The OECD SOCX Manual 2019 Edition

A guide to the OECD Social Expenditure Database



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The OECD Social Expenditure Database (SOCX) was developed in order to serve the need for indicators of social policy. It includes reliable and internationally comparable statistics on public and (mandatory and voluntary) private social expenditure at programme level as well as net (after tax) social spending indicators. SOCX provides a unique tool for monitoring trends in aggregate social expenditure and analysing changes in its composition.

This document provides a guide to the OECD Social Expenditure Database and starts with a discussion of methodological, classification and data issues regarding the gross spending items as in the OECD Social Expenditure Database (SOCX). It also discusses the methodological aspects of measuring net (after tax) social expenditure, and presents information on how relevant estimates were derived. The annexes to this document include supplementary information from OECD Health, Education and Employment Databases.

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1. Introduction

- 1. The OECD Social Expenditure database (SOCX) was developed to analyse trends in social spending and its composition at the detailed social expenditure programme level. The detailed information in SOCX enables users to verify spending aggregates, regroup spending items for the analysis of selected social policy areas, and undertake cross-national analysis of trends in social policy reform. For 16 countries, estimates on public spending go back to the 1960s. Detailed spending series are available from 1980 until 2015/16 for most countries, but for countries that joined the OECD in the 1990s and 2000s data may only be available for shorter periods. This version of SOCX includes information on spending for 36 OECD countries, including those countries that joined most recently Chile, Estonia, Israel and Slovenia (all in 2010); Latvia (2016), and Lithuania (2018).
- 2. Detailed SOCX data is not available for the period after 2015/6. However, the aggregates public social expenditure series in SOCX was extended to 2017 and 2018 using available information on national aggregates in the *OECD Economic Outlook Database* (OECD, 2018_[1]) and the *European Union's Annual macro-economic database* (*AMECO*), or country responses to an OECD questionnaire on social expenditure outlook based on budget data.
- 3. Over the years, SOCX has developed in different dimensions, particularly in the areas of private social expenditure; spending on children participating in formal early childhood education and care services; and, net after tax indicators of social expenditure. The OECD Social Policy Division works closely with the OECD Centre for Tax Policy and Administration to improve the quality of the net social expenditure indicators that are now available for 34 countries. Unfortunately, the necessary detail to obtain good estimates on the amount of tax levied on benefits only becomes available about 2 to 3 years after the date.
- 4. The following sections provide some background to SOCX, define the social protection domain; outline categorisation and recording practices; and, discuss the methodology underlying net (after tax) social spending indicators. The annexes to this document present detailed information on: sources used with respect to gross social expenditure programmes in SOCX; including the OECD Education, Employment and Health Databases; and, on how to access SOCX electronically (see also www.oecd.org/els/social/expenditure).

2. Background

- The OECD Social Expenditure database was developed in the 1990s to facilitate 5. comparative cross-national social policy analysis (OECD, 1996_[2]). In principle the System of National Accounts (SNA) provides a comprehensive accounting framework for social expenditure and its financing (EC/IMF/OECD/UN/WBG, 1993_[3]; 2009_[4]). In practice, however, the aggregate nature of data included in 'social transfers' (cash and in kind) in the SNA proved inadequate for detailed analysis of public social policy programmes (Oxley et al., 1991_[5]; Varley, 1986_[6]). As a result, when the OECD Social Expenditure database (SOCX) was set up in the early 1990s, it was designed to be transparent through the recording of spending items at a detailed level: the 'social expenditure programme' for all 35 OECD countries in national currency. For example, SOCX includes information for 60 to 65 separate social programmes for Canada, the Netherlands and the United States, around 80 for Lithuania and about 350 for France. The detailed nature of expenditure data in SOCX constitutes an important form of quality control as the high level of transparency associated with detailed recording limits the scope for inappropriate recording (including double counting) of spending items in SOCX.
- 6. The detailed information on social expenditure items included in SOCX permits a variety of types of analysis of the effects of social policy to be undertaken. The detail in SOCX allows for in-depth study of national and cross-national social protection policy, as for example in the OECD Economic Surveys of individual member countries. It also allows for a grouping of expenditures to match the analytical needs of users, as for example, using different definitions of active social policy; an assessment of spending on all incapacity-related support programmes; an evaluation of expenditures targeted primarily at different age groups, etc. Both OECD analysts and external researchers make extensive use of information on trends and changes in the composition of social spending as in SOCX, see for example (Adema and Whiteford, 2010_[7]; Caminada and Goudswaard, 2005_[8]; Castles, 2004_[9]; Castles and Obinger, 2007_[10]; Darby and Melitz, 2008_[11]; Fishback, 2010_[12]; Furceri, 2009_[13]; Goudswaard and Caminada, 2016_[14]; Kirkegaard, 2009_[15]; OECD, 2011_[16]).
- 7. SOCX also presents the aggregated public and private social expenditure grouped along nine social policy areas, and to facilitate international comparisons this information is related to: gross domestic product; gross national income; total government expenditure; and, in purchasing power parities per head. SOCX does not contain information on the financing of social programmes.
- 8. The OECD has developed different and more comprehensive measures of the resources devoted to social policies in OECD countries; indicators on net (after tax) total (public and private) social expenditure. This work started in the mid-1990s with initial estimates on net public social expenditure for six countries (Adema et al., 1996_[17]), but over the years the methodological framework and available data have been extended to cover 34 countries (detailed information per country is presented online on the OECD Social Expenditure Database webpage (http://www.oecd.org/social/expenditure.htm). This work is undertaken in close collaboration with the OECD Centre for Tax Policy and Administration,

Since the initial version in 1996, the OECD updated SOCX annually in 1999, 2000 and 2001 (via CD-Rom). Since then updates have been once every two years via the internet: 2004, 2007, 2009, 2010, 2012, 2014, 2016 and the 2018 edition.

and these indicators are treated as an integral part of SOCX, and will be updated as the rest of the database, i.e., every two years.

The *OECD Social Expenditure database* (SOCX) has been designed to be compatible with the System of National Accounts and inter alia the System of Health Accounts (EC/IMF/OECD/UN/WBG, 2009_[4]; OECD/Eurostat/WHO, 2017_[18]). It is also broadly compatible with Eurostat's European System of Social Protection Statistics – ESSPROS, and the ILO Social Security Inquiry – SSI (Box 1). The *OECD Social Benefit Recipients Database* includes data on the number of recipients of social expenditure programmes and was designed based on the SOCX classification. Information on social expenditure and recipiency of social support that is collected by the Asian Development Bank as part of its Social Protection Index initiative is also broadly compatible with the other databases (ADB, 2016_[19]).

Box 1. The relationship between OECD, Eurostat and ILO social accounting systems.

Compared to SOCX, the scope of the European System of Social Protection Statistics – ESSPROS (Eurostat (2017_[20]); (2016_[21]) and the Social Security Inquiry – SSI (ILO, 2005_[22]), is wider as these systems also include information on the financing of social expenditure. From a statistical perspective it may be desirable that the *OECD Social Expenditure database* is extended to include information on the financing of social programmes that is consistent with the OECD Revenue Statistics. However, the resources that would be required for such an exercise are likely to exceed the gains that would be made in terms of strengthening policy analysis.

In terms of social domain, the OECD has arguably the largest scope as it has developed a methodology, which facilitates the comprehensive accounting of fiscal measures that affect social protection (see below). In terms of gross spending items, the SSI has a relatively large scope as it includes spending supporting basic education, as, for example, spending on schoolbooks. SOCX reports public spending on education other than Early Childhood Education and Care as a memorandum item, see Annex I.1.4).

Functional categorisations in ESSPROS and the Social Security Inquiry are also slightly different from each other. ESSPROS groups items in 7 functions; the SSI identifies 11 functions; SOCX has 9 social policy areas.

3. Defining the social domain

9. To facilitate cross-country comparisons of social expenditure, the first step is to demarcate what is 'social' and what is not. The OECD defines social expenditures as:

"The provision by public and private institutions of benefits to, and financial contributions targeted at, households and individuals in order to provide support during circumstances which adversely affect their welfare, provided that the provision of the benefits and financial contributions constitutes neither a direct payment for a particular good or service nor an individual contract or transfer."

- 10. Since only benefits provided by institutions are included in the definition transfers between households albeit of a social nature, are not in the social domain. Social spending does not include remuneration for work, as it does not cover market transactions, i.e., payments in return for the simultaneous provision of services of equivalent value. Employer costs such as allowances towards transport, holiday pay, etc. are part of remuneration and are not included.
- 11. Social benefits include cash benefits (e.g., pensions, income support during maternity leave and social assistance payments), social services (e.g., childcare, care for the elderly and disabled) and tax breaks with a social purpose (e.g., fiscal support for families with children, or favourable tax treatment of contributions to private health plans).
- 12. Two main criteria have to be simultaneously satisfied for an expenditure item to be classified as "social". First, the benefits aim to address one or more social purposes. Second, programmes regulating the provision of benefits have to involve either a) inter-personal redistribution, or b) compulsory participation.

3.1. Towards a social purpose

- 13. The *OECD Social Expenditure Database* groups benefits with a social purpose in nine policy areas (see section 4.1 for more detail):
 - Old age pensions (Box 2), early retirement pensions, home-help and residential services for the elderly;
 - Survivors pensions and funeral payments;
 - Incapacity-related benefits care services, disability benefits, benefits accruing from occupational injury and accident legislation, employee sickness payments;
 - Health spending on in- and out-patient care, medical goods, prevention;
 - Family child allowances and credits, childcare support, income support during leave, single parent payments;
 - Active labour market policies employment services, training, employment incentives, integration of the disabled, direct job creation, and start-up incentives;
 - Unemployment unemployment compensation, early retirement for labour market reasons;
 - Housing housing allowances and rent subsidies; and,
 - Other social policy areas non-categorical cash benefits to low-income households, and/or other social services; e.g. legal aid in the Netherlands or the Supplemental Nutrition Assistance Program (SNAP), formerly Food Stamps in the United States.

Box 2. Earnings and deferred wages; the treatment of pensions and severance payments in SOCX

The definition of social spending explicitly rules out remuneration for work, and therefore SOCX does not include items as holiday pay or transport allowances. The exclusion of remuneration for current work effort from the social spending remit is uncontested, but what about "remuneration for past work or deferred wages"? In fact, a substantial part (i.e., that part financed by employer contributions) of the pension payments by public and private pension funds can be argued to concern deferred wages. If social expenditure were not to include such items then SOCX – and other relevant databases, would exclude almost all pension payments. Instead, by convention, pensions (in general transfers to people above retirement age), are considered to be part of social expenditure, also when cofinanced by past employer contributions.

If pensions are considered to be social expenditure then the question arises which other similar payments should also be included in the database. General or life insurance saving plans are also often used for retirement purposes. But it is unclear to what extent this is the case as there is insufficient detail in the available data. Hence, unless saving programmes are earmarked towards income support in retirement, they are not considered to be 'social'.

Severance payments can also be made upon retirement, but not exclusively. Severance payments are made when an employment relationship between employer and employee ceases to exist, and that may be because an employee quits voluntarily to take up another job, is dismissed or retires.

In its balance of methodological choices, SOCX treats severance payments on retirement as retirement allowances similar to pensions, while severance payments to people below the normal retirement age are generally considered as separation payments and treated as remuneration. There is one exception: the *OECD Employment Database* and SOCX include "redundancy compensation", when such payments are made by public funds to workers "who have been dismissed through no fault of their own by an enterprise that is ceasing or cutting down its activities". This covers a small and specific group of all "severance payments", which are included under unemployment compensation.

In theory, SOCX should include that part of spending of the severance pay which is given to people who reach retirement, and exclude the rest. However, such a level of detail is generally not available, and choices on whether or not to include severance payments had to be made on a case-by-case basis.

By and large this issue is most relevant to the following three countries:

i) Spending on severance payments is worth about 0.8% of GDP in total in Italy. Former public and private sector employees receive these payments, which can be made by public agencies (e.g. INPDASP or INPS) and private sector funds. Since reform in 2006 employers have to make contributions to private funds of their choice, with payments due to the employee upon ending of the employment contract, often, but not exclusive on retirement. These payments are grouped under "Old age" as mandatory private social expenditure. Some severance pay is included as redundancy compensation among spending on unemployment compensation. Relevant payments are made by public funds in case the employer is unable to make the payment, for example, because of bankruptcy This is in line with the definitions of the OECD Employment Database.

- ii) New Evidence from Japan suggests that voluntary private severance payments amounted to 1.6% of GDP in 2015 (relevant statistics on severance payments/retirement income are published in the Tax Statistics published by the National Tax Office in Japan). The Japanese authorities assume that the majority of recipients of severance pay receive these payments on retirement, even though the statistics do not allow for an exact identification of that percentage.
- iii) In Korea, total severance payments amounted to 2.5% of GDP in 2016. The majority of severance payments are being made when workers are laid off or quit voluntarily before compulsory retirement age. Korean policy aims to convert severance payments into a corporate pension saving, leading to the so-called "Retirement Pension Benefits". However, while the government provides tax incentives to stimulate conversion, it is not mandatory, and the proportion of enterprises involved was around 27 % by the end of 2016 (Statistics Korea, 2017_[24]). Only a minority of all employer-paid severance payments (around 35% at maximum) concerned workers who retired, and therefore SOCX includes 20% of all spending on severance payments under mandatory private old-age expenditure.
- 14. The borderline of the social domain is not always immediately clear because policy objectives differ across countries. Tackling child poverty is an important policy objective in all OECD countries, and support for children (either through cash transfers, services or through the tax system) is within the social domain. However, favourable fiscal treatment of marital status is not considered as social support in the *OECD Social Expenditure Database*, as there is no OECD-wide agreement on whether such support reflects the pursuit of social policy objectives (across countries there are also different views on the basic economic unit that is the appropriate basis for taxation).
- 15. Rent subsidies are considered social, as is residential support for the elderly, disabled and other population groups (as recorded under Old-age, Incapacity-related benefits, etc.). Mortgage relief for low-income households has some similarities with such programmes. However, it is unclear up to what level of income, or what level of property value, such support should be considered as social. Relevant thresholds differ across countries, while, in any case, comprehensive cross-national data are not available. For these reasons, mortgage relief and capital subsidies towards construction of housing are not considered here.
- In general, SOCX does not record education spending (Annex I.1.4). However, it does record spending on early childhood education and care (ECEC), and data has been taken from national statistics, Eurostat and OECD Education at a Glance (OECD, 2018_[25]). Crosscountry comparisons of public expenditure on ECEC are complicated by differences in the structure of education systems, and in particular by cross-country differences in the age at which children move from ECEC into primary education. While in many OECD countries children enter primary education at age six, in some (e.g. Australia, Ireland, New Zealand and the United Kingdom) they enter earlier at age five, while in others (e.g. Estonia, Finland, Hungary, Latvia, Poland and Sweden) they enter later at age seven. To improve comparability, the SOCX data on public expenditure on ECEC are adjusted to account for these differences in primary education entry age. For countries where children enter primary education earlier than age 6, expenditure on ECEC is adjusted upwards by adding in any expenditure corresponding to children under age 6 enrolled in primary school. For countries where children enter primary school at age 7 or later, expenditure on ECEC is adjusted downwards by excluding any expenditure corresponding to children age 6 or above, sometimes by using estimates derived on basis of available data on spending on education and the number of 6-year-olds (OECD Family Database, Indicator PF3.1).

17. Nevertheless, there remain weaknesses in spending data, not least because local governments often play a key role in financing childcare services. This does not lead to recording issues in Nordic countries, but in other (often federal) countries, it is much more difficult to get a good view of public support for childcare or across a country. This is because local governments may use different funding streams to finance childcare services, e.g., including non-earmarked general "block grants", as in Canada, or because information on spending by local governments on childcare is not reported to national authorities, e.g., Switzerland. These issues also concern social assistance supports (especially when it concerns one-off interventions rather than regular payments). These issues are not restricted to federal countries. For example, in the Netherlands, municipalities receive central government funding towards labour market integration for social assistance clients. However, they use these funds for different supports ranging from employment counselling to childcare supports, but the overall use of the different support options across all municipalities in the Netherlands is unclear.

3.2. Inter-personal redistribution or compulsion

- 18. Expenditure programmes are 'social' if participation is compulsory, and/or when entitlements involve inter-personal redistribution of resources among programme participants: i.e. when entitlements are not the result of direct market transactions by individuals given their individual risk profiles. The provision of social services (by public authorities and/or non-government organisations) and social insurance and social assistance programmes practically always involves redistribution across households. Such programmes are either financed through general taxation or social security contributions, which lead to the redistribution of resources across the population or within population groups (e.g., all members of an unemployment insurance fund).
- 19. Inter-personal redistribution in private programmes is often introduced by government regulation or fiscal intervention. Governments may force individuals and/or employers to take up protection provisions regardless of their risk-profiles or the prevailing market prices. For example, through risk sharing (e.g., through forcing insurance companies to have one price for both sick and healthy people) public policy can subsidise sick people, and thus ensure redistribution between households. Public fiscal intervention to stimulate private take-up on a collective or individual basis also means that the take-up decision is not fully determined by the individual risk-profile or prevalent market prices (the same holds for social benefits derived from collective agreements or taken out by employers on a collective basis). There is a high degree of similarity between legally stipulated private schemes and tax-advantaged plans.
- 20. Social benefits are also defined to include some (public and private) pension programmes that in theory do not necessarily involve redistribution of resources across households as, for example, the compulsory government managed individual savings scheme in Singapore (OECD, 2017_[26]). This is because just as with the provision of tax relief, compulsion reflects a policy judgement that coverage of these plans is desirable; hence, these programmes are considered social.

3.3. Public, private social and exclusively private expenditure

The distinction between public and private social protection is made on the basis of whoever controls the relevant financial flows; public institutions or private bodies. Public social expenditure: social spending with financial flows controlled by General Government

(different levels of government and social security funds), as social insurance and social assistance payments. For example, sickness benefits financed by compulsory employer and employee contributions (receipts) to social insurance funds are by convention considered public. In line with SNA93 (EC/IMF/OECD/UN/WBG, 1993_[3]) and SNA08 (EC/IMF/OECD/UN/WBG, 2009_[4])², SOCX records pensions paid to former civil servants through autonomous funds as a private spending item, as for example, in Canada, the Netherlands, Sweden and the United Kingdom. All social benefits not provided by general government are 'private'.

- 21. Within the group of private social benefits, two broad categories can be distinguished:
 - Mandatory private social expenditure: social support stipulated by legislation but operated through the private sector, e.g., direct sickness payments by employers to their absent employees as legislated by public authorities, or benefits accruing from mandatory contributions to private insurance funds.
 - Voluntary private social expenditure: benefits accruing from privately operated
 programmes that involve the redistribution of resources across households and
 include benefits provided by NGOs, and benefit accruing from tax advantaged
 individual plans and collective (often employment-related) support arrangements,
 such as for example, pensions³, childcare support, and, in the United States,
 employment-related health plans.
- 22. SOCX includes data on the size of private social spending across the OECD, but this data is deemed of lesser quality than information on budgetary allocations for social support.
- 23. Take-up of individual insurance, even with a social purpose, is a matter for those concerned and individual preferences and risk profiles determine the level contributions to these plans. For example, if someone takes out private pension insurance which is actuarially fair, then there is no ex ante redistribution across households. The insurance company sets the price so that the individual can expect to receive compensation payments in return for exactly what it costs him or her. Such spending is not "social", but 'exclusively private'.

EC/IMF/OECD/UN/WBG (1993_[3]), para 8.63 states: "... Social insurance schemes organized by government units for their own employees, as opposed to the working population at large, are classified as private funded schemes or unfunded schemes as appropriate and are not classified as social security schemes. ..." In practical terms, for pension payments to former civil servants to be classified as private, these payments have to go through autonomous private funds (e.g., separate pension and/or insurance companies), for which the government does not make up the deficit on a regular basis (e.g., in practice benefit schemes which are defined contributions plans). Non-autonomous pension schemes (including pension benefits paid directly from the government budget) remain institutionally in the government sector.

EC/IMF/OECD/UN/WBG (2009_[4]) para 8.76 states "... Making this distinction is difficult in some countries where the ultimate responsibility for administering the scheme and paying benefits is undertaken by government on behalf of many employers not working for general government. In countries where there is no such arrangement, social insurance schemes organized by government units for their own employees, as opposed to the working population at large, should, if possible, be included in the group of other employment-related schemes and not remain within social security schemes...".

It might be argued that only the value of the fiscal intervention towards the private pension benefit should be considered social. However, relevant fiscal measures redistribute resources up to the level where tax-advantages no longer apply, and thus all benefits accruing from such contributions should be included.

Table 1 summarizes which expenditures are social and which are not. Box 3 provides further detail on issues with the categorisation of benefits with a social purpose.

Table 1. Categorisation of benefits with a social purpose $^{\!1,\,2}$

	Public		Priva	ate
	Mandatory	Voluntary	Mandatory	Voluntary
Redistribution	Means-tested benefits, social insurance benefits	Voluntary participation in public insurance programmes. Self-employed "opting in" to obtain insurance coverage.	Employer-provided sickness benefits, benefits accruing from mandatory contributions, to, for example, pension or disability insurance.	Tax-advantaged benefits, e.g., individual retirement accounts, occupational pensions, employer- provided health plans
No redistribution	Benefits from government managed individual saving schemes		Non tax-advantaged actuarially fair pension benefits	Exclusively private: Benefits accruing from insurance plans bought at market prices given individual preferences.

Notes: 1 By definition transfers between individuals, even when of a social nature, are not considered to be within the social domain; and, 2 The shaded cells reflect benefits that are NOT classified as social.

Box 3. Identifying and categorising benefits with a social purpose

The OECD Social Expenditure Database groups social benefits by the nature of provision into public, mandatory private and voluntary private social expenditure across nine different social policy areas. All other (insurance) arrangements with a social purpose, which are based on individual risk-profiles and obtained at prevailing market prices, are outside the social domain. Examples of such arrangements that do not involve redistribution or compulsory participation are individual pension plans and individual health insurance packages.

In theory, information on the purpose of social expenditure programmes, their redistributive nature, their legal basis and control of financial flows, provides clear benchmarks for identifying public, mandatory private, voluntary private and exclusively private programmes. Sometimes classification is straightforward. For example, income support during parental leave paid by a public insurance fund is 'public'; legally required continued wage payments by employers to fathers on paternity leave are 'mandatory private', while parental leave payments made by employers on their own initiative (or because they signed up to a collective labour agreement) are voluntary private. It is more difficult when payments involve a mixture of these forms, and in the absence of good data classification, decisions have to be made.

In particular, regarding private pension funds it can be very difficult to make an unambiguous categorisation between mandatory private benefits, voluntary private benefits, and benefits that are not considered part of the social domain. Classification problems are exacerbated by the fact that contributions that underlie pension payments are made over various years and the nature of the contributions can shift over time.

Consider the case where benefit payment in year t, B(t), is related to contributions in previous years, C(t-n), and the rate of return on investment income, I(t-n):

$$B(t) = F \left[\sum (C(t-n), I(t-n)) \right]$$

The total amount of contributions (C) paid to a particular arrangement over the years can be the sum of different types of contributions: mandatory contributions (Cm); (Cv); and, exclusively private contributions (Ce). In any particular year:

$$C = Cm + Cv + Ce$$
.

Thus, benefit payments in a given year can be related to four types of contributions made over previous years and the relative importance of the different types of contributions can shift from year to year.

Often, data on benefit payments only record aggregate payments (Bx) and do not separately identify payments due to different types of contributions (Cm, Cv, Ce). For example, data on pensions paid by Superannuation plans in Australia or private pension plans in Switzerland do not separately identify payments derived from mandatory private, voluntary private or exclusively private pension contributions. All Superannuation pension payments (not the lump-sum payments) to former private sector workers are grouped under voluntary private social benefits, as the pension payments that derive from mandatory contributions are currently relatively small. However, with increased mandatory contributions rates, pension payments deriving from mandatory contributions in Australia will increase with the maturing of Superannuation plans.

Individual pension plans, for example, individual retirement accounts in the United States, are only in the (voluntary private) social domain in as much the underlying contributions were tax advantaged (in New Zealand, where favourable tax treatment concerns payments and not contributions, only the pension payments subject to tax-advantages would be included). Ideally, we would not include those private benefits that derive from non-fiscally advantaged contributions, but data, which allow for such a distinction is not always available. The decision on whether or not to include individual pension programmes is made on a case-by-case basis. For example, available tax data for the United States facilitates the identification of pensions and individual retirement disbursements, which are part of the social domain as defined above, and are therefore included in the private pension expenditure data in SOCX.

- 24. Life insurance savings plans are not included in the social domain, as comprehensive information on that part of life insurance payments that is earmarked for social purposes is not available. Although the practice of reinsurance makes it difficult to get a precise view on the importance of life-insurance arrangements, available information on life insurance premiums suggests that life insurance arrangements play an important role (OECD, 2018_[27]). To a considerable extent, life insurance policies are taken up to cover mortgage arrangements, which are not considered to serve a social purpose, but private life-insurance benefits with a social element, such as payments towards death, disability, medical interventions and retirement, can be important and are included where these are separately identifiable (see below).
- 25. There are significant differences across countries in the extent to which social policy goals are pursued through the tax system or in the role of private provision within national social protection systems (as seen above). These differences point to substantial variance in the re-distributional nature of social systems. Some private social programmes may generate a more limited redistribution of resources than public ones, and tax advantages towards private pension and health plans are more likely than not to benefit the relatively well to do. Private employment-related social benefits mostly re-allocate income between the (formerly) employed population, and the same holds largely true for fiscally advantaged individuals or group retirement plans. Cross-national differences in redistribution are not just related to individual programme design, but also to the overall level of social spending. Income redistribution in a high public spending country such as Denmark tends to be larger than in, for example, the United States, where private social spending plays a much more substantial role (Adema, Fron and Ladaique, $2014_{[28]}$).

4. Social expenditure programme data in SOCX

4.1. Categorisation of programmes across policy areas

26. The OECD Social Expenditure Database groups benefits with a social purpose in nine policy areas – Old age, Survivors, Incapacity-related benefits, Health, Family, Active labour market policies, Unemployment, Housing, and Other social policy areas SOCX groups detailed spending data on public and mandatory private programmes accordingly. However, SOCX has a simplified structure for voluntary private expenditure (Table 3) as the quality of information is not as high as on budgetary allocations, and spending detail by programme is not available on a comprehensive basis.

Table 2. Categorisation of public and mandatory private social expenditure in SOCX

Public and mandatory private programmes by social policy area and type of support (cash/in kind).

OLD AGE	5. FAMILY
Cash benefits	Cash benefits
Pension	Family allowances
Early retirement pension	Maternity and parental leave
Other cash benefits	Other cash benefits
Benefits in kind	Benefits in kind
Residential care / Home-help services	Early childhood education and care (ECEC)
Other benefits in kind	Home help / Accomodation
	Other benefits in kind
SURVIVORS	6. ACTIVE LABOUR MARKET PROGRAMMES
Cash benefits	PES and administration
Pension	Training
Other cash benefits	Employment Incentives
Benefits in kind	Sheltered and supported employment and rehabilitation
Funeral expenses	Direct job creation
Other benefits in kind	Start-up incentives
INCAPACITY-RELATED BENEFITS	7. UNEMPLOYMENT
Cash benefits	Cash benefits
Disability pensions	Unemployment compensation / severance pay
Pensions (occupational injury and disease)	Early retirement for labour market reasons
Paid sick leave (occupational injury and disease)	Benefits in kind
Paid sick leave (other sickness daily allowances)	
Other cash benefits	8. HOUSING
Benefits in kind	Benefits in kind
Residential care / Home-help services	Housing assistance
Rehabilitation services	Other benefits in kind
Other benefits in kind	
HEALTH	9. OTHER SOCIAL POLICY AREAS
Benefits in kind	Cash benefits
	Income maintenance
	Other cash benefits
	Benefits in kind
	Social assistance
	Other benefits in kind

Source: OECD.

Table 3. A simplified categorisation of voluntary private social expenditure

1. OLD AGE

Pensions to former private sector workers

Pensions to former civil servants

3. INCAPACITY-RELATED BENEFITS

4. HEALTH

9. OTHER SOCIAL POLICY AREAS

Source: OECD.

- 27. The nine policy areas are defined as follows; including examples of programmes (see Annex I.2 for details on codes of programmes):
 - 1. Old age comprises all cash expenditures (including lump-sum payments) on oldage pensions. Old-age cash benefits provide an income for people retired from the labour market or guarantee incomes when a person has reached a 'standard' pensionable age or fulfilled the necessary contributory requirements. This category also includes early retirement pensions: pensions paid before the beneficiary has reached the 'standard' pensionable age relevant to the programme. Excluded are programmes concerning early retirement for labour market reasons that are classified under "unemployment". Old age includes supplements for dependants paid to oldage pensioners with dependants under old-age cash benefits. Old-age also includes social expenditure on services for the elderly people, services such as day care and rehabilitation services, home-help services and other benefits in kind. It also includes expenditure on the provision of residential care in an institution (for example, the cost of operating homes for the elderly). In line with SNA08, SOCX records pensions paid to former civil servants through autonomous funds as private spending items. Examples of programmes include:
 - "250.10.1.1.1.1 Basic scheme: CNAV" is the French public basic pension scheme "Régime général",
 - "208.10.1.2.1.2 Assistance in carrying daily tasks for the elderly" is the Danish programme from municipalities that offers services to the elderly,
 - "392.20.1.1.1.1 Employees' pension funds" is the Japanese mandatory private occupational pension scheme,
 - "826.30.1.1.1.4 Public sector occupational pension" is the programme recording pension benefits to former civil servants in the United Kingdom.
 - 2. **Survivors** many countries have social expenditure programmes in the public sphere that provide the spouse or dependent of a deceased person with a benefit (either in cash or in kind). Expenditure grouped under survivors, also included allowances and supplements for dependent children of the recipient of a survivors' benefit. Examples of programmes include:
 - "124.10.2.1.1.2 CPP and QPP: surviving spouse's pension" is the Canadian Pension Plan and Quebec Pension Plan programmes paying benefits to surviving spouses,
 - "348.10.2.2.1.1 Funeral expenses (means-tested)" is the Hungarian means-tested programme giving public support for funerals.

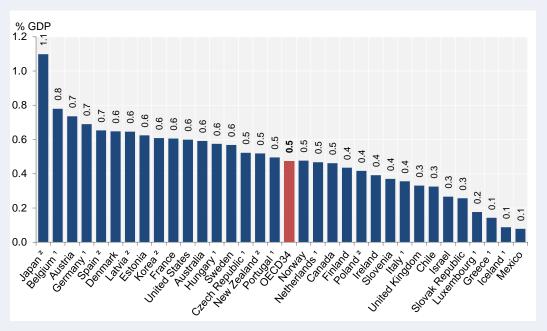
- 3. Incapacity-related benefits disability cash benefits comprise cash payments because of complete or partial inability to participate gainfully in the labour market due to disability. The disability may be congenital, or the result of an accident or illness during the victim's lifetime. Spending on "occupational injury and diseases" records all cash payments such as paid sick leave, special allowances and disability related payments such as pensions, if they are related to defined occupational injuries and diseases. Sickness cash benefits related to loss of earnings because of the temporary inability to work due to illness are also recorded. This excludes paid leave related to sickness or injury of a dependent child, which is recorded under family cash benefits. All expenditure regarding the provision of health care is recorded under health. Social expenditure on services for the disabled people encompasses services such as day care and rehabilitation services, home-help services and other benefits in kind. Examples of programmes include:
- "756.10.3.1.1.1 Disability pension: invalidity insurance (non means-tested)" is the Swiss public non-means tested disability insurance pension,
- "442.10.3.1.4.4 Paid sick leave" is the public programme in Luxembourg reimbursing 100% of wage (up to a ceiling) for sick blue collar employees from the first day of sickness up to three months and sick white collar employees from the third month up to the 12th month of sickness,
- "578.20.3.1.4.1 Sickness and waiting period benefit" is an estimation of mandatory benefits paid by employers in Norway during the first two weeks of sickness,
- "752.30.3.0.0.0 Incapacity-related benefits" include Swedish voluntary private contractual disability pensions.
- 4. **Health** social expenditure data in the health policy area is taken from the *OECD Health Statistics*, and the categorisation follows the System of Health Accounts 2011 (OECD/Eurostat/WHO, 2017_[18]). Expenditure by government and social health insurance schemes is included under public health expenditure, while expenditure by compulsory private health insurance programmes is included under mandatory private health expenditure. Voluntary private social health expenditure includes expenditure by voluntary health insurance schemes, expenditures by not for profit non-government schemes and enterprise financing schemes, which, for example, are important in the United States. Household out-of-pocket spending is not included in the social domain. All health expenditure recorded under public mandatory private and voluntary private social health expenditure concerns current expenditure on health (CHE) which covers both individual and collective services. Therefore, current expenditure on health does not include capital transfers such as investment grants from governments to hospitals (Box 4).
- Expenditure in this category encompasses, among other things, expenditure on inpatient care, ambulatory medical services and pharmaceutical goods. As already noted, cash benefits related to sickness are recorded under sickness benefits. Voluntary private social health expenditure are estimates on the benefits to recipients that derive from private health plans which contain an element of redistribution (such private health insurance plans are often employment-based and/or tax-advantaged). In this and the previous versions of SOCX, efforts have been made to limited double counting of spending on long-term care as reported by health and social policy authorities. In particular, recent improvements in the System of Health Accounts have brought greater comparability and better recording in this area (OECD/Eurostat/WHO, 2017_[18]). For more information, see Annex I.1.2.

Box 4. Capital spending in the health area

The OECD Health Accounts-questionnaire includes a "capital table" which asks countries to report on the three main types of gross fixed capital formation (infrastructure, machinery and equipment, and IP products) for all healthcare providers. However, there is large variation in the quality of the data across countries, and the availability of time series. Therefore, Current Health Expenditure (CHE) is used as the main aggregate in the *OECD Health Statistics* as well as in SOCX.

OECD (2017_[29]) includes data on capital expenditure in the health sector taken from the National Accounts. Figure 1 suggests that capital investment in the health sector amounted to about 0.5% of GDP on average in 2015. Since current health expenditure accounted for 9% of GDP on average across the OECD, capital investments would equate to around 5% of current spending.

Figure 1. Gross fixed capital formation in the health care sector as a share of GDP, 2015 (or nearest year)



Note: 1. Refers to gross fixed capital formation in ISIC 86: Human health activities (ISIC Rev. 4); 2. Refers to gross fixed capital formation in ISIC Q: Human health and social work activities (ISIC Rev. 4). Source: OECD Health Statistics 2017, OECD National Accounts.

5. **Family** – includes benefits that support families (i.e., excluding one-person households). Benefits are often related to the costs associated with raising children or with the support of other dependants. Expenditure related to maternity and parental leave is grouped under the family cash benefits sub-category (*OECD Family Database*, Indicators PF1.1 and PF3.1). Examples of programmes include:

- "56.10.5.1.1.1 Family allowance: National office for employees' family allowances" is the Belgian public programme giving child benefits to families
- "246.10.5.1.2.6 Income maintenance (Sickness insurance) is the programme of income maintenance in the event of childbirth in Finland.
- "203.10.5.2.1.4 Child care (pre-primary education)" is public spending in the Czech Republic towards formal day-care and pre-school services for children not yet 6 years of age. To improve cross-national comparisons, expenditure data have been adjusted to account for cross-national differences in compulsory school ages (see section 3.1).
- 6. Active labour market programmes (ALMPs) contains all social expenditure (other than education) which is aimed at the improvement of the beneficiaries' prospect of finding gainful employment or to otherwise increase their earnings capacity. This category includes spending on public employment services and administration, labour market training, special programmes for youth when in transition from school to work, labour market programmes to provide or promote employment for unemployed and other persons (excluding young and disabled persons) and special programmes for the disabled. For more detailed information regarding the categorization of expenditure on ALMPs, see Annex I.1.3. Examples of programmes include:
- "484.10.6.0.1.1 National employment service (SNE) (Servicio nacional de empleo)" in Mexico
- "40.10.6.0.2.5 Support for training in institutions" in Austria
- "620.10.6.0.4.39 Employment-training rotation programme" in Portugal
- 7. **Unemployment** includes all cash expenditure to people compensating for unemployment. This includes redundancy payments to people who were dismissed through no fault of their own by an enterprise that is ceasing or cutting down its activities. It also include early pensions to facilitate the full or partial early retirement of older workers who are assumed to have little chance of finding a job or whose retirement facilitates the placement of an unemployed person or a person from another target group of labour market policy. Examples of programmes include:
- "36.10.7.1.1.2 Newstart allowance" for Australian unemployed entitled to an out-of-work unemployment benefit
- "380.10.7.1.2.1 Early retirement for labour market reasons" from the National Social Security Institute in Italy.
- 8. **Housing** spending items recorded under this heading include rent subsidies and other benefits to the individual to help with housing costs. This includes direct public subsidies to tenants (in some countries, e.g., Norway, homeowners living in their house) 'earmarked' for support with the cost of housing. Because the benefits included here concern earmarked cash payments, by convention they are classified as in-kind benefits (EC/IMF/OECD/UN/WBG, 2009[4]). SOCX also reports direct in-kind housing provisions to the elderly and disabled and shelter for those in immediate need in other sections (1.2.1, 3.2.1, and 9.2.2, respectively).

Other forms of housing support such as mortgage relief, capital subsidies towards construction and implicit subsidies towards accommodation costs housing can be of a social nature, particularly when such accommodation directly benefits low-income households. However, there is no cross-national agreement on a methodology on coverage and measurement of such support, so that at present, such housing support is not included in SOCX. Nevertheless, such support can be considerable.

- For example, in the Netherlands, mortgage interest deduction accounted for 2.14% GDP in 2014. SOCX also does not include (capital-) subsidies towards the construction of housing support, for example in the United States, in 2017 credit for low-income investment was estimated to worth USD 8.2 billion or 0.04% of GDP (U.S. Department of the Treasury, 2016_[30]). SOCX also does not include the value of implicit subsidies towards the cost of housing. For example, in France, almost 5 million households in public social housing pay a lower rent than households in accommodation with similar characteristics in the private rental sector (Guillon, 2016_[31]). The value of implicit subsidies per household (i.e., the difference between the low rent effectively paid and the rent paid on the market for a dwelling with similar characteristics) is likely to be considerable. However, estimates on the total value of implicit housing subsidies are not available.
- 9. Other social policy includes social expenditure (both in cash and in kind) for those people who for various reasons fall outside the scope of the relevant programme covering a particular contingency, or if this other benefit is insufficient to meet their needs. Social expenditure related to immigrants/refugees and indigenous people are separately recorded in this category. Finally, any social expenditure which is not attributable to other categories is included in the sub-category other.
- "276.10.9.1.1.1 Income support (Social assistance)" in Germany "840.10.9.1.1.1 Earned income tax credit: refundable part (EITC)" in the United States.

4.2. Categorisation of means-tested programmes

- 28. With respect to the role of income and wealth in determining eligibility to social support, SOCX distinguishes 3 categories:
 - "0. Non income- or means-tested benefits": benefits that are available to all citizens for which eligibility may depend on past contributions to an insurance scheme (insurance benefits), or benefits aimed for specific populations groups (e.g. children) regardless of their income and/or wealth;
 - "1. Means-tested benefits": benefits are aimed at preventing income to fall below a certain level, and eligibility is conditional on the recipient's current income and assets;
 - "2. Income-tested benefits: benefits are aimed at preventing income to fall below a certain level and eligibility is conditional on the recipient's current income only.
- 29. Whether or not a benefit is means- or income-tested⁴ depends on the role of income and wealth in determining eligibility to support, not the level of support. Social expenditure programmes that provide some benefit to all members of a population group (e.g. children), but where income/wealth is used to determine the payment rate, are not considered to be means-tested, see also (Eurostat, $2016_{[21]}$).

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In the case of means- and income-tested benefits there may be "implicit conditionality" in that some benefits may only be accessible to those in receipt of a means- and income-tested benefit, or those whose characteristics imply they do not possess income or wealth (e.g. homelessness or refugee status).

4.3. Accounting conventions and practices

Reference, fiscal and tax years

- 30. The recording period with respect to the social expenditure data is not the same for each country. Most countries report data by calendar year (1 January to 31 December), except for Australia, Canada, Japan, New Zealand, the United Kingdom and the United States, where the data reported pertain to a financial year which differs from the calendar year. Adopting the same convention as for national accounts, year "n" is taken to mean the year in which a financial year begins, whether it starts on 1 January, 1 April, 1 July or 1 October. In cases where the financial year for social expenditure does not coincide with the calendar year, the relevant periods have been taken on a *prorata temporis* basis when using GDP (available for calendar years) and the GDP deflator, see below. For all other countries, GDP data refer to the calendar year.
 - In Canada, Japan and the United Kingdom, the financial year (n) runs from 1 April (n) to 31 March (n+1) for social expenditure, requiring an adjustment for GDP ("n")=0.75* GDP(n) + 0.25*GDP(n+1).
 - In the United States, the financial year (n) runs from 1 October (n-1) to 30 September (n) for social expenditure, requiring an adjustment for GDP ("n")=0.25*GDP(n-1) + 0.75GDP(n).
 - In Australia and New Zealand, the reference years for social expenditure, although defined as July to June and not by calendar year, correspond to the calculation period for GDP. Consequently, no special adjustments are required. All the data refer to fiscal years beginning on the 1st July of the year indicated.

SOCX does not include administrative costs

- 31. SOCX generally excludes administration costs, i.e., the costs incurred with the provision of benefits, as these expenditures do not go directly to the beneficiary. Administration costs cover expenditure on the general overheads of a social expenditure programme: registration of beneficiaries, administration of benefits, collection of contributions, controls, inspection, evaluation and reinsurance.
- 32. However, regarding the provision of services such as under Active Labour Market Programmes (ALMP), childcare services and public expenditure on health, the administration costs are included in the totals. Relevant expenditure data were taken from the *OECD Education Database*, the *OECD Employment Database*, in particular its section on Active Labour Market Policies and the OECD Health Statistics, which have their own concepts and definitions. The inclusion of the administrative costs as well as wages for medical staff, employment service staff and childcare workers in the expenditures is justified, as they are an integral part of the service that is provided to beneficiaries, such as job-seeker reception and counselling, care and education of children, and/or patient reception and hospital services.

SOCX includes records transactions on an accrual basis

33. In principle, SOCX includes capital investment (i.e., construction costs) on an accruals basis, in line with (EC/IMF/OECD/UN/WBG, 2009_[4]). In other words if construction costs for a social institution cost USD 1 million (interests included), built over four years, annual reimbursements of USD 250,000 would be included each year as

investment spending. However, in practice the role of capital transfers in SOCX is limited, as they are currently not included in the areas of health and housing.

SOCX generally excludes loans

34. "The conventional definition of social protection stipulates that the intervention does not involve a simultaneous reciprocal arrangement. This should be conceived as excluding from the scope of social protection any intervention where the recipient is obliged to provide simultaneously something of equivalent value in exchange. For instance, interest-bearing loans granted to households are not social protection because the borrower commits himself to paying interest and to refund the capital sum. Still, if the loan is interest-free or granted at an interest rate well below the current market rate for social protection reasons, the amount of interest waived qualifies as a social benefit" (Eurostat, $2016_{[21]}$).

SOCX excludes ads-hoc support and disaster relief that do not involve regular management and accounting

45. For practical reasons, small-scale, informal and incidental types and ad-hoc support and emergency relief in the event of natural disasters, which do not require regular management and accounting, are not included.

4.4. Data sources

- 35. The nature of SOCX data-processing is not straightforward as data do not derive from one all-encompassing questionnaire, but are taken from different sources in different formats:
 - For all OECD countries data on expenditure on health and public expenditure on active labour market policies (ALMPs) are taken from the OECD Health Statistics 2018 and the OECD Employment Database. Data on early childhood education and care expenditure as in the OECD Education Database feed into the series on public social spending on early care and education services. Data on unemployment compensation (cash transfers) were taken from the OECD Employment Database for OECD countries that do not belong to the EU and from ESSPROS for EU countries.
 - For 10 non-European OECD countries, data delivered by countries through the Working Party on Social Policy of the Employment, Labour and Social Affairs Committee responding to the SOCX Questionnaire.
 - For 25 European countries (EU-22, Iceland, Norway and Switzerland), data on social expenditure is provided by EUROSTAT as based on the information in their European System of Integrated Social Protection Statistics (ESSPROS) Database.
- 36. This is not an ideal way to collect data, not least because it limits interaction with data producers in European OECD countries. However, there has been little choice in the matter. From the start, OECD member states that also belong to the EU have insisted on providing data to the OECD via EUROSTAT in order to avoid having to deal with multiple social spending questionnaires. This is understandable, but does mean that a) information is only received from EUROSTAT once it has 'validated' the data for individual countries and b) data received in ESSPROS format has to be made compatible with information for non-European OECD countries.
- 37. To achieve comparability of spending data for all OECD countries involves going through the EUROSTAT data submission to identify and siphon-out voluntary private social

expenditure items to ensure compatibility with the public (and mandatory private) spending data for all OECD countries, and more generally ensure consistency of the spending data that are taken from different sources. Annex II.1 includes more detail on data sources.

- Other reference series used in SOCX are from the OECD National Accounts Statistics
- Gross Domestic Product (GDP)
- Deflator for GDP
- Gross Domestic Product at 20100 prices (GDPV)
- Gross National Income (GNI)
- Net National Income (NNI)
- Total General Government expenditure (GOV)
- Purchase Power Parities (PPP)
- Exchange rate (EXC)
- Population (POP)

4.5. "Nowcasting" of public social expenditure

- 38. Detailed SOCX data at the social expenditure programme level becomes available about two years after the event on a cross-nationally comparable basis. However, to provide data for the current year, "nowcasts" were made on basis of national data available at an aggregate level.
- 39. For the 2018 edition of SOCX, detailed spending data is generally not available for the period after 2015/16. However, the aggregate public social expenditure series as in SOCX was extended to 2016, 2017 and 2018 using available information on national aggregates for 2016 and 2017 in the *OECD Economic Outlook Database* and the *European Union's Annual macro-economic Database* (*AMECO*) and estimates for 2018. For OECD countries that do not belong to the European Union, the "nowcasts" were based on country responses to the OECD Social Expenditure questionnaire.
- 40. Based on projections in the *OECD Economic Outlook Database 103A* and *AMECO Database June 2018 version*, public social spending aggregates were estimated until 2018. A "standard procedure" was used for the following European OECD countries: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Slovenia, Switzerland and the United Kingdom. The procedure involved:
 - Estimating cash spending on social transfers: for the years 2016-2017 trends in social security benefits paid by general government (SSPG) as in the *OECD Economic Outlook 103A Database*) were applied to public social expenditure in cash as in 2015; for 2018 the estimated SSPG series as in (OECD, 2018_[1]) was used.
 - Services spending: for the years 2016 2017, trends in social transfers in kind (series UCIG0 in the European System of National Accounts ESA 1995) as projected in the *AMECO Database* were applied to public social expenditure on services as in 2015. *AMECO* is the annual macro-economic *Database* of the European Commission's Directorate General for Economic and Financial Affairs (DG ECFIN). For 2016 and 2017, it concerns spending data as reported by countries; for 2018 the estimated UCIG0 series as reported in AMECO was used.

- Public expenditure on Active Labour Market Programmes (ALMPs): From 2016 to 2018 trends in UC1GO series on social transfers in kind (see above) were applied to extend the series on public spending on ALMPs.
- 41. For the United States, trends in projections from the U.S. Office of Management and Budget were applied to main aggregated social spending levels (http://www.whitehouse.gov/omb/budget/Historicals/). For OECD non-European countries, results were used from country responses to the OECD Social Expenditure questionnaire (SOCX Outlook) on spending aggregates for public social expenditures for 2016 to 2018.
- 42. Data on GDP were taken from *OECD Economic Outlook Database 103A* for the year 2018.
- 43. Table 4 summarises the methodology to estimate spending aggregates for non-EU countries public expenditure on cash benefits social services and ALMPs.

Table 4. Estimation method for public social spending on cash benefits, services and ALMPs for non-EU countries, 2016/17-2018

	Cash	Services	Active Labour Market Programmes
Australia	Data were taken from the country response to the aggregates data request for 2017-2017 based on Department of Social Services, Australian Government - Portfolio Budget Statements 2018-19.	Data were taken from the country response to the aggregates data request for 2017-2017 based on Department of Social Services, Australian Government - Portfolio Budget Statements 2018-19.	Data were taken from the country response to the aggregates data request for 2017-2017 based on Department of Social Services, Australian Government - Portfolio Budget Statements 2018-19.
Canada	OECD Economic Outlook: Trends in Social security benefits paid by general government –SSPG.	Health Data from OECD Health Statistics. 2012-2015 annual average growth rate for 2016-2017.	2012-2015 annual average growth rate for 2016-2017.
Chile	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2017.	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2017.	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2017.
Israel Japan	Data were taken from the country response to the OECD questionnaire on social expenditure outlook data till 2017.	Data were taken from the country response to the OECD questionnaire on social expenditure outlook data till 2017. Not available	Data were taken from the country response to the OECD questionnaire on social expenditure outlook data till 2017.
Korea	Data were taken from the country response to the aggregates data request for 2018.	Data were taken from the country response to the aggregates data request for 2018.	Data were taken from the country response to the aggregates data request for 2018
Mexico	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2016.	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2016.	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2016
New Zealand	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2018	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2018.	Data were taken from the country response to the OECD questionnaire on social expenditure data till 2018
Turkey	2016: TurkStat, Social Protection Statistics.	2016: TurkStat, Social Protection Statistics.	2016: TurkStat, Social Protection Statistics.
United States	Data were taken from the projections by the U.S. Office of Management and Budget.	Data were taken from the projections by the U.S. Office of Management and Budget.	2017 estimates.

Source: OECD

5. Net (after tax) social expenditure

- 44. Gross social spending data as presented in public budgets, do not account for how tax systems affect public and private spending on social protection. Moreover, as this effect can be considerable and varies across countries, it affects cross-national comparisons of social expenditure (Adema, Fron and Ladaique, 2011_[32]).
- 45. General tax revenue is used to finance public social spending, and sometimes revenue streams (i.e., social security contributions) are earmarked for that purpose (OECD, 2017_[33]). However, tax systems also affect levels of social expenditure, and broadly speaking they do so in three ways:
 - Direct taxation of benefit income: Governments levy income tax and social security contributions on cash transfers to beneficiaries, in which case redistribution of resources is lower than suggested by gross spending indicators.
 - Indirect taxation of consumption by benefit recipients: Benefit income is provided to finance consumption of goods and services. Indirect taxes reduce the consumption which can be financed out of a given level of benefit income.
 - Tax Breaks for Social Purposes (TBSPs): Governments also make use of the tax system to directly pursue social policy goals. Fiscal measures with social effects are those which can be seen as replacing cash benefits (e.g., child tax allowances) or stimulating the provision of private benefits (e.g., tax relief towards the provision of private health plans). These TBSPs can be directly awarded to households, but also include tax relief for employers and private funds that ultimately benefit households (e.g., favourable tax treatment of employer-benefits provided to households, favourable tax treatment of private funds).
- 46. The adjustments for direct and indirect taxation of benefits do not affect service spending, even though such services, e.g., pharmaceutical products, can be subject to indirect taxation. Data on spending on social services that are subject to indirect taxation and at what rate is not available on a comprehensive basis.

5.1. Direct taxation of cash benefits

47. In some OECD countries benefits are taxed in the same way as earnings, while in other countries most benefits are taxed at a reduced rate. Yet in other countries, almost all benefits are paid net of direct taxation. Treatment of unemployment insurance benefits varies considerably across countries (Table 5). For example, in Austria, the recipient of an unemployment benefit who previously was on average earnings and who lived in a couple-family with two young children received the equivalent of EUR 16,750 in 2015, topped up by a tax credit of EUR 669. A similar person in Sweden received annual income support of EUR 18,902 but paid EUR 5,038 in income tax and social security contributions so that net benefit income was EUR 13,864. For this family, net income in Sweden is lower than in Austria, even though gross income was considerably higher. In aggregate spending terms, this means that countries that tax transfer incomes rather heavily divert a significant part of transfer income to flow back into the coffers of the Treasury: in Sweden, for example, net (after tax) public spending on unemployment benefits is about 75% of the level suggested by gross indicators.

48. Moreover there are considerable differences between how different types of benefits are being taxed (Table 5). In general, unemployment assistance, social assistance and housing benefits and family benefits are generally not taxed. In contrast, public and private retirement and disability pension payments are generally taxed, but frequently at reduced rates (OECD, 2017_[34]), while continued wage payments in case of absence due to sickness are taxed as earnings (OECD, 2017_[35]).

5.1.1. Methods and sources; administrative records, microsimulation and microdata

- 49. Broadly speaking, there are two ways to adjust gross spending items (e.g., spending on unemployment compensation or old-age cash benefits) for the impact of direct taxation. Sometimes, national sources provide concrete information on the value of tax paid on a particular (set of) benefit(s). Such information is the most reliable source, and is based on data from tax offices and/or social insurance funds for social security contributions. However, such information is rare, and is restricted to information on payments of social security contributions by benefit recipients in Germany and Spain. In some other countries (Austria, the Czech Republic, Italy, Ireland and Portugal), the adjustment for direct taxation on cash benefits has been calculated on basis of estimates of tax paid by benefit recipients (over some items) based on administrative sources, including tax statistics). For Belgium the amounts of tax and social security contributions paid on benefit income are based on the national tax statistics and national accounts, respectively.
- 50. For other countries the magnitude of direct tax paid by benefit recipients was determined while using estimates supplied by national sources on 'average itemised tax rates' (AITR): e.g., the average tax rate (including social security contributions) on a particular spending item, e.g., public pension benefit, unemployment compensation or parental leave payments. These AITRs were estimated on the basis of a variety of national sources including: administrative data on the basis of tax records (e.g. the United States). Otherwise 'microsimulation-models' and micro data sets were used to generate itemised tax rates. Such information underlies the estimates of direct taxation of benefits in, for example, Australia, Canada, Denmark, Finland, New Zealand, Norway, Sweden and the United Kingdom. Subsequently, these AITRs were applied to gross social spending items as recorded in the database.
- 51. Countries where almost all benefit income is taxable and that use microsimulation models and microdata sets to estimate AITRs generally report such information at the greatest level of detail and have the greatest number of AITRs for different transfer items, e.g., Denmark reports AITRs for 21 different transfer items and Sweden for 6. Countries that have only a few taxable benefits, and (therefore) base their estimated AITR on administrative information (as related to the level of detail on the income tax form) report only a few different tax rates.

Table 5. Tax treatment of benefits differs across countries

Tax and social security treatment of benefits in 2010

	Unemployment insurance	Unemployment assistance	Family benefits	Lone-parent benefits(1)	Housing benefits	Social assistance
	[1]	[2]	[3]	[4]	[5]	[6]
OECD countries						
Australia		T(n)	N	T(n)	N	
Austria	*	*	N	tc	N	N
Belgium	T(n)		N	-		N
Canada	T		tc/N	tc		N
Czech Republic	N	N	N		N	N
Denmark	TS(reduced)		N	N	N	TS(reduced)
Estonia	Т	N	N	N	N	N
Finland	TS(reduced)	TS(reduced)	N	N	N	N
France(2)	TS(reduced)	T(n)S(n)	N	N	N	N
Germany	*	N	tc	-	N	N
Greece	N	N	N(3)	N	N	
Hungary	TS(reduced)	TS(reduced)	Ň	N	N	N
Iceland	TS		N	TS	N	TS
Ireland	T(reduced)	N	N	T(n)	N	N
Israel	TS(reduced)		N	Ň	N	S(reduced)
Italy	TS(reduced)		N			
Japan	N		N	N		N
Korea	N			N		N
Latvia	N		N		N	N
Lithuania	N		N	_		N
Luxembourg	TS(reduced)		N		TS(4)	TS(4)
Netherlands	TS		N	tc	N	*
New Zealand	-	Т	tc	T	N	
Norway	TS		N	T(5)	N	N
Poland	T		N	N N	N	N
Portugal	N	N	N			N
Slovak Republic	N		N/tc	N		N
Slovenia	TS		N	N	N	N
Spain	TS(reduced)	T(n)	N			T(n)
Sweden	TS	TS	N	N	N	N
Switzerland	TS(reduced)		T			N
Turkey	N(6)			_		
United Kingdom	T(n)S(n)	T(n)S(n)	N/tc	tc	N	N
United States	T (11)3(11)		N		N	N

Note:

Legend: T: Taxes are payable, T(n) or S(n): Long-term recipients will not pay the taxes or SSC as the credits, allowances or zero rate bands exceed the benefit level, S: Social security contributions (SSC) are payable, N: Neither taxes nor SSC are levied, --: No specific scheme or no information available, (reduced): A reduced rate is payable for beneficiaries, *: Benefit is a proportion of after tax income (and thus not taxable); tc: Non-wastable tax credit

- 1. Only countries that provide family benefit supplement or specific non-means-tested benefits.
- 2. Family and housing benefits are not taxable as such but are subject to an obligatory contribution of 0.5% to a social fund (CRDS contribution au remboursement de la dette sociale).
- 3. The general scheme is not taxable but an employers' benefit is added to gross income before tax. In addition, the benefits for the third and fourth child are taxed at 10% separately from other income.

- 4. Full payment of social security contributions for the benefit (indemnité d'insertion) but only the sickness contribution for the supplement (complément).
- 5. The transitional allowance is taxable as pension income but the childcare benefits are not.
- 6. Unemployment insurance remains subject to stamp tax.

Source: OECD Tax and Benefit Systems: OECD Indicators and (OECD, 2017[34]).

5.1.2. Estimating Average Itemised Tax Rates through 'Microsimulation'

52. The concept of AITRs was developed to facilitate identification of different tax levies on different social benefits. The AITR can be defined as the total taxes paid by those receiving a given benefit, divided by the total income (from all sources) of those receiving that benefit. Formally, the relevant calculations are:

AITR i =
$$\sum_{tu} =_{1, n} TI_i / \sum_{tu} =_{1, n} I_i$$

where: I is the amount of taxable income-type "i", and TI is the amount of tax paid on that particular amount of income, "i" is the type or category of income, "tu" is a tax unit with income-type "i", and "n" is the number of tax units in the sample with income of type "i". The broad income categories "i" include old-age cash benefits, unemployment compensation, wage income, etc.

- 53. Microsimulation-models and micro-data sets contain detailed information on both the incomes received by households and their taxation. Microsimulation techniques generate reliable estimates, but estimation procedures require assumptions on the way income is allocated. Here it is assumed that if a benefit is non-taxable, as are many child payments, then the relevant AITR is a priori considered to be equal to zero. If transfer income is the only income received, the average tax rate (including social security contributions) on this income can be used to calculate net transfer income. However, the calculation of direct taxation of benefit income is more complicated when different types of income are involved; people who receive either different benefits during a year, or whose annual income is a combination of earnings with, say, unemployment benefits, or a combination of transfers from different pension plans. In this situation it is necessary to allocate taxes paid to the various incomecomponents, and it is assumed that the tax due is divided over the different income components according to the weight of each type of income. Hence, if benefits provide 75% of annual income and earnings 25%, 75% of total income tax is assumed to be paid on benefit income. For some aspects of taxation (e.g., deductible expenses related to work), there is a direct link between the income component and taxation. In these cases, it is preferable to allocate such deductions only to the relevant income component.
- 54. Furthermore, benefit income can be subject to a progressive tax schedule (possibly applied to the total of several income sources). In order to avoid an ordering of different parts of income and arbitrary decisions on what part of household income should be taxed at the higher or the lower rate, the average itemised tax rate should be calculated on the basis of the tax rates that households face over a particular income (or group of incomes). Allocating income tax paid according to the relative weight of the different income components (see above) and grossing up for the households in the sample, AITRs can be calculated (Box 5).

Box 5. An example of calculating Average Itemised Tax Rates

It is straightforward to calculate average itemised tax rates (AITRs) on benefit income if households have only one source of income. For example, if a retiree receives a public pension payment worth 100 units per annum at a 'standard' tax rate of 10%, net annual transfer income is 90 units. If, in addition, all households in receipt of public retirement income had no income from other sources, the AITR on public pension income would be 10%. If among the retirees some were to receive non-taxable child supplements, this income would be disregarded for the calculation of the tax rate on his/her household income, while the AITR on child supplements would be nil.

Often pensioners receive income from different sources. Consider the case of a retiree who receives a public pension worth 50 units and a private pension worth 100 units. In the absence of progressivity in the tax system, the household tax rate would remain 10%, and net transfer income would be 135 units. However, a substantial increase of income may well lead to parts of incomes being taxed at a higher rate (see household 4 in Table 6), so that the 'average' tax rate increases. In this case 100 units of transfer income are taxed at 10% and 50 units are taxed at a rate of 15%. Total income tax is worth 17.5 units, which is allocated over public and private pension income components according to their relative weight in total household income (Table 6). Thus, the methodology does not imply an ordering of different parts of income, whereby different income sources are taxed differently according to an arbitrary decision on which part of income should be taxed at higher or lower tax rates. Differences in AITRs are associated with income groupings wherein benefit recipients typically find themselves.

Table 6. Calculating AITRs on two types of income

House- hold	Public pension	Private pension	Total household income	household Income tax	Tax paid	pensior	of tax over income onents
	-	-	income		-	Public	Private
1	50	25	75	10%	7.5	5.0	2.5
2	75	50	125	15%	13.8	8.3	5.5
3	100	0	100	10%	10.0	10.0	0.0
4	50	100	150	15%	17.5	5.8	11.7
5	50	250	300	15%	40.0	6.7	33.3
Total	325	425	750		88.8	35.8	53
AITR public pension income = tax paid over public pension/total public pension income 11.1%							
AITR private pension income = tax paid over private pension/total private pension 12.5%							

Note: It is assumed that the standard tax rate is 10% when income is less than 100 Units, and 15% of income over and above the 100-unit threshold.

55. As already noted, if benefit income of a particular type is non-taxable, then the relevant AITR is a priori equal to zero. However, it is possible that income derived from non-taxable benefits affects direct taxation of taxable benefit income in an indirect manner, as it is considered in the income-test of other benefit programmes, so receipt of non-taxable benefits may reduce the amount of other income transfers households may receive. In Canada, three social programmes (guaranteed income supplement, (provincial) social assistance, and workers compensation) affect the calculation of taxation of benefits in this

manner. These three benefit payments are non-taxable, but relevant income is considered in the income-test for other benefits, and thus reduces payments under other benefit programmes to these recipients. In order to take this indirect effect into account, the Canadian authorities removed these three programmes as sources of income from their simulations to calculate an average (marginal) tax rate. This rate was applied to each of these three social transfers to determine the implicit tax paid, which was then divided by the amount of transfer spending for the three items to find the AITRs.

5.2. Indirect taxation of consumption out of benefit income

- 56. Consumption taxes reduce the real value of consumption which can be financed out of a given level of benefits, and (as with direct taxation of benefit income) establish another flow back in tax receipts to the government. Similarly, to differences in direct taxation of benefit income, cross-country differences in indirect taxation affect comparisons of welfare state spending. In countries where indirect taxation is relatively limited (i.e., in non-European OECD countries), gross spending levels can also be relatively low to generate the same net income level for benefit recipients in countries with high indirect tax rates. For example, in order to provide benefit recipients with a net income of 100 units, a country like the United States with an average indirect tax rate of close to 4% needs to pay a gross benefit of about 104 units. In Denmark, where the average indirect tax rate is about 23%, a gross payment would have to be around 130 units to have an equivalent net value. To some extent, the relatively low social spending to GDP ratios in the United States and in other non-European OECD countries are related to the low indirect tax levels that prevail in these countries, and accounting for this feature improves the quality of cross-country comparisons of social spending.
- 57. In some countries, policy explicitly recognises the impact of indirect taxation on the financial position of low-income households (many of whom receive transfer income). For example, when the Goods and Services Tax was introduced in Australia in July 2000 at a rate of 10% (with food being exempt), a compensation package for social protection benefit recipients was introduced at the same time. Similarly, Canada has a Goods and Services Tax rebate to support low-income households.

5.2.1. Methods and sources: national accounts and revenue statistics

- 58. Detailed information on consumption by benefit recipients is not available. Alternatively, household expenditure surveys allow for the analysis of different spending patterns across different income groups, but such information is not readily available for all countries on a comprehensive basis. Moreover, the results of such surveys suggest that indirect tax payments are under-reported as estimates of aggregate tax receipts on the basis of such surveys is well below actual tax receipts, see for example, (Gho, Chang and Kang, 2011_[36]). Therefore, the approach followed here is to calculate an average implicit indirect tax rate based on aggregate data available for all countries as in the *OECD Revenue Statistics* and the *OECD National Accounts*. This approach, while approximate, is clear and transparent.
- 59. Table 7 contains three possible measures of indirect taxes. The first, as presented in line 3, captures the amount of indirect tax receipts through general consumption taxes and excise duties charged on particular goods. Line 4 in Table 6. Average implicit indirect tax rates of consumption out of benefit income in selected countries includes these taxes as well as 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 could be made for using any of these measures of indirect taxation, but the indirect tax concepts reflected in lines 4 and 5 of Table 7. Average implicit indirect tax rates of consumption out of benefit income in selected countries include more items of indirect taxation that are not paid by the household sector than reflected in line 3 (and even this relatively limited measure includes some taxes not paid by the household sector). The indirect tax measure in line 3 of Table 7 includes the smallest margin of error, and is thus the most appropriate to use for calculating indirect taxes paid on consumption out of benefit income.

- 60. Private consumption as in the National Accounts is given in line 1 of Table 7. However, 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 (which constitutes a tax flow within the government sector). To reflect this, government consumption expenditure is added to private consumption expenditure while subtracting that part of government consumption that consists of compensation of employees (line 2, Table 7). In this manner, a consistent approximation of the tax base of indirect taxes is found.
- 61. The average implicit indirect tax rate is then the ratio of revenue from general consumption taxes plus excise duties to a broad consumption tax base, i.e., private consumption and government consumption minus government wages line 6, in Table 7. In 2015, the implicit average indirect tax rates were lowest in the United States (4.0%), and considerably higher in France (14.7%) and Denmark (23.2%).

Table 7. Average implicit indirect tax rates of consumption out of benefit income in selected countries

Indirect taxes paid out of consumption of cash transfers, in millions of national currency, in 2015

		DNK	FRA	USA	OECD
(1)	Private final consumption expenditure	955,328	1,206,492	12,332,257	-
(2)	Private consumption plus Government consumption minus Government wages	1,148,965	1,446,072	13,172,607	-
(3)	General consumption taxes plus excise duties (5110+5121) ^a	266,315	212,364	521,935	-
	5110 General taxes	186,094	156,009	367,217	-
	5121 Excises	80,220	56,355	154,718	-
(4)	Taxes on production sale transfer (5100)	270,676	234,604	681,483	-
(5)	Taxes on Goods and Services (5000)	293,905	241,513	807,297	-
	Implicit average indirect tax rate on consumption out of benefit income				
(6)	Using general consumption taxes plus excise duties (3)/(2)	23.2%	14.7%	4.0%	15.3%
(7)	using a broad concept of the indirect tax base (5)/(2)	25.6%	16.7%	6.1%	17.4%
(8)	using a broad concept of the indirect tax base and ignoring government consumption (5)/(1)	30.8%	20.0%	6.5%	20.5%
Indi	rect taxes paid out of consumption of total cash transfers, in percentage of GDP	3.3%	2.8%	0.5%	2.0%

Note: a) The 4-digit codes in the second column refer to the categorisation used in OECD Revenue Statistics Source: OECD Revenue Statistics: 1965-2016 and OECD National Accounts Statistics for lines 3, 4, and 5.

5.2.2. Tax breaks for social purposes

62. Expenditures made through the tax system, or tax expenditures can take different forms: exemptions (income excluded from the tax base); allowances (amounts deducted from gross income); credits (amounts deducted from tax liability); rate reliefs (tax rate reduction for specific groups, *e.g.*, senior citizens); and tax deferrals. However, definitions of 'tax expenditures' vary across countries (OECD, 1996_[37]). In particular, there is no international

agreement on what constitutes a 'benchmark' tax system – which can be used to identify tax expenditures. National benchmarks (the 'normal' structure of the tax system) against which tax expenditures are being measured vary considerably, which hampers the measurement of tax expenditures on a comparable basis across countries. However, that does not rule out a comparison of a sub-group of 'tax expenditures' – such as those related to social protection systems. This is because the approach followed here measures the amount clawed back in taxation over cash transfers and the value of direct support to benefit recipients provided through the tax system, for which reference to a 'benchmark' tax system is not required.

- 63. Many governments of OECD countries pursue social policy objectives through the tax system. Broadly speaking there are two groups of such measures. One is reduced taxation on particular sources of income or types of household. For example, some cash transfers could be taxed at a zero or reduced rate. This sort of tax relief is equivalent to a variation in direct taxation of benefit income and has already been accounted for in the section on direct taxation (see above). Thus, exemptions of benefits from taxation or reduced rates on benefit income are reflected in the calculations of direct taxation levied on benefit income (e.g., a zero tax rate is applied to spending on child benefits) and are not recorded here again as a Tax Break with a Social Purpose (TBSP) in order to avoid double counting. A tax allowance for dependent children (which is different from non-taxation of child benefits) is recorded as a TBSP (see below).
- 64. The second group of tax measures with social effects concern Tax Breaks for Social Purposes (TBSPs) and are defined as:

"those reductions, exemptions, deductions or postponements of taxes, which: a) perform the same policy function as transfer payments which, if they existed, would be classified as social expenditures; or b) are aimed at stimulating private provision of benefits".

65. TBSPs that can be seen as replacing cash benefits often involve tax credits towards dependent children. TBSPs that aim to stimulate the provision of private expenditures include tax relief for non-commercial non-government organisations, tax advantages towards private health insurance contributions, and favourable tax treatment of private pensions.

5.2.3. Which tax breaks are included and which are not?

66. In many OECD countries (e.g., Germany and France), support for families with children is embedded in the tax unit. Although these measures may not establish a deviation from the national standard tax system (and thus do not establish a tax expenditure in the strict sense), such support clearly establishes financial and social support and should thus be included in the reported TBSPs. For example, the value of support to children in France through the 'quotient familial' was estimated to be around EUR 12.1 billion in 2016.⁵

The French system of income taxation considers the household as the tax unit: favourable tax treatment of families is thus an integral part of the tax system. In this system a 'quotient familial' is applied to taxable household income, which allows incomes to be taxed at a lower rate on a progressive marginal rate schedule. The 'quotient familial' is obtained by dividing total taxable household income 'R' by a factor 'N' which is determined by household composition. This factor N is the sum of the different 'household parts': spouses count as one part each, while the first two children count as half a 'household part', from the third child onwards each child counts as one 'household part' (slightly different rules benefit sole parent families and families with handicapped dependants). For example, for a couple-family with two children, it is 3, and for a couple-family with 3 children it is 4. Obviously, at a given income level the larger the family, the lower is the quotient familial (R/N).

However, support for married couples is not considered as social in all OECD countries, and fiscal measures in this regard are not considered as a TBSP. The appropriate analogy is that the presence of dependent children leads to eligibility to cash benefits in social protection systems, whereas a marriage contract does not. Hence, tax advantages for married people, as exist in for example, Belgium, France, Germany and Japan are not considered to serve a 'social purpose', and are therefore not included in the calculations (regardless of whether or not such measures are part of the basic tax structure).

- 67. Tax breaks for social purposes also encompass measures aimed at stimulating private pension take-up, e.g., tax exemptions for contributions to private pensions. However, such tax breaks on occupational and individual pension programmes are difficult to deal with, because such programmes are aimed at yielding benefits in the future and taxation and tax reliefs can be given at various stages of pension saving. Tax treatment of funded pension plans needs to be considered in three different areas:
 - Contributions to programmes could be by employers or employees, out of taxed or untaxed income.
 - The funds that invest pension contributions on behalf of those contributing could be taxed or untaxed.
 - The payment of a regular pension or annuity, or lump sum benefits at the end of the contributions period could be taxed or untaxed.

Due to the complexity of calculations arising from these issues and the different methods that can be used across countries, there is no comparable dataset available on the value of tax breaks for pensions. There is some data available on the cost to public budgets of the current tax system in the current financial year. These data abstract from the effects the current tax system may have on revenues in future years.

5.2.4. Methods and sources; the valuation of tax revenue forgone

68. Information on the value of tax breaks with a social purpose can often be found in socialled 'tax expenditure reports' as published by national authorities. See for example, (Australian Government Treasury, $2018_{[38]}$; Department of Finance Canada, $2018_{[39]}$) or the Office of Management and Budget ($2017_{[40]}$) and the U.S. Department of the Treasury ($2017_{[41]}$) for the United States. Such reports generally present estimates on the revenue forgone through tax measures: i.e., the amount by which tax revenue is reduced because of specific tax breaks. Such reports generally cover favourable tax treatment by central/federal governments, but do not account (and neither does this report) for tax assistance by subnational levels of government, as in for example, Canada, Japan and the United States.

However, there are ceilings in the tax deductions families may receive compared to childless households, and these thresholds were reduced with reform of 13 June 2013 (République française, 2018_[47]).

Comprehensive information across countries on sub-national tax breaks with a social purpose is not available. A crude estimate of direct taxation of benefit income of both federal and provincial taxes in Canada assumes that provincial taxes were about 50% of federal taxes in the mid-2000s. Using the latter as a rule-of-thumb the real value of TBSPs similar to cash benefits may well have been around 2% of GDP at factor cost in 2007 rather than 1.3% of GDP – the value of Federal TBSPs.at the time. Department of Finance Canada (2018_[42]) includes a list of websites where provincial tax expenditure reports can be found.

- 69. Tax expenditure reports in many countries do aggregate different measures to give an overall picture of the importance of tax expenditures. Strictly speaking, this causes methodological problems, since tax expenditures and TBSPs are interdependent. For example, consider the combined existence of a tax allowance for single parents and another separate tax relief towards the cost of childcare. The value of these two tax breaks would normally be calculated (and presented) separately. However, if one of the two TBSPs were eliminated, then some taxpayers may end up in a higher marginal tax rate category, thereby increasing the value of the other TBSP (unless the claimant already received the maximum amount of tax relief). The value of 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 TBSPs (they take no account of behavioural effects which can be expected to reduce (future) tax payments) the aggregate of such estimates understate the overall costs.
- 70. There are different ways of calculating the value of tax expenditures and TBSPs (OECD, 1996_[37]; OECD, 2010_[42]; Adema et al., 1996_[17]). The already mentioned 'revenue forgone' method is an ex post measure of the amount by which tax revenue is reduced because of a particular measure. Table 8 shows that depending on the measurement technique the estimated value of the tax break can vary significantly. Calculating the present value of favourable treatment of pension plans does not necessarily lead to estimates that are larger than the revenue forgone method that does not account for deferred pension earnings on current contributions or tax paid over benefits in future. While the present value of favourable tax treatment of self-employed plans and defined benefit employer plans is well below estimates based on the revenue forgone method, the opposite holds for the defined contribution employer plans. This suggests that participants of the self-employment plans and the defined benefit plans have very favourable tax treatment on their contributions relative to their future tax payments on relevant income transfers.

Table 8. The estimated value of selected tax breaks for pensions, the United States, 2017

Value in millions of US dollars, 2017

-	Calculatio	Calculation method	
	Revenue forgone	Present value	
Defined benefit employer plans	76 091	29 729	
Defined contribution employer plans	69 440	79 310	
Self-employed plans	28 460	5 480	

Source: U.S. Department of the Treasury (2017), Tax Expenditures FY 2019.

71. Social expenditure and TBSPs can both be calculated on a cash or on an accruals basis. The former approach estimates the effect on government cash flows, the latter on the tax liabilities accruing to government in a particular period. Except for TBSPs for pensions, there is likely to be little difference between estimates calculated on these two bases. Favourable tax treatment of funded pension payments also has to account for the effect that tax treatment of current pension contributions may have on future tax payments. For example, a pension contribution in 2017 would cause a deferral of tax-payments on wages in 2017 and

The data in the OECD Revenue Statistics are on an accrual basis, i.e. recorded at the time that the tax liability was created, from around 2000 onwards. Data for earlier years are still predominantly recorded on a cash basis, i.e. at the time at which the payment was received by government.

on pension earnings on this contribution (e.g., interest, capital gains) in later years. However, in some future year, the 2017 pension contribution and accrued earnings will be paid out and taxes will be due: these receipts are included in the present value estimate.

72. Tax breaks for pensions include tax exemptions for contributions to private pensions, and tax relief for investment income of capitalised pension funds. Because of the complexities of calculating the value of these tax reliefs that are given at various stages of what is a form of contractual savings, there is no comparable data set available on the value of tax breaks for pensions across countries. Therefore, a comprehensive analysis of Tax Breaks for Pensions is not yet possible, and estimates that are only available for a few countries are not included in the overview calculations in this report, but only presented as a memorandum item (see Table 9 below).

5.2.5. The net social expenditure framework: a concise overview

- 73. A cross-country comparison of social expenditure indicators requires that information on gross spending and the role of the tax system in the pursuit of social policy is integrated in a framework that derives net social expenditure indicators. Table 9 presents a schematic overview of this framework (below, the numbers/letters in between brackets refer to the appropriate line in this Table).
 - First of all, direct taxes clawed-back by the Exchequer and the imputed value of indirect taxation on goods consumed out of public benefits are subtracted from Gross public social expenditure (1) to obtain Net direct public social expenditure (2). Subsequently, as the value of tax breaks for social purposes (excluding pensions) that are similar to cash benefits (T1) is used for consumption, the imputed value of the indirect taxation on these items is subtracted to obtain Net TBSPs similar to cash benefits (4). The value of TBSPs towards current private benefits (T2) is added to obtain net current public social expenditure (6). From the government perspective, net public social spending gives a better impression of budgetary efforts in the social field and the proportion of net social output reallocated to benefit recipients.
 - In order to measure the social support that is provided under government control, mandatory private benefits should also be included, and account taken of the fact that these benefits are also subject to direct and indirect taxation. Net government-controlled social expenditure is captured under the heading of **net publicly mandated social expenditure** (9). Finally, the gross voluntary private benefits are also adjusted for direct and indirect taxation: net direct voluntary private social expenditure (11).
 - Adding together these net public, mandatory private and voluntary benefits gives an indicator on **net total social expenditure** (13), which quantifies the proportion of an economy's domestic production at the disposal of recipients of social benefits. However, as noted above, the tax breaks towards current private social benefits (T3), are tantamount to financing private social benefits. Thus, while these TBSPs are clearly a public expenditure item, they finance private benefits and simply adding net public social expenditure to net private social expenditure would overestimate the amount of support received by households. Therefore, net total social expenditure (13) is the sum of net current public social expenditure (6) and net direct private social expenditure (12) minus TBSPs towards current private social benefits (T2).8

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Ideally, the value of tax breaks aimed at stimulating private benefit provision would be netted out against the direct and indirect taxes levied on the private benefits it generated. However, as noted

Net total social expenditure identifies that proportion of an economy's domestic production to which recipients of social benefits lay claim.

Table 9. From Gross Public to Net Total Social Expenditure

+/-	Line #	Item
	1.	Gross direct public social expenditure
		Direct taxes and social contributions paid out of public cash benefits
	2.	Net cash direct public social expenditure
		Indirect taxes on private consumption financed by net cash transfers
	3.	Net direct public social expenditure
+	T1	Tax breaks for social purposes that mirror cash benefits
		Indirect taxes on private consumption financed by tax breaks similar to cash benefits
	4	Net TBSPs similar to cash benefits
+	T2	Tax breaks for social purposes towards current private social benefits
	5	Net TBSPs (not including pensions)
	6.	Net current public social expenditure [3+5]
	7.	Gross mandatory private social expenditure
		Direct taxes and social contributions paid out of mandatory private cash benefits
		Indirect taxes on consumption purchased out of net mandatory private cash benefits
	8.	Net direct mandatory private social expenditure
	9.	Net publicly mandated social expenditure [6+8]
	10.	Gross voluntary private social expenditure
		Direct taxes and social contributions paid out of voluntary private cash benefits
		Indirect taxes on consumption purchased out of net voluntary private cash benefits
	11.	Net direct voluntary private social expenditure
	12.	Net direct private social expenditure [8+11]
DEC	13. ¹	Net total social expenditure [6+12-T2]

Note: Tax adjustments in the shaded areas.

1. In order to avoid double counting, net total social expenditure is obtained by adding up net public and net private social expenditure while subtracting tax breaks towards current private benefits *Source*: OECD.

above, it is not possible to determine to what extent these TBSPs actually affect take-up of private benefits, and therefore this calculation was not attempted.

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ANNEX I.1. DETAILED INFORMATION ON SOURCES OF THE OECD SOCIAL EXPENDITURE DATABASE

AI.1.1. From ESSPROS to SOCX

For 25 European countries (EU-22, Iceland, Norway and Switzerland), data on social expenditure is provided by EUROSTAT as based on the information in their *ESSPROS Database* (EUROSTAT). The definitions of social expenditure that are used by SOCX and ESSPROS are similar, but there are differences in coverage and categorization. Table A.I.1.1a presents an overview.

ESSPROS SOCX 1. Sickness/Health care cash 3. Incapacity 4. Health (OECD Health data) services 2. Disability (!LTC overlap) -> Economic integration of the handicapped 3. Old age 1. Old age 4. Survivors 2. Survivors -> 5. Family/children 5. Family Child care (pre-primary education from OECD Education database) 6. Unemployment 7. Unemployment cash Vocational training allowance services 8. Housing 7. Housing Qther social policy areas 8. Social exclusion 6. ALMPs (OECD LMP database)

Table A.I.1.1a From ESSPROS to SOCX: a brief overview

Note: ESSPROS can also be downloaded from the EUROSTAT website via http://epp.eurostat.ec.europa.eu

Then click: > Statistics >> Social protection

All ESSPROS social protection benefits are included in SOCX, except those in:

- Sickness /Health care services, which are taken from the OECD Health Data
- Programmes for the economic integration of the handicapped, and vocational training allowance for the unemployed and unemployment services are taken from the *OECD Employment Database*.

To regroup ESSPROS items into SOCX, the following adjustments have to be made:

(1) ESSPROS Social protection benefits

- (2) ESSPROS Economic integration of the disabled
- (3) ESSPROS Sickness benefits in kind
- (4) ESSPROS Vocational training allowance and unemployment benefits in kind
- + (5) Health services (OECD Health data)
- + (6) Child-care pre-primary school (*OECD Education Database*, for some countries)
- + (7) Active labour market programmes (*OECD ALMP Database*)

=

- (11) SOCX Public social expenditure
- + (8) SOCX Mandatory private social expenditure

including mandatory private ESSPROS schemes

+ (9) SOCX Voluntary private social expenditure including:

voluntary private ESSPROS schemes, and

(10) Health private insurance (OECD Health Data)

Example for Sweden for 2015:Table A.I.1.1b. Passage from Esspros to SOCX (public / mandatory-voluntary private)

SWEDEN, in millions of Swedish Kronas

-		ESSPROSS / SOCX			Code	2015
	(1)	ESSPROS	Social protection I	benefits	1100000	1,200,992
-	(2)	- ESSPROS	Disability	Economic integration of the handicapped	1121114 1121122 1122114 1122122	1,291 0 0 0
-	(3)	- ESSPROS	Sickness	Benefits in kind	1111200 1112200	256,868 0
-	(4)	- ESSPROS	Unemployment	Cash - Vocational training allowance	1161114 1161121 1162114 1162121	17,058 0 0 0
				Benefits in kind	1161200 1162200	12,215 0
+	(5)	SOCX / Health	HEALTH Public ben	efits in kind	752.10.4.0.0.0	264,020
+	(6)	SOCX / Statistics Sweden	FAMILY Services	Child care (pre-primary education)	752.10.5.2.1.2	22,975
+	(7)	SOCX/ ALMP	ACTIVE LABOUR N	MARKET PROGRAMMES	752.10.6.0.0.0	53,143
_	(8)	= SOCX	MANDATORY PRIV	ATE SOCIAL EXPENDITURE	752.20.90.0.0.0	17,382
	.,	ESSPROS	SICKNESS (111111	Paid sick leave: 13. Arbetsgivarens sjuklön (Employers' sick pay)	752.20.3.1.3.1	17,382
	(9)	= SOCX	VOLUNTARY RRIV	ATE SOCIAL EXPENDITURE	752.30.90.0.0.0	135,464
-	(9)	ESSPROS	(several functions)	14.Avtalspensioner (Contractual pensions)	752.50.50.0.0.0	130,025
+	(10)	SOCX / Health	HEALTH Voluntary	private insurance, benefits in kind	752.30.4.2.0.0	2,724
-	(11)	SOCX	PUBLIC SOCIAL EX	XPENDITURE	752.10.90.0.0.0	1,106,291
Notes:	(1)	"ESSPROS / Social protection benefits" are Total ESSPROS income and other). The ESSPROS data within "Disability / Economic integration"				
	(2)	Market Programmes / Measures for the disabled".	of the handicapped are not	t included in SOCA database to avoid double counting wi	III SOCA ACTIVE Labour	
	(3)	The ESSPROS data within "Sickness / Benefits in kind" are	not included in SOCX databa	ase to avoid double counting with SOCX "Health / Benefit	s in kind".	
	(4)	The ESSPROS data within "Unemployment / Cash Vocation		ployment / Benefits in kind" are not included in SOCX dat	abase to avoid any	
	(5)	double counting with SOCX "Active Labour Market Program SOCX Health benefits in kind are from "OECD Health Data (ndata)".		
	(6)	SOCX includes public spending on pre-primary education to	from OECD education databas	se, unless such data are already included in "5.2.1. Day	care services".	
	(7) (8) (9) (10) (11)	SOCX Active Labour Market Programmes are from "OECD Spending on some programmes recorded under the schen Spending on some programmes recorded under the schen SPENDER (**) SOCX Private insurance Health benefits in kind are from "CE" (**) - (nes below are categorised as nes below are categorised as	s Mandatory private in SOCX. s Voluntary private in SOCX. (9) Includes (10).		

See country notes (attached to data) for other countries and years.

AI.1.2. OECD Health Statistics

Data in SOCX on public expenditure on health are not taken from the SOCX-questionnaire (nor from ESSPROS for EU-countries), but for reasons of comprehensiveness are taken from OECD Health Statistics. However, including these data in SOCX raises the possibility of introducing inconsistencies vis-à-vis health-related spending items recorded elsewhere in SOCX. For some countries, there is an issue with items recorded as spending on services for elderly and/or the disabled provided by institutions other than hospitals also being included under public expenditure on health.

From countries for which information is currently available, estimates suggest that for some countries there exist overlap of spending data recorded as services for elderly and/or the disabled and public expenditure on health. For Denmark, Iceland and Norway relevant spending are close to 2-percentage point of GDP in value.

OECD (2018_[43]) discusses accounting issues around the international comparability of long-term care (LTC) within the System of Health Accounts 2011 (OECD/Eurostat/WHO, 2017_[18]). In this framework, spending on LTC services is split into a 'health' and a 'social' component. Expenditure on services helping dependent persons with activities of daily living (i.e. help with mobility, bathing, feeding, etc.) is included under LTC (health), while spending on services helping dependent persons with instrumental activities of daily living (cleaning, cooking, shopping, etc.) is considered as LTC (social), and outside the health boundary.

Despite advances, limitations remain in achieving full comparability in some areas of LTC spending. At the same time, LTC spending data is increasingly used in OECD member countries for policy analysis and benchmarking purposes and the OECD Secretariat is constantly challenged to assess the comparability of current data across countries. Further work is ongoing to improve data quality. Table A.I.1.2.a shows the overlap figures, and Table A.I.1.2.b shows total public spending on health (including long-term-care overlap).

Table A.I.1.2.a Estimation of overlap between OECD Health spending and SOCX

In national currency, millions 1985 1980 1990 1995 1996 1997 1,050 1,913 1,940 Austria m 1,875 m 23,181 Denmark 18,731 24,138 9,079 14,283 21,822 Estonia m m m m m m 935 Finland 121 151 873 894 0 Germany 0 0 4,337 6,564 6,636 Iceland m m 3,456 4,661 5,155 5,521 Japan а а а 22,481 22,481 27,512 Norway 6,373 14,867 21,659 22,610 23,644 3,276 11,602 Sweden 10,006 11,316 m m m Switzerland 1,361 2,180 2,257 2,359 m m 1998 2003 2008 2013 2014 2015 Austria 2,028 2,338 3,040 3,764 3,877 3,966 Denmark 21,395 25,787 38,961 40,914 41,982 42,742 Estonia 11 13 13 13 m 957 1,602 2,308 2,942 2,903 3,275 Finland Germany 6,807 7,182 8,003 11,387 12,077 13,633 Iceland 6,351 15,933 25,476 33,469 35,326 38,758 30,187 2,366,883 6,977,564 7,476,246 Japan 2,165,660 7,295,822 69,298 Norway 25,785 32,395 44,904 62,524 66,481 Sweden 12,331 17,823 21,639 110,131 114,900 121,270 Switzerland 2,474 3,146 3,895 4,533 4,531 4,623

Table A.I.1.2.b Current public expenditure on health (all functions)

A. Government schemes, current prices in national currency, millions

	1980	1985	1990	1995	2000	2005	2010	2015	2016	2017
Australia	5,581	11,310	17,778	24,281	36,708	54,459	81,975	105,546		
Austria						7,017	9,384	10,710	11,076	
Belgium						3,268	3,925	7,058	7,545	
Canada	15,826	28,101	42,561	49,622	62,530	87,804	120,238	142,974	147,667	153,203
Chile					76,691	103,289	227,250	282,144	324,954	
Czech Republic						11,579	14,868	39,994	42,009	
Denmark					89,372	120,738	156,961	175,321	179,877	
Estonia						56	102	142	150	160
Finland				4,208	5,304	7,970	9,966	12,662	12,573	
France						6,233	11,129	12,875	13,106	
Germany				20,720	15,922	17,491	19,247	22,575	23,964	
Greece							6,475	4,196	4,596	
Hungary						158,290	167,169	274,000	215,047	
Iceland						52,449	72,979	150,756	165,782	177,838
Ireland								13,831	14,590	
Israel							10,431	14,427	13,979	
Italy				48,181	68,141	96,402	112,495	110,312	111,450	112,737
Japan				2,570,086	3,068,360	3,380,766	4,309,571	4,863,791		
Korea	95,938	188,451	539,941	1,075,389	2,623,562	5,264,586	9,039,316	11,808,632	12,457,897	13,028,245
Latvia					189	444	664	792	843	
Lithuania					38	85	198	242	256	
Luxembourg			117	129	123	191	229	287	281	291
Mexico						89,958	174,318	254,091	262,456	
Netherlands						2,369	3,082	4,377	4,471	4,517
New Zealand	1,216	2,072	4,183	5,160	6,984	9,645	14,148	16,591	17,438	18,043
Norway						113,293	166,810	235,151	243,152	253,513
Poland						4,126	5,427	10,553	12,102	
Portugal					7,490	10,552	12,152	10,475	10,965	
Slovak Republic						254	356	235	248	
Slovenia						80	105	98	130	
Spain						47,526	68,310	65,489	66,691	
Sweden						196,747	244,602	385,290	402,209	420,117
Switzerland				6,887	7,627	10,144	13,753	16,823	16,936	
Turkey						9,102	15,784	21,158	25,354	
United Kingdom					51,559	81,240	111,198	146,926	152,169	
United States	55,819	85,482	143,192	236,627	316,875	482,796	631,445	814,047	841,217	

B. Social health insurance schemes, current prices in national currency, millions

	1980	1985	1990	1995	2000	2005	2010	2015	2016	2017
Austria						11,077	13,192	15,700	16,254	
Belgium						18,228	24,123	25,448	25,894	
Canada							2,509	3,003	3,072	3,233
Chile					981,093	1,680,942	3,331,302	6,078,738	6,838,132	
Czech Republic								234,187	237,446	
Estonia							610	855	916	1,015
Finland					1,329	1,958	2,356	2,638	2,561	
France							159,392	180,394	183,894	
Germany				124,093	146,942	160,283	194,910	236,149	246,358	
Hungary									1,512,938	
Israel							28,335	39,335	41,809	
Italy								455	396	394
Japan								43,767,163		**
Korea	173,147	731,258	2,287,952	4,698,838	10,158,659	19,958,524	37,404,880	51,427,046	56,965,426	61,290,287
Lithuania							1,172	1,386	1,470	
Mexico								302,564	312,780	
Netherlands						31,658	16,715	14,080	14,180	14,317
New Zealand							1,686	2,133	2,285	2,449
Norway						24,351	28,620	34,397	35,486	37,256
Poland								68,869	71,870	
Portugal					91	114	175	199	207	
Spain						3,814	4,618	4,723	4,786	
Switzerland				2,033	2,495	3,330	2,529	2,723	2,729	
Turkey						13,452	29,941	54,464	62,925	
United States	42,993	80,766	127,711	206,307	251,308	381,296	556,788	696,461	722,754	

Source: OECD Health Statistics 2018 http://www.oecd.org/els/health-systems/health-data.htm

Finally, indicators on voluntary private social health expenditure are estimates on the benefits to recipients that derive from private health plans which contain an element of redistribution (such private health insurance plan are often employment-based and/or tax-advantaged). The estimates are based on OECD *Health Statistics*.

By not including data on individual payments, it is thus implicitly assumed that none of the individual payments (including co-payments) are in any way subject to redistribution. This is a very strong assumption, which is unlikely to fully reflect reality, but it was judged more realistic than the alternative – to include all individual payments. The estimates on private social health benefits may thus somewhat underestimate the "true" social extent of health-care provisions.

AI.1.3. OECD Employment Database

Data on public spending on ALMPs (social policy area (or branch) "6" in SOCX) are taken from the *OECD Employment Database*. This database identifies six "active" categories:

- 1. Public employment services and administration
- 2. Training
- 4. Employment incentives
- 5. Sheltered and supported employment and rehabilitation
- 6. Direct job creation
- 7. Start-up incentives

To ensure consistency with the historical series as in SOCX, data prior to 1998 (for Eurostat countries) and prior to 2001 (for non-Eurostat countries) have been regrouped in the "new" classification system. See the *OECD Employment Database*.

AI.1.4. OECD Education Database

For reasons of comprehensiveness, SOCX collects for most countries spending figures from *OECD Education Database* on Childcare and early education services (ISCED0) – see non-shaded background in Table A.II.1.4. All available data on public financial support for families with children participating in both formal day-care services (*i.e.*, crèches, day-care centres and family day-care for children under 3) and pre-school institutions (including kindergartens and day-care centres for children aged from 3 to 6) are included, from 1998 only in general, from which ISCED97 started.

As part of the ISCED2011Operational Manual Guidelines for Classifying National Education Programmes and Related Qualifications, ISCED level 0 now covers early childhood education for all ages, including very young children.

Programmes are sub-classified into two categories depending on the level of complexity of the educational content:

- Early childhood educational development (code 010): generally designed for children younger than 3 years. It is introduced as a new category in ISCED 2011 and is not covered by previous ISCED 1997.
- Pre-primary education (code 020): corresponds exactly to level 0 in ISCED 1997.

To get a good comparison of childcare support, account has been taken of cross-national differences in the compulsory age of entry into primary school. For example, in some (Nordic) countries children enter primary school at age 7, while 6 year olds attend preprimary school the year beforehand. In order to improve the comparison, expenditure on these 6 year olds was excluded (sometimes using estimates derived on basis of available data on spending on education and the number of 6 year olds). Similarly, for countries where children enter school at age 5 (and which were not already included in the childcare and preschool data) pre-school expenditure data for Australia, New Zealand and the United Kingdom was adjusted by adding up the expenditure on 5 year olds enrolled in primary school – see adjustments in Table A.I.1.4.

Table A.I.1.4. Public spending on pre-primary education, millions national currency

			000"	E . 1613			C 3					01	,		. 10055.0													
	1998	2000	2005	djusted Chil 2010	ld care (pre-j 2011	primary educ 2012	ation) 2013	2014	2015	1998	2000	2005	ld care (pre-p 2010	rimary educa 2011	2012	2013	2014	2015	+	1998	2000	2005	2010	djustment 2011	2012	2013	2014	2015
	1000	2000	2000	2010	2011	2012	2010	2014	2010	1000	2000	2000	2010	2011	2012	2010	2014	2010		1000	2000	2000	2010	2011	2012	2010	2014	2010
Australia	0	0	2,034	3,878	4,619	4,855	5,448	5,577	6,137	0	0	469	843	1,568	1,828	2,198	2,376	2,813	plus 4 & 5 y.o	0	0	1,565	3,035	3,051	3,027	3,251	3,202	3,324
Austria										941	958	989	1,742	1,774	1,449	1,509	1,592	1,656	less 6 y.o	-158	-137	-154	-245	-241	-190	-216	-226	-236
Belgium	1,002	1,128	1,692	2,185	2,278	2,587	2,738	2,783	2,843	1,017	1,146	1,720	2,217	2,311	2,623	2,772	2,815	2,873	less 6 y.o	-15	-17	-28	-32	-34	-36	-34	-32	-30
Canada	1,986	2,130	2,186	2,674	2,710	2,737	0	0	0	1,986	2,130	2,186	2,674	2,710	2,737													
Chile	m	85,771	186,301							108,474	129,695	265,187	640,945	827,370	827,370	763,376	1,246,816	1,025,419	less 6 y.o		-43,924	-78,886	-31,271	-40,567	-42,422	-42,767	-75,705	-66,670
Czech Republic	6,554	7,277	10,296	15,516	16,005	17,589	18,774	19,819	20,190	8,235	9,224	12,472	18,438	19,002	20,856	22,162	23,520	24,077	less 6 y.o	-1,681	-1,947	-2,177	-2,921	-2,997	-3,267	-3,389	-3,701	-3,887
Denmark	7,880	6,566	7,863	12,805	23,833	22,198	22,134	21,682	21,608	10,850	9,169	11,088	17,859	24,636	22,837	22,735	22,293	22,293	less 6 y.o	-2,970	-2,603	-3,225	-5,054	-803	-640	-601	-611	-685
Estonia	m	8	29	50	53	61	55	153	155	m	10	40	64	67	77	67	202	208	less 6 y.o	m	-3	-11	-14	-14	-17	-12	-50	-53
Finland	286	283	318	448	484	967	1,088	1,098	1,116	460	451	545	710	759	1,494	1,565	1,576	1,606		-173	-168	-227	-262	-276	-527	-478	-478	-490
France	8,417	8,978	11,015	13,066	13,241	13,525	14,663	14,981	15,194	8,453	9,016	11,077	13,140	13,307	13,594	14,749	15,062	15,278	less 6 y.o	-36	-38	-62	-74	-66	-69	-86	-81	-84
Germany	m	5,556	6,856	10,313	11,003	10,554	11,145	11,474	12,366	m	6,731	8,127	11,565	12,344	11,731	12,478	12,899	13,902	less 6 y.o	m	-1,175	-1,271	-1,252	-1,341	-1,177	-1,332	-1,424	-1,536
Greece																												
Hungary	53,605	65,688	130,576	145,600	136,561	143,280	154,873	202,686	211,224	69,639	85,790	170,317	187,131	173,367	182,046	196,965	250,819	263,914	less 6 y.o	-16,034	-20,102	-39,741	-41,531	-36,806	-38,765	-42,092	-48,133	-52,690
Iceland	2,513	3,212	5,202	11,157	11,917	15,763	16,939	18,643	19,879	2,513	3,214	5,202	11,164	11,920	15,766	16,949	18,650	19,897	less 6 y.o	0	-1	0	-6	-3	-2	-10	-7	-17
Ireland	189	233	470	805	793	860	835	829	844	2	2	5	159	168	190	194	193	195	plus 4 & 5 y.o	187	231	465	646	625	669	641	637	650
Israel	2,476	2,740	3,748	5,072	5,247	5,054	6,826	7,421	8,938	2,556	2,829	3,940	5,346	5,553	5,285	7,159	7,804	9,311	less 6 y.o	-80	-89	-192	-274	-306	-231	-333	-383	-373
Italy	4,475	5,375	6,514	6,954	6,927	7,189	7,261	7,357	7,871	4,475	5,428	6,542	6,989	6,981	7,222	7,291	7,390	7,906	less 6 y.o	0	-54	-27	-34	-54	-33	-30	-33	-35
Japan	438,262	479,899	467,066	481,666	485,950	490,367	504,367	533,487	517,924	438,262	479,899	467,066	481,666	485,950	490,367	504,367	533,487	517,924										
Korea	185,162	205,915	572,682	1,693,780	1,909,632	2,997,752	5,175,805	6,272,197	7,347,175	191,641	205,990	575,806	1,717,446	1,921,090	3,009,227	5,181,832	6,276,058	7,351,297	less 6 y.o	-6,479	-75	-3,124	-23,666	-11,458	-11,475	-6,027	-3,861	-4,121
Latvia				114	123	129	139	146	138	0	0	0	154	166	174	188	202	196	less 6 y.o				-40	-43	-45	-49	-56	-58
Lithuania			124	192	218	208	218	229	252			124	192	218	208	218	229	252	less 6 y.o									
Luxembourg													297	315	280	249	285	297										
Mexico	12,258	25,813	47,827	70,070	77,424	79,899	84,636	89,323	97,152	12,369	25,968	48,171	70,339	77,698	80,150	84,884	89,618	97,444	less 6 y.o	-111	-154	-344	-269	-274	-251	-248	-296	-292
Netherlands	1,270	1,469	1,824	2,414	2,471	2,429	2,505	2,449	2,443	1,270	1,469	1,824	2,414	2,471	2,429	2,505	2,449	2,443										
New Zealand	556	564	747	1,591	1,713	1,592	1,609	1,764	1,837	233	222	361	1,039	1,054	1,023	1,022	1,164	1,177	plus 5 y.o	322	343	386	552	659	569	588	600	660
Norway	6,434	10,602	5,576	8,469	9,859	21,063	22,421	23,648	20,612	6,466	10,652	5,595	8,494	9,886	21,113	22,469	23,697	20,657	less 6 y.o	-32	-50	-19	-25	-27	-49	-48	-49	-45
Poland	1,308	1,721	2,817	4,925	5,815	6,736	7,324	7,893	9,069	2,866	3,582	5,331	7,349	8,266	8,974	9,719	10,489	10,978	less 6 y.o	-1,558	-1,861	-2,514	-2,424	-2,451	-2,238	-2,395	-2,596	-1,909
Portugal	231	344	588	695	654	634	692	718	689	235	350	595	704	667	645	708	734	707	less 6 y.o	-4	-6	-6	-9	-13	-12	-16	-16	-19
Slovak Republic	m	109	161	219	239	254	277	314	327	m	130	191	261	284	302	327	369	386	less 6 y.o		-20	-30	-41	-46	-48	-50	-54	-59
Slovenia	m	m	139	211	237	244	222	248	220	m	m	136	207	232	240	219	244	215	less 6 y.o	m	m	3	4	5	5	4	4	5
Spain	1,823	2,331	4,756	7,301	7,086	5,135	4,956	4,987	5,077	1,824	2,332	4,769	7,319	7,103	5,147	4,972	5,008	5,099	less 6 y.o	-1	-1	-13	-18	-17	-11	-15	-20	-21
Sweden	7,539	7,053	10,888	17,706	18,653	34,296	36,352	38,188	39,907	11,155	10,642	14,906	23,716	24,895	45,737	48,683	51,042	53,869	less 6 y.o	-3,616	-3,589	-4,018	-6,011	-6,243	-11,441	-12,331	-12,854	-13,962
Switzerland	485	567	664	791	776	805	813	1,097		774	879	963	1,115	1,090	1,127	1,149	1,537	2,642	less 6 y.o	-289	-312	-299	-324	-314	-322	-336	-441	-730
Turkey				464	2,180	3,412	3,577	3,893	4,736				464	2,180	3,412	3,577	3,893	4,736										
United Kingdom	4,936	5,455	7,249	10,178	10,831	11,463	11,603	9,554	10,881	3,347	3,778	3,817	4,585	4,984	5,123	5,187	3,575	4,753	plus 5 y.o	1,588	1,677	3,431	5,593	5,847	6,340	6,416	5,979	6,127
United States	28,443	31,844	33,342	47,008	46,781	47,086	46,358	48,751	50,658	30,385	33,980	36,349	50,871	50,254	52,292	51,670	54,589	56,450	less 6 y.o	-1,942	-2,136	-3,007	-3,862	-3,472	-5,205	-5,312	-5,838	-5,793

Note: Shaded figures were not added in SOCX, as they were already included in ESSPROS; ISCED = International Standard Classification of Education. Source: OECD Education database (www.oecd.org/education/database).

AI.1.5. The annual macro-economic Database of the European Commission's Directorate General for Economic and Financial Affairs (AMECO)

AMECO explanatory note:

AMECO is the annual macro-economic Database of the European Commission's Directorate General for Economic and Financial Affairs (DG ECFIN). Social transfers in kind refer to variable named UCIGO under ESA 95-code. D.63; Sector affected: General government (S.13); The source refers to National accounts; Eurostat or National data.

Social transfers in kind consist of individual goods and services provided as transfers in kind to individual households by government units. They include:

Social benefits in kind (D.631). Social benefits in kind are social transfers in kind intended to relieve the household from the financial burden of social risks or needs. They include the following cases:

Social security benefits, reimbursements (D.6311). These benefits consist of reimbursement by social security funds of approved expenditures made by households on specific goods or services.

Other social security benefits in kind (D.6312). These consist of transfers in kind provided to households by government units that are similar in nature to social security benefits in kind but are not provided in the context of social insurance schemes. Social assistance benefits in kind include, if not covered by a social insurance scheme, for instance social housing, dwelling allowances, and reduction of transport prices (if there is a social purpose).

Transfers of individual non-market goods or services (D.632). Transfers of individual non-market goods or services consist of goods or services provided to individual households free or at prices, which are not economically significant, by non-market producers of government units. They cover for instance education and cultural services.

Social transfers in kind are equal to the individual consumption expenditure of general government; variable UCIG0 is therefore conceptually identical with variable UCIG ('Individual consumption of general government at current prices'). Differences between UCIG0 and UCIG that may occur are due to different transmission deadlines of the underlying sources. UCIG0 is based on table 2 of the ESA 1995 transmission programme ('Main aggregates of general government') which has a deadline of t+8 months. Table 1 of the ESA 1995 transmission programme ('Main aggregates'), which is used for variable UCIG, has to be provided after t+70 days.

More information can be found under https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/macro-economic-database-ameco_en

ANNEX I.2. HOW TO ACCESS SOCX ELECTRONICALLY?

As described in SOCX home webpage www.oecd.org/els/social/expenditure, SOCX data is now available using OECD.Stat available via http://stats.oecd.org

then click on Theme >Social and Welfare Statistics >>Social Protection select appropriate SOCX dataset, then click on OPEN

A OECD.Stat "user guide" can be found at top-right of OECD.Stat home page.

SOCX2018 contains three datasets:

- - SOCX-AGG for main aggregates
- - SOCX-REF for reference series used for calculating aggregates
- - SOCX-DET for detailed expenditure at the programme level via OECD.Stat and for OECD/OLIS users via http://dx.doi.org/10.1787/socx-data-en for other public.

Default views are as follows:

- years 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2016, and estimates for 2017 and 2018 - data for intervening years are also available by changing the Year selection at top-right of the page.
- all countries are selected for aggregated and reference series datasets.

Default selections can be modified by double-clicking on appropriate variable and selecting appropriate item(s) in the left menu.

<u>Country-notes</u>" - presenting country-specific sources and definitions of social programmes - are available in English and French (depending on the country) as related files in OECD.Stat. They are accessible via the metadata information item attached to the country name, *ie.* exemple: Australia

Missing values are presented as follows:

- m data not available;
- a data do not exist;
- x data included in another category.

Tips:

- all variables can be moved using "drag & drop" in headers/columns/lines as in a pivot-table;
- meta-data information are available by clicking on "i" next to specific variable/item;
- any table can be exported into Excel / Text file by clicking on appropriate icon at top-right of table
- French version of datasets is available by clicking on "version française" at topright of screen.

SOCX aggregated data are available in OECD.Stat via

http://stats.oecd.org/wbos/default.aspx?datasetcode=SOCX_AGG

Aggregated data are available by: (codes in brackets)

- source: Public (10), Mandatory private (20), both public and mandatory private (10_20) or Voluntary private (30)
- branch: each 9 social policy area 1 to 9, or Total (90)
- type of expenditure: Cash benefits (1), Benefits in kind, or Total (0)
- type of programme: each of the 36 sub-areas (Table 4.1), or Total (0)
- to view data by type of program "xyz", select: branch "x" and type of expenditure "y"
- unit, as follows:

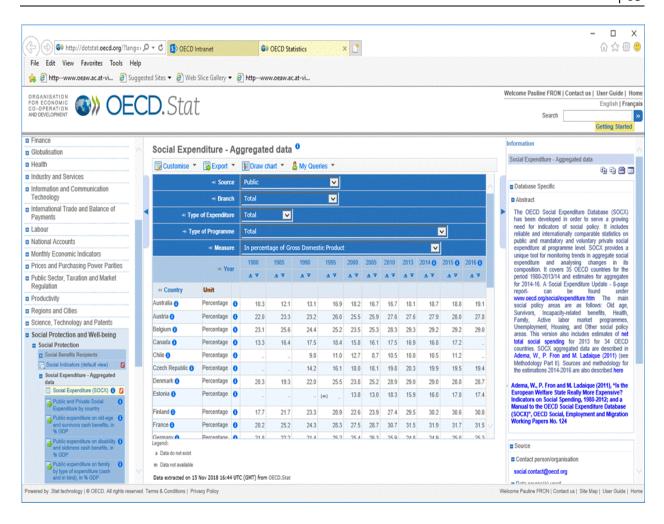
		Source	Branch	Type of expenditure	Type of programme
At current prices in national currency, in millions	NCUR	X	X	X	X
At constant prices (2010) in national currency, in millions	NCST	X	X	X	X
Per head, at current prices and current PPPs, in US dollars	PPPH	X	X	X	x
Per head, at constant prices (2010) and constant PPPs (2010), in US dollars	PPPVH	X	X	X	X
In percentage of Gross Domestic Product	PCT_GDP	X	X	X	X
In percentage of Gross National Income	PCT_GNI	X	X	X	x
In percentage of Net National Income	PCT_NNI	X	X	X	x
In percentage of Total General Government Expenditure	PCT_GOV	X	X	X	X

x: available

See reference series and notes for sources.

- country: each of 36 OECD countries, or Total
- year: any year from 1980 to 2018

See the screen capture below



SOCX Reference series are available in OECD.Stat via

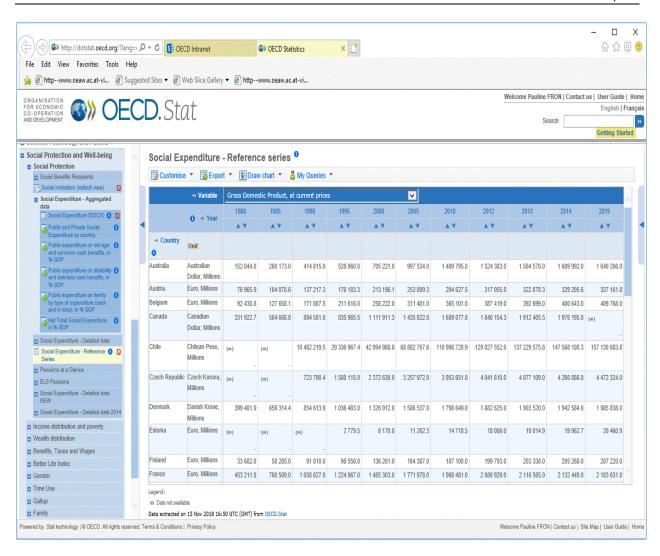
http://stats.oecd.org/wbos/default.aspx?datasetcode=SOCX_REF

Reference series are available as follows:

- GDP: Gross Domestic Product at current prices in national currency, in millions
- GDPV: Gross Domestic Product at 2010 prices in national currency, in millions
- DEFL: Deflator for GDP, I(2010) = 100
- GNI: Gross national income at market prices, at current prices in national currency, in millions
 - = GDP at market prices
 - + Taxes less subsidies on production and imports (net, receivable from abroad)
 - + Compensation of employees (net, receivable from abroad)
 - + Property income (net, receivable from abroad)
- GOV: Total general government expenditure, at current prices in national currency, in millions
- PPP: Purchasing Power Parities (PPP) for GDP, National currency per US dollar
- EXC: Exchange rates, National currency per US dollar
- POP: Population, Mid-year estimates, in thousands

Source: OECD, National Accounts Database.

See the screen capture below



SOCX Detailed expenditure at the programme level are available in OECD.Stat:

- for OECD-OLIS users via http://dotstat.oecd.org/wbos/Index.aspx?DataSetCode=SOCX DET
- for other public: via http://dx.doi.org/10.1787/socx-data-en

Detailed expenditures at programme level are available in OECD.stat at:

- at current prices in national currency, in millions : (NatCur)
- Detailed expenditures at programme level are also available in .XLS at:
- at constant (2010) prices in national currency, in millions: (NatCst)
- per head, at current prices and current PPPs, in US dollars: (PPPH)
- per head, at constant prices and PPPs (2010), in US dollars: (PPPVH)
- in percentage of Gross Domestic Product: (PCT GDP)
- in percentage of Gross National Income: (PCT_GNI)
- in percentage of Net National Income: (PCT_NNI)
- in percentage of Total general government expenditure: (PCT_GOV)

Each social programme has a "unique" code, made of 6 components:

Name of programme =

"Country code" . "Source" . "branch" . "type of expenditure" . "type of programme" . "number of programme" $\,$

where

• Country code: ISO Country codes:

Australia (36)	Austria (40),	Belgium (56)	Canada (124)	Chile (152)
Czech Rp. (203)	Denmark (208)	Estonia (233)	Finland (246)	France (250)
Germany (276)	Greece (300)	Hungary (348)	Iceland (352)	Ireland (372)
Israel (376)	Italy (380)	Japan (392)	Korea (410)	Latvia (428)
Lithuania (440)	Luxembourg (442)	Mexico (484)	Netherlands (528)	New Zealand (554)
Norway (578)	Poland (616)	Portugal (620)	Slovak Rep. (703)	Slovenia (705)
Spain (724)	Sweden (752)	Switzerland (756)	Turkey (792)	Un. Kingdom (826)
Un. States (840)				

- source: Public (10), Mandatory private (20), or Voluntary private (30)
- branch: each 9 social policy area 1 to 9, or Total (90)
- type of expenditure: Cash benefits (1), Benefits in kind, or Total (0)
- type of programme: each of the 36 sub-areas (Table 3.1), or Total (0)
- then a "number of programme" starting from "1" in each "type of programme".

The OECD Social Expenditure Database (SOCX) was developed in order to serve the need for indicators of social policy. It includes reliable and internationally comparable statistics on public and (mandatory and voluntary) private social expenditure at programme level as well as net (after tax) social spending indicators. SOCX provides a unique tool for monitoring trends in aggregate social expenditure and analysing changes in its composition.

This document provides a guide to the OECD Social Expenditure Database and starts with a discussion of methodological, classification and data issues regarding the gross spending items as in the OECD Social Expenditure Database (SOCX). It also discusses the methodological aspects of measuring net (after tax) social expenditure, and presents information on how relevant estimates were derived. The annexes to this document include supplementary information from OECD Health, Education and Employment Databases.

Willem ADEMA and Pauline FRON

For data and analysis: www.oecd.org/social/expenditure.htm