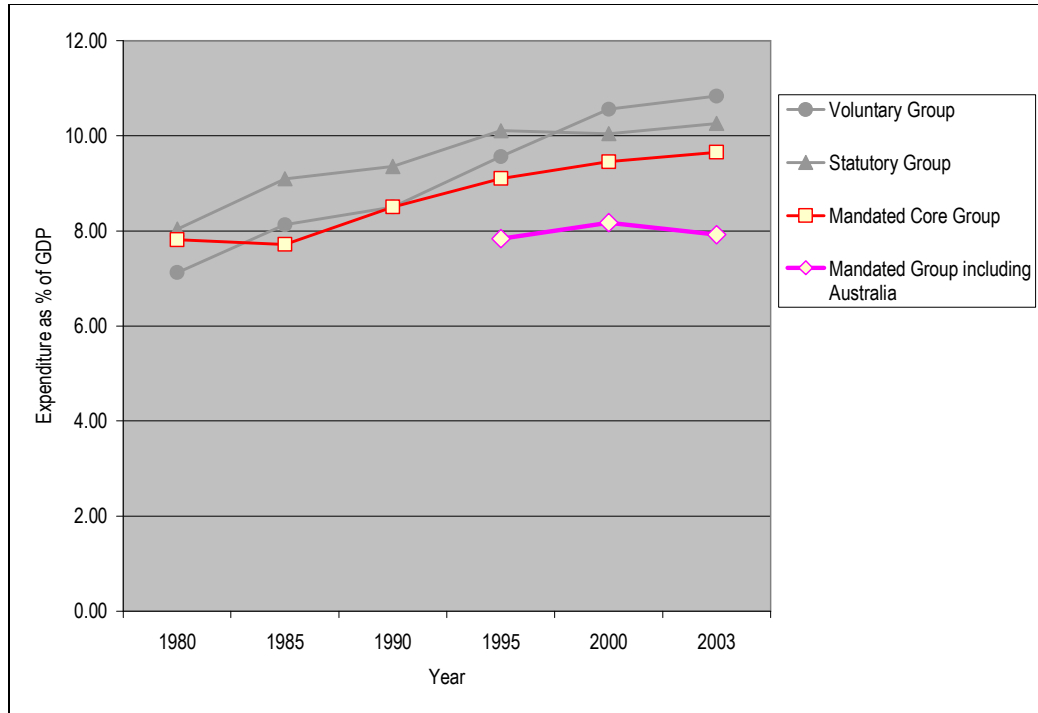


Source: own calculations based on OECD SOCX and other OECD databases.

If private expenditure is included, the ‘voluntary’ group experienced the steepest increases, and by 2003 matched the ‘statutory’ group in terms of its expenditure levels.

Australia again remains an ambiguous case. If one adopts a formalist legal approach, the superannuation scheme of that country is one of the most clear-cut examples of ‘mandating’. On the other hand, Australia lacks many of the institutional preconditions we associated with our ‘mandated’ group. But if we would have included Australia in our ‘mandated group’ we would have found much lower total expenditure levels as becomes evident in Figure 12.

Figure 12. The Inclusion of Australia in the Mandated Group and its consequences for total expenditure trends weighted and adjusted for 65<



Bringing in tax expenditure for social purposes.

The comparative picture of expenditure trends gets further complicated, if one not only looks at direct spending, but also at the cost of fiscal welfare in the pension area. These tax breaks for pension provisions are particularly important in countries with private funded pension plans such as the Netherlands and the United Kingdom. There are two main forms of tax expenditures: (1) a reduced taxation of particular sources of income (e.g. income that is paid into a pension scheme may be exempted from tax); (2) tax rebates or tax allowances for specific tax payers (e.g. exempting pensioners from paying (part of) income taxes. In the area of pensions, the first form of ‘fiscal welfare’ (Beveridge, 1963) includes tax exemptions for contributions to private pensions and tax relief for investment income and capital gains of capitalised pension funds. A fundamental problem in assessing the cost of tax expenditures in the area of pensions is again related to the inter-temporal nature of these schemes. The tax relief can be granted at different stages of the pension entitlements, and these take place at different points in time. Current tax expenditures are not to the benefit of current pensioners. Part of the tax expenditure on contributions and investment returns will be recuperated in the future when the accumulated funds will be dissolved and

benefits will be claimed. However, the tax revenues in the future will be far less than the current cost of the expenditures because of the following reasons:

- The beneficiaries will upon retirement end up in a lower tax bracket than during the period they are granted the tax benefit. In addition most countries know relatively generous tax rebates for persons above the retirement age, because of which most of their income is not taxed at all.
- Tax expenditures also subsidise all the administrative costs and inefficiencies of the financial service industry. We already cited the study on the UK where some 40 per cent of contributions were absorbed by various charges instead of being converted into benefits. Tax expenditures may also not end up being claimed back when the funds are eroded because of investment losses or poor general capital market performance.

The inter-temporal nature of tax benefits for pensions has led the OECD not to consider them in its assessment of the costs of social expenditures, but only to list them as a ‘memorandum item’.⁸ Using various national studies we were able so far to find estimates of the costs of fiscal welfare for 4 of our 7 cases that boast sizeable private pension funds: all the countries in our voluntary group and one out three countries from our mandated group. For the statutory group we could only find data for a few years for Belgium and Germany. But as we argued, as private forms of pension provision and the magnitude of pension funds is by definition small in most of these countries (with the possible exception of Belgium), there is not much tax relief to be granted in these countries anyhow. This expectation seems to be confirmed by one of the few attempts that the OECD has undertaken to estimate the costs the tax breaks for social purposes: in 1993, those directed at pensions were estimated to costs only about 0.1 per cent of GDP in Germany, while in the Netherlands they were said to be 2.0 per cent and in the United Kingdom to amount o as much as 2.6 per cent (Adema, 1999:26). In a study on tax expenditures that compiled a list with the most important tax expenditure items during the early 1990s, pensions do not show up in the lists for Germany, France and Austria, whereas they

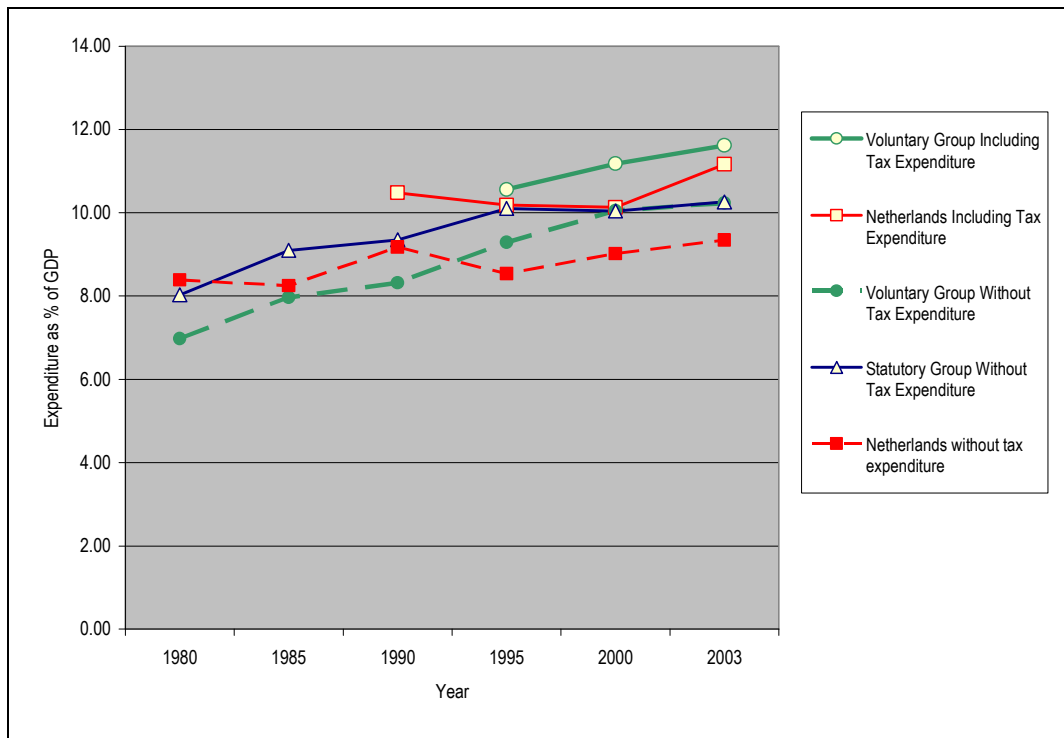
⁸ The main problem with all three types of tax effects is that the relevant information can often not be obtained. Attempts by the OECD in this respect resulted in tables with many cells empty, and footnotes like “... relevant estimate cannot be obtained: either because information on gross spending for the relevant item is not available or because the available on taxes and social security contributions is not detailed enough to present relevant estimates.” (Adema, 2001: 18)

are ranked on top for the United Kingdom, the United States and Canada (OECD, 1996).⁹

In Figure 13 we compare average total expenditure trends our statutory group with total expenditure in our voluntary group as well as in the Netherlands. For comparison we also plotted the trend for the voluntary group and for the Netherlands not taking into account the costs of tax expenditure for the exchequer. As for Canada, we only found data as of 1995, the time series for the voluntary group is only reported for the last three points.

⁹ A more recent attempt to estimate for the year 2001 in a more comprehensive way the size of tax breaks for social purposes, sharply contrast with the nationally reported data we found (Adema & Ladaïque, 2005). For some important countries (such as the Netherlands), tax expenditure for pensions is simply no longer reported (even though it is recognised to the largest tax expenditure in this country) because the Dutch Ministry of Finance working party decided that they were ‘disputable’ rather than ‘indisputable’ tax expenditures (OECD, 1996: 79, 81). For other countries, the comparative tables report unrealistically low figures (ex. Canada, 0.0 % of GDP – even if in the individual country listing of Canada the items listed for pension add up to 1.3% of GDP); while for Germany, the comparative table lists as much as 1.2% of GDP for tax expenditure on pensions, which if one looks at the country list, 82% are deductions to public pensions (probably as part of the *Riester Rente* incentives) and only 13% related to occupational pensions and another 5% to life insurances. In this publication there are also some detailed data on Belgium: tax expenditure for occupational pensions was estimated at 0.33% of GDP and for life insurances at 0.88% of GDP. For the other two countries from our statutory group, this study reports 0.1% of GDP tax expenditures for pensions in Austria and 0.0% for France, which would imply for 2001, and average of tax expenditures for the statutory group of 0.7% of GDP. A French study of 286 pages on tax expenditures also did not contain any item of a tax benefit for contributions to private pensions (Conseil de Impots, 2003).

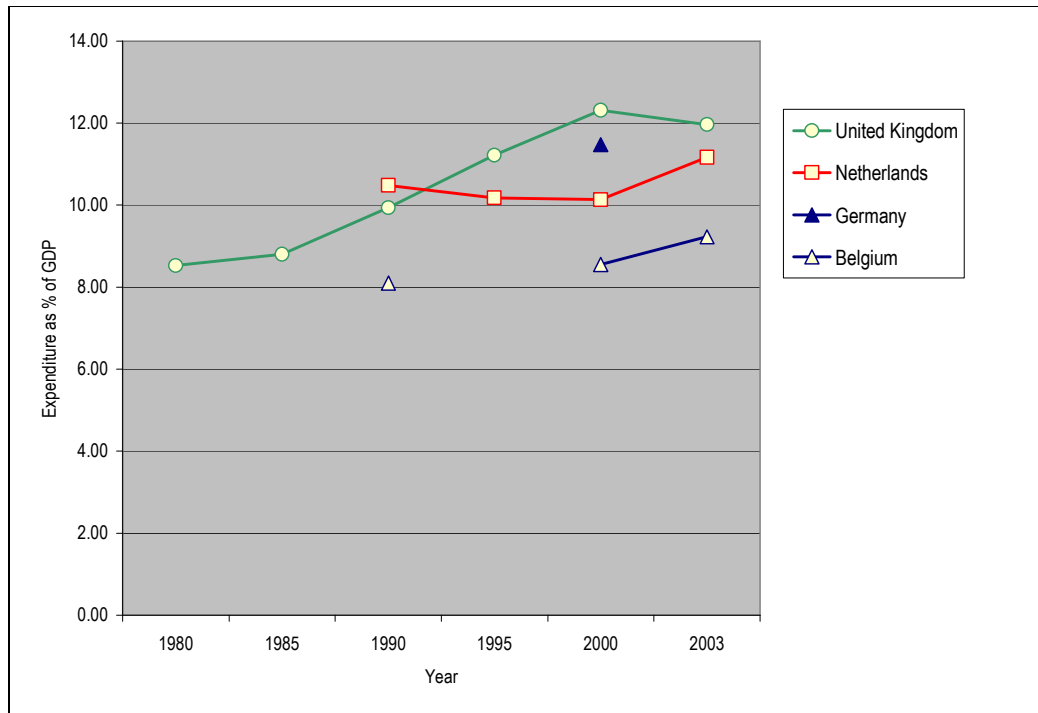
Figure 13. The sum of public and private pension expenditure and tax expenditure.



Sources: own calculations based on OECD SOCX and other OECD databases; tax expenditure data for the UK from Collier, Paul & Robert Luther (2003) and from www.hmrc.gov.uk; for the United States from various years of *Budget of the United States Government Analytical Perspectives* and *Budget of the United States Government: Fiscal Year 1996*; for Canada from Department of Finance *Tax Expenditures 1999* and *Tax Expenditures and Evaluation 2005* and *Tax Expenditures and Evaluation 2006*; for the Netherlands Caminda & Goudswaard (2004).

The ‘voluntary’ group now clearly takes the lead in terms of social spending. Even if one would add the average 0.7 per cent we found for the year 2000 for tax expenditures for pensions in our statutory group (see footnote 5), that would still would leave the voluntary groups as spending the most for pension provisions. In figure 13 we depict the fragmented evidence on the total pension expenditures (including tax expenditures) in a number of selected countries representing the statutory group (Germany and Belgium), the voluntary group (the UK) and the mandated group (the Netherlands).

Figure 14. Total pensions expenditure including tax expenditures in 4 countries



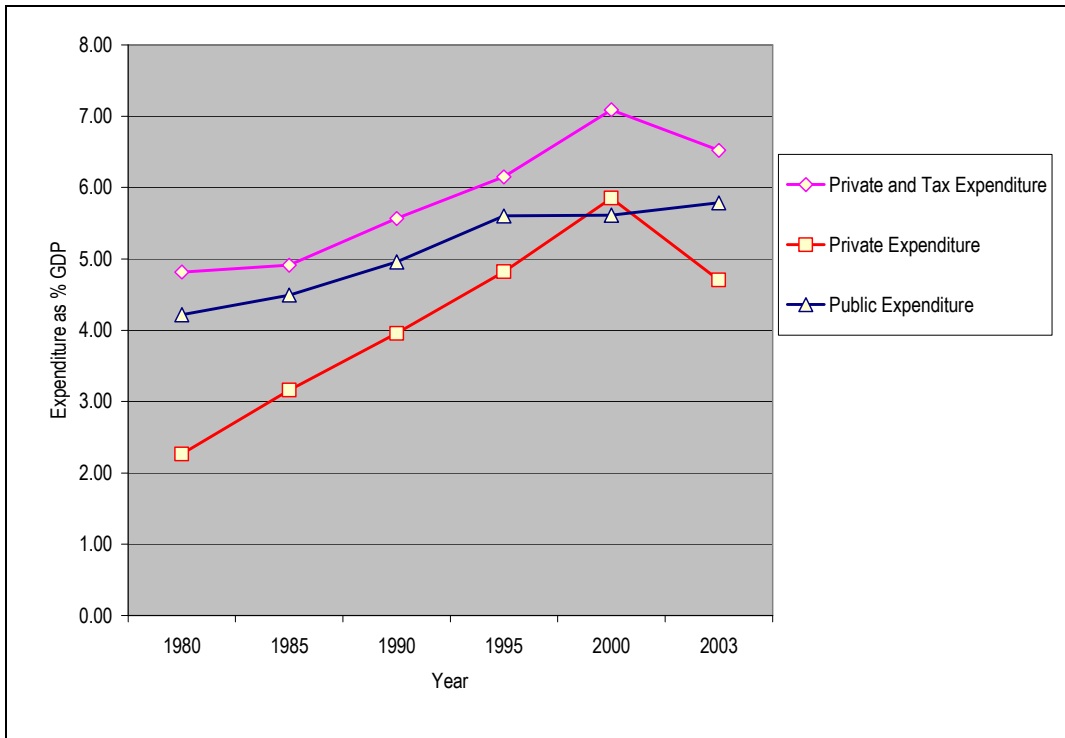
It could be argued that in the future some of these tax expenditures will be taxed back, when the funded schemes start to pay out the pension benefits that members have been accumulating, but because of the now common EET way of taxing private pensions, beneficiaries of private pensions end up in lower tax brackets when their income is finally taxed. As a consequence, the exchequer will only be able to recuperate part of these sums, and it does not change much about the *current* costs of this “welfare state nobody knows” (Howard, 2006). Thus, Gerhard Hughes and Adrian Sinfield have estimated in a simulation for the UK, that the ultimate loss to loss to the exchequer because of opting for a EET rather than a TTE, for a contribution of €1000 to an approved pension plan, varies between €100 and €320 depending on whether the taxpayer will or will not end up in a lower tax rate during his or her retirement – with the latter being the more likely scenario (Hughes & Sinfield, 2004:166).

Explaining Patterns in Expenditure Trends.

The social policy literature offers three perspectives on the relationship between public and private expenditure. Some analysts consider private programmes and individual savings as simple functional equivalents of public programmes. This substitution perspective in the end predicts a convergence in expenditure as well as distributive outcomes (Munnell, 1982; Rein; 1983; OECD, 2001). A second perspective dating back to the pioneering work of Richard Titmuss, argues that private welfare arrangements entail a distributive logic that sharply contrasts with the egalitarian ethos of the public welfare state (Titmuss, 1958; Esping-Andersen, 1987; Korpi & Palme, 1998). On the aggregate level, this dualistic perspective predicts a convergence in total expenditure outcomes, but dramatic differences in the income packages of pensioners and hence resulting in an increased distributional inequality. Finally, a third perspective found a complementary relationship between public and private provision. The expansion of public schemes is said to have triggered of a growth of private provision (Hannah, 1992; Dobbin and Boychuck, 1996). The introduction and expansion of public schemes “could, in specific historical circumstances, help to boost expectations about what constitutes an ‘adequate’ income after retirement, and therefore stimulate demand for private supplements.” (Pedersen, 2004)

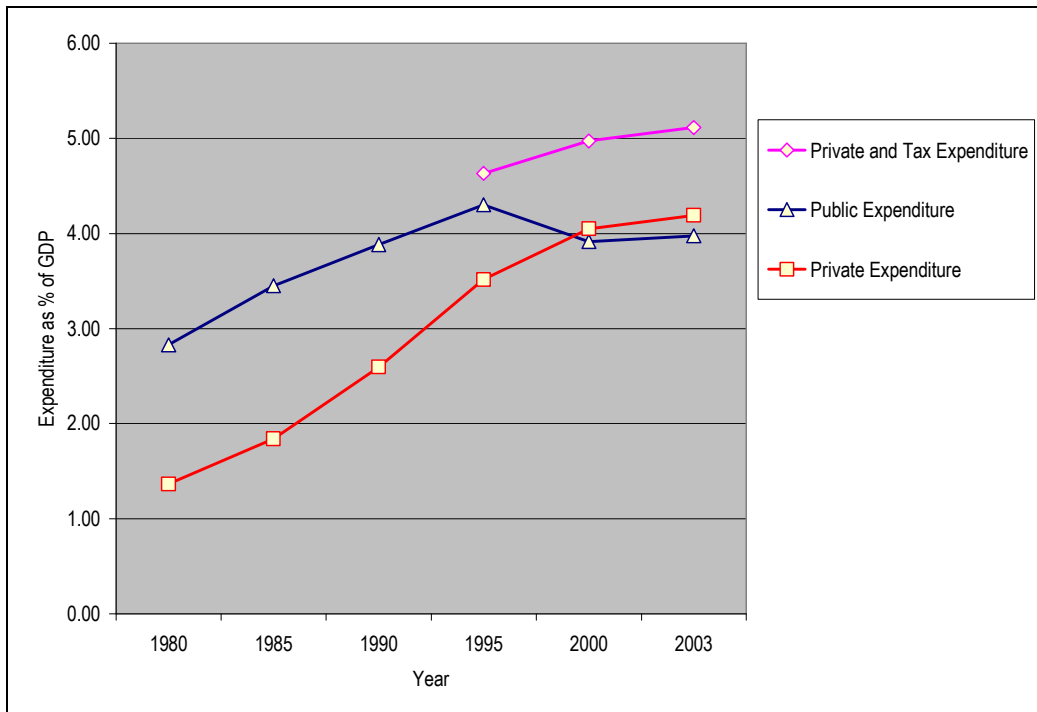
If one looks at the patterns of some of cases separately, the grouping of countries might have covering up some important internal differences. Thus, the UK are the only two countries where private and tax expenditure taken together outpace public expenditure. Private and tax expenditure show the same trend as public expenditure, giving credence to the complementarity perspective.

Figure 15. Public versus private and tax expenditure in the UK.



Sources: see table 12

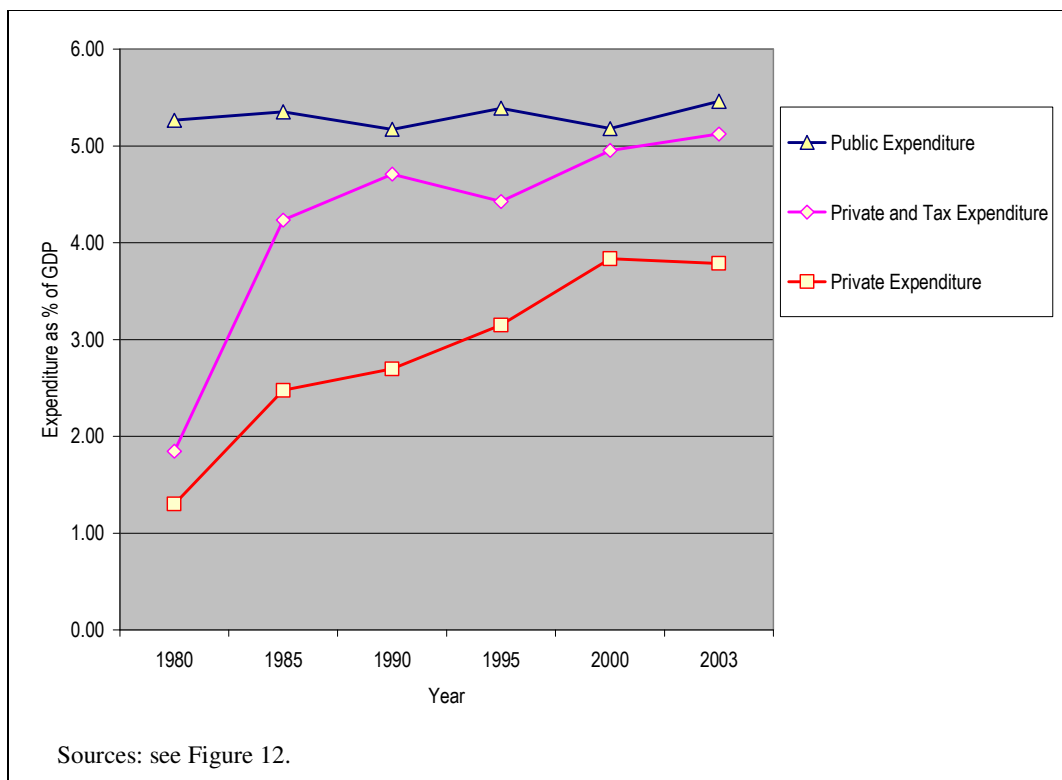
Figure 16. Public versus private and tax expenditure in Canada.



Sources: see table 12

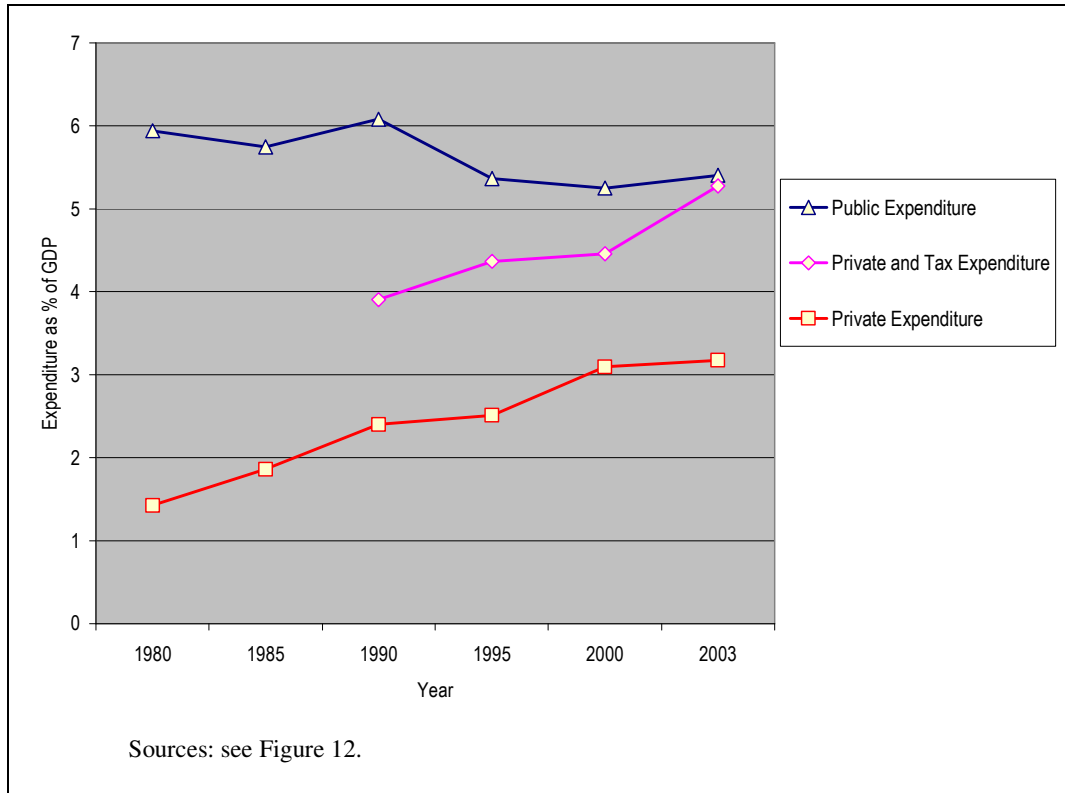
In our third member of the voluntary group, we can observe a similar trend though public expenditure is more stable. But as in all these country charts, we no longer control apply a cross-national adjustment of public expenditures for the ageing of the population, the relative stability of public expenditure in the US might also be related to the fact that there is no ageing occurring. Thus the percentage of the population aged 65 or more only went from 11.9% in 1985 to 12.7% in 1995 and down again to 12.4% in 2000.

Figure 17. Public versus private and tax expenditure in the USA



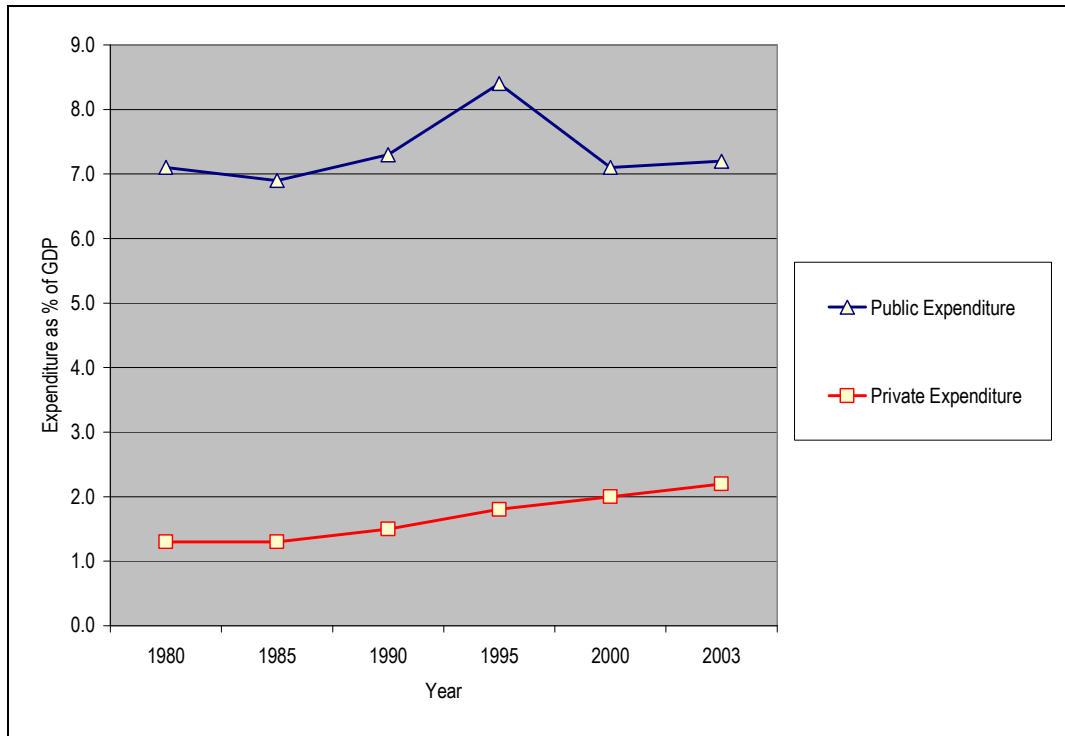
The pattern in the Netherlands points more towards a dualistic relationship: the stagnation and retrenchment in public pension programmes is compensated for by a dramatic increase in private and tax expenditure, resulting in a modest growth in total expenditure we already observed in Figure 12.

Figure 18. Public versus private and tax expenditure in the Netherlands.



In Denmark we find this pattern in a less pronounced way: since the 1990s public expenditure might have stagnated in this country, but it has not gone down. But like in the Netherlands, the void left by retrenchment in the public scheme seems like in the Netherlands to be replaced by private expenditure, though again at a more modest pace. The problem, though, is that we do not have tax expenditure data for Denmark and that public expenditure in 1995 does seem to make a strange jump which is hard to account for.

Figure 19. Public versus private and tax expenditure in Denmark.

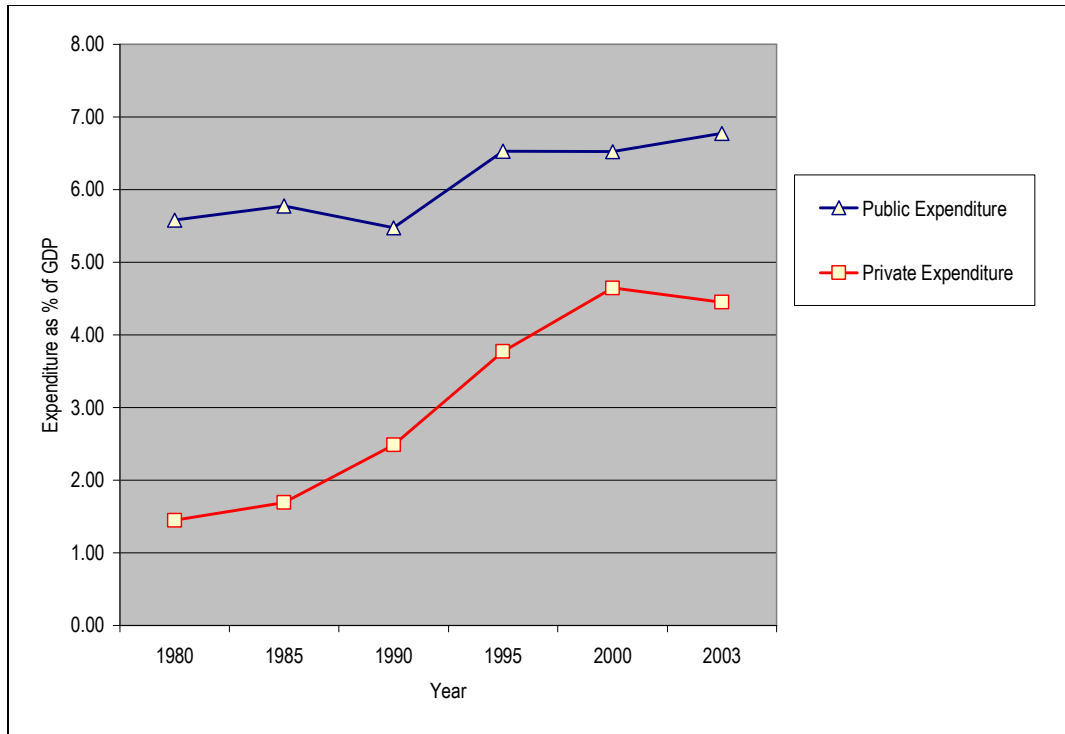


Sources: see Figure 12

The pattern in the third country in the mandatory group, Switzerland, more resembles that of the trends we already observed in the voluntary group, except that we have not data on the tax expenditures in this country.¹⁰

¹⁰ Tax expenditure reporting of items related to occupational and third pillar pensions in Switzerland has not gone much beyond the stage of proposals on how to report it (see Eidgenössische Finanzkontrolle, 2004).

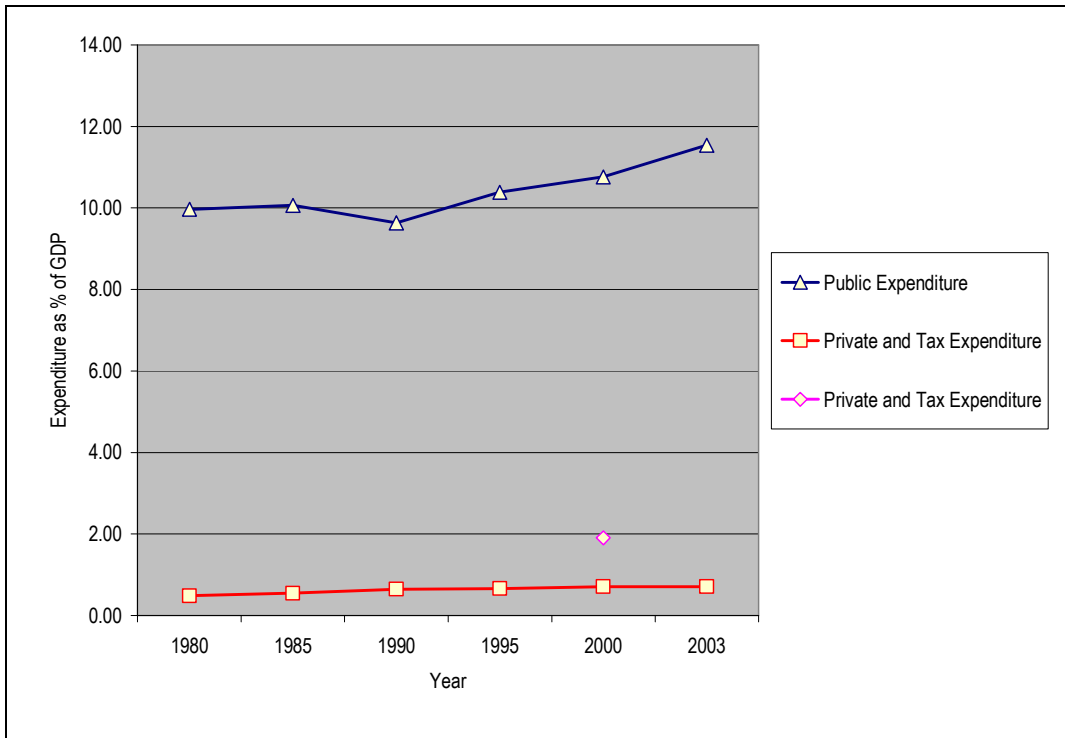
Figure 20. Public versus private expenditure in Switzerland.



Sources: see Figure 12.

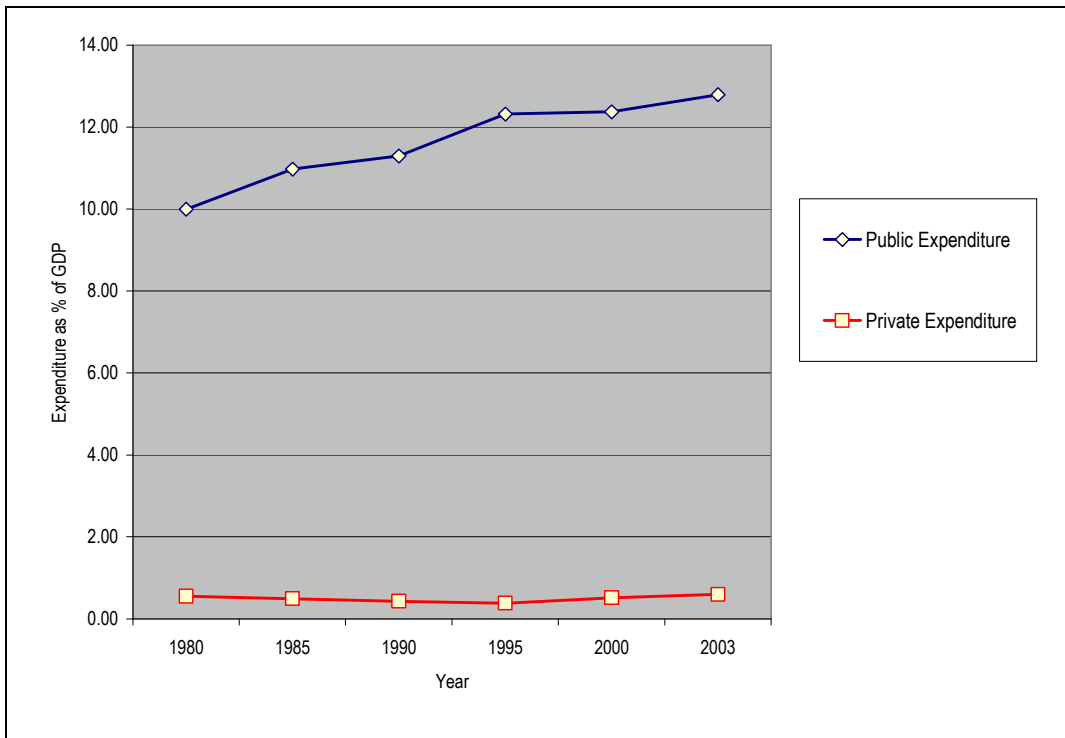
Turning to the countries in the statutory group, three out of four countries (Germany, France and Austria) have a similar pattern in which private expenditure operates as a rather insignificant supplement of public expenditures. In Germany and Austria public expenditures keep on rising. In Germany this seems to be related to the ageing of the population: the share of those over 65 saw a steady increase from 14.6% in 1985 to 17.7% in 2003. In Austria by contrast, ageing seems less the main explanation as the elderly grew at a more moderate pace: from 14.2% in 1985 to 15.5% in 2003.

Figure 21. Public versus private and tax expenditure in Germany.



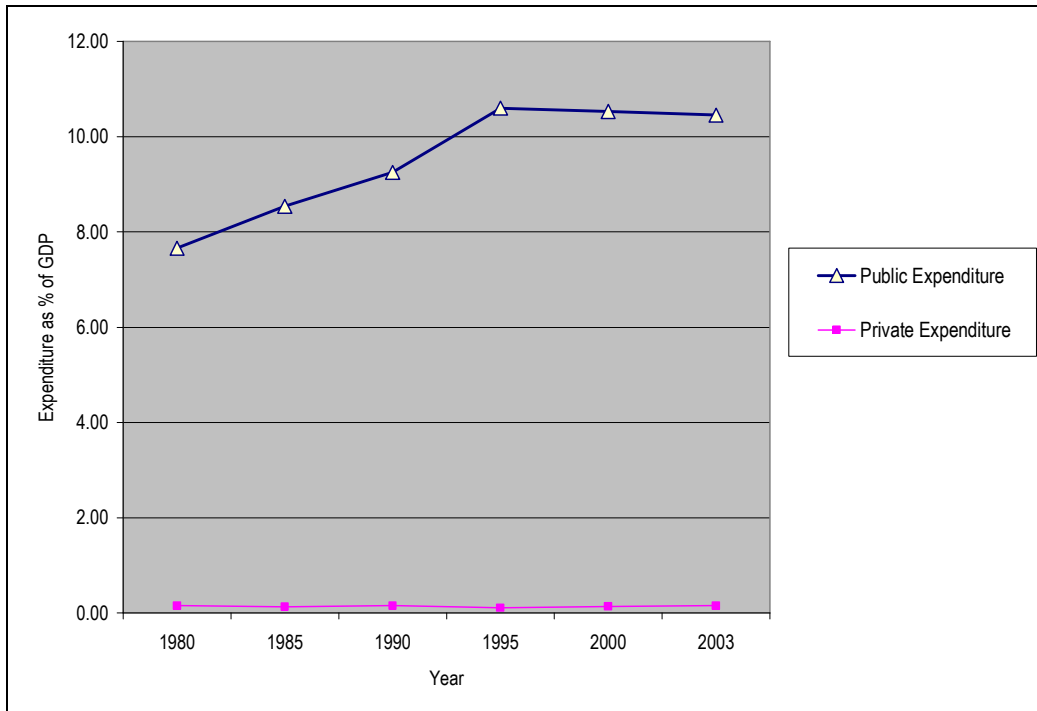
Sources: see Figure 10; tax expenditure data from OECD (2005).

Figure 22. Public versus private and tax expenditure in Austria.



At the same time Austria saw a more dramatic increase in public pension expenditure which might suggest that on the whole the pension system has become more generous. Private schemes are virtually non-existent in this country. Just as is the case in France. But the public French scheme with its incorporated mandated pay-as-you-go pillar seems to have been more capable in slowing down the growth of pension expenditures.

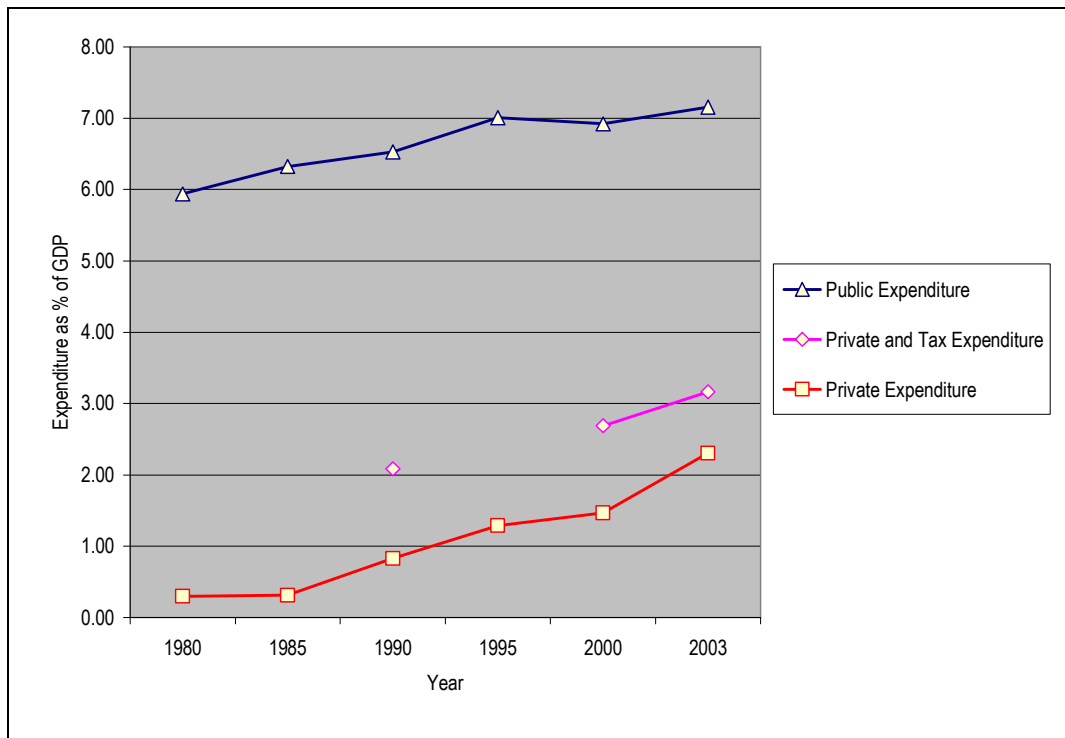
Figure 23. Public versus private expenditure in France.



Sources: see Figure 12.

Finally, in Belgium the trend in public expenditure is similar as in the other countries in the statutory group, but in contrast to the other countries, private pensions are steady increasing.

Figure 24. Public versus private and tax expenditure in Belgium.



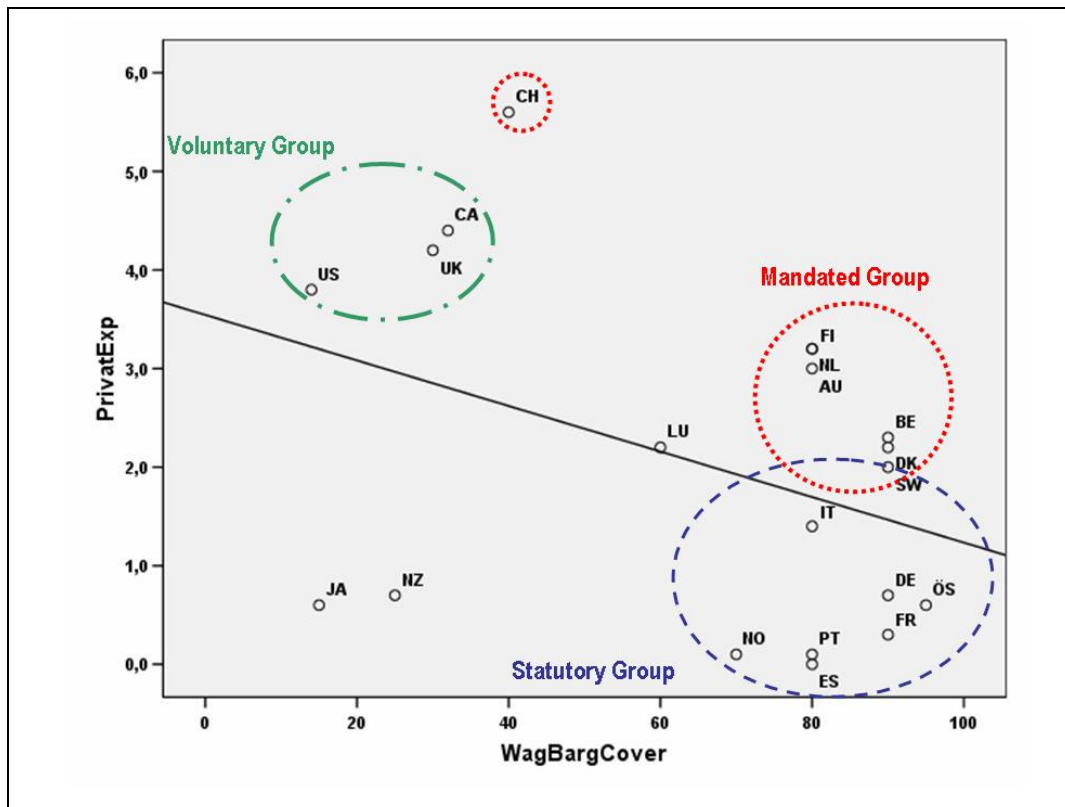
Sources: see Figure 12 tax expenditure data from OECD (1996) and OECD (2005).

This might be a consequence of the fact that in contrast to the other countries with a dominant statutory regime, public pensions in Belgium offer very low replacement rates for middle and higher income groups (which is also reflected in the relative low expenditure rates in this country), and thus private pension plans (which in Belgium are primarily collective life insurances – the so called ‘group insurances’), are less being crowded out than is the case in the other countries in this group. Recently Germany might, as the Riester reforms take their effect, be going more and more in the Belgian direction, but our data are not recent enough to capture this trend. When more comprehensive data on tax expenditures in this country become available, one might also detect a steady rise of private pensions with a stagnation of public expenditures.

The Mediating Role of Industrial Relations

We expected that in countries, in which occupational welfare is embedded in a system of collective agreements, coverage would be higher – especially if unionisation is high or if collective agreements are subject to administrative extension by the government. However with the available data, we did not find convincing evidence for this. In order to test this hypothesis, we have plotted the coverage rate of collective wage agreements against the expenditure on private welfare.

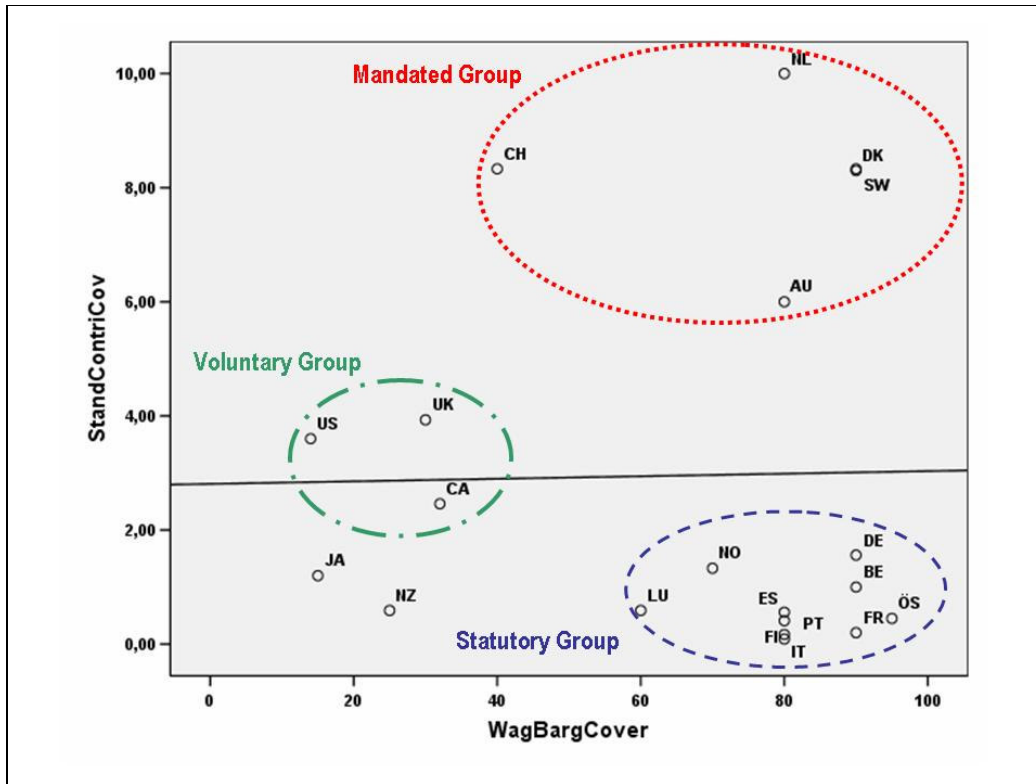
Figure 25. Private pension expenditure and collective wage bargaining.



It is not surprising that the countries of our statutory group score low on private expenditures and high on collective agreement coverage (with the aforementioned exception of Belgium). What is surprising, though, is that expenditure in two of the three countries in our mandated group is not higher than in the countries of our voluntary group. Switzerland does perform as we would expect, even spending significantly more on private programs than the voluntary group. Australia on the other hand now right in the middle of our mandatory group.

Mandating indeed dramatically increases pension coverage as is illustrated in Figure 26 in which the Y-axis is formed by our coverage indicator that is based on the multiplication of coverage rates and contributions rates standardised on a scale from 1 to 10.

Figure 26. Private pension coverage and collective wage bargaining.



Conclusion

Our initial expectation was that the practice of mandating private pensions would increase coverage and magnitude of private pensions, leading both to tempering of the unequal effects of the rise of private provision, but also increasing the costs of such programs to the economy. There is some evidence pointing (at least if one takes poverty as an indicator) to the fact that inequality indeed is mitigated compared to countries where private pensions are organised on a voluntary basis, and even in comparison with countries that primarily rely on statutory programs do countries with mandated private provision fare well. The overall cost of this though, seems to point towards higher total expenditure in the countries with a mandated system as compared to those with a predominantly statutory scheme. In some cases, it seems that it is more easy to impose an overall retrenchment (or at least stop the steady increase in pension expenditure), if programs are under public control, instead of the hands of the social partners. However, on the other hand we found evidence that the cost

explosion of ageing is the most dramatic in countries where private welfare is more embedded in voluntary contracts: in spite of the lower coverage those countries seem to experience the most dramatic increases in the costs of their old age pension, especially if one factors in the costs of fiscal welfare and tax expenditure.

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