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Net Public Social  
Expenditure

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**NET PUBLIC SOCIAL EXPENDITURE**

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**ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

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## SUMMARY

The OECD Social Expenditure data base (SOCX) allows the monitoring of trends in aggregate social expenditure and changes in its composition. But aggregate social expenditure may sometimes fail to reflect the true 'effort' of a country in providing social support. Account needs to be taken of the effects of tax systems and transfers which, although mandatory, are not paid by government.

In order to get from a "gross" to a "net" concept of social expenditure various adjustments to raw data are needed. These adjustments concern: methods of benefit payment ("net" or "gross" of tax); the varying extent with which governments use fiscal instruments rather than cash transfers to pursue social policy goals; and the different degree to which government requires other economic agents to provide social expenditures. The analysis also addresses the automatic budget effects related to the stage of the economic cycle.

This analysis is a first attempt to capture in a comprehensive manner the effect of different institutional arrangements such as tax-systems on cross-country comparisons concerning social expenditure. It builds on pioneering work undertaken by the Danish, Dutch and Swedish authorities. This initial analysis focuses mainly on cash transfers and covers six countries: Denmark, Germany, the Netherlands, Sweden, the United Kingdom and the United States. The results show that apparently large differences in the level of social expenditures in different countries reflect in part different tax and institutional arrangements. However, further international research is needed to overcome the unavoidable methodological limitations which are inherent in our approach.

## RESUME

La base de données de l'OCDE sur les dépenses sociales (SOCX) permet d'observer l'évolution de l'ensemble des dépenses sociales ainsi que les modifications survenues dans leur composition. Mais ces dépenses dans leur ensemble peuvent parfois ne pas refléter l'effort véritable qu'un pays fournit pour apporter une aide sociale. Il faut tenir compte des effets du système fiscal et des transferts qui, bien qu'ils soient obligatoires, ne sont pas payés par le gouvernement.

Afin de passer d'un concept "brut" de dépenses sociales à un concept "net", divers ajustements sur les données brutes sont nécessaires. Ces ajustements concernent : les méthodes de paiement des prestations ("nettes" ou "brutes" d'impôt); l'importance avec laquelle les gouvernements utilisent les instruments financiers plutôt que les transferts en espèces pour accomplir les objectifs de la politique sociale; et jusqu'à quel point le gouvernement a besoin d'autres agents économiques pour qu'ils fournissent des dépenses sociales. L'analyse met aussi en évidence les effets budgétaires automatiques liés au niveau du cycle économique.

Cette analyse est une première tentative qui saisit d'une manière complète l'impact de différentes dispositions institutionnelles telles que les comparaisons par pays des systèmes fiscaux concernant les dépenses sociales. Elle se base sur un travail innovateur des autorités danoises, hollandaises et suédoises. Cette première analyse se concentre principalement sur les transferts en espèces et couvre six pays : l'Allemagne, le Danemark, les Etats-Unis, les Pays-Bas, le Royaume-Uni, et la Suède. Les résultats montrent qu'apparemment des différences importantes dans le niveau des dépenses sociales des différents pays reflètent en partie des impôts divers et des dispositions institutionnelles. Toutefois, nous avons besoin de plus amples recherches internationales pour venir à bout des limitations méthodologiques imprévisibles, lesquelles sont inhérentes à notre approche.

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## NET PUBLIC SOCIAL EXPENDITURE<sup>1</sup>.

### A. Introduction

1. Since governments recover part of their expenditures from taxes paid by recipients, net expenditures are less than gross expenditures. This is particularly the case for social expenditures and transfers, as the rules for direct taxation of benefits and the rates of indirect taxation on expenditure by recipients varies greatly between countries. This publication presents initial estimates of net cash transfers for six countries: Denmark, the Netherlands, Germany, Sweden, the United Kingdom and the United States, and calculations concern 1993. Due to data limitations and the untried methodology used, the estimates are provisional and the authors would welcome comments and suggestions on how to improve them.

2. The OECD has developed a Social Expenditure data base (SOCX) as a tool for monitoring trends in social expenditure and in analysing changes in the composition of social expenditures. The data in SOCX were published in the spring of 1996 in "Social Expenditure Statistics of OECD Member Countries [OECD (1996)]. That publication contains time series information on gross direct public social expenditure across the OECD area, as categorised in separate "social policy areas", *e.g.*, old-age cash benefits, public expenditure on health, etc.<sup>2</sup>.

3. The detailed information in SOCX is the basis for the present analysis of net public social expenditure or net effort of government on social support. In order to get from a "gross" to a "net" social expenditure concept, account must be taken of the relevant differences in institutional arrangements across countries. These differences relate to: methods of benefit payment ("net" or "gross" of tax); the varying extent with which governments use fiscal instruments rather than cash transfers to pursue social policy goals; and the different degree to which government requires economic agents to provide social expenditures. Furthermore, cash transfers made in the context of social expenditure are used for consumption by the benefit recipient. The indirect tax rate will therefore determine the amount of consumption which can be financed from the net transfers. Net government effort should be measured taking account of this "claw-back" of money by governments.

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<sup>1</sup> The opinions expressed in this paper do not necessarily reflect those of the OECD or the national authorities involved but are the responsibility of the authors: Willem Adema and Mark Pearson (OECD, Social Policy Division), Marcel Einerhand (Ministry of Social Affairs and Employment, the Netherlands), Bengt Eklind (Ministry of Finance, Sweden) and Jørgen Lotz (Ministry of Finance, Denmark). The authors wish to thank Bernd Breier, Hans Hansen, John Martin, Anders Reutersward, Peter Scherer, Edward Whitehouse and participants at a meeting of experts on social expenditure held in Paris, 1996, for helpful comments. The remaining errors are the responsibility of the authors.

<sup>2</sup> The current data in SOCX on "housing" only include cash benefits to individuals or families. Government subsidies to non-profit organisations operating in the area of "social housing" are not yet included.

4. Since these estimates are for only one year they cannot take account of cyclical variations. However, the automatic budget implications of cyclical variations can be significant and should be taken into account when measuring “structural” government effort.

5. The next section gives an overview of the issues at hand and summarises the adjustments necessary to get from a “gross” to a “net” concept of social expenditure. Each section addresses a particular topic and contains a description of the methodology and the data involved: direct taxes; social fiscal measures; consumption taxes; mandatory private social expenditure programmes. Section G presents an overview of the total effects of the possible corrections.

## **B. International Comparison of Public Social Expenditures: an Overview of Issues**

6. SOCX currently contains *direct public social expenditures*, i.e., spending by levels of government and social security funds<sup>3</sup>. The interpretation of such public expenditures must be done with care, otherwise inappropriate conclusions might be drawn. Consider the following possibilities:

- **Case 1:** Country A has a sickness benefit programme which involves contributions by employers to a social security fund and payments from that fund to qualified individuals. A reform is introduced so that the fund is abolished; instead, employers are required by law to make payments directly to qualified individuals. Direct public social expenditure, as measured in SOCX, falls.
- **Case 2:** Country B alters the tax regime so that benefits which were previously untaxed become taxable income. To compensate recipients, gross benefit amounts are increased so that the value of the benefit net of taxation is unchanged. Direct social expenditure increases.
- **Case 3:** Country C has only a low level of direct social expenditure on pensions compared to country D. But country C gives large tax advantages on contributions to private pension plans.
- **Case 4:** Country E experiences a great deal of volatility in GDP. Despite making no changes to entitlements, sometimes it seems to have high spending as a percentage of GDP; at other times, low. In country F, unemployment is much more cyclical in nature than in other countries. In some years, direct social expenditure on unemployment benefits in absolute terms is much higher than in other years.

7. In each of these cases, inappropriate use of the direct social expenditure figures could lead to misleading analysis. In case 1, the support being given to sick people has not changed; nor has the net burden on employers of supporting sick people necessarily changed. In case 2, Country B has not increased the value of benefits to recipients; nor has it increased the net flows between different sectors of the economy. Instead, the increased flows from government to the household sector (as measured by SOCX) are exactly offset by increased flows from the household sector to Government.

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<sup>3</sup> Some of the expenditures grouped under active labour market programmes (ALMP) represent “government subsidies” to employers to promote employment of specific target groups, for example, the very long-term unemployed. Such subsidies can be paid in cash or in the form of reduced social security contributions paid by employers. It is not possible for all countries to separate cash payments from revenue foregone through reduced social security contributions. This means that for this item, such expenditures through the tax-system have been included in the data.



Case 3 is rather more complex. The direct social expenditure in countries C and D may give a reliable indication of the amount of public support being given to the currently aged population. But the government budget is also effected by measures aimed at promoting private provision for retirement. Because of its desire to pursue a social objective, country C is choosing not to collect some potential tax revenue. In case 4, classifying countries E and F as being high or low spending countries, or as having increased or decreased spending, may be inappropriate in the absence of estimates on the cyclical effects of the economy on public spending and how it is measured. In none of these cases is the measure of gross social expenditures by government meaningless or misleading in itself. However, the data can inappropriately be interpreted as meaning something more than it does.

8. In this study the focal point of analysis is net effort of governments in pursuing social objectives. Governments can impose tax-payments on the benefits it pays to beneficiaries. Therefore measurement of net government effort implies the deduction of direct taxation from the gross expenditure totals. Also considered is the value of indirect taxes levied by governments on goods and services which are consumed by benefit recipients. Governments also pursue social policy goals through the tax-system by means of social-fiscal measures. Such measures, which do not result in increased flows to individuals in the accounting period for which expenditure is being calculated (*e.g.*, tax exemptions for contributions to private pensions), are included when considering the net effort of government. Public social expenditures should be supplemented by information on how much social support is mandated on sectors of the economy other than government (in practice, usually employers). It can be argued that mandatory private social expenditures are similar to government expenditures in all respects other than the institutional arrangements involved. From these public and mandatory private social expenditures, direct taxation would be deducted and the value of indirect taxes should also be considered. Government effort as defined in this analysis is therefore somewhat broader than the concept used in SOCX, which is limited to all levels of government and social security funds [SNA (1993), section 4.113]. Analysing the effort of government in pursuing social objectives should imply capturing automatic budget effects ensuing from fluctuations in the economic cycle.

9. To obtain a measure of net government effort on social support requires making particular methodological choices, the reasons for which are usually practical, rather than theoretical, reflecting existing data limitations and conceptual issues. In particular:

- fiscal measures to promote purchase or use of such private sector alternatives to public expenditure are included, reflecting the “net effort of government concept”. But fiscal measures given in one period which will result in an expenditure in a future period are considered separately from fiscal measures which have an effect on expenditures in the period in which they are given. This reflects different practices in calculating the value of these fiscal measures;
- mandatory private social expenditures are included in the adjustments. Data on non-mandatory private expenditures which have social characteristics (such as pensions from employers or individual plans) are not considered. That said, occasionally it is not possible to separately identify mandatory and non-mandatory private expenditures in available data;

10. Adjustments to gross direct social expenditures to get to one or other of the measures outlined above, are schematically presented in Table 1. In practice, however, such a neat categorisation is unrealistic. For example, the data may not facilitate a straightforward distinction between mandatory private social and other private expenditures. For example, employers may be required by law to make some provision for pensions for their employees. They may nevertheless

choose to make more generous payments than the minimum specified in legislation. Pragmatism regarding the classification of data is inevitably required. The remainder of this section summarises the theoretical framework regarding the various corrections necessary to measure net government effort. Succeeding sections go into more detail about data issues.

**Table 1. Gross to net expenditure adjustments: an overview**

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	1.	Gross direct public social expenditure (as presently in SOCX)
-		Direct taxes and social contributions paid on transfers
	2.	Net cash direct public social expenditure
-		Indirect taxes on consumption purchased out of net cash transfers
	3.	Net direct public social expenditure
+		Social/fiscal measures on public and private social expenditures
	4.	Net current public social expenditure
	5.	Gross mandatory private social expenditure
-		Direct taxes and social contributions paid on transfers
-		Indirect taxes on consumption purchased out of net cash transfers
	6.	Net current mandatory private social expenditure
	7.	Net current publicly mandated social expenditure [4+6]
Memorandum adjustments:		
+		Social/fiscal measures on pensions expenditures
	6.	Net accruing public social expenditures
+/-		Adjustment for underlying GDP and cyclical changes in unemployment
	7.	Net underlying accruing public social expenditures

---

### *Taxes and social contributions levied on transfers and goods and services*

11. In some OECD countries, government transfers to households are subject to taxation. A correction for the taxes and social security contributions received by the government on the transfer payments with a social purpose facilitate international comparison of after-tax expenditures: Net cash direct public social expenditure (2.)<sup>4</sup>.

12. Similarly, Governments levy indirect taxes on goods and services which are consumed by benefit-recipients. The value of ensuing government indirect tax-receipts by benefit-recipients should be taken into account when measuring net government effort leading to Net direct public social expenditure (3.).

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<sup>4</sup> The number between brackets refers to the appropriate line in Table 1.

### ***Social-fiscal measures***

13. Many governments of OECD countries pursue social policy objectives through the tax system. Two types of such measures can be considered. One is reduced taxation on particular sources of income or types of household. This sort of tax relief is not considered, as otherwise double counting would result. For example, suppose old age pensions of 100 are not taxed in country A. If they were taxed, revenue of 50 would be received. In the parlance of public finance, this “revenue foregone” of 50 is called a “tax expenditure”. Old age pensions of 100 are, however, taxed at a rate of 50 per cent in country B. Following the approach outlined above, net direct old age expenditure will be 100 in country A and 50 in country B. The tax expenditure in country A would be 50 whereas in B it would be zero. To sum both net direct expenditures and tax expenditures would give an exaggerated account of the differences in total social expenditures in the two countries.

14. The second group of modifications to the tax system which have social effects are those fiscal measures which can be seen as replacing cash benefits or stimulate the provision of private expenditures (*e.g.* tax-relief concerning the provision of private child-care facilities). These are termed “social-fiscal” measures.

15. The approach followed in this report is to ignore tax expenditures on cash transfers, on the grounds that the net value of such benefits is being calculated. However, social-fiscal measures are included. Correction for such social-fiscal measures leads to an indicator of net government effort on social expenditure: Net current public social expenditure (4.).

### ***Mandatory private social expenditures***

16. In addition to direct public social expenditure, private institutions may make social expenditures [OECD (1996a)]. Public control over the support given to those in contingencies extends to private social expenditures in as much as governments mandate employers (or, in some cases, individuals) to make such expenditures. Similar to public social expenditure, Gross mandatory expenditures (5.) are subject to adjustment for direct and indirect taxation, leading to Net current mandatory social expenditure (6.). The inclusion of all such expenditures with net current public social expenditure leads to Net current publicly mandated social expenditure (7.), (see Table 1).

### ***Memorandum adjustments***

#### ***Social-fiscal measures concerning pensions***

17. There are both conceptual and practical issues complicating the calculation of social-fiscal measures concerning pensions. These problems arise because such measures are also aimed at *future* benefit recipients: taxation occurs at and tax reliefs are given at various stages of what is a form of contractual savings. Contributions (mandated or not) to programmes could be by employers or employees; out of taxed or untaxed income; the funds which invest the pension contributions on behalf of those contributing could be taxed or untaxed; the payment of the pension or annuity or lump sum benefit at the end of the contributions' period could be taxed or untaxed. The tax reliefs on (mandatory) contributions to pension plans, whether on a collective or individual basis, increases the net government effort in this respect. These social-fiscal measures representing government effort in the domain of social and individual private pension expenditures are taken into account to measure

Net accruing public social expenditure (8). However, as these estimates are complex both technically and analytically, they are considered as a memorandum item, and are not included in the central calculations considered in this report.

#### *Adjustments for the economic cycle*

18. Spending on unemployment and Active Labour Market Policies (ALMP) is susceptible to cyclical variation. An adjustment which takes account of such effects leads to measurement of Net underlying accruing public social expenditure (9.). The purpose of such an adjustment is somewhat different from others considered in this report. Moreover, technical and data-related issues presently deter us from presenting a concise indicator. For these two reasons these effects are discussed separately in Annex 1.

#### *Private expenditures on health*

19. The focus of this paper is on the role of the public sector. But it is important to recall that for some purposes, whether or not expenditure takes place in the public or private sector is relevant. If public coverage is deemed inadequate, private expenditure may increase. This paper makes no pretence at being comprehensive in collecting private social expenditures, [for an initial analysis see Adema and Einerhand (1997), *forthcoming*]. However, for information only, some indication is given on the size of private expenditures on health.

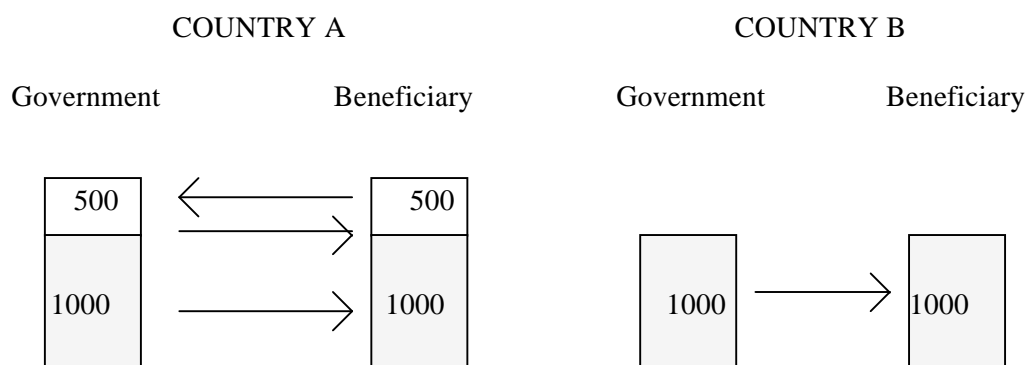
### **C. Direct taxes**

#### *Direct taxes on public benefits*

20. In some countries almost all benefits are paid net of tax; in others they are taxed in the same way as normal work income. The SOCX database records gross direct expenditures. From the government perspective (as well as that of the benefit-recipient) net expenditures are often likely to be more relevant than gross expenditures. This section will deal with the correction for direct taxes on benefits.

21. Figure 1 illustrates the adjustments required to take account of the taxation of benefits. It shows two parties, government and the beneficiaries, and abstracts from the way in which government raises its taxes. According to the usual accounting methods Country A records an expenditure of 1500 in their social security statistics, while country B records only 1000. However, in country A tax of 500 is levied. As the figure illustrates, the effect for the beneficiary is the same (1000).

**Figure 1. Schematic representation of taxes on transfers**



Note: Light-shaded area depicts net benefit expenditure; non-shaded area depicts tax on benefit paid by benefit-recipient; arrows indicate direction of cash-flows.

22. The figure also illustrates that for government there is no difference between country A and country B. In country A government pays a gross benefit of 1500 but receives from the beneficiary 500 in tax<sup>5</sup>. As taxes on benefits are (for the most part) taxed at source, the 500 units of taxes are both paid and received at the same moment. Not only is the net burden equal to that in the country which does not tax benefits but even the cash-flow effects are often identical.

### ***Methods used***

23. The correction from gross to net expenditures can be done in various ways. In order of reliability, the methods are: official administrative information; microsimulation based on annual income; microsimulation based on survey data; adjustments made on the basis of average tax rates for “typical” cases. These methodologies are considered in turn.

24. Information may sometimes be available directly from official sources<sup>6</sup>. National Accounts or National Social Security Administrations sometimes collect information on taxes paid on benefits, but in many countries such information is not available. For the United States, for example, information from a study by the Social Security Administration, concerning the effects of the tax changes on benefits from 1993 to 1994 give relevant information [Pattison (1994)]. For the UK information on taxes paid is taken from National Accounts, while information on social security contributions paid by beneficiaries is provided by the Department of Social Security. Information

<sup>5</sup> The numbers in this section only represent taxes directly related to the relevant transfer payment, taxes and social security contributions on wages or other cash benefits are omitted for reasons of simplicity

<sup>6</sup> The reliability of official sources depends of course, on the methodologies followed in generating the statistics. Some variant of the microsimulation approach outlined below is generally used. However, when the estimates are based on actual tax returns, one possible source of error (differences between data used in microsimulation models and the actual tax paying population) is eliminated.

made available by the German Ministry of Labour and Social Affairs was used to obtain an estimate of the social contributions payable by beneficiaries (for sources see Table 2). For Denmark, the Netherlands and Sweden, use has been made of information derived from microsimulation models.

25. Data in microsimulation models include detailed information on both the incomes received by households and their taxation. There are several ways to calculate the tax payable by beneficiaries. The starting point is yearly incomes. Sometimes transfer income is the only income received. In this case the average tax rate on this income can be used to calculate net transfer income.

26. The case becomes somewhat more complicated when different types of income are involved; either more types of benefit, or work income combined with, for example, unemployment benefit. In this case it is necessary to link taxes paid to the various components of income. The underlying assumption is that the tax due is divided over the different income components according to the weight of each type of income. Hence, if benefits provide 80 per cent of annual income and earnings just 20 per cent, 80 per cent of the total tax is assumed to have been paid on the benefit income. As tax systems are based on annual incomes, annual data will be more accurate than those based on a shorter time frame. For example, if only monthly data is available, tax paid on benefit income may be underestimated. This is because income during that month must be multiplied by 12 to get an annualised equivalent. But in practice some of those on benefit income during the month of the survey may enter employment, so their annual income would be greater than 12 times their surveyed income. With a progressive tax system, income tax would be more than proportionally higher. Of the countries included in this study, Denmark and Sweden have annual data, whereas data for the Netherlands is from a monthly survey. For some aspects of taxation (for example, deductible expenses related to work), there is a direct link between the income component and taxation. Therefore, in these cases it is preferable to allocate such deductions only to the relevant income component.

27. The micromodels generate what can be termed "Average Itemised Tax Rates" (AITR) for the different social benefits<sup>7</sup>. These AITR are then applied to the information contained in the SOCX database. The results of this exercise are presented in table 3. The Netherlands and Sweden show the highest correction in terms percentage of GDP. For both countries taxes on benefits account for over 5 per cent of the GDP. For Denmark the figure is 4 per cent GDP. For the Netherlands it was possible to check the results with other (research) information available. Earlier work concerning 1990 showed percentages of 5.1 per cent<sup>8</sup> and 5.5 per cent<sup>9</sup> of GDP. The estimate of 5.1 per cent was based on a more limited scope of expenditures than the SOCX database. The 5.5 per cent used the same scope as SOCX. Therefore the estimate for the Netherlands based on the microsimulation method is in line with earlier work.

28. The least reliable method is to calculate average tax rates for typical cases and assume these are relevant for the population as a whole. Despite obvious limitations, it may nevertheless be useful in making international comparisons when data limitations preclude the methodologies already outlined. For example, if the average tax rate for someone receiving an average amount of pension income can be found, then this tax rate could be applied to the aggregate gross pension expenditure. The limitations of the approach are clear, and relate to the difficulty in defining appropriate typical

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<sup>7</sup> See also the notes to Table 3.

<sup>8</sup> See Einerhand, *et al.* (1995).

<sup>9</sup> See Centraal Bureau voor de Statistiek (1994).

cases. Comparisons undertaken to test the validity of such an approach (not reported here) suggest that errors are possible, and a relatively sophisticated approach based on a weighted average of different cases would be required. Nevertheless, as described in the notes to table 3, this approach has been used for some minor part of the calculation of taxes paid on benefits in Germany.

## Results

29. Table 2 shows the results of this exercise for both public and mandatory private benefits. It shows that the US and the UK tax benefits only to a very limited extent, while Denmark, Sweden and the Netherlands tax most benefits rather heavily. Germany has an intermediate position, requiring most beneficiaries to pay social contributions, while most cash-transfers are exempt from taxation.

**Table 2. Taxes and social contributions paid on social expenditure as a percentage of GDP, 1993**

	Taxes paid on cash benefits from general government	Taxes paid on mandatory private social expenditures
Denmark (1.)	3.91	0.12
Germany (2.)	2.57	0.51
Netherlands (1.)	5.86	-
Sweden (1.)	5.31	0.19
United Kingdom (3.)	0.19	0.01
United States (4.)	0.07	0.003

1. The results are based on microsimulations generating average itemised tax rates (AITR). For Denmark and Sweden estimates of AITR are based on annual income, whereas such estimates concerning the Netherlands are based on survey data considering monthly income. The AITR were subsequently applied to data as in SOCX.
2. Bundesministerium für Arbeit und Sozialordnung (1994): *Sozialbericht 1993*, Bonn; Statistisches Bundesamt (1994), *Volkswirtschaftliche Gesamtrechnungen* (Fachserie 18, Reihe 1.3, "Konten und Standardtabellen"), Bonn; and unpublished information submitted by the Bundesministerium für Arbeit und Sozialordnung. Data include taxes paid on pensions. Taxes and social contributions for mandatory private expenditures and taxes paid on family benefits for civil servants were calculated using the average tax rate of the Average Production Worker, see OECD (1995), *The Tax/Benefit Position of Production Workers* (1991-1994), Paris.
3. CSO (1995): *United Kingdom National Accounts: The Blue Book 1995*, HMSO, London, and unpublished data kindly provided by the Department of Social Security.
4. Pattison, D. (1994). *Taxation of Social Security Benefits under the New Income Tax Provisions: Distributional Estimates for 1994*, Social Security Bulletin, Vol. 57, No. 2, pp. 44-50. The estimates concern federal taxes on social security benefits and disregard state and local taxes. Consequently, the data presented here underestimate total taxes paid on benefits. Data on taxes paid by recipients of benefits due to *workers' compensation* is not available but totals are deemed small.

## D. Consumption Taxes.

### *Introduction.*

30. Suppose a country pays 100 in social cash transfers. If the transfers are taxed under the personal income tax at a rate of 10 per cent, then in order to get a net figure, the 10 paid in tax must be deducted. Consumption taxes can have precisely the same effect. For example, if all purchases were taxed at 10 per cent, then out of an income of 100 it would be possible to consume goods worth 90, with 10 being paid in tax to the government. This suggests that indirect taxes should be treated in exactly the same way as direct taxes were treated in the previous section. The amount of indirect taxes paid on consumption out of benefit income should be deducted from total benefit income in order to get the net effort of the government on social objectives.

31. An objection to this argument is that, unlike with direct taxes, there is nothing inevitable about indirect taxes. People can avoid them, either by purchasing untaxed or low-taxed goods or not purchasing them at all. We reject this objection. Non-consumption is not a viable option. The more limited form of the argument is also flawed. Cigarettes and alcohol are highly taxed, and it is true that there is nothing inevitable about consumption of such goods. But continued purchase of such goods out of benefit income reflects a judgement by the recipient of the worth of such consumption. In order to get maximum value from their consumption of benefit income, benefit recipients are *required* to pay taxes. It is an irrelevant argument that they could pay less if they consumed a different package of goods, as this package would bring them a lower level of utility.

32. Furthermore, in practice policymakers have recognised the link between indirect taxation and the position of those with low incomes or receiving benefit income. When the Goods and Services Tax was introduced in Canada, for example, a non-wastable tax credit was introduced to compensate those on low incomes for the regressive effects of the tax. The extension of the VAT base to cover domestic fuel in the United Kingdom was accompanied by changes in benefit payments (particularly to the elderly) to compensate them for the reduction in the real value of the benefits.

33. As with direct taxes, the best way of obtaining the effort of government net of indirect taxation will be to look at actual average taxes paid by benefit recipients. Hence, for each benefit group, average indirect tax rates can be determined. Multiplying net (*i.e.*, after direct tax) social expenditures (including, where appropriate, mandatory employer-provided benefits) by the net average indirect tax rate gives the tax paid by each benefit group. Implicitly this approach assumes that benefit recipients do not save but consume their benefit income. (An alternative interpretation in that savings are consumed at some point in the future so that the tax rate as calculated gives the accrued indirect taxation of benefits).

34. Two issues complicate this process. First, the decision as to *which* indirect taxes should be included is not as obvious as might initially seem to be the case. Second, to an even greater extent than with direct taxes, data limitations prevent accurate evaluation of the taxes involved. This section discusses first the issue of which taxes to include, and second the possible data sources<sup>10</sup>.

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<sup>10</sup> Comparisons in this paper are presented with respect to GDP at market prices. As market prices reflect indirect taxes, there is a case for making comparisons with respect to GDP at factor cost. In practice, this makes little difference to the results -- See Annex 3.



### ***Which Indirect Taxes?***

35. In common with other systems of classifying taxation (e.g. that of the IMF), the OECD Revenue Statistics identifies taxes on goods and services as a distinct category. This category includes taxes on production, sale and transfer, etc. (therefore including VAT and excise duties on alcohol and tobacco) and taxes on use of goods and performance of activities (for example, motor vehicle licence taxes). Both sorts of taxes being paid by benefit recipients out of social transfer income, adjustments for the rates of both taxes seem justified in principle. However, those in receipt of publicly paid benefits or mandatory employer-provided benefits are unlikely to purchase some goods and services classified under this broad heading. Examples include levies on those using international air travel, “tourist taxes” on those staying in hotels, gambling taxes, etc. Although some refinement of the overall figure to take account of these taxes unlikely to be paid by individuals in receipt of benefit income might be possible, it would be very arbitrary. No such adjustment is attempted here.

36. The tax on goods and services, however, also includes taxes paid by the non-household sector. For example, it includes customs duties, agricultural levies, taxes on investment goods, levies on air pollution, carbon taxes and the European Union milk levy. Furthermore, the tax which raises most revenue under this heading in all OECD countries other than Australia and the United States is VAT. VAT is levied on all purchases of goods and services, regardless of the purchaser, but those engaged in business may generally reclaim the tax paid. However, when particular goods and services (for example, those relating to financial transactions) or businesses (such as small businesses) are exempt from VAT, they may not reclaim any VAT either. Hence, some VAT may be paid by the business sector.

37. Two approaches could be followed. One is to exclude all taxes paid in the first instance by the business sector from the calculations, and focus only on those directly paid by households. The other is to assume that although customs’ duties are levied on those firms importing goods, the burden of the tax is on consumers in higher prices. Such an assumption may appear to be strong. It is consistent with the assumption that all taxes nominally paid by households, such as VAT, have no impact on the tax-exclusive price of goods and services. These should therefore be considered as being paid entirely by the household sector.

38. In practice, except for mineral oil duty and the levies on extraction of natural resources, taxes on goods and services paid by enterprises are relatively minor in comparison with those where the initial incidence is on consumption. However, the difference in which taxes are covered is of relevance in interpreting the numbers generated from different data sources, as outlined below.

### ***Data Issues***

#### *Approaches based on household expenditure data*

39. Microsimulation models running on data sets which include information on consumption patterns provide one source of possible information on the taxes paid by those in receipt of benefit income. After identifying a particular benefit group, indirect tax arising from the consumption patterns can be inferred. Performing such calculations for the United Kingdom suggests the following pattern of indirect tax rates (Table 3.):

**Table 3. Average indirect tax rates, the United Kingdom, 1993**

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Type of expenditure	Average tax rate
Old age pensions	9.6
Disability and sickness	10.0
Children	10.3
Lone-parent benefit	10.3
Unemployment benefit	9.9
Income support	9.6

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*Source:* Family Expenditure Survey Data tapes; these are 1993 data concerning the benefit system as in 1993. Indirect taxes consist of VAT and excises.

40. Given that the UK does not tax children's clothing and much food, some of these results (in particular that for lone parents) are surprising. This draws attention to the weaknesses in applying what seems a sound theoretical framework using data which may not be adequate for the task. Sample sizes for some of the groups included in table 4 are low, and the survey period (2 weeks) is short. Purchase of an expensive taxable item (*e.g.*, a car) during the survey period may lead to unreliable estimates.

41. Lack of expenditure data which also identifies beneficiary groups hampers the calculation of similar average indirect tax rates in other countries. However, alternative assumptions could be made. For example, published expenditure data often has the expenditure patterns of households by income level. Assuming that all households in receipt of publicly paid benefits and mandatory employer-provided benefits have expenditure patterns corresponding to the average of those with incomes in the bottom 25 per cent of the household income distribution may not be misleading. Such figures are presented in line 8 of Table 4. Average tax rates for 4 of the countries considered are given.

42. The following provisos, however, cast doubt on the suitability of such an approach when making international comparisons:

- Expenditure surveys are often undertaken on an infrequent basis, so data is often old (the figures for Germany and the Netherlands in Table 4 are for 1988 consumption patterns). However, as consumption patterns do not change rapidly, this might be a less significant problem than seems at first sight.
- To perform calculations properly, a great deal of detail is required. Sometimes such detail is not available (coca cola is often taxed at a different rate from fresh orange juice or tea, as are books in comparison to magazines and newspapers). Even when detail is available, time commitments might limit the extent to which all features of the tax system are integrated. Table 4 takes a relatively broad-brush approach.
- Infrequent purchases are not well covered by these surveys. In particular, small sample sizes for purchases of white-goods and cars can lead to misleading conclusions on taxes paid.
- When calculating excise duties, taxation may depend on volumes and not just values of purchases. Hence, more tax will be paid on a large volume of low-value goods than will be

levied on a small volume of high value goods, even where total expenditure is the same. As tastes differ across income groups and countries, assumptions regarding the typical excisable goods matter.

- The approach implies that tax revenues are much lower than they are known to be in practice. For example, total indirect tax paid by households, when grossed up to reflect the fact that the sample is but a proportion of the whole population, is much lower than actual indirect tax receipts. In other words, the approach fails to assign all taxation.

43. This last limitation is the most serious and requires some analysis. The amount unassigned can be compared by following this approach for the average of the whole population, and comparing it with actual receipts. This suggests that perhaps only around a half of indirect taxes are recorded. As mentioned above, some indirect taxes will not be paid by households. Even within a VAT, for example, financial services (treated as being a zero tax rate) in practice have a positive (albeit low) effective indirect tax payment. Nevertheless, this explanation on its own is not sufficient to explain why taxes determined on this basis seem so low. Another factor may be underreporting of expenditures considered socially embarrassing. Respondents to questionnaires have a well-known tendency to under-estimate their alcohol and tobacco consumption.

44. The data-imperfections can have a substantial effect on the reliability of cross-country estimates. An alternative approach may be to consider average indirect tax rates, calculated on an economy-wide basis.

*Calculations based on National Accounts aggregates.*

45. The simplest average indirect tax rate can be calculated by taking whatever definition of indirect taxes is held to be appropriate, and then dividing this by private (mainly household) consumption expenditure, as calculated in OECD National Accounts. Such calculations are presented in Table 4.

46. In light of the discussion above, Table 4 contains three possible measures of indirect taxes. The first, line 3, consists of general sales taxes and excises charged on particular goods. Even this relatively limited measure includes some taxes not paid by the household sector, such as petrol duties for commercial vehicles. Line 4 includes these taxes but also profits from fiscal monopolies, customs duties, taxes on services, and some other minor taxes. Line 5 adds additional taxes on the use of goods, such as licenses for motor vehicles and for the sale of alcohol. A case can be made for any of these measures.

47. Whichever taxes are included, the average tax rate is found by using consumption in the denominator. Private consumption is given in line 1 of Table 4. However, any simple ratio of tax to private consumption raises some definitional problems. The OECD Revenue Statistics includes tax revenue collected by government from itself. For example, if one part of government purchases some goods and services, it may be charged indirect tax. Effectively, this tax is a flow within the government sector.

48. An adjustment can be made to the national accounts figures to reflect this. By adding in government consumption expenditure but subtracting that part of government consumption which consists of compensation of employees, an approximation of the tax base of indirect taxes is found. Such an adjustment is presented in line 2 of Table 4.

49. However, this adjustment itself has problems. It leaves a tax base approximating to that relevant for general taxes such as VAT, but is less suitable for specific taxes (one unit of consumption from the government sector presumably being less likely to generate excise tax revenue than an equivalent unit of private consumption expenditure).

50. Summarising, although apparently straightforward, calculation of indirect tax rates based on different but equally valid assumptions about which aggregate data are appropriate, can lead to average tax rates which differ substantially from each other. This is illustrated in Table 4 where lines 6 and 7 denote two indirect tax rates: the minimum indirect tax rate based on the most restrictive tax definition and the largest consumption base; and the maximum indirect tax rate based on the widest definition of indirect taxes and the narrowest consumption base. Differences of several percentage points of GDP are found in all countries considered.

### *Approach followed in this paper*

51. The major advantages of the “tax rates based on aggregate data approach” are that such information exists for most OECD countries; all consumption tax is assigned so that consumption taxes paid by the non-household sector are assumed to be reflected in higher prices; and that up-to-date information is generally available. The main disadvantage is that consumption patterns are not assumed to differ between the population as a whole and benefit-recipients. This is a strong assumption.

52. The alternative approach to using Aggregate National Accounts data is to use data on household expenditure patterns. This allows for the fact that those on benefit income (or, in the absence of such data, those with low incomes) have consumption patterns which differ from the average of the population as a whole). Unfortunately, this approach appears to miss a large proportion of indirect taxes. The approach followed in this paper is to use the aggregate approach, but to use the calculation given in line 6 of the Table 4. The minimum indirect tax rate can be seen as a compromise between the two generic approaches. This compromise is not theoretically superior, but appears to be the best (in the sense of being least likely to give grossly misleading results) available choice given the data limitations.

**Table 4. Average indirect tax rates, 1993**

	Item (1,2)	Denmark	Germany	Netherlands	Sweden	United Kingdom	United States
1	Private consumption	457,904	1,588,900	350,280	792,077	403,296	4,235,900
2	Private consumption plus Government consumption minus government wages	523,845	1,818,440	376,390	915,732	467,689	4,482,000 (3)
3	General consumption taxes plus excises duties (5110+5121)	126,795	302,366	57,980	179,042	67,557	240,336
4	Taxes on production, sale transfer (5100)	130,753	328,574	62,560	190,433	71,023	275,939
5	Taxes on goods and services (5000)	138,417	342,943	69,670	197,324	74,504	315,411
6.	Minimum Indirect tax rate	24.2	16.6	15.4	19.6	14.4	5.4
[3/2]							
7	Maximum Indirect tax rate	30.2	21.6	19.9	24.9	18.5	7.4
[5/1]							
8	Indirect tax rate of lowest quartile (survey), (4)	N/A	11.0	10.7	18.3	9.9	N/A

1. All totals in line 1 to 5 are in local currencies.

2. The four-digit codes in the second column refer to the categorisation used in the OECD Revenue Statistics.

3. Assuming that 63% of government consumption (the average of the other 5 countries in the Table) is wage expenditure.

4. N/A: information not available.

Sources: OECD Revenue Statistics, OECD National Accounts, UK Family Expenditure Survey, and EUROSTAT: Family Budgets, Comparative Tables.

53. In summary, if adjustments are necessary to take account of the effects of direct taxes on the real value of benefits, identical arguments can be used to justify adjustments which reflect the amount of indirect tax which will be paid on the benefits. But while the theoretical case for such adjustments is strong, data limitations cause problems. First, the issue of which indirect taxes should be taken into account is far from clear-cut. Some indirect taxes are not paid directly by the households, but may nevertheless affect their purchasing power if taxes are passed on to the in higher prices. Furthermore, indirect taxes on some goods and services seem unlikely to be purchased by those with benefit income. Second, consumption surveys suggest tax payments which are well below those which might be expected when looking at actual tax receipts. Aggregate data, on the other hand, allow no account to be taken of consumption by benefit recipients differing from that of the population as a whole. Thus adjustments for indirect taxes are inherently unsatisfactory. But, as Table 4 clearly indicates, the burden of indirect taxes differs enormously across countries. Despite the limitations of the approach followed in this paper, making some attempt to reflect these differences seems preferable to ignoring the issue altogether.

## E. Social-fiscal measures

### *The concept of social-fiscal measures*

54. Social expenditures as currently in SOCX are actual direct expenditures. The concept of tax expenditures was developed to ensure that government programmes operated through the tax system can be assessed on a basis which is reasonably close to that used for direct expenditure programmes. Both types of programmes may be designed to achieve similar public policy objectives but in many countries only in the case of direct expenditures is there a regular accounting for the costs of the programmes. For the purpose of generating estimates of net government effort on social objectives the concept of *social-fiscal measures* is introduced in this section. The difference between these two concepts lies in the scope of the measures included, not in the way in which calculations are made.

55. As described in OECD (1996b), there is no common definition of what constitutes a tax expenditure. Theoretical definitions of the concept usually make reference to the Haig-Symons concept of income. However, no country uses such a concept in their tax law. Instead, definitions of tax expenditures generally involve the specifying of some theoretical tax system which can be seen as the "underlying", or "primary structure" of the actual tax system. Those features of the actual tax system which differ from the primary structure give rise to tax expenditures. For example, tax reductions for some types of income or group of taxpayers, or postponement of tax payments, are both deviations from the underlying tax system, so are tax expenditures. Countries may differ in what is seen as the underlying tax system (particularly where, as in Germany, there are legal and constitutional considerations which make the definition of the underlying tax system contentious).

56. Benefits either replace lost income, or in some way reflect for the capacity to pay of households. Child benefits can be regarded as benefits paid to households to alleviate the financial burden of having children. For this reason, child benefits can be defined as belonging to the social security system, regardless of the form in which these benefits are given. According to the definition of tax expenditures, however, deductions in income tax because of children are (in some countries) considered to be part of the primary structure and should therefore not be counted as tax expenditures. The strict fiscal definition of tax expenditures is therefore not a useful guideline from the viewpoint of social protection.

57. The national definitions of tax expenditures as being departures from a structure defined to reflect domestic views of what are or are not the underlying tax systems, are not useful for social policy analysis. We therefore define a new term "social-fiscal measures" as being "*those reductions, exemptions, deductions or postponement of taxes, which (a) perform the same policy function as cash transfers which, were they to exist, would be classified as social expenditures; or (b) are aimed at stimulating private provision of benefits*". For example, consider the child tax allowances referred to above. If a cash benefit were to be paid which mirrored exactly the effects of the tax allowance, it would be classified as social expenditure. Thus the tax allowances are social-fiscal measures, regardless or whether they are or are not counted as tax expenditures in the national context. Tax concessions on the purchase of private pensions would be classified as social-fiscal measures as they are aimed at stimulating private provision of benefits. Inevitably there are borderline cases. Life Insurance premiums often receive some fiscal advantages. In the UK, relief for Life Insurance premiums cost the government £210 million in 1993; various tax reliefs in the United States accounted for well over \$10bn. They are not here considered to be social-fiscal measures, but rather

are seen as having the end of promoting savings. A further area where determining what is or is not a social-fiscal measure concerns the tax unit. The *married couples allowance* in the UK is not considered to be a social fiscal measure, as the cash equivalent of the tax relief were paid, it would not be considered as being social expenditure. However, the *married couples' allowance* is extended to lone parents. This is considered to be social as the attribute which brings eligibility -- the presence of dependent children -- is a common definition of eligibility to cash transfers in social protection systems. In contrast, the attribute for a married couple -- a marriage contract -- is not. Hence (although not considered here) the French *quotient familiale* method of taxation would be considered to be a social-fiscal measure, even though it is part of the primary structure of taxation.

### ***Measurement of social-fiscal measures***

58. There are three principal means of calculating the "costs" of social-fiscal measures (see OECD, 1996b). The revenue forgone method is a measure of the amount by which revenues are reduced by a particular provision. The revenue gain method is a measure of the expected increase in revenues were the concession to be abolished. This differs from the previous method as behavioural responses to the change must be estimated. Finally, the outlay equivalent approach measures the cost of providing the same monetary benefit as the social fiscal measure through direct spending, assuming, as in the revenue forgone case, that behaviour is unchanged. The Outlay Equivalent methodology conforms most closely with the purpose of this paper, permitting as it does the direct comparison of direct and tax expenditures. Most countries, however, use the revenue forgone method, due to the difficulty in computation and uncertainty in the results of estimates of behavioural responses. In this paper we will follow the current practice in most OECD member states.

59. Social-fiscal measures could be calculated on a cash or on an accruals basis. The former approach estimates the effect on government cash-flow, the latter on the tax liabilities accruing to government in a particular period. Direct expenditure accounts are on a cash basis. Generally, but not always, this is true for tax expenditure accounts. Hence, when a tax relief on pension contributions is given, the tax expenditure is recorded as being the number of people making contributions in that particular year multiplied by the average tax relief received. This estimate of the loss of revenue in the current period is far from the eventual net loss of revenue to government, since pension payments may well be taxed. Thus, the lower tax revenues now, because of the introduction of a tax concession, will be in part be offset by higher tax revenues in the future. Except for pensions, regarding most social-fiscal measures there is likely to be little difference between estimates on a cash or accruals basis. In order to ensure comparability with the direct expenditures we will use the cash basis for calculating social-fiscal measures, whereas specific problems concerning pensions are discussed separately.

60. In principle, it is not correct simply to aggregate the different fiscal measures to get a total, since social fiscal measures are interdependent. Consider the case where there is a tax allowance for lone parents and another (separate) tax relief for child care costs. The value of these two fiscal measures would normally be calculated separately. However, if one of the two fiscal measures was eliminated, then some taxpayers may end up in a higher marginal tax rate category, thereby automatically increasing the value of the other fiscal measure. The revenue forgone from both schemes considered jointly would be greater than the sum of the separate measures, since each is calculated assuming the other remains in force. Whereas individual revenue forgone estimates overstate the cost of fiscal measures (they take no account of behavioural effects which can be

expected to reduce tax payments) the aggregate of such estimates understate the overall costs. Nevertheless, tax expenditure reports in many countries do aggregate different measures to give an overall impression of how important are fiscal reliefs.<sup>11</sup>

### ***The problem of social-fiscal measures related to retirement***

61. Social-fiscal measures on occupational and individual pension programmes are rather more difficult to deal with, both conceptually and in practical terms. These difficulties arise because taxation of pension payments and tax reliefs towards contributions are given at various stages of what is a form of contractual savings. There are three particular problem-areas:

- Contributions to schemes could be by employers or employees; out of taxed or untaxed income;
- The funds which invest the pension contributions on behalf of those contributing could be taxed or untaxed;
- The payment of pension or annuity or lump sum benefit at the end of the contributions' period could be taxed or untaxed.

62. These problems raise two issues:

- which items should be included as social-fiscal measures;
- should the cash flow consequences be recorded or, alternatively, should some sort of present value (accruals) estimate of the tax treatment of pensions be used.

63. Across some countries there is convergence regarding the items to include as tax expenditures. The reference point would be a programme which was not “approved”, *i.e.* which does not qualify for any special tax treatment. Hence, for most countries the reference point would be a system where pensions are paid out of taxed income, the fund is taxed on its income, but the payment of the pension is untaxed<sup>12</sup>. Any deviation of tax treatment from this broad outline is considered a tax expenditure (and, because of its social objective, a social-fiscal measure). Note, therefore, that countries consider the underlying tax system to be one which corresponds in some sense to a comprehensive Income Tax, with income from capital being taxed twice. Whatever the strength of the case for Expenditure Tax, treatment of savings, it is not regarded as the baseline tax system in OECD countries. However, there may be a difference between “normal practice” in taxing savings -- which in many countries increasingly resembles an expenditure tax treatment of most savings -- and what is perceived to be the underlying tax system. In presenting social-fiscal measures, those relating to pensions are presented below as a memorandum item.

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<sup>11</sup> It is easy to exaggerate the importance of this point. Exactly the same problem occurs with direct expenditures: these are aggregated in SOCX but in practice if some were reduced (unemployment benefits, for example) others would increase (early retirement, invalidity, assistance benefits, means-tested family allowances or housing benefits, in these latter cases without any behavioural change on the part of the recipient).

<sup>12</sup> At present, only New Zealand amongst OECD countries actually applies this reference system to pension funds.



64. Furthermore, the treatment of contributions by employers to employees' pension plans is, for the purposes of calculating tax expenditures, considered as a payment of income made to the employee. Under the reference system described above the employee would pay tax on this income which in the absence of taxation is therefore a social-fiscal measure. The employee is then assumed to contribute it to the pension fund. Limitations on the deductibility of contributions to a pension plan at the corporate level are tax penalties (wages are deducted from corporate income tax) to be set against the tax expenditure due to non-payment of tax at the employee level.

65. The definition of tax expenditures on pensions in the United Kingdom may illustrate this approach. The overall cost of fiscal measures on pensions is:

	Tax relief on contributions by employees to funded programmes.
plus	Tax relief on contributions by employers to funded programmes (on the basis that these contributions are not taxed as a benefit-in-kind for the employee).
plus	Tax relief on investment income of funded programmes <sup>13</sup> .
plus	Tax relief on lump sum payments from unfunded programmes.
less	Tax liabilities on pensions in payment from funded programmes.
less	The tax yield on refunds to employers in connection with fund surpluses from funded programmes.

This example also shows that the exact definition may depend on country specific issues.

66. As noted above, social-fiscal measures could be measured on a cash or on an accruals basis. There is usually little or no difference between a cash or an accruals basis of calculation<sup>14</sup>. However, with respect to pensions the two calculation methods can sometimes lead to very different results.

67. Table 5 shows three different ways of calculating the value of social-fiscal measures for pensions in the USA. The first two columns present calculations on a cash basis. The outlay equivalent method measures the cost of providing the same monetary benefit as the social-fiscal measure through direct spending. This method leads to larger estimates of the value of social-fiscal measures than the revenue forgone method.

68. The present value estimates incorporate the effect of future tax payments. The data for the United States show that this reduces the estimated total cost of the social-fiscal measure. The present value estimates represent the revenue losses, net of future tax payments, that follow from activities undertaken in 1995 which cause the deferral of related revenue effects. For example, a pension contribution in 1995 would cause a deferral of tax-payments on wages in 1995 and on pension earnings on this contribution (*e.g.* interest) in later years. In some future year, however, the 1995 pension contribution and accrued earnings will be paid out and taxes will be due. These receipts are included in the present value estimate. The impact of accounting for future tax payments varies across countries. Future tax rates will depend not only on scheduled reductions in tax rates due to age or receipt of pensions, but also (in a progressive tax system) on the ratio of pension income when retired

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<sup>13</sup> The costs of tax relief on capital gains of funds is not included in the estimate. Insufficient information on the length of time that pension funds hold various types of assets means that a reliable estimate for the amount of relief cannot be made.

<sup>14</sup> The expenditure data in SOCX are sometimes measured on an accruals basis, *e.g.* Germany, however there is little difference between such a method and cash recording when it concerns annual expenditures.

to income when contributions were being made. The larger the difference between current and future taxes, the smaller the difference between social-fiscal measure estimates derived on a cash or present value basis.

69. In order to maintain comparability with the concept of direct cash expenditures, here a cash basis for the calculation of social-fiscal measures is used. What is presented is the cost to public budgets of the current tax system in the current financial year, regardless of what effects the current tax system may have on revenues in future years.

**Table 5. Value of social-fiscal measures on pensions, the United States, 1995 (\$m)**

Social-fiscal measure on old-age cash benefit	Revenue Forgone	Outlay Equivalent	Present Value
Exclusion of Pension contributions and earnings-employer plans	55540	75940	47895
Exclusion of contributions and earnings for Individual retirement accounts	6245	8900	2185
Exclusion of contributions and earnings for Keogh plans	4435	6000	3065

*Source:* United States Office of Management and Budget (1995), *Analytical Perspectives*, Budget of the United States Government, Fiscal year 1996, Government Printing Office, Washington DC

### ***Quantitative results: a first analysis***

70. The results presented in this section are provisional. Although there are large similarities between the concepts of tax expenditures and social-fiscal measures, the areas covered are not the same. Since almost all quantitative information available concerns tax expenditures, the scope of this first analysis is necessarily limited. Only a few countries provide information going beyond the concept of tax expenditures. Germany for example presents a regular listing of social-fiscal measures, while the United Kingdom presents a listing of items not to be considered tax expenditures in the strict sense, but "structural reliefs". These "structural reliefs" sometimes concern social-fiscal measures.

71. The availability of data and the need to present as comparable information as possible imposes some restrictions on the analysis:

- All social-fiscal measures targeted at families in general will be excluded from the comparative overview. In most countries there is a strong link between the tax unit chosen and such measures. Therefore (with some few exceptions) no information on this subject is available.

- As noted above, social-fiscal measures relating to private pensions are included as a separate item. This acknowledges the fundamental difference between measures relating to increasing incomes and welfare of the population currently receiving social transfers and the provision of private protection in the future. Furthermore, comparable information on social-fiscal measures for pensions is not always available;
- All exemptions of benefits from taxation will not be recorded as social fiscal measures. The analysis in this paper takes account of this adjustment by going from a gross to a net concept of social expenditure;
- Exemption of VAT on *e.g.*, health services, pharmaceutical products, etc., is not recorded. These exemptions affect the average VAT rate, so have been taken into account in the adjustment for indirect taxes;
- All fiscal expenditure on housing is excluded. Some fiscal measures on housing (deduction of mortgage interest, etc.) cannot be regarded as a social benefit. Relevant data is not always available.

72. These restrictions on the analysis improve comparability, but limits the “true” measurement of social-fiscal measures. Table 6 shows the data for the six countries. A more detailed account can be found in Annex 2. This account includes for some countries social-fiscal measures which (for reasons of comparability) are not included in Tables 6 and 8.

73. In summary the social-fiscal measures discussed in this section reflect a pragmatic approach achieving a conservative “minimum common denominator” comparison. There is no international, or sometimes national, consensus on how to demarcate fiscal measures used as social expenditure instruments. The results presented here are therefore only indicative and provisional. More research and (inter)national discussion is necessary to obtain consensus on this issue.

**Table 6. Value of social fiscal measures as a percentage of the GDP, 1993**

	Comparable set	Old age cash benefits (1.) cash basis	Total
Denmark	0.08	N/A.	
Germany	0.78	N/A.	
Netherlands (1994)	0.08	N/A.	
Sweden	0.00	N/A.	
United Kingdom	0.36	2.68	3.03
United States	1.15	0.85	2.00

1. N/A: information not available.  
Sources: see Annex 2.

## F. Mandatory private social expenditures

74. Governments can require employers to provide benefits to their employees and/or their dependants. Furthermore, the government may force some categories of self-employed persons or other individuals to take-up social insurance<sup>15</sup>. In as much as such expenditures are not channelled through the public delivery system, they are regarded as “mandatory private social expenditures” [for more detail see Adema and Einerhand (1997) *forthcoming*].

75. An unambiguous categorisation of mandatory private social expenditures is difficult. The available data may only record aggregate payments and not allow a distinction between mandatory and non-mandatory private social expenditures. For example, in the UK private pensions' expenditures amounted to about 2.1 percentage points of GDP in 1993. This total contains a mandatory component. Occupational pension programmes in the UK are allowed to opt-out of the *State Earnings Related Pension Scheme* (SERPS), conditional on the provision of a guaranteed minimum pension to the employee which is based on the individual's life time earnings<sup>16</sup>. The amount previously referred to includes pension expenditures which are not “contracted out”, i.e. non-mandatory employer-provided benefits. Although separate data are not available, the mandatory part of the expenditures can be estimated to be around 0.21 per cent of GDP (Table 2)<sup>17</sup>.

76. Workers' compensation in the United States is a social expenditure programme which covers government and private employees when they are injured in connection with their jobs. The expenditures relate to cash and medical benefits. Although required by Federal law, individual States and other jurisdictions have discretionary powers regarding coverage and insurance method. In only eight jurisdictions are employers not allowed to carry insurance with commercial insurance companies<sup>18</sup>. Payments through state funds are regarded as public (amounting to 0.17 per cent of GDP in 1993), whereas the other benefits ensuing from the workers' compensation laws are regarded as mandatory private expenditure (0.46 per cent of GDP in 1993).

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<sup>15</sup> Governments can also influence negotiations leading up to collective wage agreements which contain stipulations on the private provision of social expenditures. The extent to which this is done is impossible to measure.

<sup>16</sup> For more detail, see Dilnot, *et al.* (1994).

<sup>17</sup> This estimate is based on information regarding the relation between SERPS (the publicly-run earnings-related pension scheme) and the Guaranteed Minimum Pension (GMP) which private pension programmes must provide. SERPS pensions and the GMP are not the same due to different accrual rates and different indexation mechanisms regarding benefits and the lower earnings limit. Therefore, GMP will nearly always be less than SERPS and as the government makes up the difference even those who are contracted out of SERPS will still receive SERPS. Data on the calculated (“notional”) SERPS, Net SERPS and the GMP are calculated by multiplying the number of recipients by the average pension amount. These data are available DSS (1994). Notional SERPS was 2.93 billion pounds: Net SERPS 1.69 billion pounds and the GMP amounted to 1.32 billion pounds [DSS (1994)]. In these calculations it is assumed that annuities due to mandatory Personal Pension Plans are currently zero as such payments are not expected to materialise until 2002.

<sup>18</sup> In 18 jurisdictions state funds compete with commercial insurers [SSA (1995)]. In four jurisdictions employers are required to take up insurance with a state-insurance fund or as self-insurers (if they can prove their financial ability to carry their own risk); and in four other jurisdictions only take-up with a state fund is permitted.

77. In Denmark, Sweden and Germany, the government has mandated employers to pay sickness benefit (continued payment of wages) for a specific period of time and these expenditures are not reimbursed by the government<sup>19</sup>. In 1993, the UK government reimbursed employers for up to 80 per cent of sick-pay. This part can be regarded as public social expenditure, whereas the remainder is categorised as mandatory private social expenditure and amounted to 0.03 percentage points of GDP. In the USA, 6 jurisdictions have mandated *Temporary Disability Insurance Programmes* (TDI) and benefits are payable when a claimant is unable to perform regular work because of a mental or physical condition [Kerns (1994)]. As with the workers' compensation programme, not all legally stipulated payments go through State funds and such mandatory private expenditures amounted to 0.01 per cent of GDP in 1993.

**Table 7. Gross mandatory private social expenditures as a percentage of GDP, 1993.**

	Denmark (1.)	Germany (2.)	Netherlands (3.)	Sweden (1.)	UK (4.)	USA (5.)
pensions	-	-	-	-	0.21	-
workers comp.	-	-	-	-	-	0.46
sickness benefits	0.43	1.52	-	0.62	0.03	0.01
maternity	-	0.08	-	-	-	-
Total	0.43	1.60	-	0.62	0.24	0.48
Memorandum item:						
pensions	-	-	0.60	-	-	-

1. Source: NOSOSCO (1995), *Social Security in the Nordic Countries, Scope, expenditure and financing 1993*, Nordic Social-Statistical Committee, Copenhagen.
2. Source: Data kindly provided by the Bundesministerium für Arbeit und Sozialordnung.
3. Source: EUROSTAT (1996), *Digest of Statistics on Social Protection in Europe, Old Age and Survivors: An Update*, Brussels-Luxembourg. Social expenditure related to the social policy areas of old-age cash benefits and survivors' benefits through private industry-wide pension funds amounted to 0.56 percent of GDP in 1993. Relevant social expenditures concerning specific groups of self-employed professionals amounted to 0.04 percent of GDP in 1993.
4. Concerning Pensions: Own calculations based on EUROSTAT (1996), *Digest of Statistics on Social Protection in Europe, Old Age and Survivors, An Update*, Brussels-Luxembourg, and DSS (1994), *Social Security Statistics 1994*, London. For sickness benefits: own calculations based on EUROSTAT (1994), *Digest of Statistics on Social Protection in Europe, Sickness*, Brussels-Luxembourg.
5. Source: Kerns (1994), "Protection Against Income Loss During the First 6 Months of Illness or Injury", *Social Security Bulletin*, Vol. 57, No. 3, pp. 88-92, Washington DC, and Social Security Administration (1995), *Annual Statistical Supplement to the Social Security Bulletin*, Washington DC. The data on workers compensation concern expenditures on disability and survivors as well as medical benefits through private funds. The expenditures under Sickness benefits refer to mandatory temporary disability payments through private funds.

<sup>19</sup> The expenditure data for Denmark may include payments which are non-mandatory, however, the magnitude of such expenditures is deemed relatively small.

78. Whether the institutional practice of “administrative extension” of agreements between employers and employees results in mandatory private social expenditures is particularly hard to judge. In the Netherlands, for example, initially voluntary collective agreements which also cover pension are often enforced on a whole industry by administrative extension. In this case, the data do not separate the expenditures made by employers who were party to the initial (voluntary) agreement and those employers who were not. The Dutch authorities do not have any influence on the terms agreed in the initial collective agreement. The authorities can only use the tool of administrative extension on request of the parties concerned; and most of the companies and employers involved were party to the voluntary initial agreement. Thus, such expenditures have many voluntary elements and cannot be considered as directly comparable with mandatory expenditures without such voluntary elements. However, this is a borderline case, with a clear element of (mandated) compulsion, and consequently the value of such expenditures is noted as a memorandum item<sup>20</sup>.

79. Sickness benefits in the USA are predominantly voluntary or concern public employees [Kerns (1994), p.89]. Only a small part of expenditures in the context of the TDI-programme is mandatory private. Mandatory sickness payments in Europe are more prevalent, and the magnitude of such expenditures is dependant on the length of time for which such payments are due. The period of time during which the employer is mandated to provide sickness benefits in Germany is 6 weeks, which is significantly longer than in both Nordic countries (up to 2 weeks). One reason why the mandatory private expenditures in the UK are expected to increase is the growing coverage of private pension arrangements. Table 7 reflects the 1993 situation and does not take into account subsequent legislative reforms concerning the provision of sickness benefits in the Netherlands and the United Kingdom. These reforms are bound to increase further the magnitude of mandatory private expenditures in both countries.

### *Direct taxes on mandatory private benefits*

80. As with public expenditures mandatory private expenditures are also paid “gross” and therefore the same adjustments on direct and indirect taxation are necessary. However, the flows of revenue involved are different from those in the strictly public environment (Figure 1).

81. Figure 2 illustrates the flows of revenue involved in mandating employers to pay sickness benefits to employees, as compared with a publicly funded programme. The financing of benefits is now included in the analysis.

82. The figure for **country A** (short-term sickness payments as a public social expenditure) illustrates the essentially the same situation as country A in figure 1. Employers pay social security contributions to a (sub-sector of) government (dark-shaded area). The value of these payments is 1500. Out of this revenue, government pays a gross benefit of 1500 to benefit recipients. The recipient pays 500 in taxes on this amount to the government sector. In total, enterprises paid 1500, beneficiaries received a net amount of 1000, and the government is a net recipient of 500.

83. **Country B** is assumed not to provide short-term sickness benefits, but instead obliges employers to provide such benefits. The government sector acting as an intermediary in country A is

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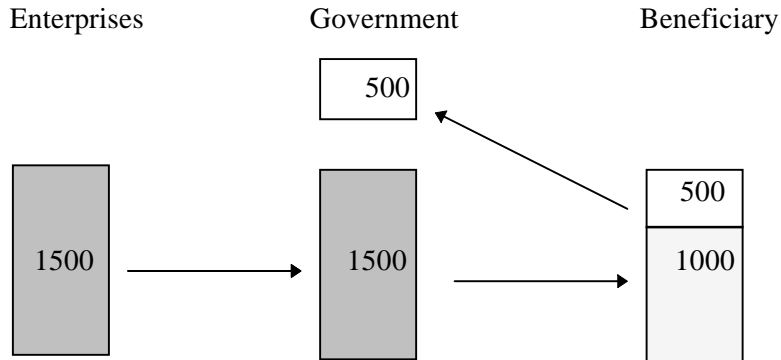
<sup>20</sup> Similar arrangements exist concerning specific groups of self-employed professionals, the relevant expenditures are included in the memorandum item.

taken out of the chain of flows from enterprises to beneficiary. There is now a direct flow from enterprises to beneficiaries amounting to 1500 (dark-shaded area), from which the beneficiary again pays 500 to government. From the perspective of the beneficiary there is no difference between the two countries. Similarly, as in country A, government receives taxes (500 currency-units) from the beneficiary. The net position of all parties is identical in both cases. Correcting national data for the differences in institutional structure therefore requires account to be taken of taxes on mandatory private transfers.

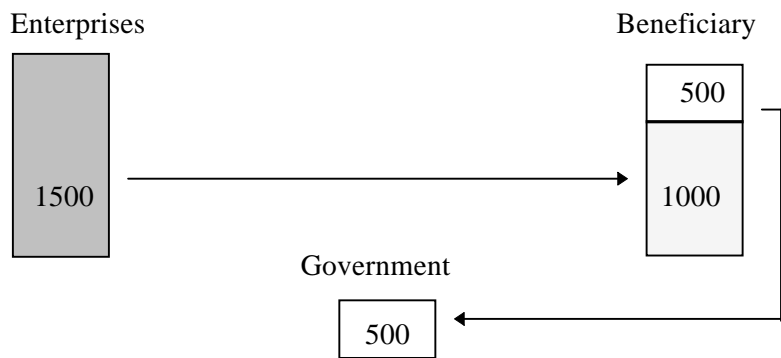
84. The net value of mandatory private social expenditure is found by adjusting for the value of direct and indirect taxes in line with the methods described previously. Combining net current mandatory private social expenditure and net current public social expenditure leads to an indicator of net government effort on social support: net current publicly mandated social expenditure (Table 8.).

**Figure 2. Schematic representation of taxes on mandatory private payments**

**Country A: Short term sickness financed through public expenditure**



**Country B: Short-term sickness as a mandatory private benefit**



Note: Dark-shaded area gross benefit expenditure by employer; light-shaded area depicts net benefit expenditure; non-shaded area depicts tax on benefit paid by benefit-recipient; arrows indicate direction of cash-flows.



## **G. Conclusions.**

85. SOCX accurately records gross direct social expenditures in OECD countries. However, those data cannot be used directly for all purposes. For example, statements that “Country A is more generous in its support of families because it spends more than country B on child benefits” cannot unconditionally be supported by using the data in SOCX. Country A may tax the benefits, whereas country B may not.

86. This report has considered adjustments to gross social expenditure data which enable conclusions to be drawn about the net public budgetary cost of social protection.

87. The study has the following limitations:

- Adjustments for direct taxation are necessarily approximate and vary in quality across countries;
- Adjustments for indirect taxation are highly dependant on assumptions. Apparently reasonable assumptions can give indirect tax rates of almost twice the rate of indirect tax rates based on alternative, but also reasonable, assumptions. However, despite this variation in tax rates, the relative ordering of countries by rates of indirect tax remains unchanged;
- Measurement of social-fiscal measures requires assumptions which, interpreted strictly, do not allow different social-fiscal measures to be summed. Similarly, the most used method of calculating social-fiscal measures -- the revenue foregone method -- does not give results which are strictly comparable with direct expenditures. That both these limitations are ignored here can be seen as a shortcoming in the results, albeit one which is driven by data limitations. It should, however, be noted that the absolute size of such expenditures is small in comparison with direct expenditures;
- Methodological and data problems have limited the treatment of social-fiscal measures relating to pensions. As the memorandum data shown in Table 8 indicate<sup>21</sup>, social fiscal measures are not negligible for the United Kingdom and the United States;
- Adjustments were made for mandatory private social expenditure. However, in some countries with apparently low levels of mandatory private expenditure (such as the Netherlands, the United Kingdom and the United States) non-mandatory employer-provided social expenditure, particularly on pensions and health insurance, is often high.

88. These limitations do not seem to be so great as to invalidate the results generated in this study. The adjustments made for direct and indirect taxes can be refined, but there seems no reason to believe the simplifications followed in this paper are misleading. The problems in defining and aggregating social fiscal measures can easily be exaggerated: given the small sums involved, it is implausible to suggest that some improved methodology might give substantially different results. Hence, the following conclusions can be drawn:

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<sup>21</sup> For the adjustment of GDP data for indirect taxes we refer to Annex 3.

- There is no correlation between the level of mandatory private expenditures and the level of direct public expenditure;
- Countries with high direct expenditure are more likely to have high average direct and indirect tax rates;
- Social-fiscal measures are more commonly found in countries with low direct expenditure than in those with high direct expenditure.

89. As a result of these latter two conclusions, it can be seen that the variation in gross direct public expenditures (as recorded in SOCX) is larger than is the variation in net current public social expenditure: a standard deviation of 7.8 in the former case, as compared to around 4.4 in the latter. The apparently large differences in gross direct public social expenditure are due in part to institutional differences in the ways in which social objectives are pursued by government. Simplistic observations on the role of government which do not take into account the role of mandatory private expenditures, taxation of cash transfers and social fiscal measures may be grossly misleading.

**Table 8. Gross to net expenditure adjustment as a percentage of GDP, 1993**

Item (1)	Denmark	Germany	Netherlands (2)	Sweden	United Kingdom	United States
1 Gross direct public social expenditure (as presently in SOCX)	30.51	28.66	30.64	38.25	23.41	15.04
- Direct taxes and social contributions paid on transfers	3.91	2.57	5.86	5.31	0.19	0.08
2 Net cash direct public social expenditure	26.60	26.09	24.78	32.94	23.22	14.96
- Indirect taxes	3.87	2.90	2.47	3.70	2.30	0.47
3 Net direct public social expenditure	22.73	23.19	22.31	29.24	20.92	14.49
+ Social/fiscal measures on public and private social expenditure	0.08	0.78	0.08	-	0.36	1.15
4 Net current public social expenditure	<b>22.81</b>	<b>23.97</b>	<b>22.39</b>	<b>29.24</b>	<b>21.28</b>	<b>15.64</b>
5 Gross direct mandatory private social expenditure	0.43	1.60	-	0.62	0.23	0.48
- Direct taxes and social contributions paid on transfers	0.12	0.51	-	0.19	0.01	0.003
- Indirect taxes	0.08	0.18	-	0.08	0.03	0.03
6 Net current mandatory private social expenditure	0.23	0.91	-	0.35	0.19	0.46
7 Net current publicly mandated direct social expenditure [4+6]	<b>23.05</b>	<b>24.88</b>	<b>22.39</b>	<b>29.58</b>	<b>21.47</b>	<b>16.10</b>
Memorandum adjustments:						
+ Social/fiscal measures on old age cash benefits (3)	N/A.	N/A	N/A	N/A	2.68	0.85
8 Net accruing public social expenditure	-	-	-	-	0.00	0.00
+/- Adjustment for the cycle (3)	N/A	N/A	N/A	N/A	N/A	N/A
9 Net underlying accruing public social expenditure	-	-	-	-	-	-
Memorandum items:						
Pensions under administrative extension	-	-	0.60	-	-	-
For information: Non-public health expenditure (4)	1.18	2.51	1.97	1.28	1.06	7.65
Related to GDP factor cost						
Net current public social expenditure (5)	26.35	27.17	24.86	32.39	24.46	16.96
Net current publicly mandated social expenditure (5)	26.62	28.20	24.86	32.78	24.68	17.46

1. All data presented in percentage of GDP at market prices except when indicated.
2. Values of social-fiscal measures for the Netherlands concern 1994.
3. N/A: information not available.
4. Source: OECD (1996), Health Data 1996, Paris. Non-public health expenditure is defined as the difference between total health expenditure and public health expenditure.
5. As a percentage of GDP adjusted for indirect taxes, see Annex 3.

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## ANNEX 1: ADJUSTMENTS FOR THE ECONOMIC CYCLE

A1. International comparisons of the ratio between social expenditure and GDP will reflect not only differences in the level of social expenditure but also reflect differences in levels of economic activity: there is an inverse relationship between short term fluctuations in public transfer expenditure and in GDP. The automatic budget effects can be quite powerful, a low level of economic activity (relative to a peak in the cycle) can lead to an increase of the expenditure to GDP ratio. International comparisons are further affected by the desynchronisation of the economic cycle: the economies concerned are not all at the same stage of the cycle at the same time. Therefore, an adjustment is needed to capture the automatic budget effects resulting from deviations from the structural GDP.

A2. The public social expenditure ratios with actual GDP and “trend GDP” are presented in Chart A1. Trend GDP has been calculated applying a Hodrick-Prescott filter (smoothing-factor 1000) on GDP data for the period 1980-1994. This non-linear “trend GDP” does not properly adjust for GDP-fluctuations with the cycle and therefore is not equivalent to structural GDP. However, deviations from “trend GDP” approximate deviations from structural GDP to a certain extent and as such can be used as an illustration.

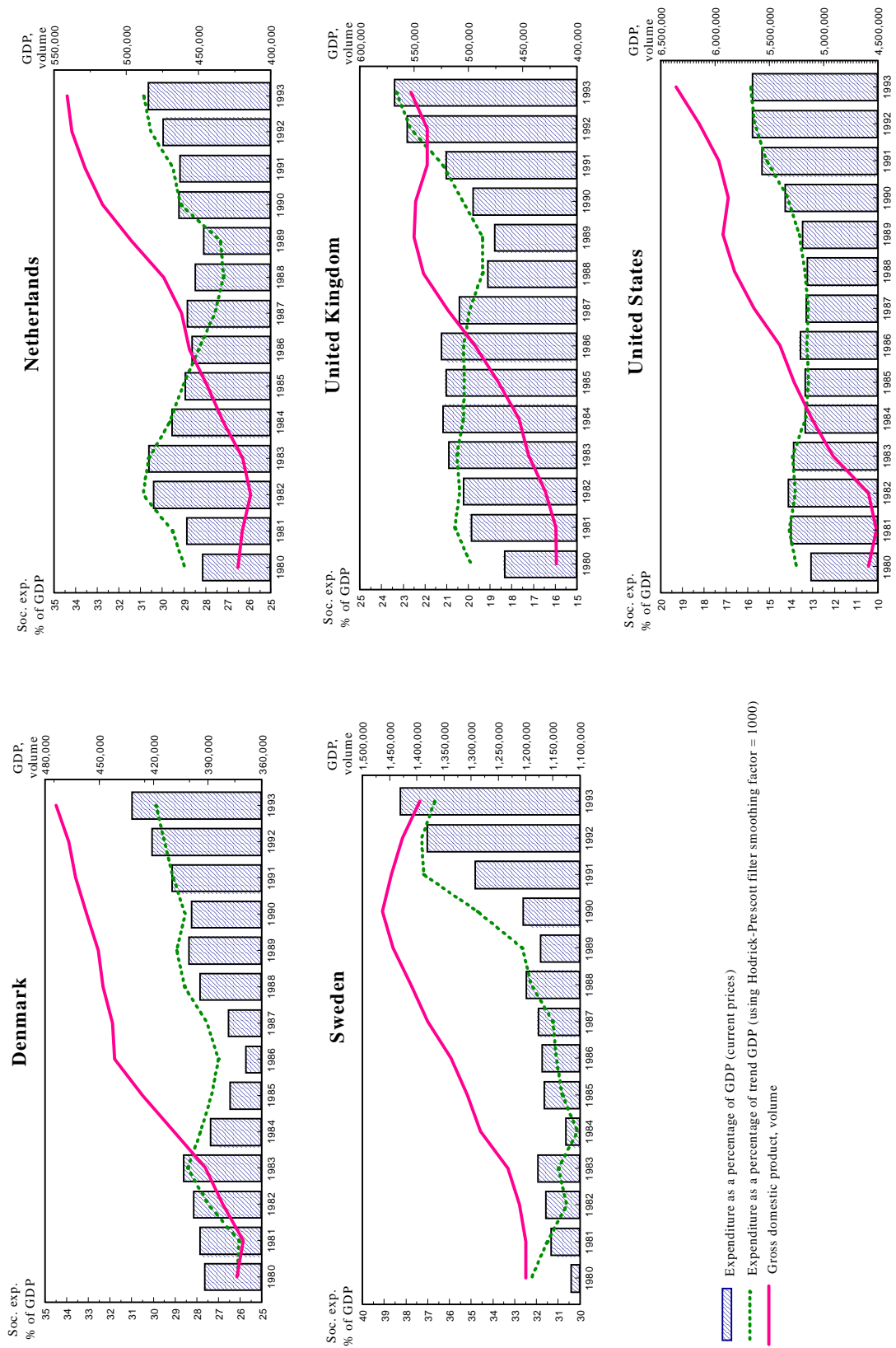
A3. When social expenditure grows in line with GDP the ratio will remain stable over time as in the US for the years 1984-1989 and 1992-93. It is clear from Chart A1 that such stability is rare. Both in the Netherlands and the United Kingdom the social expenditure to GDP ratio declines due to surges in GDP at the end of the 1980s. When GDP fell in the US at the beginning of the 1990s, the social expenditure to GDP ratio duly rose.

A4. Chart A1 illustrates that there is significant variety of timing and impact of cyclical fluctuations which are important in the context of cross-country comparisons<sup>22</sup>. Fluctuations of GDP do not appear in a synchronised manner across countries: for example the most recent cyclical trough appeared in the US in 1990 (compared to 1991 in the UK) and its relevant magnitude was little in comparison to the Swedish experience in the beginning of the 1990s: the ensuing increase in the social expenditure to GDP ratio amounted to 6 percentage points from 1990 to 1993.

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<sup>22</sup> Germany is not included as there is no data for the period prior to 1991. Moreover, the use of a Hodrick-Prescott filter to smooth a series so as avoid a structural effect around the time of re-unification would defeat the concept of a structural indicator.

**Chart A1. Trends in Social Expenditure and GDP**



A5. It is also clear from Chart A1 that countries are not always above or below “trend” at the same time. For example, in 1993 social expenditure as a percentage of GDP was high compared to “trend-GDP” in Sweden and Denmark, whereas there was little difference for the other countries at that time. This indicates that spending is cyclically high for these two countries, and ideally we would like to make the relevant adjustment (see summary Table 8). These effects can also be illustrated by comparing OECD estimates of the “output gap”, actual GDP can be compared with potential GDP [OECD (1994), *Economic Outlook* 56]. In Denmark and Sweden, actual GDP was lower than structural GDP in 1991. Hence, transfer spending as a percentage of actual GDP is higher than transfer spending as a percentage of underlying GDP. The opposite was the case in the Netherlands and the United Kingdom. However, there remains a separation issue: is spending high due to increased spending on unemployment compensation, early retirement, etc., and/or is GDP simply relatively low, without upward impact on the relevant expenditure ratio.

A6. One adjustment to consider is the effects of cyclical -- and therefore temporary -- changes in transfer spending due to unemployment. Ideally, the magnitude of the automatic budget effect concerning transfer expenditure is measured as the change in transfer expenditure resulting from temporary differences between actual employment and structural employment. Unemployment benefits have a clear cyclical pattern, rising if unemployment rises. However, other social spending may also rise: housing benefits and social assistance payments may be made to the unemployed; unemployed workers may retire from the labour force on reduced old age pensions, or find their way on to invalidity benefits [Adema (1993, Blondal and Pearson (1995)]; even health spending may be correlated with low incomes and/or unemployment. The extent of such links remain, however, difficult to quantify, and in this study are ignored.

A7. A Danish White paper adopted an indicative approach. The average unemployment rate over the period 1981 to 1991 for Germany (5.9 per cent), the Netherlands (9.2 per cent), Sweden (2.5 per cent) and the United Kingdom (9.9 per cent) was taken to give a crude indication of the structural level of unemployment. Deviations from that level in 1991 were taken to be cyclical. The adjustments described allowed for the calculation of “structural” social expenditures as a percentage of “structural” GDP. The Danish Ministry of Finance compared this ratio with actual social spending as a percentage of actual GDP. They find that the latter ratio is higher for Denmark and Sweden (by around 1 percentage point) and lower for the UK (by around one percentage point), Sweden (one and a half percentage points) and Germany (two percentage points).

A8. For a variety of reasons, these adjustments should be seen as examples, which can be improved on by using a refined methodology. For example, fluctuations in GDP may lead to alterations in the (survey-based) unemployment rate at a different rate from that of registered unemployment benefit claimants. The impact of fluctuations in economic activity on the latter has to be properly established. As described above, social expenditure other than unemployment benefits might be cyclical. Moreover, the trends in economic activity do not run parallel with the cyclically induced fluctuations in social expenditure. For example, immediately after a cyclical trough GDP-growth will pick up, whereas there typically is a time-lag before a reduction in unemployment, and, to a certain extent, in the number of unemployment claimants. Incorporating some form of a lagged effect might improve the accuracy of such a methodology. Movements in the cycle affect social expenditure also through wage-patterns: at times of economic slack, wage pressure diminishes. Consequently, growth of health-expenditure is bound to diminish (wages of medical personnel are part of health-expenditure as it is an integral part of the service provided). Furthermore, spending on other benefits, as the relevant benefit-levels are often linked to wages, could diminish in real terms. This “wage-effect” of the cycle on social expenditure may well appear with a time-lag. The automatic

budget effects do not all point in the same direction, wage effects, for example, do not lead to an increase of the expenditure to GDP ratio. Thus, proper consideration is due to the following issues:

- The selection of a internationally comparable indicator of structural unemployment;
- The social expenditures to be included in the calculation;
- The right balance between GDP adjustments and social expenditure adjustments;
- The “lagged social expenditure effect”;
- The “ wage-effect”.



## ANNEX 2: A DETAILED ACCOUNT OF SOCIAL-FISCAL MEASURES

### Table A2.1 Denmark

Value of social-fiscal measures 1993		
Social-fiscal measures (cash basis)	National currency DKR (min)	in per cent of GDP
Old Age-Pensions (1)	N/A	N/A
Old Age-Other		
Supplement for older people "Engangsbeløb" (67+)	144	0.02
Capital tax reduction older persons (67+)	300	0.03
Housing older people "Plejhjem"	229	0.03
Health	-	-
Other Income Maintenance	-	-
Other	-	-
TOTAL	673	0.08
TOTAL (excluding old age pensions)	673	0.08

1. N/A: information not available.  
*Source:* Ministry of Finance, Denmark.

### Table A2.2 Germany

Value of social-fiscal measures 1993		
Social-fiscal measures (cash basis)	National currency (min)	in per cent of GDP
Old Age-Pensions		
Old age pensions	2510	0.08
Old Age-Other	-	-
Health		
Illness	123	0.00
Invalidity	1246	0.04
Other Income Maintenance		
Children and youth	20806	0.66
Employment	1804	0.06
General Neediness	227	0.01
Consequences of political events	425	0.01
Other	-	-
TOTAL	27141	0.86
TOTAL (excluding old age pensions)	24631	0.78

*Source:* Federal Ministry of Labour and Social Affairs (1994), *Social Security in Germany: Expenditure and Revenue 1960-1993*, Bonn.

**Table A2.3 The Netherlands**

Value of social-fiscal measures 1994 (1)		
Social-fiscal measures (cash basis)	National currency HFL (min)	in per cent of GDP
Old Age-Pensions		
Relief for occupational pension programmes (2)	N/A	N/A
Relief for private pension programmes (2)	N/A	N/A
Contributions to old age reserve (in part)	495	0.08
Old Age-Other	-	-
Health		
Deduction of exceptional medical expenses	390	0.07
Other		
No collection of tax in case of little income	65	0.01
Additional one-parent allowance	35	0.01
TOTAL	985	0.16
TOTAL (excluding old age pensions)	490	0.08

1. Because of data-problems some social-fiscal measures of relatively small importance have been omitted.  
2. N/A: information not available.  
*Source:* OECD (1996), Tax Expenditures: Recent Experiences, Paris.

**Table A2.4 Sweden**

Value of social-fiscal measures 1993		
Social-fiscal measures (cash basis)	National currency (mln)	in per cent of GDP
Old Age-Pensions		
Deductible premiums for private pensions		
Low taxes on dividends from pensions funds		0.10
Employers costs for extra professional pensions		0.10
Old Age-Other	-	
Health		
Other Income Maintenance		
TOTAL		0.20
TOTAL (excluding old age pensions)		0.00

*Source:* Ministry of Finance, Sweden.

**Table A2.5 The United Kingdom**

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Value of social-fiscal measures 1993		
Social-fiscal measures (cash basis, fiscal year 1993)	National currency GBP (min)	in per cent of GDP
Old Age-Pensions		
Relief for occupational pension programmes	7400	1.14
Relief for contributions to personal pensions	1600	0.25
Incentive for personal pensions and new contracted-out occupational programmes	810	0.12
Contracted-out rebate for occupational programmes and personal pensions (National Insurance contributions)	7600	1.17
Old Age-Other	-	-
Health		
Relief for private medical insurance premiums (those aged 60+)	80	0.01
Other Income Maintenance		
Exemption of first 30,000 GBP of payments on termination of employment	1300	0.20
Age related allowances	650	0.10
Additional personal allowance for one parent families	300	0.05
Other	-	-
TOTAL	19740	3.03
TOTAL (excluding old age pensions)	2330	0.36

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Source: OECD (1996), Tax Expenditures: Recent Experiences, Paris.

**Table A2.6 The United States**

Value of social-fiscal measures 1993		
Social-fiscal measures (1) fiscal year 1993	Cash Basis National currency US\$ (min)	in per cent of GDP
<b>Old Age-Pensions</b>		
Net exclusion of pension contributions and savings:		
* Employer plans	49430	0.72
* Individual retirement accounts	5720	0.08
* Keogh plans	3245	0.05
<b>Old Age</b>		
Exclusion of employer provided death benefits	25	0.00
Additional deduction for the elderly	1510	0.02
<b>Health</b>		
Exclusion. of employer contributions for medical insurance premiums and medical care	46895	0.69
Deductibility of medical expenses	3010	0.04
Exclusion. of interest on State and local debt for private non-profit health facilities	1405	0.02
Deductibility of charitable contributions (health)	1770	0.03
Special Blue Cross/Blue Shield deduction	105	0.00
Credit for child medical insurance premiums	110	0.00
<b>Other Income Maintenance</b>		
Exclusion. of premiums on accident and disability insurance	135	0.00
Exclusion. of income of trusts to finance supplementary unemployment benefits	35	0.00
Special ESOP rules (other than investment credit)	2070	0.03
Additional deduction for the blind	40	0.00
Tax credit for the elderly and disabled	60	0.00
Deductibility of casualty losses	695	0.01
Earned income credit	3805	0.06
<b>Other</b>		
Targeted jobs credit	160	0.00
Exclusion. of employer provided child care	620	0.01
Credit for child and dependent care expenses	2540	0.04
Credit for disabled access expenditures	150	0.00
Expensing of costs of removing architectural barriers to the handicapped	20	0.00
Deductibility of charitable contributions, other than education or health	13130	0.19
Exclusion. of certain foster care payments	25	0.00
Exclusion. of personage allowances	235	0.00
<b>TOTAL</b>	<b>136945</b>	<b>2.00</b>
<b>TOTAL (excluding old age pensions)</b>	<b>78550</b>	<b>1.15</b>

1. Only federal taxes are considered.

Source: United States Office of Management and Budget (1994), *Analytical Perspectives, Budget of the United States Government, Fiscal Year 1995*, Government Printing Office, Washington DC.

### ANNEX 3: GDP ADJUSTMENT

A1. In order to compare across countries current social expenditures denoted in national currencies we have related these expenditures to the Gross Domestic Product (GDP) of the relevant economies. GDP here is at market prices and thus represent gross expenditure on the final uses of the domestic supply of goods and services valued at purchasers' values. GDP at market prices is the indicator of the use of an economies' resources which is normally used in the context of international comparisons.

A2. However, net government effort on social support has been measured taking account of the value of indirect taxes which are levied by governments. As indirect taxes also form a significant part of GDP at market prices it there is a case for also adjusting GDP for this feature. The resulting GDP is equal to GDP at factor cost and this also includes government subsidies to private enterprises and public corporations and subsidies to cover operating losses of government enterprises when such losses are due to price-setting below the cost of production.

A3. In 1993, indirect taxes as a percentage of GDP at market prices varied between 12.5 (the Netherlands) and 17.5 (Denmark) for the European countries (Table A3). This ratio is significantly lower in the US: 8.4 percentage points. Therefore, if we measure net current public social expenditure relative to GDP adjusted for indirect taxes, the gap between spending levels in the US vis-à-vis European is wider than when related to GDP at market prices.

**Table A3. Net current public social expenditure to adjusted GDP, 1993**

	Denmark	Germany	Netherlands	Sweden	United Kingdom	United States
Indirect taxes as a percentage of GDP at market prices	17.5	13.4	12.5	15.6	14.2	8.4
Net current public social expenditure as a percentage of GDP	23.28	25.01	22.50	29.92	21.48	16.08
Net current public social expenditure as percentage of adjusted GDP.	26.90	28.35	24.98	33.15	24.69	17.44

Source: National Accounts database

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