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Methodology and results from the 2020 collection round

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Abstract / Résumé

Economic inequality has been a matter of concern for policy makers and citizens. Evidence-based policies around important topics such as inequality need to rely on systematic, robust data and indicators. For that reason, the OECD and Eurostat have developed methodology and engaged in several rounds of data collection to measure disparities in line with national accounts (DNA). These estimates complement existing indicators on economic inequality by providing more comprehensive measures of inequality, by extending the analysis from income to consumption and saving, and by providing results that are fully consistent with macroeconomic aggregates, also ensuring a high degree of international comparability. This paper presents the latest developments of the DNA work.

The results show that Mexico and the United States record the highest income disparities, with Ireland, Sweden, the United Kingdom and Slovenia on the other end of the spectrum. Similar results can be observed for consumption, with the United States recording the highest inequality, followed by Mexico, and with Slovenia, Sweden and the Czech Republic recording the lowest inequalities. The paper also highlights that countries show diverging results with regard to saving ratios across quintiles, with particularly large negative savings for the first income quintile in New Zealand, Canada, the Netherlands and Sweden. Finally, the paper includes several additional insights, amongst other regarding socio-demographic characteristics of individuals and households in the various quintiles.

While the DNA results are now available in the public databases of the OECD and Eurostat, the work will continue. Looking ahead, the main aim is to further improve the timeliness and granularity of the results, as well as to broaden the country coverage and to extend the scope to also include the wealth dimension. This will further increase the relevance of the results for policy analysis.

Keywords: National accounts, households, distributional results.

JEL Classification: C82, D31, E01, E21.

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Les inégalités économiques sont un sujet de préoccupation pour les décideurs politiques et pour les citoyens. Les politiques basées sur des données probantes concernant des sujets aussi importants que les inégalités doivent s'appuyer sur des données et des indicateurs systématiques et robustes. Ainsi, l'OCDE et Eurostat ont développé une méthodologie et ont effectué plusieurs collectes de données pour mesurer les disparités dans le cadre de la comptabilité nationale (DNA). Ces estimations complètent les indicateurs existants sur l'inégalité économique en fournissant des mesures plus détaillées de l'inégalité, en étendant l'analyse du revenu à la consommation et à l'épargne, et en fournissant des résultats totalement cohérents avec les agrégats macroéconomiques, tout en assurant également un haut degré de comparabilité internationale. Ce document en présente les derniers développements.

Les résultats montrent que le Mexique et les États-Unis enregistrent les plus fortes disparités de revenus, tandis que l'Irlande, la Suède, le Royaume-Uni et la Slovénie montrent les plus faibles écarts. Des résultats similaires peuvent être observés pour la consommation, avec les États-Unis qui présentent les plus fortes inégalités, suivis par le

Mexique, alors que la Slovénie, la Suède et la République tchèque enregistrent les plus faibles inégalités. Ce document souligne également des résultats divergents entre pays en ce qui concerne l'épargne par quintile, avec une épargne négative particulièrement importante pour le premier quintile de revenu en Nouvelle-Zélande, au Canada, aux Pays-Bas et en Suède. Enfin, le document présente plusieurs informations supplémentaires, notamment sur les caractéristiques sociodémographiques des individus et des ménages dans les différents quintiles.

Alors que les résultats DNA sont à présent disponibles sur les bases de données en ligne de l'OCDE et d'Eurostat, -les objectifs sont maintenant de collecter des données plus récentes, d'en améliorer la précision, d'élargir la couverture géographique et d'étendre le champ d'étude aux données de patrimoine, ce qui augmentera la pertinence des résultats pour l'analyse des politiques économiques.

Mots-clés : Comptes nationaux, ménages, résultats distributifs

Classification JEL : C82, D31, E01, E21

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1. Introduction

1. Economic inequality continues to be a matter of concern for policy makers and citizens. Uncertainty and fears of social decline and exclusion have reached the middle classes in many societies.[1] Evidence-based policies targeting inequality need to rely on systematic, robust data and indicators. As early as 2009, the Stiglitz-Sen-Fitoussi Commission highlighted the importance of developing new evidence on inequality in line with the System of National Accounts. The OECD and Eurostat have since developed a methodology and engaged in several rounds of data collection to map out disparities in line with national accounts (DNA)[2] [3] with the latest developments presented in this paper.[4]

2. The principle relevance of DNA estimates comes from the way in which they complement existing indicators on income inequality. First of all, they provide a more comprehensive picture of economic inequality. In that regard, the new estimates include elements of income and consumption that are often not covered in inequality statistics, in particular the important category of social transfers in kind, mainly relating to health, education and housing services provided to households either free of charge or at very low prices. As this in-kind provision is a direct alternative to cash benefits to purchase these goods and services, its inclusion in distributional measures leads to a more comprehensive measure of economic inequality and to more comparable results over time and across countries.

3. Secondly, the evidence is broadened by extending distributional information from income to consumption and saving, each with its own analytical advantages. With this extension, new and interesting insights present themselves, for instance regarding the impact of changes in net equity of households in pension funds on household saving for different household groups. What is more, the new methodology links these dimensions consistently, thus allowing for an integrated vision of economic inequality across income, consumption and saving.

4. Furthermore, DNA provide measures of inequality consistent with macroeconomic aggregates. By construction, DNA data are fully consistent with economy-wide totals. This permits linking distributional results to relevant macro-economic indicators, such as gross domestic product, total or average household income, consumption and saving figures, thereby broadening the scope for analyses. Moreover, it ensures that the results include the top incomes, which may not always be properly captured in household survey results.

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[1] See for instance OECD (2019) *Under Pressure: the Squeezed Middle Class*; www.oecd.org/social/under-pressure-the-squeezed-middle-class-689afed1-en.htm.

[2] See Fesseau, M. and M. Mattonetti (2013) (http://dx.doi.org/10.1787/5k3wdjqr775f-en) and Zwijnenburg, Bournot and Giovannelli (2016) (https://doi.org/10.1787/2daa921e-en) respectively.

[3] At the same time, Eurostat and the OECD launched an expert group on joint distributions of income, consumption and wealth at the micro level (EG ICW) to produce a synthetic dataset containing household income, consumption and wealth micro data stemming from different data sources.

[4] There have also been other initiatives to compile distibutional results in line with national accounts aggregates, often relying on slightly different concepts and methodology. The most well-known is the approach developed by the World Inequality Database (WID.world) to derive Distributional National Accounts (DINA). Please see Zwijnenburg (2019) for a detailed description of the differences between the DNA and the DINA approach.

5. Additionally, they ensure a high degree of international comparability. While the estimates do require a number of statistical choices, assumptions and reliance on different data sources, a common methodology, elaborated with countries, helps to minimise the impact of such choices and maximise cross-country comparability of the results.

6. The DNA approach also has a positive impact on the quality of statistics. Alignment to the national accounts totals – which are the result of a process where various data sources are confronted and balanced, and which are compiled to conform with a harmonised system of concepts and definitions – provides a vehicle to capture households and transactions that are typically underrepresented in micro data, thus alleviating some of the pressures that arise from declining response rates and the need to keep the response burden low. Conversely, confronting national accounts totals with micro data for distributional information creates positive feedback loops for national accounts leading to improved estimates for aggregates.

7. In general, and as would be expected, the inclusion of imputed items such as social transfers in kind has a mitigating effect on income inequality, when comparing DNA to micro data estimates. On the other hand, the alignment of available micro data to the relevant national accounts totals tends to increase income inequality, as the largest adjustments for the gaps between micro data and national accounts often concern items that are concentrated in higher income groups (such as property income). The overall impact on the distributional results will depend on the size of the various adjustments.

8. Good progress has been made to date. In 2012 and 2015, the joint OECD-Eurostat Expert Group on Disparities in a National Accounts framework (EG DNA) compiled first experimental distributional results, using a common methodology. In 2020, the members of the expert group engaged in a new collection round, focusing on a more recent year and in some cases, longer time series. This paper describes the methodology, process and latest results for thirteen countries: Australia, Canada, the Czech Republic, France, Ireland, Israel, Mexico, the Netherlands, New Zealand, Slovenia, Sweden, the United Kingdom and the United States. The results have been made available as experimental statistics in the public databases of the OECD and Eurostat.[5] [6]

9. While the publication of these results is an important milestone, the DNA work will continue, aiming to improve the timeliness and granularity of the results, as well as to broaden the country coverage and to extend the scope to also include the wealth dimension. This will further increase the relevance of the findings for policy analysis.

10. The paper is structured as follows: Section 2 explains the methodology and template used in the DNA data collection, followed, in Section 3, by information on the available information received from countries. The various steps of the process underlying

[5] See www.oecd.org/sdd/na/household-distributional-results-in-line-with-national-accounts-experimental-statistics.htm and https://ec.europa.eu/eurostat/web/experimental-statistics/ic-social-surveys-and-national-accounts respectively.

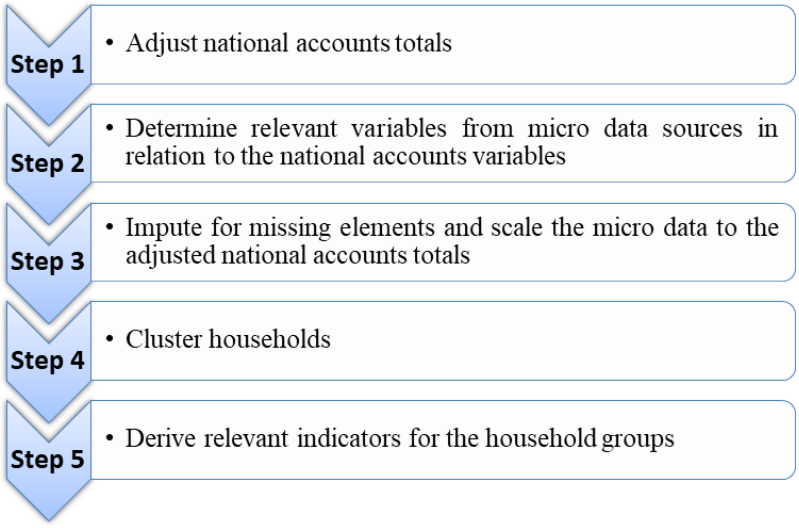
[6] These databases also include results for other European countries, compiled on the basis of a centralised approach as developed by Eurostat. However, as no data are yet available on social transfers in kind, these results only go up to disposable income and final consumption expenditure (instead of adjusted disposable income and actual final consumption expenditure which are the main indicators analysed in this paper). For that reason, the results have not been included in this paper. Eurostat and the OECD are further improving the centralised approach to complement the results with these missing elements and to also incorporate results for non-European OECD countries. These results are expected to become available in the course of 2021.

the compilation of distributional results are discussed in Section 4. The distributional results themselves are presented in Section 5. The paper concludes with a summary of the main takeaways and future work in Section 6.

2. Basic methodology

11. The methodology to compile distributional estimates in line with macroeconomic aggregates contains five steps, starting with the adjustment of national accounts totals to exclude any amounts that do not relate to resident private households, which are the target population for the distributional results. This adjustment concerns, for example, amounts related to institutional households (such as people living in prisons, boarding schools and retirement homes) included in the national accounts aggregates for the household sector. The second step involves lining up the relevant components from the micro data sources to the income and consumption variables from the national accounts. The micro data provide the main underlying information to distribute income and consumption across households. In the third step, imputations are made for elements that fall outside the scope of micro data, and the results are scaled to the 'adjusted' national accounts totals. In the fourth step, households are clustered into household groups, for instance on the basis of their disposable income or on the basis of socio-demographic characteristics, such as main source of income or household type. In the final step, relevant indicators for the distribution of income, consumption and saving are derived, such as disparity ratios that show the degree of income and consumption inequality in a country. Figure 2.1 presents an overview of this step-by-step approach.

Figure 2.1. A step-by-step approach for the estimation of distributional information



12. The starting point for the above procedure are the national accounts components related to income, consumption and saving (see Annex A). In the data collection, a template is used to collect the relevant information. It includes separate sheets for the income and consumption components, and also requests information on the 'original' national accounts totals, the 'adjusted' national accounts totals (after conducting step 1), the total values according to the micro data sources, and a breakdown of the adjusted national accounts totals into quintiles. This information enables analysing the impact of some of the

intermediary steps on the distributional results. Section 4 exploits some of this metadata in the analysis. In addition to a breakdown into income quintiles, the template provides the opportunity to include breakdowns by household types and main source of income, which is provided by a selection of countries (see Section 3).

13. In addition to the aforementioned sheets for distributional data, the collection template contains a sheet for socio-demographic information on the number of consumption units,[7] the number of households (by household types and housing status), and the number of persons (by age group, gender, labour market status, and highest level of education achieved) per quintile. This information is necessary to compile results on a per household or per consumption unit basis, and also provides background information on the composition of the various quintiles. Furthermore, the template contains a metadata sheet for more general information on the results, providing insights into the assumptions applied by countries and any deviations from the guidelines. Where considered relevant, this information is highlighted in the paper.

3. Overview of available information

14. The Secretariat conducted a collection round in 2020, asking countries to provide results for as many years as possible, but at a minimum for reference year 2015, to ensure the possibility of a cross-country comparison for a corresponding year. For this reason, the primary focus of the graphs and tables in this paper is on the year 2015, although in cases where more recent information is available, this is also highlighted in the analysis. Thirteen countries provided distributional results: Canada, the Czech Republic, France, Ireland, Israel, Italy, Mexico, the Netherlands, New Zealand, Slovenia, Sweden, the United Kingdom and the United States.[8] Furthermore, results for Australia could be obtained from their website,[9] although some metadata is lacking. Table 3.1 presents the reference periods for which countries provided data as part of the recent data collection as well as for the first two collection rounds.

[7] The number of consumption units is used to correct for differences in consumption needs between households of different sizes and composition, in order to arrive at comparable results. See Section 4 for more information.

[8] Belgium and Portugal also provided experimental results, but only on a confidential basis. These have not been included in the online database nor in this report.

[9] For more information, see www.abs.gov.au/ausstats/abs@.nsf/0/2A7665F5A468C0F7CA257D65001C105F?Opendocument.

Table 3.1. Time periods covered in the data transmissions

Country	2020 collection	2015 collection	2012 collection
Australia[1] (AUS)	2003, 05, 07, 09, 11, 13, 15, 17	2003, 05, 07, 09, 11	2009
Austria (AUT)	-	2012	-
Canada (CAN)	1999 to 2019	-	-
Czech Republic (CZE)	2017	-	-
France (FRA)	2011 to 2016	2003, 2011	2003
Germany (DEU)	-	-	2008
Ireland (IRL)	2015, 2016	-	-
Israel (ISR)	2015 to 2017	2012	2009
Italy (ITA)	2015 to 2017	-	2008
Japan (JPN)	-	2009	2009
Korea (KOR)	-	-	2009
Mexico (MEX)	2008, 2010, 2012, 2014, 2016, 2018	2008, 2010, 2012	2008, 2010
Netherlands (NLD)	2015, 2017	2008, 2011	2008
New Zealand[1] (NZL)	2006, 2009, 2012, 2015	-	2007
Portugal (PRT)	-	2006, 2011	2006, 2009
Slovenia (SVN)	2012, 2015	2012	2008
Sweden (SWE)	2012, 2015	2012	2008
Switzerland (CHE)	-	2008, 2011	2008
United Kingdom (GBR)	2003 to 2017	2008, 2012, 2013	-
United States (USA)	2015, 2016	2010, 2012	2010

1. Accounting years for Australia and New Zealand run from July t to June t+1.

15. Information according to income quintiles is relatively well covered across countries. Most of them provided data for both income and consumption, with the exception of Italy (income only) and Israel (consumption only). Furthermore, all countries were able to provide data for the main income and consumption components. Only in the case of Italy information was missing on social transfers in kind and consequently on adjusted household disposable income.[10] Annex B provides an overview of information as provided by countries for the various items.

16. The template focuses on distributional information by income quintile, but also asks for distributional breakdowns by 'household type' and 'main source of income' on a voluntary basis. This information provides insights into the distributional effects for different groupings of households. Table 3.2 shows the optional breakdowns provided by countries. Although the focus in Section 5 is on the results broken down by income quintile, it also touches upon the results according to these optional breakdowns.

[10] For this reason, no results could be included for Italy in Section 5.

Table 3.2. Optional breakdowns as provided by countries

	Household type		Main source of income	
	Income	Consumption	Income	Consumption
Australia	X	X	X	X
Canada			X	X
France	X		X	X
Israel		X		X
Italy	X			
New Zealand	X	X		
Slovenia	X	X	X	X
Sweden	X		X	
United Kingdom	X	X	X	X
United States	X		X	

17. The number of households and the number of consumption units by quintile was reported by all countries, with the exception of Australia for which only the number of households is available from their website. All the countries that provided distributional results for the optional breakdowns reported the corresponding numbers of households and consumption units, with the exceptions of the United Kingdom and the United States (for the latter only the number of consumption units was missing). For that reason, assumptions had to be made for these two countries to derive equivalised results for the relevant household groups.[11] More detailed information regarding the coverage of socio-demographic information can be found in Annex B.

4. Methodology – step-by-step

18. This section provides information on the process via which countries arrived at their distributional estimates. It follows the five steps as presented in Section 2.

4.1. Step 1: Adjustment to national accounts' totals

19. The first step concerns the adjustment of national accounts aggregates, to remove any components not relating to private households. Adjustments are usually required to exclude information related to people living in non-private dwellings (retirement homes, prisons, etc.) and – at the detailed level – consumption expenditure of non-resident households in the national territory, if the latter are included in the national accounts'

[11] For the quintile breakdown, the assumption has been applied of equal composition of households across quintiles. For the optional breakdowns, information on the number of consumption units per group has been estimated by looking at the average ratio between the number of consumption units and the number of households in other countries, multiplied by the number of households reported for the relevant groups in the countries for which this information was missing.

aggregates that serve as starting point.[12] [13] Table 4.1 summarises the overall adjustments made by countries.

Table 4.1. Overview of adjustments to national accounts' totals

	% difference between adjusted and original national accounts' totals	
	Income (average for B5, B6 and B7)	Consumption (actual final consumption)
Australia[2]	-	-
Canada (2015)	0.00	0.00
Czech Republic (2017)	-1.28	-1.80
France (2016)	-1.56	-2.73
Ireland (2015)	-0.39	-0.77
Israel[2] (2015)	-	-2.89
Italy[2] (2015)	0.00	-
Mexico (2016)	0.00	0.00
Netherlands (2015)	0.00	0.00
New Zealand (2015)	0.00	0.00
Slovenia (2015)	-0.15	-0.20
Sweden (2015)	-0.13	-1.34
United Kingdom[2]	-	-
United States (2015)	-0.36	-2.80

1. The results show the simple average of the adjustments to primary income (B5), disposable income (B6) and adjusted disposable income (B7), as percentage of the original estimate. For Italy, only results for primary income and disposable income are included, due to missing information on adjusted disposable income.
2. For Australia and the United Kingdom, the percentage difference is not available as no information was provided regarding the original national accounts estimates. For Israel and Italy, information is only available for either consumption or income.

20. The adjusted national accounts' totals are exactly equal to the original national accounts' totals for the main aggregates in Mexico, the Netherlands and New Zealand.[14] This implies that their distributional results also include information on institutional households. No correction was made as detailed information was missing and/or the impact of institutional households was only small. On average, the percentage difference between the adjusted and the original national accounts estimates is less than 0.4% for income and 1.1% for consumption.[15] The impact on saving is also relatively small (see Figure 4.1).

[12] Countries may also apply a different approach regarding consumption expenditure of resident households abroad. Most countries only include these expenditures at the aggregated level. However, Australia, Canada, France, the Netherlands and Slovenia include it at the detailed level of components. This needs to be accounted for when analysing the results.

[13] For some countries, adjustments may also be needed to exclude amounts related to non-profit institutions serving households (NPISHs), if the latter are reported together with households. However, for this was not the case for any of the countries in the collection round.

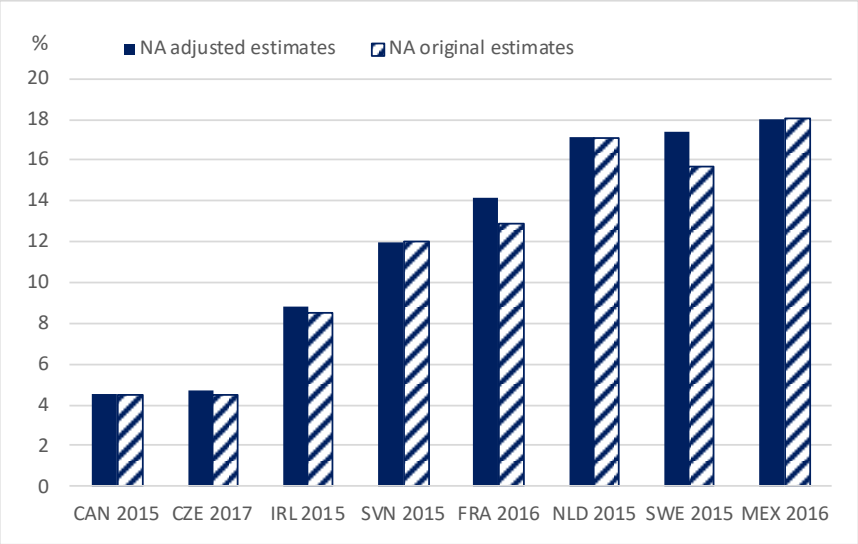
[14] Canada and Italy also report percentages very close to zero, but these two countries do show small differences at more detailed levels.

[15] It should be noted that this may conceal larger adjustments at the level of underlying components. Particularly in the case of consumption, larger adjustments can be observed at the more detailed level, as many countries adjust for the consumption of non-residents at the level of individual consumption items. Only the Czech Republic, Ireland, the United Kingdom and the United States do not apply this adjustment at the detailed level. Furthermore, there is no need for this adjustment in Israel and New Zealand, as the original national accounts estimates already exclude expenditures of non-residents.

Only France and Sweden report slightly larger differences between the national accounts' original and adjusted estimates for saving, of 1.3 and 1.6 percentage point respectively.

Figure 4.1. Saving ratio for original and adjusted national accounts estimates

Saving ratio as a percentage of household disposable income



4.2. Step 2: Lining up the relevant micro data variables to national accounts variables

21. The second step in the procedure is to line up the relevant components from the micro data sources to the national accounts variables for income and consumption. Ideally, corresponding micro variables can be found for all variables. However, as some items concern rather specific imputations made in the system of national accounts (such as *financial services indirectly measured* (*FISIM)* and *investment income attributed to insurance policy holders*), full coverage is not possible.

22. To gain more insights into the coverage, Table 4.2 presents an overview of the direct data coverage for the main items used in the data collection. It shows that in most countries, a majority of income and consumption items have a direct counterpart in micro data sources. Coverage is only relatively poor for *investment income disbursements* and, to a lesser extent, for *other current transfers* and *social transfers in kind*. Examining coverage across countries, Canada and Sweden report a relatively smaller number of items on the income side for which direct data sources are available. In contrast, Mexico, the Netherlands and the United Kingdom have corresponding items for almost all income items. For consumption, the direct micro data coverage is particularly high for all countries, with both Israel and New Zealand showing a full coverage. Canada is a notable exception, with direct micro data sources missing for a number of items. When interpreting these results, it has to be borne in mind that a lack of direct micro data sources does not automatically imply lower reliability of the distributional results. In that regard, countries may have indirect micro data sources available that can serve as a good proxy to arrive at distributional results for the relevant items. For that reason, it is important to consult the specific methods used by a country in cases where direct micro data are missing. This is further discussed under Step 3a.

Table 4.2. Micro data totals provided by countries for the main income and consumption items

		CAN	CZE	FRA	GBR	IRL	ISR	ITA	MEX	NLD	NZL	SVN	SWE	USA
	Income	2015	2017	2016	2015	2015	2017	2015	2016	2015	2015	2015	2015	2015
B2	Operating surplus		X	X	X	X		X	X			X		X
B3	Mixed income	X	X	X	X	X		X	X	X	X	X		X
D1R	Compensation of employees		X	X	X	X		X	X	X	X			X
D4N	Net property income received / Net property income		X		X	X			X	X	X		X	X
D41R	Interest received (not adjusted for FISIM)			X	X	X			X	X	X[1]		X	X
D42R	Distributed income of corporations			X	X	X			X	X	-	X	X	X
D44R	Investment income disbursements				X				X					
D41P	Interest paid (not adjusted for FISIM)					X			X	X	X		X	X
B5	Primary income		X		X	X			X	X	X			X
D5P	Current taxes on income and wealth	X	X		X	X		X	X	X	X	X		
D61P	Net social contributions paid		X	X	X	X		X	X	X	X			X
D62R	Social benefits other than STiK received	X	X	X	X	X		X	X	X	X	X		X
D7N	Other current transfers (net)		X			X			X	X	X			
D72R-D71P	Net non-life insurance claims minus premiums				X	X			X	X	X			
D75N	Miscellaneous current transfers received		X			X			X	X	X			
B6	Disposable income		X		X	X			X	X	X			
D63R	Social Transfers in Kind				X				X	X				
D63R1	Education				X				X	X				
D63R2	Health				X				X	X				
D63R3	Other				X					X				
B7	Adjusted disposable income				X				X	X				
	Consumption													
CP010	Food and non-alcoholic beverages	X	X	X	X	X	X		X	X	X	X	X	X
CP020	Alcoholic beverages, tobacco and narcotics	X	X	X	X	X	X		X	X	X	X	X	X
CP030	Clothing and footwear	X	X	X	X	X	X		X	X	X	X	X	X
CP040	Housing, water, electricity, gas and other fuels		X	X	X	X	X		X	X	X	X	X	X
CP050	Furnishings, households equipment and routine maintenance of the house	X	X	X	X	X	X		X	X	X	X	X	X
CP060	Health		X	X	X	X	X		X	X	X	X	X	X
CP070	Transport		X	X	X	X	X		X	X	X	X	X	X
CP080	Communications	X	X	X	X	X	X		X	X	X	X	X	X
CP090	Recreation and culture		X	X	X	X	X		X	X	X	X	X	X
CP100	Education	X	X	X	X	X	X		X	X	X	X		X
CP110	Restaurants and hotels	X	X	X	X	X	X		X	X	X	X	X	X
CP120	Miscellaneous goods and services		X	X	X	X	X		X	X	X	X	X	
P31DC	Final domestic consumption expenditure		X	X	X	X	X		X		X			
P33	Final consumption expenditure of resident households abroad					X	X				X			
P31NC	Final national consumption expenditure		X	X	X	X	X			X	X	X	X	
P4	Actual final consumption				X		X		X	X	X			

1. Item D41 also includes results of item D42 in New Zealand.

4.3. Step 3a: Imputations in case no direct micro data is available – The example of Social Transfers in Kind

23. In the case of items (or part of items) for which no direct counterpart is available in micro data sources, national experts have to make imputations to arrive at distributional results. This imputation is often done utilising indirect micro data sources that may serve as a proxy. One of the main items for which imputations are needed is *social transfers in kind* (STiK). These concern goods and services that are provided to households by government and non-profit institutions, either free of charge or at prices that are not economically significant. As the provision of these goods and services is a direct alternative to providing households with a cash benefit to purchase these goods and services themselves, their inclusion in distributional measures leads to a more comparable and more comprehensive overview of income inequality. Their impact on the distributional results may also be significant.

24. Regarding the allocation of *STiK on health*, the guidelines distinguish two approaches: (i) the actual value approach according to which values are allocated to households on the basis of the actual health care they receive; and (ii) the insurance value approach according to which values are allocated on the basis of an insurance premium equivalence households would have had to pay to obtain the same protection.[16] Whereas these two approaches may lead to quite different results at the micro level, the results will usually converge at more aggregated levels, as the impact of differences at the household level cancel out.

25. All countries included in the paper use the insurance value approach for health care, with the exception of Sweden, which applies the actual value approach. For all countries, the distribution of *STiK on health* is relatively flat across income quintiles, although some differences can be observed (see Table 4.3). For Australia, Israel, Mexico and the United Kingdom the concentration is higher in the lower income groups (Q1 and Q2), while a larger concentration can be observed in the middle income quintiles (Q2, Q3 and Q4) in Canada, Ireland, the Netherlands, New Zealand and the United States. For France, the largest amount of *STiK on health* is recorded in the highest income quintile.

[16] The insurance value approach essentially allocates the average per capita STiK for health to each individual, with a possible refinement to segment the population based on socio-demographic information and allocating STiK in line with the various needs/provision costs related to each population segment.

Table 4.3. Distribution of STiK on health across income quintiles (in percentages of total)

Country & year	Q1	Q2	Q3	Q4	Q5
Australia 2015	20.8	23.9	20.8	17.4	17.2
Canada 2015	17.5	21.9	21.0	20.6	19.0
France 2016	16.8	19.4	20.8	21.0	22.0
Ireland 2015	17.4	21.1	21.9	20.7	18.8
Israel 2015	20.4	20.6	19.9	19.6	19.4
Mexico 2016	22.8	21.5	20.9	19.7	15.1
Netherlands 2015	19.0	24.9	21.6	18.4	16.2
New Zealand 2015	17.5	22.3	21.3	19.6	19.3
Slovenia 2015	17.6	19.7	21.2	21.0	20.5
Sweden 2015	17.6	22.1	20.4	19.8	20.1
United Kingdom 2015	20.5	21.5	20.2	20.3	17.6
United States 2015	14.9	19.9	22.7	25.1	17.4

26. When looking at *STiK on health* as percentage of disposable income (see Table 4.4), all countries show a decreasing share along income quintiles, implying a mitigating impact on income inequality. The Netherlands and Sweden report relatively high percentages across all income quintiles, with particularly high shares for the first income quintile (54.5% and 42.6% respectively). Conversely, Mexico and the United States record the lowest percentages across all quintiles. For the lowest income quintile, it only amounts to 3.5% of disposable income in the United States and 10.9% in Mexico.

Table 4.4. STiK on health as a percentage of disposable income across income quintiles

Country & year	Q1	Q2	Q3	Q4	Q5	Total
Australia 2015	26.4	19.4	12.5	8.0	4.3	10.2
Canada 2015	39.5	23.8	16.0	11.9	6.2	13.3
France 2016	21.7	16.3	13.1	10.4	6.1	10.9
Ireland 2015	23.6	22.1	15.4	11.2	6.5	12.7
Mexico 2016	10.9	6.9	5.0	3.2	0.7	2.7
Netherlands 2015	54.5	34.9	19.9	12.7	6.4	16.3
New Zealand 2015	32.7	22.4	15.0	10.4	5.6	12.1
Slovenia 2015	18.0	12.6	10.2	8.0	5.3	9.0
Sweden 2015	42.6	24.6	15.2	10.9	6.7	13.4
United Kingdom 2015	23.6	17.3	12.9	9.8	4.8	10.7
United States 2015	3.5	2.5	2.4	2.0	0.5	1.4

27. For the distribution of *STiK on education*, most countries rely on an actual value approach or a modelled approach using socio-demographic information. Table 4.5 shows that most countries record a relatively higher concentration of STiK on education in the lower income quintiles (Q1 and Q2), with the exception of the Netherlands, Slovenia and Sweden, for which it seems more concentrated in the middle income quintile (Q3).

Table 4.5. Distribution of STiK on education across income quintiles (in percentages of total)

Country & year	Q1	Q2	Q3	Q4	Q5
Australia 2015	25.6	21.7	20.4	17.3	15.0
Canada 2015	19.4	23.0	21.4	19.7	16.5
France 2016	26.5	20.1	18.8	18.0	16.5
Ireland 2015	32.8	19.4	18.2	15.9	13.7
Israel 2015	26.7	20.7	19.3	19.4	13.9
Mexico 2016	23.7	23.7	22.1	18.3	12.1
Netherlands 2015	19.6	17.1	23.3	22.3	17.7
New Zealand 2015	26.2	19.4	21.7	17.7	15.0
Slovenia 2015	21.2	19.9	22.0	20.2	16.7
Sweden 2015	18.4	17.0	23.6	23.3	17.7
United Kingdom 2015	27.5	26.5	18.9	14.4	12.7
United States 2015	14.0	25.8	24.4	19.3	16.4

28. As far as other types of STiK are concerned (see Table 4.6), the distribution shows no immediately obvious pattern across the twelve countries that reported information, which may relate to the fact that this residual category covers heterogeneous items across countries. Eight countries (Australia, Canada, France, Ireland, Israel, Netherlands, New Zealand and United Kingdom) record a higher concentration in the lower income quintiles. On the other hand, Mexico, Slovenia and the United States show relatively flat distributions across quintiles, with the exception of the first quintile in Slovenia and the fifth quintile in Mexico and the United States, recording significantly lower shares.

Table 4.6. Distribution of other STiK across income quintiles (in percentages of total)

Country & year	Q1	Q2	Q3	Q4	Q5
Australia 2015	35.4	27.3	19.0	11.5	6.8
Canada 2015	20.2	19.5	20.1	20.7	19.6
France 2016	25.6	22.0	17.0	17.1	18.4
Ireland 2015	35.3	21.6	20.6	9.9	12.6
Israel 2015	26.2	22.6	18.3	18.2	14.9
Mexico 2016	23.7	23.7	22.1	18.3	12.1
Netherlands 2015	26.0	23.4	18.8	16.8	15.0
New Zealand 2015	25.9	16.3	16.9	18.8	22.0
Slovenia 2015	15.6	20.3	21.7	21.1	21.4
Sweden 2015	21.4	26.0	19.9	17.4	15.3
United Kingdom 2015	41.5	29.5	16.4	8.4	4.1
United States 2015	23.2	24.1	24.2	21.3	7.3

4.4. Step 3b: Scale the micro data to the adjusted national accounts totals

29. In order to arrive at comparable results for countries, the micro data should be scaled to match the (adjusted) national accounts totals. The guidelines include four methods to align the micro data with the relevant national accounts totals. The first method (method A) implies a simple calibration, i.e. applying the same adjustment coefficient (macro total/micro total) to all households. This method is recommended when the micro totals are closely aligned to the adjusted national accounts totals, and the impact of the scaling is only small. However, when no micro data is available or the gap between the micro aggregate and the adjusted national accounts total is very large, countries should first evaluate whether part of the gap can be attributed to specific households or groups of

households on the basis of additional information or informed assumptions, before applying a standard adjustment coefficient.

30. If for specific items no direct micro data is available to allocate the amounts to the relevant households, two recommended methods are available, each of them making use of indirect information. The first method (method B) proxies the missing information by using the distribution of another income or consumption component. The second method (method C) imputes missing distributional information according to exogenous data (e.g. socio-demographic information) available at the level of the individual or of the household. If no information is available, a third method can be used (method D), in which the imputations are made in such a way that the inclusion or exclusion of the component does not affect the distributional results of the main indicators. However, this latter approach is not recommended.

Table 4.7. Number of times method A, B, C or D were used for each item

Income					
Code	Name	A	B	C	D
B2	Operating surplus	5	2	5	
B3	Mixed income	11	1		
D1R	Compensation of employees	11	1		
D41'R	Interest (not adjusted for FISIM)[1]	7	2	2	
D42R	Distributed income of corporations[1]	9	2		
D44R	Investment income disbursements[1]	2	5	4	
-D41'P	Interest (not adjusted for FISIM)[1]	5	3	3	
-D5P	Current taxes on income and wealth	10	1	1	
-D61P	Net social contributions	8	4		
D62R	Social benefits other than STiK	10	1	1	
D72R-D71P	Net non-life insurance claims minus premiums[1]	5	3	2	1
D63A	Social transfers in kind – Education[1]	2	4	5	
D63B	Social transfers in kind – Health[1]	3	4	4	
D63C	Social transfers in kind – Other[1]	1	6	4	
Consumption					
Code	Name	A	B	C	D
CP010	Food and non-alcoholic beverages	12			
CP020	Alcoholic beverages, tobacco and narcotics	12			
CP030	Clothing and footwear	12			
CP040	Housing, water, electricity, gas and other fuels	9	1	2	
CP050	Furnishings, households equipment and routine maintenance of the house	12			
CP060	Health	10	2		
CP070	Transport	11	1		
CP080	Communications	12			
CP090	Recreation and culture	11	1		
CP100	Education	11		1	
CP110	Restaurants and hotels	12			
CP120	Miscellaneous goods and services	9	3		
P33	Final consumption expenditure of resident households abroad[1]	3	4		

1. As not all countries provided results for all the items listed in this table, the results do not always add up to 12.

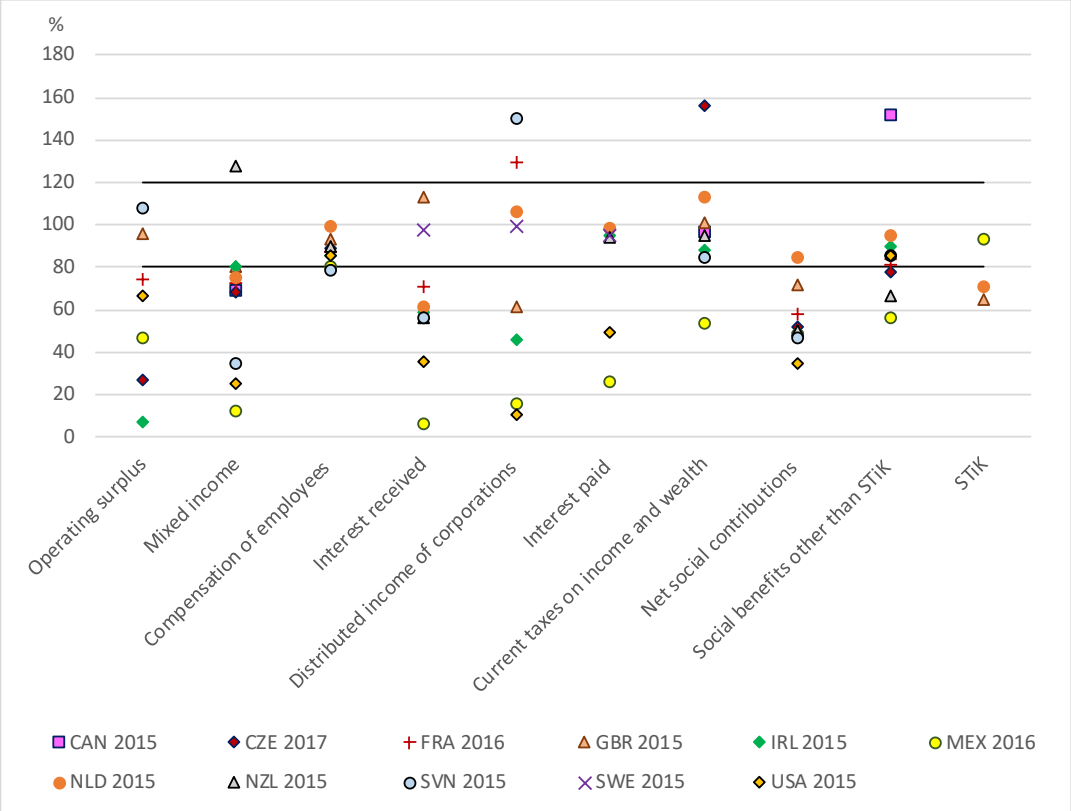
31. Table 4.7 presents the number of times the above methods have been applied for each of the income and consumption components. Method A is by far the most widely used, both on the income and the consumption side, with corresponding average shares of 56% and 90% on the basis of a simple count. This is followed by methods B and C, with

respective average shares of 24% and 19% on the income side, while the share is very small (8% and 2% respectively) on the consumption side. Method D is only used in one occasion.

32. With regard to method A, it is interesting to look at the size of the gaps between the micro and macro aggregates that need to be bridged in aligning the two. This can be done by looking at coverage rates that show the micro aggregate as a percentage of the (adjusted) national accounts total. Figure 4.2 shows coverage rates for the main income components.[17] The figure shows an interval of 80%-120% (marked by two solid lines) used to indicate relatively good alignment of the micro and macro data. While this is an arbitrary interval, it provides an indication for which items the alignment is relatively good and for which it is rather poor. However, it should be noted that a low coverage rate does not automatically imply a low quality of the distributional results for the relevant items, as countries may have additional data sources available that may help them in bridging the gap. This is particularly relevant when the micro variable does not fully match the national accounts' concept, but for example covers only part of it.

Figure 4.2. Coverage rates by country for the main income components

Micro aggregates divided by the adjusted national account totals



33. Looking at coverage ratios across countries, Mexico and the United States show relatively low rates for all components. Furthermore, the Czech Republic, Slovenia and, to a lesser extent, Ireland show low coverage rates for a number of specific income components. Focussing on components, *compensation of employees* shows good alignment

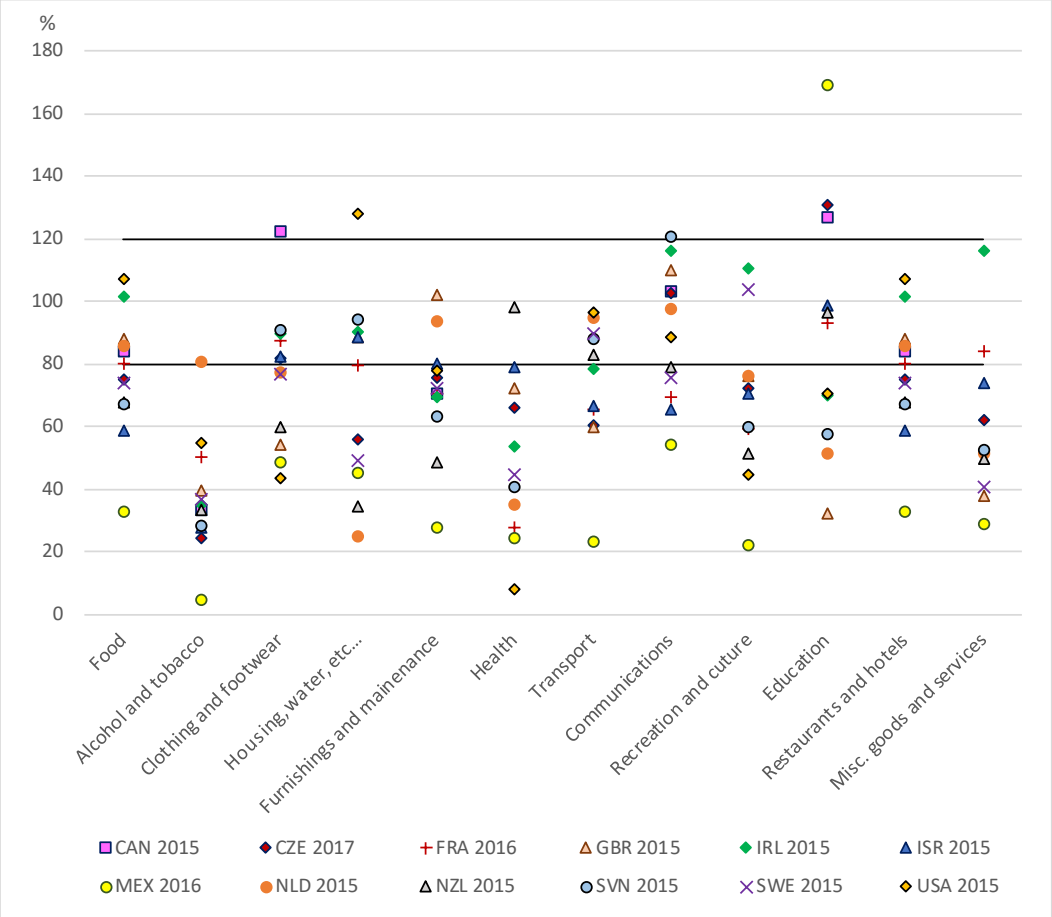
[17] As not all countries have data available for all income components, the number of countries displayed in the figure varies from one component to the other.

between micro and macro data for all countries, while *distributed income of corporations* shows a relatively poor alignment, with the exception of Sweden. As previously mentioned, low coverage ratios do not necessarily imply low quality of the results, as countries may have additional information available to allocate the remaining part. In this regard, several countries reported additional indirect data sources available for items that showed relatively low coverage ratios, particularly *operating surplus*, *mixed income* and *interest received*.

34. Figure 4.3 shows coverage rates for each of the consumption items. While Mexico shows no item with a coverage rate within the intervals, the picture is more mixed for other countries. Looking at the various components, *alcohol and tobacco* shows the poorest coverage, with the corresponding micro data in Mexico only capturing 5% of the macro aggregate, whereas *communications* shows the best coverage rate on average among all countries. Again, some countries reported the availability of additional indirect data sources for items that showed relatively larger micro-macro gaps, particularly for *housing, water, electricity, gas and other fuels*, for *health* and for *education*.

Figure 4.3. Coverage rates by country for the consumption components

Micro aggregates divided by the adjusted national account totals



4.5. Step 4: Clustering households

35. In the fourth step, households are clustered into household groups. As information from different data sources may have been used in the process, this step first requires the need to link data across different data sources to create complete household accounts for all households. This is often approached using matching techniques. Matching may be done, for example, on the basis of unique identification numbers that are available in the various data sources. Otherwise, statistical matching techniques may be applied that rely on specific information as available in the various data sources.

36. After matching data across the various data sources to create complete household accounts for all households, they can be clustered into household groups. This can be done based on socio-demographic characteristics, but also based on their disposable income according to the definition of the 2008 SNA.[18] To arrive at comparable results, two concepts are introduced to cluster and present the data: 'per household' and 'per consumption unit'. The 'per household' numbers reflect the values per household and are derived by dividing the distributional totals by the number of households in that specific group. Results 'per consumption unit' are used to correct for differences in needs between households of different size. As needs increase with each additional household member, although not in a proportional way due to economies of scale, equivalence scales are used to reflect the needs of different compositions of households, assigning a value to each household member in proportion to its needs. In the guidelines, the Oxford-modified equivalence scale[19] is recommended to arrive at 'per consumption units' results. However, countries may apply a different scale if this better reflects the situation in their country.

37. For the breakdown into income quintiles, households are ranked according to the value of the equivalised disposable income as explained above and allocated to five equal groups (quintiles), each of them containing 20% of all households.

4.6. Step 5: Derive relevant indicators for the household groups

38. In a final step, results are derived for relevant indicators. For the purpose of this paper, the following indicators are used:

- **The ratio to the average:** the value of income and consumption for each household group relative to the average for the household sector as a whole, for a given household group i:

$$Ratio\ to\ average_i = \frac{\bar{X}_i^{NA\_adj}}{\bar{X}^{NA\_adj}}$$

- **The ratio of the highest to lowest:** the value of income and consumption for the household group with the highest value compared to that of the household group

[18] Disposable income is the balancing item in the secondary distribution of income account. It is derived from the balance of primary incomes by adding all current transfers receivable, except social transfers in kind, and subtracting all current transfers, except social transfers in kind (see 2008 SNA para. 8.20). See also Annex A for the composition of disposable income.

[19] This scale assigns a value of 1 to the household head, of 0.5 to each additional adult member – aged 14 and over - and of 0.3 to each child – aged below 14.

with the lowest value, for a given classification of households z (i.e. equivalised disposable income quintile, main source of income, and household type):

$$Ratio\ highest\ to\ lowest_z = \frac{Max_{i \epsilon z}\{\bar{X}_i^{NA\_adj}\}}{Min_{i \epsilon z}\{\bar{X}_i^{NA\_adj}\}}$$

- **The coefficient of variation:** this is calculated as the standard deviation from the mean for each category within a given classification of households (i.e. equivalised disposable income quintile, main source of income, and household type) divided by the average adjusted national account total per household or per consumption unit:

$$CV_z = \frac{\sqrt{\frac{1}{N} \times \sum_{i \in z} \left[n_i \times \left(\bar{X}_i^{NA\_adj} - \bar{X}^{NA\_adj} \right)^2 \right]}}{\bar{X}^{NA\_adj}} * 100$$

$$\bar{X}^{NA\_adj} = \frac{1}{N} \sum_{i \in z} n_i \times \bar{X}_i^{NA\_adj}$$

39. In the above formulas, the symbols represent the following:

X: income or consumption component

$z = \{EDI, MSI, HT\}$: type of household classification applied: EDI = equivalised disposable income; MSI = main source of income; and HT = household type

$i = \{1, \dots, I\}$: household group

n_i: total number of households in group i

N: total number of households in the population

$\bar{X}_i^{NA\_adj}$: per household or per consumption unit value according to adjusted national accounts for group i

$\bar{X}^{NA\_adj}$: per household or per consumption unit value according to adjusted national accounts for the total population

40. With regard to the coefficient of variation, it ought to be taken into account that it implicitly assumes that each household receives (spends) the average income (expenditures) of its group, i.e. disparity within a household group is assumed to be zero: as a consequence, the coefficient of variation underestimates the level of inequality across individual households. This remark is of less importance when considering the income quintile classification, as households are classified according to their income level, but it may have a substantial impact in the case of the other breakdowns into household groups for which within-group disparities can be relatively high. In this regard, it also needs to be borne in mind that the coefficient of variation is sensitive to the number of household groups distinguished and their relative size. As this will differ across classifications (e.g. the main source of income breakdown only distinguishes four household groups, whereas the breakdown by household type distinguishes eight) and across countries (e.g. the share of households relying on a specific main source of income may differ significantly across countries), this may hamper comparability. Therefore, the coefficient of variation has only been calculated for the breakdown according to income quintiles,

which relies on similar breakdowns and similar shares of the relevant household groups across countries.

5. Results

41. This section presents results on the disparities of household income, consumption and saving, using the ratios as discussed at the end of the previous section. Furthermore, it provides insight into the socio-demographic characteristics of the persons and households in the various quintiles.

5.1. Results for income

42. This subsection presents the results on disparities in household income. Results for the ratio to the average, the ratio of the highest to lowest, and the income-based coefficient of variation are presented, focusing on the breakdown into income quintiles, but also briefly touching upon the main findings for the optional breakdowns into main source of income and household type.

5.1.1. Ratio to the average

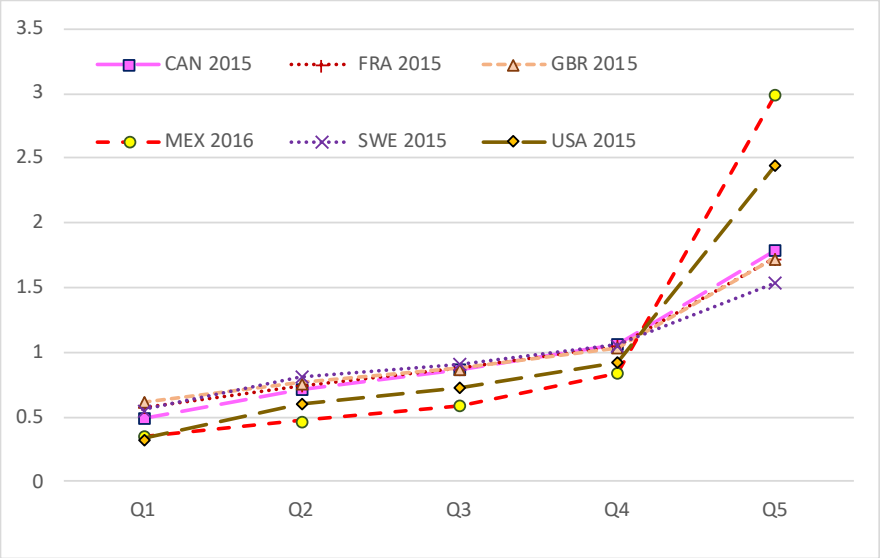
43. The ratio to the average illustrates the deviation from the average for the various household groups. Figure 5.1 displays the equivalised adjusted disposable income for each quintile relative to that of the household sector as a whole, for six countries.[20] The trend across quintiles is more or less the same for all countries, with a fairly smooth trend upwards from the first quintile to the fourth quintile, and a steeper increase from the fourth to the fifth quintile. Furthermore, for all countries, the ratio for the third quintile is below 1. As this can be used as an approximation for the median, this implies that the median equivalised adjusted disposable income is below average in all countries. For a few countries (Czech Republic, Mexico and United States), even the equivalised adjusted disposable income of the fourth quintile is below average. This often coincides with a relatively very high income of the fifth quintile in these countries. Apart from New Zealand and Slovenia, who report ratios above 1.1 times the average for the fourth quintile, the other countries display ratios for the fourth quintile that are only slightly above the average.

44. When looking at the results for the fifth quintile, Mexico reports the highest ratio followed by the United States (with respectively 2.99 and 2.44 times the average), while Sweden and Slovenia report the lowest (with 1.54 and 1.56 times the average). For the first income quintile, the United States reports the lowest ratio to the average (with only 33% of the average), followed by Mexico (35% of the average). These two countries also display the lowest ratios for the second and third quintile. Ireland and the United Kingdom record the highest ratios for the first quintile, both at 61% of the average.

[20] Results for the other countries are presented in Annex C.1.

Figure 5.1. Relative position of each household group compared to the average by equivalised disposable income quintile

Adjusted disposable income per consumption unit for each group to the average adjusted disposable income per consumption unit for the private household sector as a whole



45. Annex C.2 provides an overview of the distributions for the underlying main income items (according to the breakdown by equivalised disposable income quintiles). They show more or less similar patterns across countries, with some items obviously showing larger inequalities and differences across countries than others. Whereas the distribution is relatively flat for *operating surplus*, *compensation of employees* and *social contributions paid*, greater disparities can be observed for items such as *mixed income*, *interest received and paid*, and *distributed income of corporations*. Furthermore, most countries record a decreasing trend across quintiles for *social benefits other than STiK* and *social transfers in kind*, though a few countries show slight deviating patterns.

46. For the countries with longer time series, the ratios are relatively consistent over time, implying that income has grown at more or less the same pace for all quintiles.[21] For example, in Canada equivalised adjusted disposable income displays an average annual nominal growth of around 4% from 1999-2018 for all quintiles. More or less similar trends can be observed for Australia, France, New Zealand and the United Kingdom, although for slightly different time periods and showing slightly different growth rates.[22]

47. The optional breakdown into household groups[23] shows more or less similar patterns across the countries that provided this information (i.e. Australia,[24] France,

[21] See Annex C.3.

[22] Mexico shows some diverging trends across quintiles, but these may be related to improvements in the methodology that have been implemented over time, thus affecting the comparability of results over time.

[23] See Annex C.4.

[24] The categorisation for Australia slightly deviates from the EG DNA template. Their category *two adults or more with dependent children* has been included in the category *two adults with less than three children living at home* for the purpose of this analysis.

New Zealand, Slovenia, Sweden and United States). The categories *single households, less than 65 years old* and *single households with children living at home* record below average income for all countries, with the lowest ratio recorded for *single households, less than 65 years old* in the United States (with 63% of the average). Conversely, households consisting of *two adults with less than three children living at home* record above average income for all countries (with the highest ratio in the United States with 1.32 times the average). The same goes for the category *two adults with at least one of them being 65 or older with no children living at home*, with the exception of Australia and the United States. These two countries report income just below the average for this category. When looking at the other groups, the results are more mixed.

48. The optional breakdown into main source of income displays similar results across the countries that provided this information, i.e. Australia, France, Slovenia, Sweden and the United States, although with different levels of inequality. The highest ratio is recorded for households with *net property income*[25] as main source of income. The equivalised income of this group is above average in all countries, with the highest ratio recorded in the United States with these households recording an equivalised income of 4.13 times the average, whilst Slovenia and Sweden record ratios of 2.3 and 2.5 respectively.[26] The lowest income is recorded for households that mainly rely on *net current transfers*,[27] with all countries reporting ratios below 1. Australia[28] and the United States report the lowest ratios at only 74% and 75% of the average. The average income for households that have *wages and salaries* as their main source of income comes very close to the average in all countries, with the exception of the United States that records a significantly lower ratio for this group (83% of the average). The situation is more mixed for the *self-employment income* group. Australia and Slovenia report ratios close to the average, but France and Sweden display ratios above 1.5 times the average, whilst the United States records a ratio of 2.5 times the average.

5.1.2. Ratio highest to lowest

49. The ratio highest to lowest shows how many times larger the income of households in the highest income group is compared to the one in the lowest income group. Figure 5.2 shows the results based on equivalised disposable income quintiles, i.e. comparing the

[25] Net property income is defined as income received on property, such as interest, dividends, rent, and imputed income on pension entitlements and insurance reserves, minus income paid on property.

[26] For Australia, this category also includes households with 'superannuation' as main source of income. This is a specific type of pension scheme in Australia. As a result, the results may not be fully comparable with that of other countries.

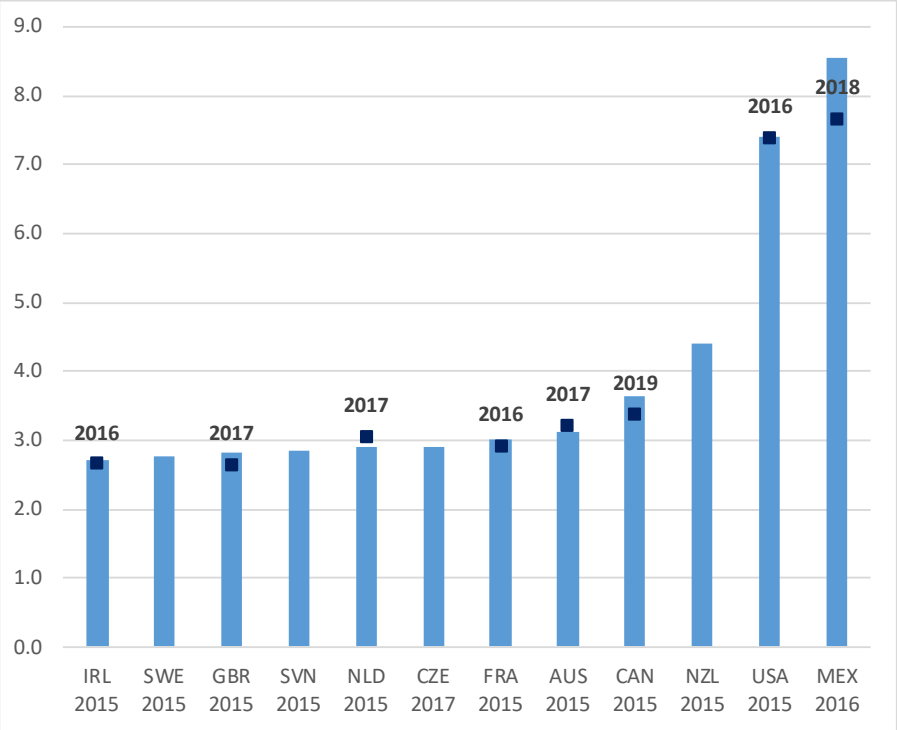
[27] Net current transfers is defined as current transfers received, such as social benefits in cash and in kind, non-life insurance benefits, and other transfers received (such as remittances), minus current transfers paid, such as taxes, social contributions, non-life insurance premiums, and other transfers paid (such as penalties and fines, and voluntary donations to non-profit institutions).

[28] In Australia, a fifth category is included in the main source of income breakdown, i.e. other, consisting of around 1 percent of the households. This group includes households mainly relying on workers compensation, child support, scholarships, and accident and sickness payments as main source of income. For the purpose of this analysis, this group has been added to the *net current transfers* category. Furthermore, as explained above, households with 'superannuation' as main source of income are included in the *net property income* group in Australia. As a result, the results for the *net current transfers* group may not be fully comparable with that of other countries.

income of the fifth quintile with that of the first. Results are presented for 2015 (except for the Czech Republic (2017) and Mexico (2016)) and for those countries that provided results for more than one year, an additional point has been added to also show results for the most recent year.

Figure 5.2. Relative position of the 20% highest to the 20% lowest income households by equivalised disposable income

Adjusted disposable income per consumption unit for the fifth quintile to the (adjusted) disposable income for the first quintile



50. Mexico is the country recording the highest ratio (8.56), followed by the United States (7.41). This is in line with the results presented in Figure 5.1, where these two countries showed the highest and lowest relative positions to the average. The other countries are relatively close together, with Ireland recording the lowest ratio, followed by Sweden, the United Kingdom, Slovenia, the Netherlands and the Czech Republic, all recording ratios below 3. Looking at changes over time, Mexico shows a relatively large drop from 2016 to 2018,[29] whereas Australia and the Netherlands show small increases from 2015 to 2017. On the other hand, Canada, France and the United Kingdom show small decreases to the more recent year, whereas for Ireland and the United States, the results remain more or less the same.

51. Focusing on the optional breakdowns,[30] the ratio highest to lowest is relatively high for the breakdown into main source of income groups, although less pronounced than the one for the income quintile breakdown. For all countries, it concerns comparing the income

[29] As previously mentioned, this may have been partially influenced by improvements in the methodology over time (see footnote 22).

[30] See Annex C.5.

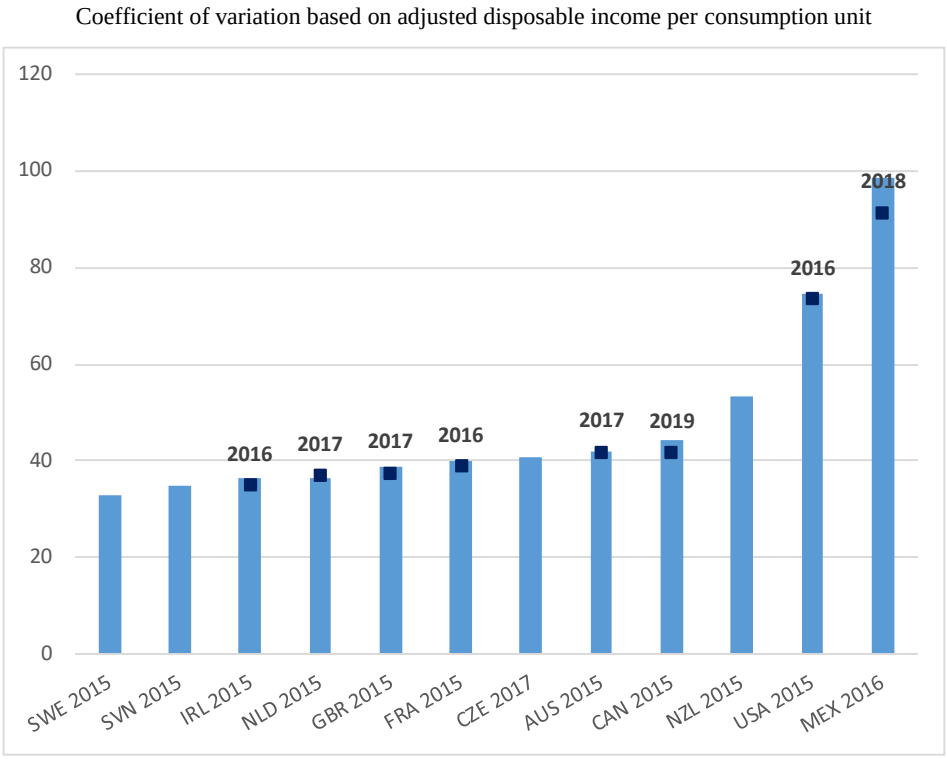
of households with *net property income* as highest income group with that of households with *net current transfers* as main source of income as lowest income group. The United States stands out with a ratio of 5.39, compared to the second highest ratio recorded for Sweden (3.02). Australia reports the lowest ratio (1.82).

52. The ratio highest to lowest is generally smaller when analysing the breakdown into household types. Furthermore, in contrast to the other two breakdowns, the household groups with the highest and lowest equivalised income differ across countries. The United States records the highest ratio (i.e. 2.09), between households consisting of *two adults with less than three children living at home* as highest and *single households, less than 65 years old* as lowest income group. France records the lowest ratio (i.e. 1.38), between *two adults with at least one of them being 65 or older with no children living at home* as the highest and *single households with children living at home* as the lowest income group.

5.1.3. Coefficient of variation

53. The coefficient of variation shows the deviation from the average, taking into account the results for all household groups within a specific classification. Figure 5.3 displays the variation for equivalised disposable income quintiles. The ranking of countries is similar to that of the ratio highest to lowest. Mexico ranks highest, although the coefficient decreased between 2016 and 2018. Sweden records the lowest coefficient, closely followed by Slovenia. For the countries reporting results for more than one year, the coefficient of variation is lower for the more recent year, with the exception of Australia and the Netherlands.

Figure 5.3. Coefficient of variation on the basis of income according to equivalised disposable income quintiles

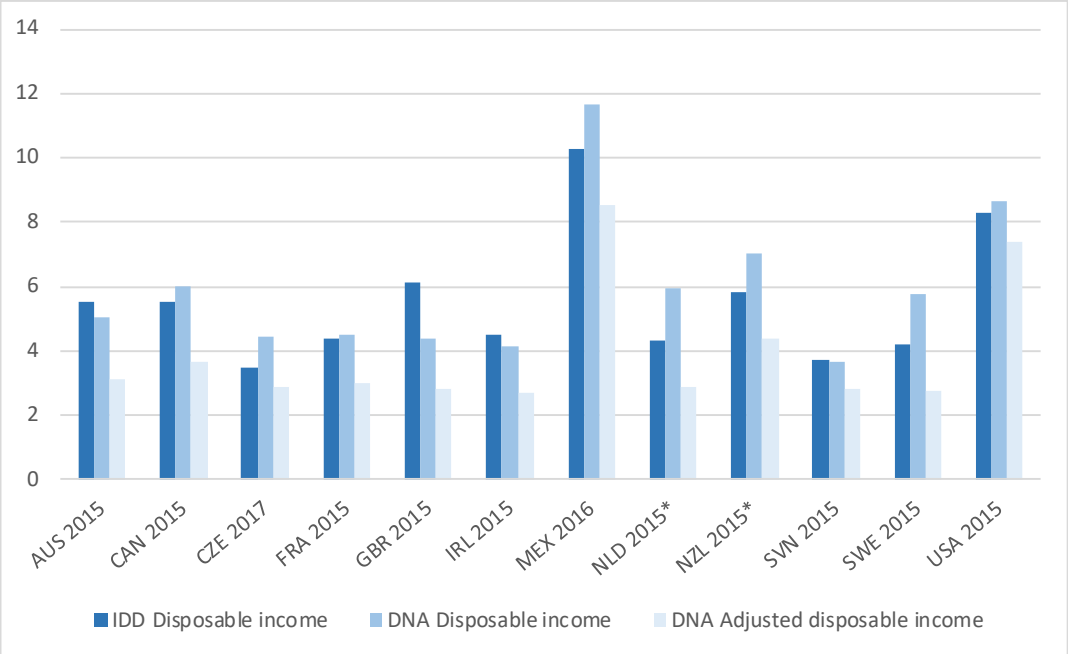


5.2. Comparison with micro results

54. Due to the inclusion of several items that are not captured in micro data sources and due to the alignment of data to the national accounts totals, DNA results usually differ from distributional measures obtained from micro data sources. To provide an overview of these differences, Figure 5.4 compares the relative position of the 20% highest to the 20% lowest income households by equivalised disposable income quintile according to DNA results with those derived from the OECD Income Distribution Database (IDD). The latter results are based on national sources such as income and expenditure surveys and administrative data that are deemed most representative for each country.[31] As social transfers in kind are not included in most of the micro data sources, the ratios for IDD are based on disposable income levels. For the DNA results, ratios are presented on the basis of both disposable income and adjusted disposable income. On the one hand, this provides insight into the differences in ratios between the IDD and DNA results based on similar income concepts, while on the other hand explicitly showing the impact of the inclusion of social transfers in kind.

Figure 5.4. Relative position of the 20% highest to the 20% lowest income households according to IDD and EG DNA, by equivalised disposable income

(Adjusted) disposable income per consumption unit for the fifth quintile to the (adjusted) disposable income for the first quintile



** IDD results for the Netherlands refer to 2016 and for New Zealand to 2014.*

55. The figure shows that the impact of the alignment to national accounts concepts differs across countries. This relates to the size of the adjustments that have been made in the process, amongst others to impute distributions for items without a direct counterpart

[31] See for more information on the IDD database: www.oecd.org/social/income-distribution-database.htm.

in micro statistics and to align the micro data with the national accounts totals. Examining the ratios on the basis of disposable income, some countries, such as France and Slovenia, do not show large differences between IDD and DNA data. However, the differences are relatively large for countries such as Mexico, Sweden and the United Kingdom. Focusing on disposable income, the impact of the alignment is mostly upwards. Only Australia, Ireland, Slovenia and the United Kingdom record lower ratios of highest to lowest when comparing DNA results with IDD results.

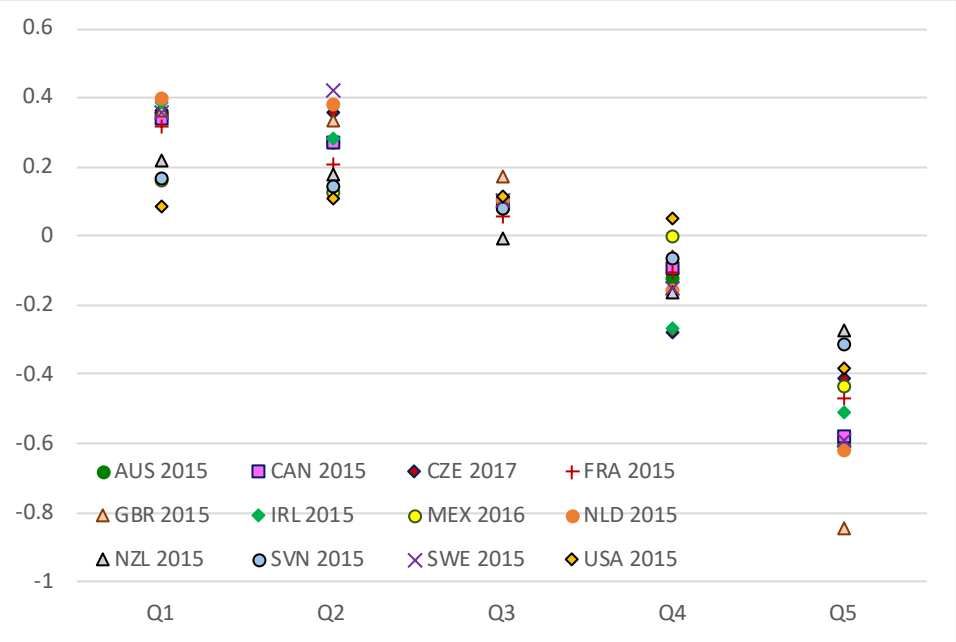
56. The inclusion of social transfers in kind has a mitigating effect on inequality in all countries; DNA ratios based on adjusted disposable income levels are below the ratios based on disposable income for all countries. These ratios are also below IDD results (based on disposable income) for all countries, implying that, on average, the alignment to national accounts concepts has a dampening effect on inequality measures for all countries. This also demonstrates that it matters which income concept is used in inequality analyses.

5.3. Impact of net current transfers on income disparity

57. Analysing the impact of net current transfers on income disparity provides more insight into how *income taxes*, *social contributions paid*, and *transfers in cash* and *in kind* received by households affect the income levels of the various household groups. Figure 5.5 displays the impact on the various quintiles.

Figure 5.5. Impact of net transfers on the relative position of each household group compared to the average, by equivalised disposable income quintile

Adjusted disposable income per consumption unit for each group to the adjusted disposable income per consumption unit average minus primary income per consumption unit to the primary income per consumption unit average



58. All countries show positive results for the first quintile and negative for the fifth quintile, implying that the gap between the first and the fifth quintile indeed decreases as a result of these current transfers. The impact is largest for the United Kingdom with an

impact of -0.84 for the fifth quintile. The impact on the fourth quintile is negative for most countries, except for Mexico and the United States, which still report a very small positive impact. It's worth noting that whereas one can observe significant differences in the impact on the various quintiles across countries, the impact on the third quintile is more or less similar for all countries, with only a small (mostly upward) impact of net current transfers on their income. In this regard, only New Zealand records a small negative impact.

59. Overall, the largest positive impact is reported in Sweden and, interestingly, not for the first quintile but for the second. This is mainly due to relatively high social benefits for the second quintile, which seems related to a relatively large number of persons of 65+ in the second quintile, benefiting from pensions benefits. The United States also records a higher impact of net transfers on the second (and also the third) quintile than for the first quintile, although the difference is less pronounced than in the case of Sweden. In the United States, this is also mainly due to the impact of social benefits, both in cash and in kind, which are slightly higher for households in the second and third quintile than for households in the first quintile.

60. Table 5.1 emphasises the narrowing effect of net current transfers on the gap between the first and the fifth quintile, comparing the ratio highest to lowest for three income concepts. For example, it can be observed that for Canada, the equivalised primary income of the fifth quintile was 15.7 times larger than that of the first quintile, but only 3.6 times larger when looking at adjusted disposable income. This reduction by 12.1 points clearly shows the important role of net current transfers in reducing income inequality. The table also indicates relatively large impacts for other countries. However, it should be borne in mind that it may be difficult to assess differences in impact across countries, as the starting point (i.e. inequality for primary income) will be different. For example, Slovenia reports the lowest absolute impact of net current transfers, but also records by far the smallest ratio of highest to lowest at the level of primary income.

Table 5.1. Impact of net transfers on the relative position of highest income households to the lowest income households

Primary income and adjusted disposable income per consumption unit: value for the fifth quintile to the first quintile; and difference in points

	AUS	CAN	CZE	FRA	GBR	IRL	MEX	NLD	NZL	SVN	SWE	USA
	2015	2015	2017	2016	2015	2015	2016	2017	2015	2015	2015	2015
Primary income (1)	11.6	15.7	9.0	8.6	10.3	9.5	18.3	13.7	9.9	5.0	11.1	11.7
Disposable income (2)	5.0	6.0	4.5	4.5	4.4	4.1	11.7	6.0	7.0	3.6	5.8	8.6
Adjusted Disposable income (3)	3.1	3.6	2.9	3.0	2.8	2.7	8.6	2.9	4.4	2.8	2.8	7.4
Impact = (3)-(1)	-8.5	-12.0	-6.1	-5.6	-7.5	-6.8	-9.7	-10.8	-5.5	-2.2	-8.3	-4.3

61. When analysing the impact of net current transfers by household types,[32] Sweden reports the largest impact (-8.1) on the relative position of the highest to lowest income results, whereas New Zealand and the United States report the smallest impact (both -1.7). For the majority of countries, *single households, 65 years and older* is the category mainly benefiting from net transfers, whereas in France and Slovenia, it is the category *two adults at least one 65 years or older, with no children living at home*. Both categories typically include a large number of retired persons, benefiting from pension benefits. In all countries

[32] See Annex C.6 for the results for the optional breakdowns.

except Slovenia, the group *two adults less than 65 years old and with no children living at home* is the category contributing the most to financing the redistribution policy.

62. For the breakdown into main source of income, the impact of net current transfers is relatively large, with Sweden recording the largest impact (-20.8), and France and Australia the smallest, although both still at relatively high levels (-7.7 and -8.4). Unsurprisingly, households with *net current transfers* as main source of income benefit the most in all countries; however, the group contributing the most differs. In Australia and the United States, households with *wages and salaries* as main source of income make the largest relative contribution. In Sweden and Slovenia, this is the group households with *net property income* as main source of income. Finally, in France, it concerns the households that mostly rely on *self-employed income*.

5.4. Results for final consumption

63. This subsection presents distributional results for consumption, mainly focusing on the breakdown into income quintiles, but also highlighting the main results for the optional breakdowns. In presenting the relative position of household groups to the average, the ratio highest to lowest, and the coefficient of variation, the main focus is on *actual final consumption*, i.e. *final consumption expenditure* plus *social transfers in kind*.

5.4.1. Ratio to average

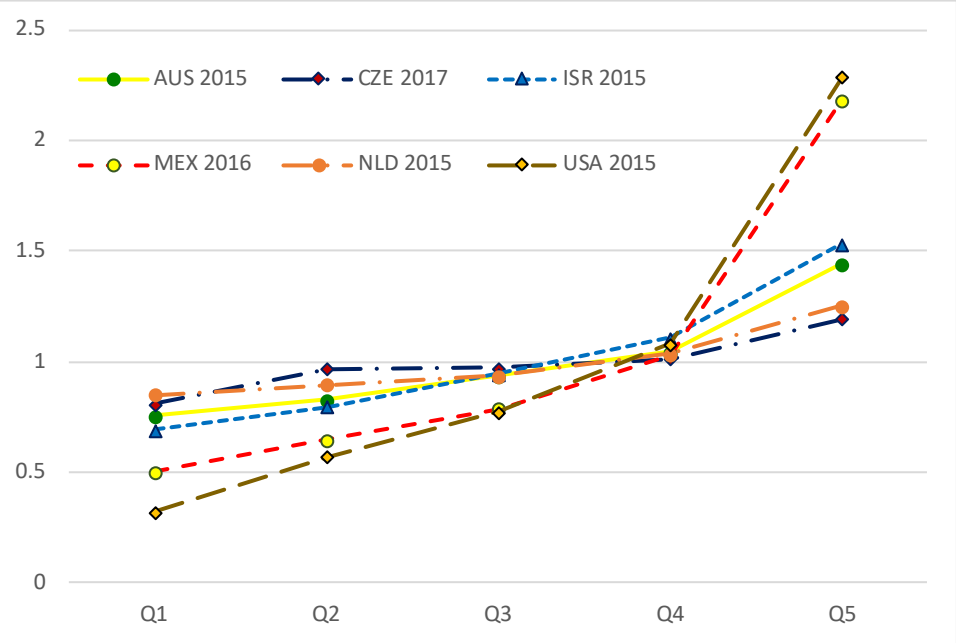
64. Figure 5.6 displays the ratio to the average focusing on actual final consumption for six countries.[33] Generally, the disparities across quintiles are smaller and their results closer to the average than for adjusted disposable income. The ratio for the third quintile, which can be used as a proxy for the median, is close to 1 for the majority of countries, but still below 1 for all of them.

65. Looking at the results by country, it is noteworthy that the Czech Republic records similar ratios for the second and third quintile. It is also one of the countries with the most even distribution across quintiles, together with Sweden. Mexico reports a relatively high ratio for the fifth quintile, but the ratio is smaller compared to the equivalent ratio for adjusted disposable income. Conversely, the first quintile reports a ratio that is higher than the one for income, showing a flatter distribution for consumption than for income. Together with Mexico, the United States deviates significantly from the other countries recording the highest ratio (the fifth quintile recording consumption at 2.29 times the average) and the lowest ratio (the first quintile consuming 32% of the average) across all countries. On the other hand, the Netherlands records the highest ratio for the first quintile (85% of the average) and Sweden, alongside the Czech Republic, records the lowest ratio for the fifth quintile (respectively 1.18 and 1.19 times the average). Unlike the results for income, there are no countries reporting a ratio below 1 for the fourth quintile.

[33] Results for the other countries are presented in Annex C.7.

Figure 5.6. Relative position of each household group compared to the average by equivalised disposable income quintile

Actual final consumption per consumption unit for each group to the average actual final consumption per consumption for the private household sector as a whole



66. Annex C.8 provides an overview of the distribution by consumption item. *Food and non-alcoholic beverages*, *alcoholic beverages tobacco and narcotics*, *housing, water, electricity, gas and other fuels*, and *communications* show relatively flat distributions, with only Mexico showing somewhat larger disparities across quintiles. *Furnishings, households' equipment and routine maintenance of the house*, *health care*, *transport*, *recreation and culture*, *education*, and *restaurants and hotels* show relatively larger disparities.

67. Looking at the ratios over a longer period of time, the majority of countries do not report significant changes (all showing similar increases in nominal terms). The only exception is Canada, which displays a higher growth for the first quintile compared to the other quintiles leading to an increase in the ratio to the average for the first quintile at the expense of the other quintiles.

68. For the breakdown into household types,[34] the ratios for consumption are more or less in line with those for equivalised income. Most groups reporting above average income also report above average consumption, and vice versa. However, some exceptions can be observed. For example, for *single households with children living at home*, where for income the ratio to the average was below 1 for all countries, Israel[35] and Slovenia record above average consumption. Furthermore, France recorded above average income for *single households, 65 and older*, but records below average consumption for this group. For Slovenia, the reverse is true.

[34] See Annex C.9 for the optional breakdowns.

[35] Please note that Israel did not provide results on income.

69. Breaking down the results by main source of income, more differences can be observed between the ratios for income and consumption. For example, while all countries reported above average income for households with income from *self-employment* as main source of income, Australia and Slovenia report below average consumption for this group. Furthermore, where households that mainly rely on *net current transfers* record below average income in all countries that reported this information, Israel reports above average consumption for this group.[36]

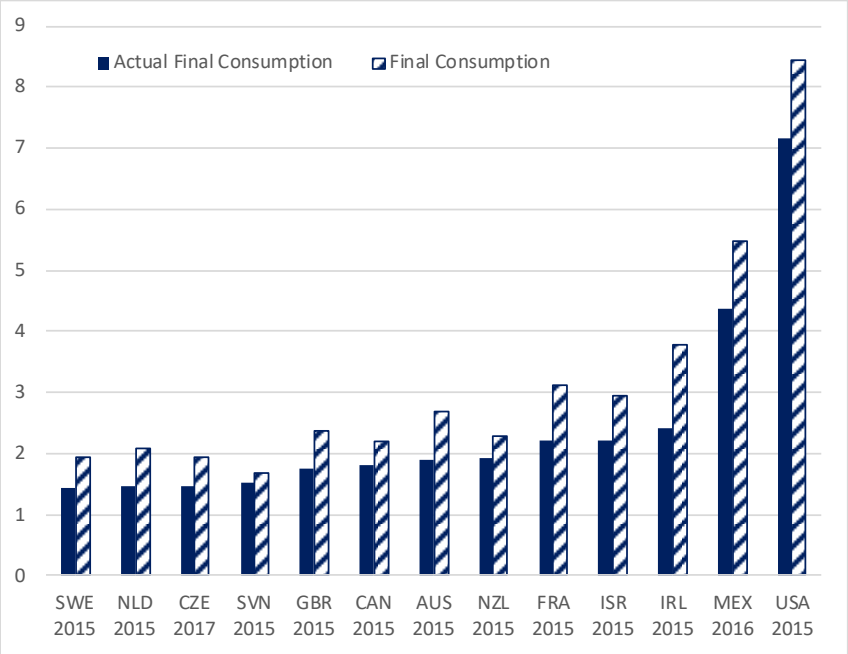
5.4.2. Ratio highest to lowest

70. For consumption, the ratio of the highest to lowest does not necessarily involve the results of the fifth and first income quintile, as some other quintiles may actually record higher or lower levels of final consumption. However, this was not the case for any of the countries included in this paper. Figure 5.7 illustrates the ratio, not only for *actual final consumption*, but also for *final consumption expenditure* (i.e. not including *social transfers in kind*). When looking at *final consumption expenditure*, Slovenia records the lowest ratio while Ireland – where the addition of *social transfers in kind* has the biggest impact (in points) – approaches Mexico that, together with the United States, records the highest ratios. Sweden displays the lowest ratio for *actual final consumption*.

71. Looking at this ratio over a longer time period, it seems quite stable for the majority of countries. However, as explained before, the ratio for Canada decreases over time, due to a faster growth of consumption for the first quintile compared to that of the other quintiles.

Figure 5.7. Relative position of the income quintile with the highest consumption to the one with the lowest consumption

Final consumption expenditure and actual final consumption, per consumption unit



[36] Please note that Israel did not provide results on income.

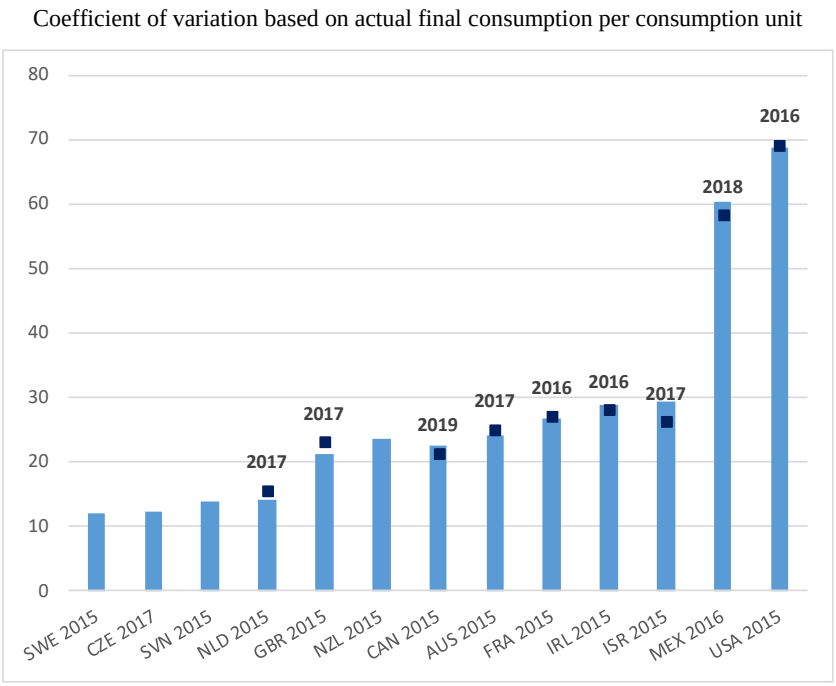
72. Looking at the optional breakdown into household types,[37] the ratios are comparable to those for income, and more evenly spread, with all ratios below 2. Australia records the highest ratio for both *actual final consumption* and *final consumption expenditure* (1.47 and 1.85). Slovenia, on the other hand, reports the lowest ratios for both items and, interestingly, a slightly higher ratio for actual final consumption than for final consumption expenditure. Ratios for the breakdown by main source of income are quite different from the corresponding ones for equivalised income, when looking at the three countries that report results for both income and consumption. Generally, the ratios are considerably smaller and the ranking of countries changes. Australia, who reported the lowest ratio for adjusted disposable income, instead reports the highest ratio for both actual final consumption and final consumption expenditure (1.75 and 2.56). Israel, instead, records the lowest ratios for the two items (1.24 and 1.30). However, once again, it must be noted that only three countries report consumption results for this breakdown.

5.4.3. Coefficient of variation

73. The results for the consumption-based coefficient of variation are presented in Figure 5.8. The graph underlines the earlier conclusion of Sweden having the most even distribution across quintiles. Furthermore, the Czech Republic records a low coefficient, which is in line with earlier observations. The largest disparities can be observed for the United States and Mexico.

74. When looking at the change over time, Australia, France, the Netherlands, the United Kingdom and the United States show an increase in the more recent year, whereas Canada, Ireland, Israel and Mexico display a decrease.

Figure 5.8. Coefficient of variation on the basis of consumption according to equivalised disposable income quintiles



[37] See Annex C.10 for the optional breakdowns.

5.5. Results for saving

75. This subsection presents the results for saving, where saving is defined as the difference between adjusted disposable income and actual final consumption plus the change in net equity of households in pension funds. The adjustment for the change in net equity in pension funds is necessary because of the way contributions paid into occupational pension funds and pension benefits received from these funds are treated in the system of national accounts.[38] [39] As this adjustment can significantly affect saving ratios, the section also includes alternative saving results, excluding the change in the net equity in pension funds and highlighting this item's proportion in saving across income quintiles for the relevant countries.

76. While the earlier graphs and tables have illustrated more or less similar distributional patterns across countries for income and consumption, Figure 5.9, which presents saving as percentage of disposable income for the various quintiles for six countries,[40] shows more cross-country differences.[41] New Zealand displays a very large negative ratio for the first quintile and a big jump to the second quintile, although still negative. When looking at Annex C.11, a similar pattern can be observed for Canada, the Netherlands and Sweden. Slovenia, instead, shows a smoother increase across quintiles, starting from less negative saving rates. Australia records a similar increase across quintiles but with a higher initial starting point for the first quintile, and it is the sole country recording positive saving for the second quintile. The Czech Republic, on the other hand, records negative saving ratios for all quintiles except the fifth. France stands out with the most stable saving ratios across quintiles, with particularly small negative saving ratios for the first and second quintile, as compared to the other countries.

77. Looking at developments over time,[42] Canada shows interesting results. As mentioned earlier, the consumption growth rate for the first quintile is relatively high, which leads to a negative trend in their saving ratio going from -64.5% in 1999 to -105.4% in 2018. Australia also records a negative trend for the first quintile, although less

[38] Contributions (benefits) are recorded as current expenditure (income), while on the other hand they are also considered as a form of saving (dissaving), adding to (decreasing) the value of pension entitlements. To include both views on pensions, the income point of view and the wealth point of view, and to bridge them, an adjustment has been introduced. This dual treatment only concerns employment-related pension schemes. It is not relevant for individual life insurance schemes, for which neither the contributions nor the benefits are recorded as current expenditure/income; the relevant payments and receipts are only recorded as a financial transaction. Furthermore, it is not relevant for social security pension schemes, for which contributions and benefits are only recorded as current expenditure and income.

[39] This adjustment item is only relevant for countries with employment-related pension schemes, in which households accrue pension entitlements over time. Australia and France do not record data for this item.

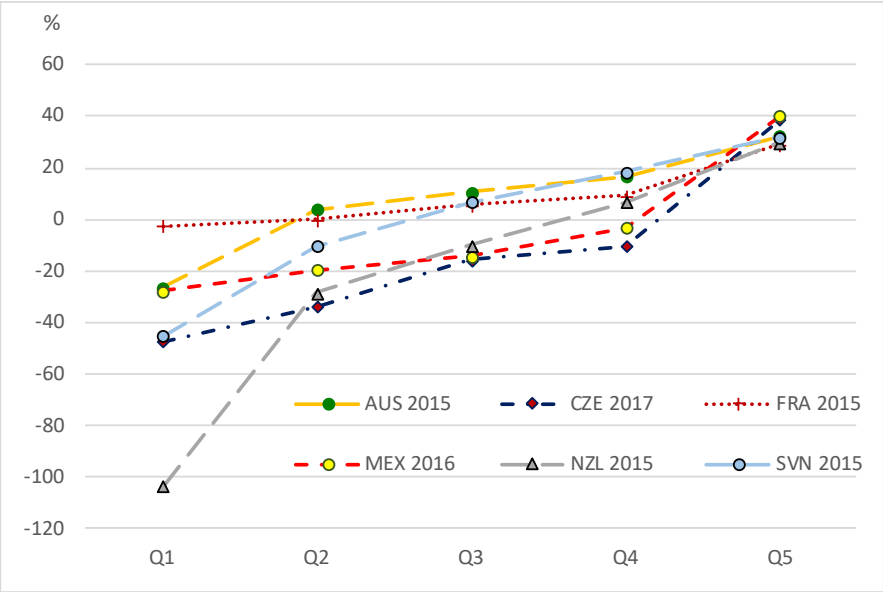
[40] Results for the other countries are presented in Annex C.11.

[41] Paragraph 9.30 of the 2008 SNA recommends adding the adjustment for the change in pension entitlements to the denominator of disposable income in calculating the saving ratio. However, as this may significantly affect saving ratios for specific household groups – in particular household groups with a relatively large share of individuals in retirement – the results in this paper are presented excluding this specific adjustment in the denominator.

[42] Results are presented in Annex C.12.

pronounced, from -29.2% in 2003 to -36.8% in 2017. Conversely, the saving ratio for the second, third and fourth quintile shows a positive trend over this time period in Australia.

Figure 5.9. Saving as a percentage of disposable income by equivalised disposable income quintile

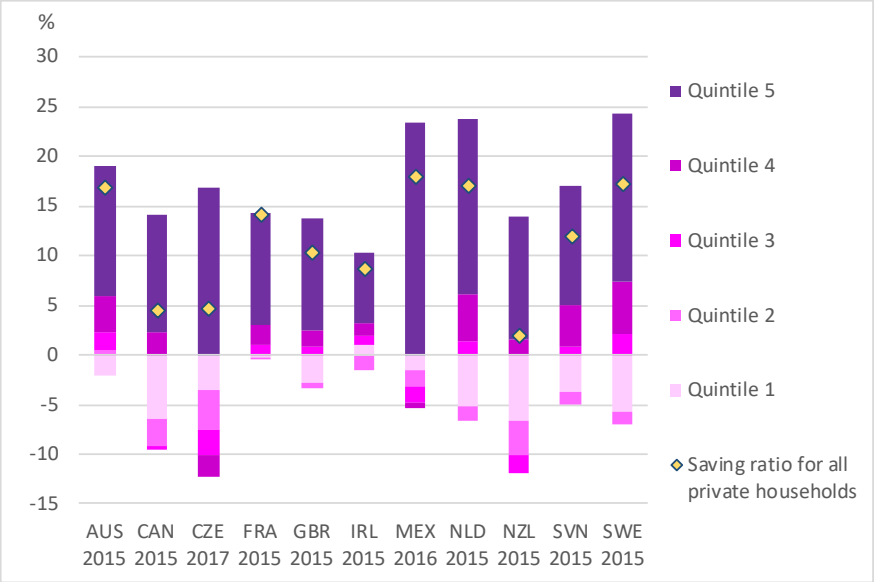


78. To some extent, it is possible to identify differences in saving ratios across quintiles from Figure 5.9, but as the ratios are calculated as percentage of income, which differs across quintiles, it does not provide any insights into the relative size of saving across quintiles. Figure 5.10 examines the contribution of the different quintiles to the saving ratio for the household sector as a whole, by looking at the absolute saving for each quintile as a percentage of total adjusted disposable income for the total of private households.

79. New Zealand records the lowest overall saving ratio (2.1%), with the lowest three quintiles contributing negatively. Canada and the Czech Republic also report low saving ratios for the household sector as a whole (4.4% and 4.7% respectively), with Canada showing particularly large negative savings for the first quintile. The Czech Republic, on the other hand, does not record similar large negative saving for the first quintile, but records negative saving for all quintiles except the fifth. The same holds for Mexico, but they still report the highest average saving ratio for the household sector as a whole (23.5%), due to very high saving of the fifth quintile. Sweden and the Netherlands also record large positive saving ratios for the household sector as a whole, but in comparison with Mexico, this is not particularly related to substantial saving of the fifth quintile, but due to positive saving by households in the third and fourth quintile. Ireland shows a compact composition with relatively small saving across quintiles with only the second quintile displaying negative saving.

Figure 5.10. Composition of the private household sector saving ratio

Total private household saving and saving per quintile as percentage of total private households' disposable income

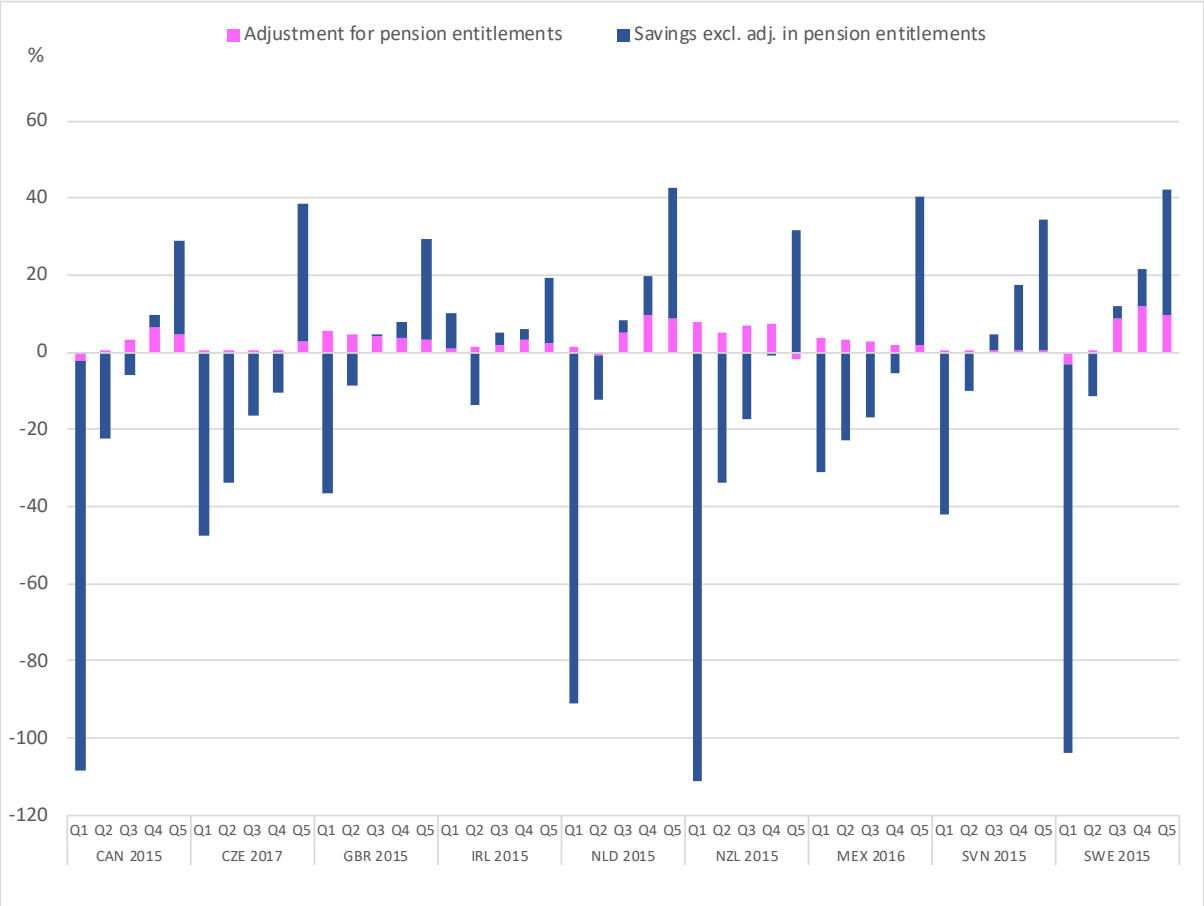


80. Turning to the optional breakdown by household types, all countries record saving ratios above 10% for the category *two adults, less than 65 with no children at home*. Furthermore, all countries also record positive saving ratios for *single households, less than 65 years old, two adults with less than three children living at home* and *other households*. For the other groups, the results look more mixed, with particularly large negative saving for *single households with children living at home* in Slovenia.

81. Focusing on the breakdown by main source of income, for which results are available for three countries, Slovenia and the United Kingdom record the highest saving ratios for households mainly relying on net property income. On the other hand, this category records the second lowest saving ratio in Australia. Instead, households that mainly rely on income from self-employment is the category recording the highest ratio in Australia. Australia and the United Kingdom both record negative saving for households with net current transfers as their main source of income. This is also the category with the smallest saving in Slovenia, though still recording a positive ratio.

82. As explained above, for countries with employment-related pension schemes that accrue pension entitlements over time, household saving consist of two parts. The first part relates to (adjusted) disposable income not being consumed, and the second part relates to the accrual of pension entitlements via the payment of social contributions into occupational pension schemes, less any deductions in the form of pension benefits (i.e. the adjustment for the change in pension entitlements). Figure 5.11 shows how the two components affect the saving rate for the various quintiles. The impact differs in size, with the Czech Republic and Slovenia showing very small impact, in contrast to the Netherlands and Sweden. In Canada and Sweden, both components negatively contribute to saving for the first quintile, whereas in the Netherlands and New Zealand, the adjustment component dampens the negative saving resulting from final consumption exceeding income.

Figure 5.11. Composition of saving ratio for nine countries



5.6. Composition of income and consumption for quintiles

83. So far, the section has focused on results for disparities in total income and consumption across household groups. However, the composition of income and consumption can also differ quite substantively. Figure 5.12 displays the composition of adjusted disposable income across quintiles for six countries.[43]

84. There is at least one common theme across quintiles for the majority of countries, i.e. the decreasing share of *social benefits*. For the first quintile, it forms the largest individual item in most of the countries, whereas its share is considerably smaller for the fifth quintile. Another similarity between the countries is that *compensation of employees* is a major income item for all quintiles, in particular the top three quintiles, across all countries. In most countries, *net property income* is only an important source of income for the fifth quintile, which matches the observation that households with *net property income* as their main source of income display the highest ratio to the average in the main source of income breakdown.

85. A number of items tend to differ more across countries with *current taxes on income and wealth* and *net social contributions* being the most noticeable. *Current taxes*

[43] Results for the other countries are presented in Annex C.14.

on income and wealth is of relatively minor importance in Mexico, with a small increasing share across quintiles, whereas this item is much more important in Australia, Canada and Ireland, with also a more pronounced increase across quintiles. *Net social contributions* are of relatively small importance in Australia and Mexico. Furthermore, in all countries, this item shows increasing shares across quintiles although for the United States this increase is relatively small in comparison with other countries.

86. Looking at some of the other items, in the United Kingdom *operating surplus* is more important for the first quintile compared to most other countries, which may be due to a relatively larger number of homeowners in the first quintile in the United Kingdom. Furthermore, in Mexico, *mixed income* is an item of significant importance for all quintiles. The only country for which this item displays a similar importance for at least one of the quintiles is the United States, showing a large share of this item for the fifth quintile. The fact that for Mexico, it is also important for lower income quintiles may relate to the existence of a relatively large informal economy, which typically involves quite a lot of households running small businesses. In the United States, in addition to mixed income, the fifth quintile also records a relatively large share of *net property income*. Furthermore, the United States do not follow the above-mentioned pattern of decreasing shares of *social benefits* and increasing share of *compensation of employees* across quintiles. For these income components, they instead show a relatively even distribution across quintiles, except for the smaller shares for the fifth quintile.

87. Figure 5.13 shows the composition of actual final consumption per quintile for six countries.[44] What immediately stands out is a more even distribution of items across quintiles than was the case for income. For all countries, *housing, water, electricity, gas and other fuels* constitutes a large share in total consumption, with a decreasing share across quintiles in the United States. *Food and non-alcoholic beverages* is another item that shows a relatively large share of consumption across all quintiles in all countries, which makes sense, as it can be regarded as a basic need. Moving to other consumption items, consumption of *health care* is also large in many countries, although for most countries the main part is in the form of *social transfers in kind*. In the United States, however, *social transfers in kind related to health* amount to a very small share. The United States is also one of the few countries where the proportion of actual final consumption allocated to *health* clearly increases across quintiles and has a particularly large share in the fifth quintile. In Israel, *education* is an important consumption item, especially for the first quintile. A large part is consumed via *social transfers in kind*, but Israel also records relatively high direct expenditures on *education* services by households, which is different from most other countries. Other countries with a relatively high share of direct expenditures on *education* services are the United Kingdom and the United States, but for these countries this is mainly concentrated in the fifth quintile, possibly pointing to the fact that richer households more often send their children to private schools. In both Sweden and the Netherlands, *social transfers in kind* constitute an important part of household consumption. They also show a fairly similar composition of other items across quintiles.

[44] Results for the other countries are presented in Annex C.15.

Figure 5.12. Composition of adjusted disposable income per quintile for six countries

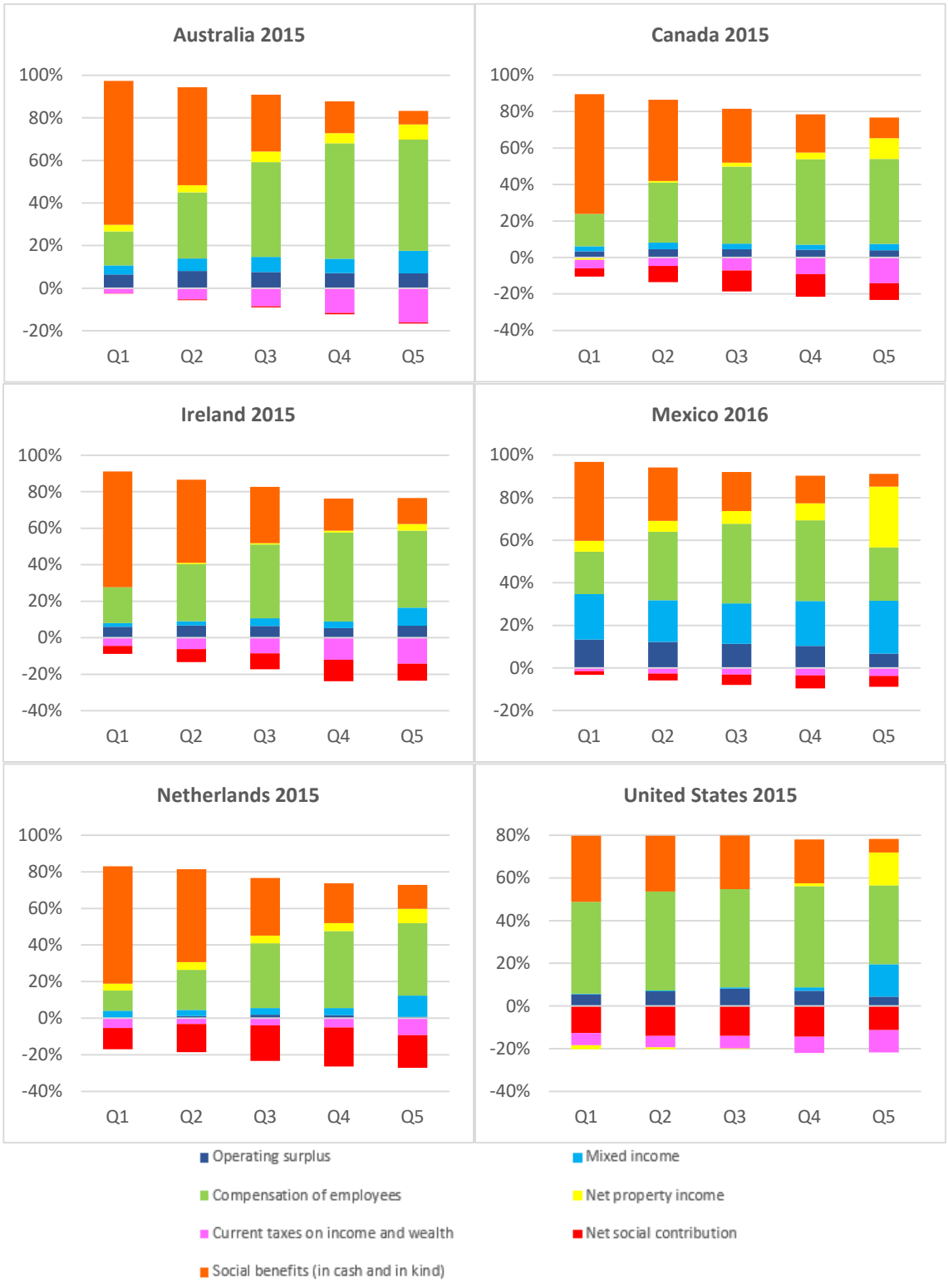
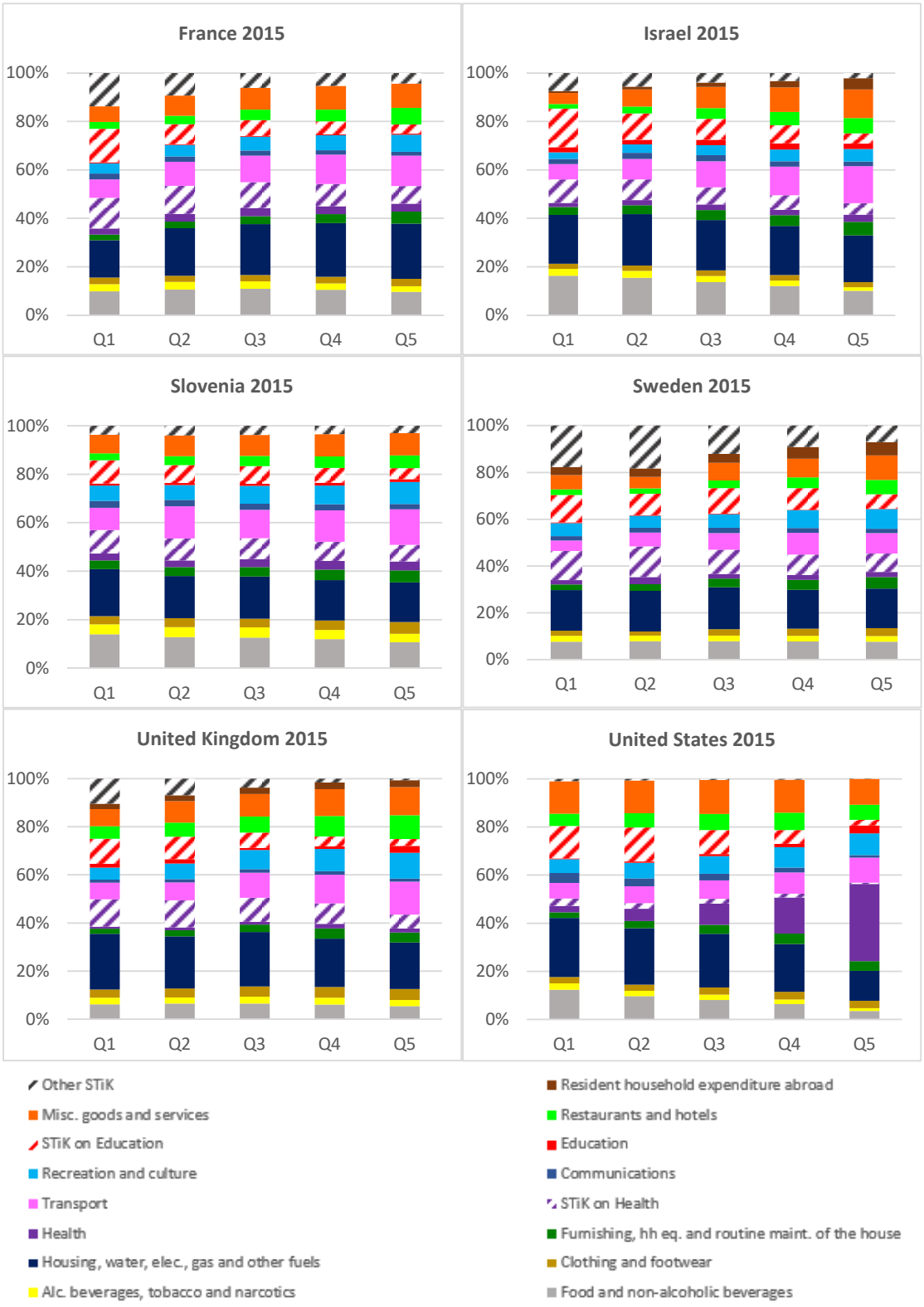


Figure 5.13. Composition of actual final consumption expenditure per quintile for six countries



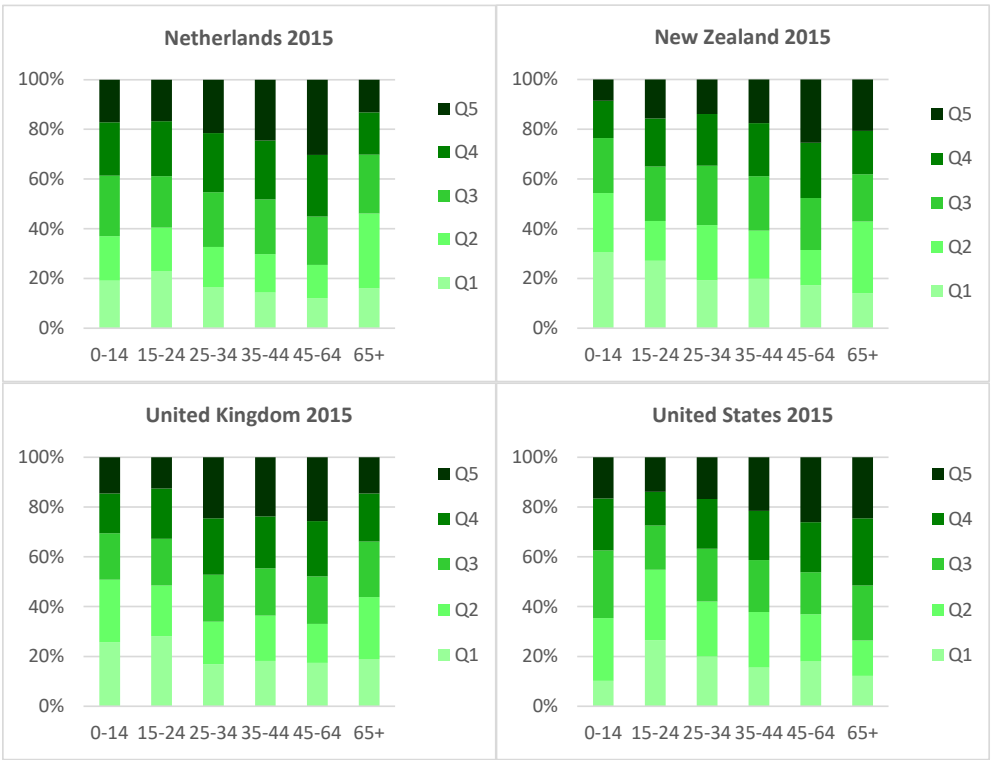
5.7. Socio-demographic composition of quintiles

88. Countries report socio-demographic information accompanying the quintile results, which provides further insight into the composition of the various household groups. This information concerns the total number of households per group, broken down by household types and by housing status, and information on the total number of persons, broken down into age group, gender, labour market status, and education level.

5.7.1. Structure by age

89. Figure 5.14 provides an overview of the distribution of age groups across quintiles for four countries.[45] In the United Kingdom, the two youngest age groups are clearly under-represented in the higher income quintiles. This is also the case for the *15-24* group in France, the Netherlands, Slovenia, Sweden and the United States. This may be related to the fact that this group includes a relatively large amount of students with relatively low incomes. Furthermore, the group *65+* is also concentrated in the lower income quintiles in the United Kingdom, whereas this is the reverse in the United States, where this group is concentrated in the fourth and fifth quintile. In the Netherlands, the group with the highest representation in the higher income quintiles is the group *45-64*. Income tends to increase with age, but then drops for people over 65, recording the smallest share in the fifth quintile and a relatively large representation in the second quintile.

Figure 5.14. Distribution of age groups across quintiles

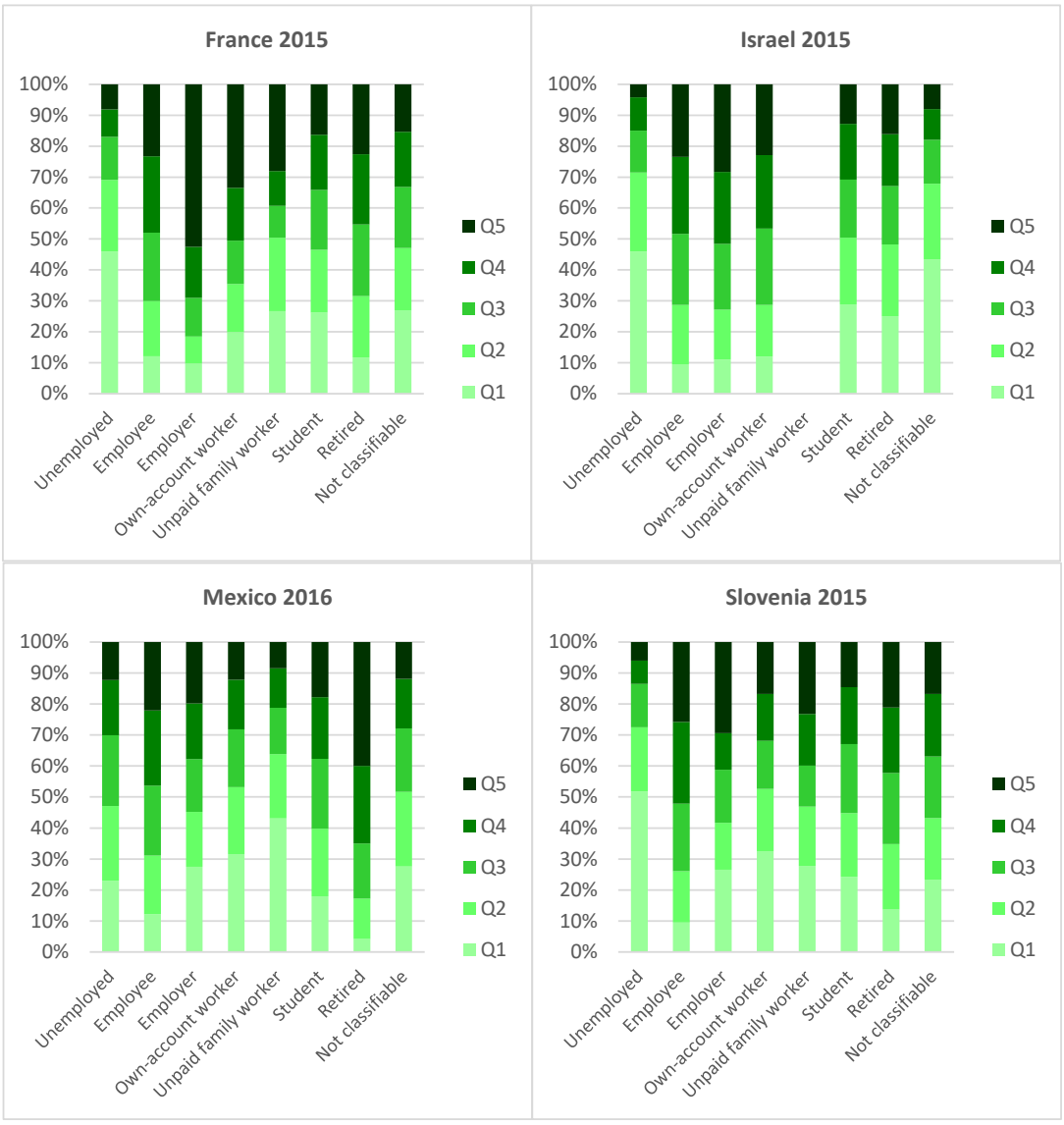


[45] Results for the other countries are presented in Annex C.16.

5.7.2. Structure by labour market status

90. The distribution of individuals across quintiles according to their labour market status is to a certain degree a topic where one would expect similar result across countries, at least concerning categories such as *unemployed*, *students* and *employees*. Figure 5.15 displays this information for four countries and indeed shows a concentration of the *unemployed* in the first quintile, whereas *employees* have a larger concentration in the fifth quintile. Students are mainly concentrated in the lower income quintiles. The category *employer* illustrates some differences across countries. They have a relatively large representation in the fifth quintile in all countries (especially in France), but in some of them also in the first quintile (e.g. Mexico and Slovenia). The allocation of *retired persons* across quintiles also shows differences across countries. For example, in Israel, they are more concentrated in the lower income quintiles whilst for Mexico it is the opposite. In France and Slovenia, they have a strong concentration in the second quintile.

Figure 5.15. Distribution of labour market status groups across quintiles



5.7.3. Structure by education level

91. Figure 5.16 displays the representation across quintiles of persons according to their education level.[46] As may be expected, most countries show a relatively high representation of people with *low* education in the lower income quintiles and of people with *high* education in the higher income quintiles.

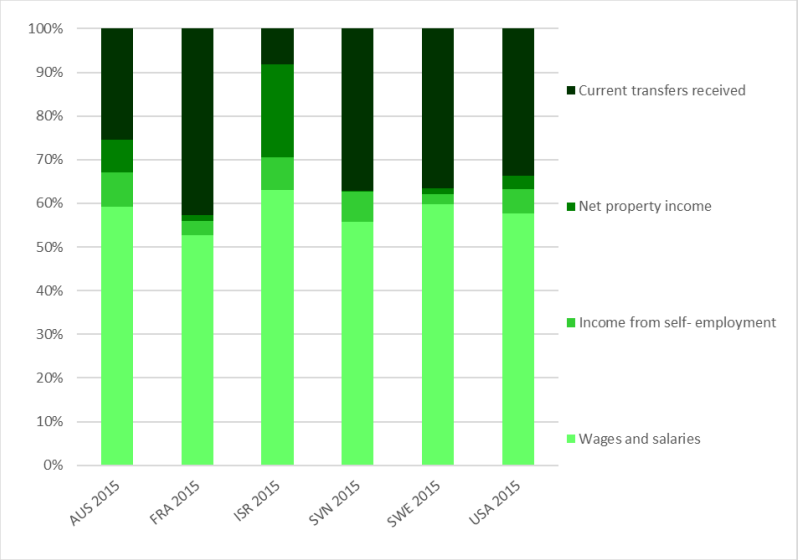
Figure 5.16. Distribution of education level groups across quintiles

5.7.4. Structure by main source of income

92. As previously explained, *net property income* constituted the group that recorded the highest ratio to the average for the optional breakdown according to main source of income, whereas *net current transfers* recorded the lowest. Figure 5.17 examines the proportion of households belonging to each category. In all countries, *wages and salaries* are the most common main source of income. *Net current transfers* constitute the second most important source of income, except for Israel where *net property income* records the second largest share. In other countries, this category is only a main source of income for a relatively small number of households.

[46] Results for the other countries are presented in Annex C.17.

Figure 5.17. Distribution of population across main source of income groups



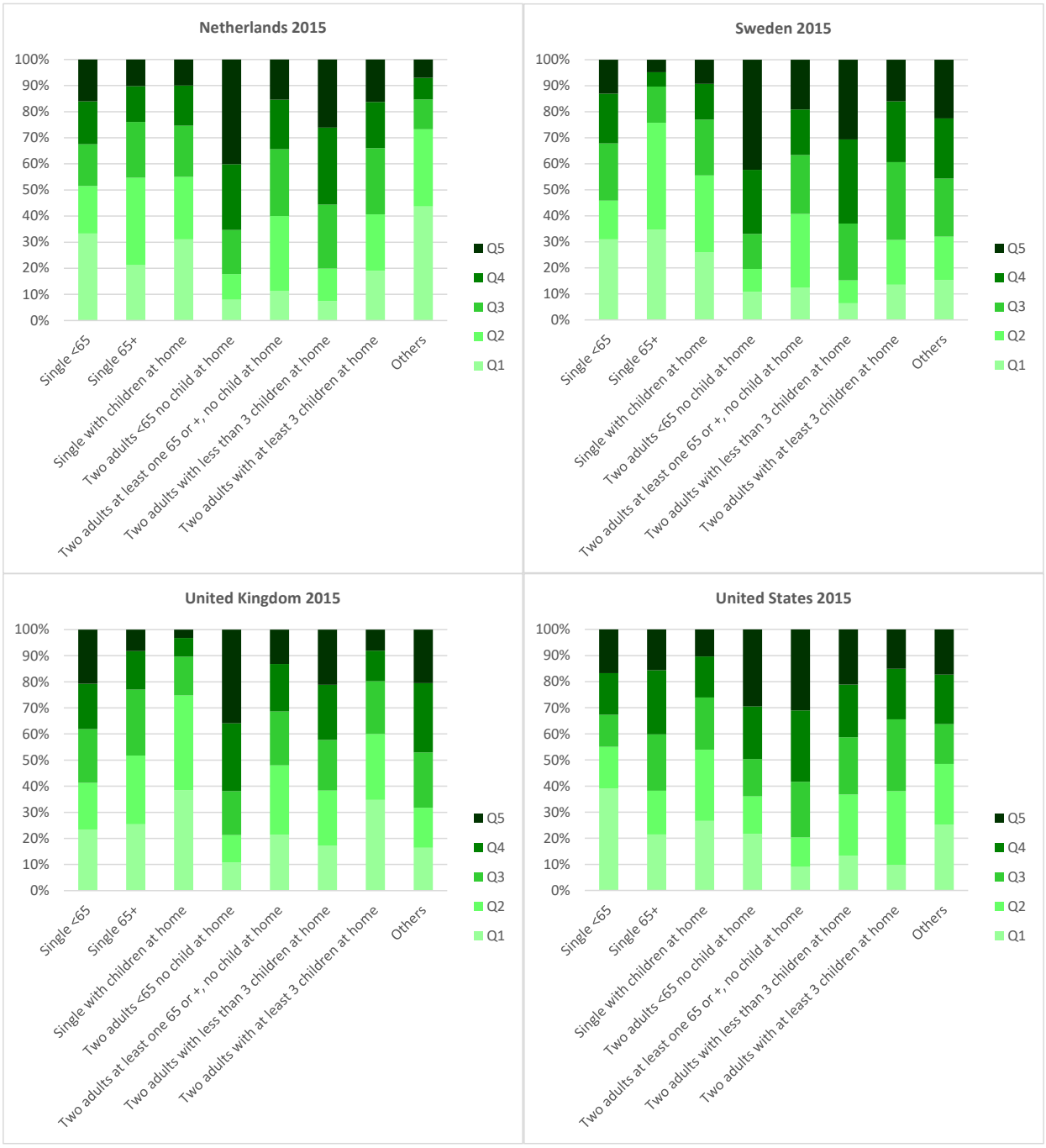
5.7.5. Structure by household type

93. Results were also presented for the optional breakdown into household types. Figure 5.18 examines which household types are more concentrated in the lower and which ones in the higher income quintiles.[47] The analysis also includes countries that did not provide the optional breakdown for income and consumption, but provided this socio-demographic information accompanying their quintile results.

94. When looking at the results for the ratio to the average, countries show quite different results. However, for the majority of countries, households consisting of *two adults less than 65 years old with no child at home* record above average income. This is also what can be observed in Figure 5.18, in the sense that this group is more concentrated in the higher income quintiles. It can also be noted that households consisting of *two adults with at least one person being 65 years or older* are concentrated in the higher income quintiles in the United States. This is in line with the results on composition by age group where the United States recorded a large proportion of the *65+* category in the higher income quintiles. Similarly, *single households with children living at home* record results below average for all countries who provided this optional breakdown. This is also clear from Figure 5.18, where all countries display a relatively high representation of this group in the lower income quintiles. The United Kingdom shows a large variety between categories, but both *single households, less than 65 years old* and *two adults with less than three children living at home* have a rather similar and fairly even representation across quintiles. While the other countries in Figure 5.18 have a somewhat similar distribution for *single households, less than 65 years old* as the one observed in the United Kingdom, the group *two adults with less than three children living at home* is largely concentrated in the higher income quintiles in France, the Netherlands and Sweden. This is one of the few categories where more than subtle differences can be observed. Furthermore, the prominent concentration in the two lower quintiles for *single households, more than 65 years old* in Sweden is noteworthy.

[47] Results for the other countries are presented in Annex C.18.

Figure 5.18. Distribution of household type groups across quintiles



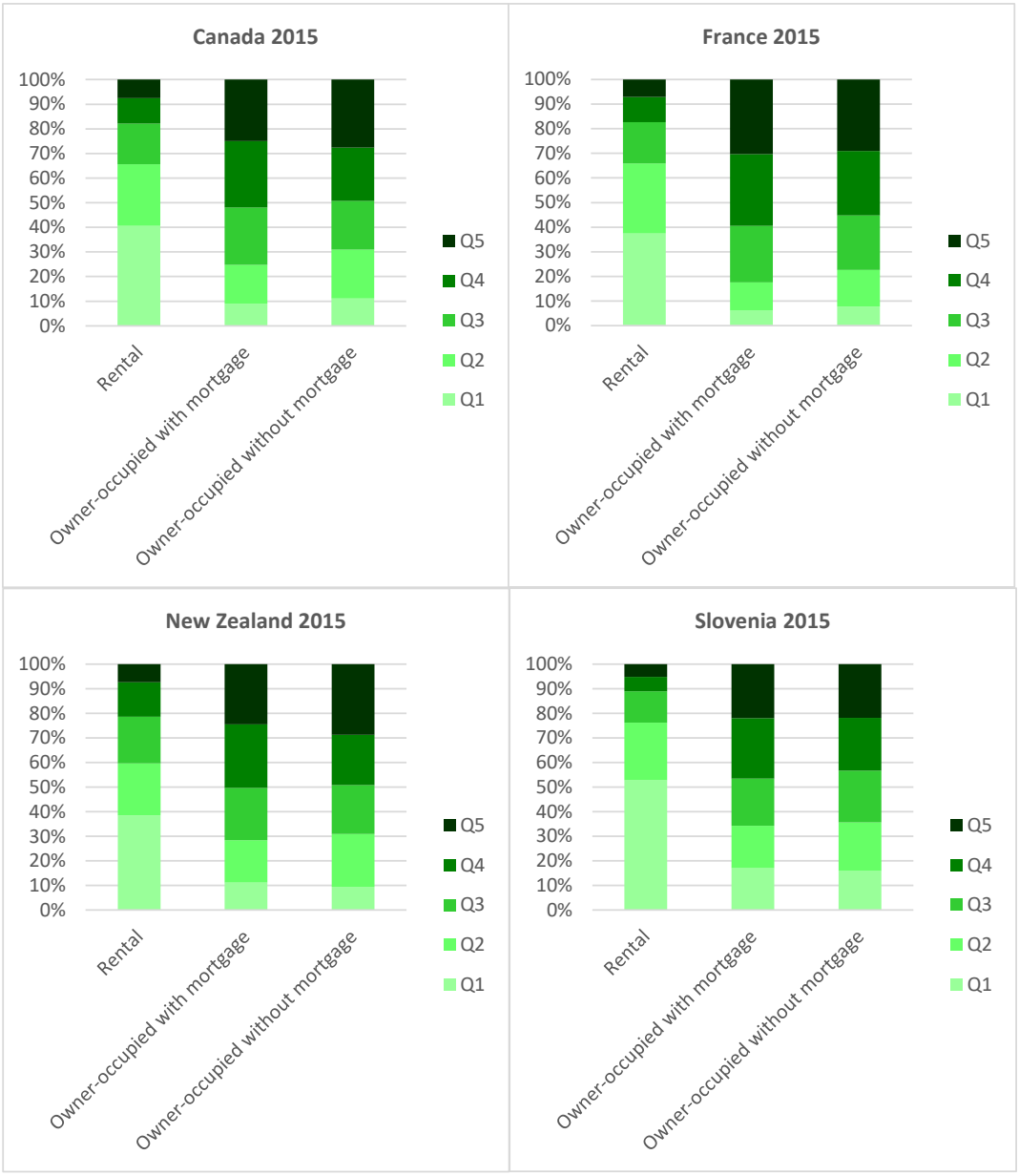
5.7.6. Structure by housing status

95. Finally, the distribution across quintiles of households according to their housing status is presented in Figure 5.19.[48] In a majority of the countries, *rental* households tend to belong to the lower income quintiles. On the other hand, *owner-occupied dwellings with*

[48] Results for the other countries are presented in Annex C.19.

mortgage households have a larger representation in the higher income quintiles. In several countries, the share of the latter group is even larger than for those *without mortgage*, which are generally more evenly distributed across quintiles.

Figure 5.19. Distribution of housing status groups across quintiles



6. Conclusions and way forward

96. This paper presented results on the distribution of household income, consumption and saving consistent with (adjusted) national accounts totals (DNA) for thirteen countries, as recently made available as experimental statistics in the public database of the OECD. These estimates complement existing indicators on economic inequality by providing more comprehensive measures of inequality, by extending the analysis from income to consumption and saving, and by providing results that are fully consistent with macroeconomic aggregates, also ensuring a high degree of international comparability. The paper provided insights into the metadata on the steps taken by countries to compile DNA results, and presented resulting disparity ratios and distributional indicators, as well as additional socio-demographic information on individuals and households included in each income quintile.

97. Countries have to undertake specific steps to derive their distributional results, and for that reason, it is important to closely assess the metadata accompanying the distributional results. In this regard, the paper showed that countries have direct micro data available for most of the items, and need to rely on alternative methods for some. Furthermore, some income and consumption items show quite significant micro-macro gaps. Several countries expressed to have additional micro data sources available in these circumstances, which usually provide good proxies for the distribution of the missing elements.

98. When looking at the main results, Mexico records the highest income disparity followed by the United States. The results for the other countries are more similar to one another, with Ireland, Sweden, the United Kingdom and Slovenia recording the lowest inequalities. For final consumption, the United States records the highest inequality, followed by Mexico. Again, the other countries come much closer to one another, with Slovenia, Sweden and the Czech Republic recording the lowest inequalities. Saving results show larger differences across countries, particularly for the lowest income quintile. Canada, New Zealand, the Netherlands and Sweden show particularly large negative saving ratios for the first quintile, whereas this is more moderate for most other countries and even comes close to zero for France. When looking at longer time series, the results appear to remain relatively stable over the short time period covered.

99. The optional breakdowns show more or less similar patterns across countries with *single households less than 65 years old* and *single households with children living at home* recording below average income, and households consisting of *two adults with less than three children living at home* having above average income across all countries. Furthermore, households that mainly rely on *net property income* as their main source of income typically record the highest income and households that mainly rely on *net current transfers* the lowest. For most countries, similar patterns can be observed for the consumption results.

100. The information on sociodemographic characteristics of persons and households included in the various income quintiles, focusing on breakdowns by age group, labour market status, level of education and housing status, provide additional insights into which groups are concentrated in the lower income quintiles and which groups tend to be concentrated in the higher income quintiles. In this regard, several countries record a higher concentration of younger age groups in the lower income quintiles, whereas the picture is more mixed for other age groups, with a country like the United Kingdom recording a large

concentration of people over 65 in the lower income quintiles, whereas the United States records a large concentration of this group in the fourth and fifth quintile.

101. The results as presented in this paper have been made available in the public databases of the OECD and Eurostat as experimental statistics. This provides users with the opportunity to explore these results in more detail and to conduct their own analyses. In addition to results as compiled by countries (included in this paper), the databases also include results for additional European countries on the basis of a centralised approach developed by Eurostat. Eurostat and the OECD will further improve this approach in the coming period to complement the data with items that are currently lacking (i.e. social transfers in kind) and to also incorporate results for non-European OECD countries. These results are expected to become available in the course of 2021.

102. Looking ahead, the main aim is to further improve the timeliness and the granularity of the DNA results, as well as to extend the scope to also include the wealth dimension. Timeliness of data is an important quality characteristic and comes at a premium in periods of rapid and important changes such as the COVID-19 pandemic. Given the complexity of deriving DNA estimates and the availability of source data, there is currently a lag of several years between the reporting and the reference year. It will be important to develop nowcasting techniques to reduce the existing lags and to ensure full relevance of the findings.

103. Regarding the breakdowns, it will be important to explore possibilities to extend the level of detail. Whereas the work currently mainly focuses on a breakdown by income quintile, there is a substantial demand for more granular results, e.g. broken down by income decile and/or percentile (particularly for the highest income group), as well as into specific socio-demographic groups, such as by age or gender. More work will need to be done to further improve certain aspects of the methodology and to test the sensitivity of the results to alternative assumptions, in order to facilitate these developments.

104. Finally, together with the colleagues from the European Central Bank, who have done a lot of work on developing distributional financial accounts for European countries, it will be important to assess how the DNA work can be broadened to include the wealth dimension. While this raises a whole set of new measurement challenges, it will also provide significant rewards in terms of new avenues for analysis.

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Annex A. Income, consumption and saving: Transactions and their relationships in the National Accounts framework

INCOME ACCORDING TO SNA

B2	**Operating surplus from actual and imputed rentals**	
	Owner occupied dwellings	
	Leasing of dwellings	
B3	**Mixed income**	
	Own account production	
	Underground production	
	Mixed income excluding underground and own account production	
D1	**Compensation of employees**	**= D11 + D121 + S122**
D11	Wages and salaries	
D121	Employers' actual social contributions	Counterpart in D611
D122	Employers' imputed social contributions	Counterpart in D612
D4	**Net property income**	**= D4 resources - D4 uses**
D4	**Property income received**	**= D41 + D42 + D44 + D45 (resources)**
D41	Interest received	
	Interest received (not adjusted for FISIM)	
	Adjustment for FISIM	
D42	Distributed income of corporations	
D44	Investment income disbursements	= D441 + D441A + D441B + D442 + D443
D441	*Investment income attributable to insurance policy holders*	
D441A	*Property income received attributed to non-life insurance policy holders (optional)*	*Part of D71*
D441B	*Property income received attributed to life insurance policy holders (optional)*	
D442	*Investment income payable on pension entitlements (optional)*	*Part of D614*
D443	*Investment income attributable to collective investment funds shareholders (optional)*	
D45	Rent	
D4	**Property income paid**	**= D41 + D45 (uses)**
D41	Interest paid	
	Interest paid (not adjusted for FISIM)	
	Adjustment for FISIM	
D45	Rent	
B5	**Primary income**	**= B2 + B3 + D1 + D4**
D62	**Social benefits other than STiK**	
D7	**Other current transfers (net)**	**= D72 - D71 + D75**
D72-D71	Net non-life insurance claims minus premiums	
-D71	*Non-life insurance premiums*	*Including D441A*
D72	*Non-life insurance claims*	
D75	Net miscellaneous current transfers received – paid	= D75 Resources - D75 uses
D75	*Miscellaneous current transfers received*	
-D75	*Miscellaneous current transfers paid*	
	Of which transfers between resident households	

D5	**Current taxes on income and wealth**	
D61	**Net social contributions**	**= D611 + D612 + D613 + D614**
D611	Employers' actual social contributions	Counterpart in D121
D612	Employers' imputed social contributions	Counterpart in D122
D613+D614	Households' social contributions (actual and supplements)	
D613	*Households' actual social contributions*	
D614	*Households' social contribution supplements*	*Counterpart in D442*
B6	**Disposable income**	**= B5 + D62 + D7 resources – D5 – D61 – D7 uses**
D63	**Social Transfers in Kind**	
D63A	Education	
D63B	Health	
D63C	Other	
B7	**Adjusted disposable income**	**= B6 + D63**

CONSUMPTION

P3_01	Food and non-alcoholic beverages	
P3_02	Alcoholic beverages, tobacco and narcotics	
P3_03	Clothing and footwear	
P3_04	Housing, water, electricity, gas and other fuels	
P3_05	Furnishings, household equipment and routine household maintenance	
P3_06	Health	
P3_07	Transport	
P3_08	Communication	
P3_09	Recreation and culture	
P3_10	Education	
P3_11	Restaurants and hotels	
P3_12	Miscellaneous goods and services	
P33	Resident household expenditure abroad	
P3	**Final consumption expenditure of resident households**	**P3_01+P3_02+P3_03+P3_04+P3_05+P3_06+P3_07+P3_08+ P3_09+P3_10+P3_11+P3_12 + P33**
D63	Social Transfers in Kind	
P4	**Actual final consumption**	**P3 + D63**

SAVING

D8	Change in net equity of households in pension funds	
B8	**Saving**	**B6+D8-P3=B7+D8-P4**

Annex B. Distributional information provided by countries

Income		Quintile information												
		AUS	CAN	CZE	FRA	GBR	IRL	ISR	ITA	MEX	NLD	NZL	SVN	SWE	USA
B2R+B3R	**Operating surplus and mixed income**	X	X	X	X	X	X		X	X	X	X	X	X	X
B2R	Operating surplus	X	X	X	X	X	X		X	X	X	X	X	X	X
B2R1	Owner occupied dwellings		X	X	X		X			X		X	X	X	X
B2R2	Leasing of dwellings		X		X		X			X			X		X
B3R	Mixed income	X	X	X	X	X	X		X	X	X	X	X	X	X
B3R1	Own account production				X					X			X		
B3R2	Underground production				X		X			X	X		X	X	X
B3R3	Mixed income excluding underground and own account production				X		X			X	X	X	X	X	X
D1R	**Compensation of employees**	X	X	X	X	X	X		X	X	X	X	X	X	X
D11R	Wages and salaries		X	X	X	X	X		X	X	X	X	X	X	X
D121R	Employers''actual social contributions		X	X	X	X	X		X	X	X	X	X	X	X
D122R	Employers' imputed social contributions			X	X	X	X		X	X	X		X		X
D4N	**Net property income received / Net property income**	X	X	X	X	X	X		X	X	X	X	X	X	X
D4R	Property income received	X	X	X	X	X	X		X	X	X	X	X	X	X
D41R	Interest received	X	X	X	X	X	X			X	X	X	X	X	X
D41R'	Interest received (not adjusted for FISIM)	X	X	X	X	X	X			X	X	X	X	X	X
D41R_FISIM	Adjustment for FISIM (positive sign)	X	X	X	X	X	X			X	X	X	X	X	X
D42R	Distributed income of corporations	X	X	X	X	X	X			X	X		X	X	X
D43R	Reinvested earnings on foreign direct investment	X		X											
D44R	Investment income disbursements		X	X	X	X	X			X	X	X	X	X	X
D441R	Investment income attributable to insurance policy holders		X	X	X	X	X			X	X		X	X	X
D441AR	Property income received attributed to non-life insurance policy holders			X			X						X	X	X
D441BR	Property income received attributed to life insurance policy holders						X			X			X	X	X
D442R	Investment income payable on pension entitlements		X	X		X	X			X	X		X	X	X
D443R	Investment income attributable to collective investment funds share holders			X	X	X				X	X		X	X	
D45R	Rent received	X	X	X	X	X	X			X			X	X	
D4P	Property income paid	X	X	X	X	X	X		X	X	X	X	X	X	X
D41P	Interest paid	X	X	X	X	X	X			X	X	X	X	X	X
D41P'	Interest paid (not adjusted for FISIM)	X		X	X	X	X			X	X	X	X	X	X
D41P_FISIM	Adjustment for FISIM (negative sign)	X		X	X	X	X			X	X	X	X	X	X
D45P	Rent paid	X		X	X	X	X			X	X		X	X	
B5	**Balance of primary incomes**	X	X	X	X	X	X		X	X	X	X	X	X	X
D5P	**Current taxes on income and wealth**	X	X	X	X	X	X		X	X	X	X	X	X	X
D61P	**Net social contributions paid**	X	X	X	X	X	X		X	X	X	X	X	X	X
D611P	Employers''actual social contributions paid		X	X	X	X	X			X	X	X	X	X	X
D612P	Employers' imputed social contributions paid			X	X	X	X			X	X		X		X
D613P+D614P	Households' social contributions (actual and supplements)		X	X	X	X	X			X	X	X	X	X	X
D613P	Households' actual social contributions			X	X	X	X			X	X	X	X	X	X
D614P	Households' social contributions supplements			X		X	X			X	X	X	X	X	X
D61xP	Social insurance scheme service charges			X		X	X			X	X		X	X	
D61R	**Net social contributions received**			X		X			X		X		X		
D611R	Employers''actual social contributions received														
D612R	Employers' imputed social contributions received			X		X							X		
D62P	**Social benefits other than STiK paid**			X		X			X		X		X		
D62R	**Social benefits other than STiK received**	X	X	X	X	X	X		X	X	X	X	X	X	X
D7N	**Other current transfers (net)**	X	X	X	X	X	X		X	X	X	X	X	X	X
D72R-D71P	Net non-life insurance claims minus premiums	X		X	X		X			X	X	X	X	X	X
D71P	Non-life insurance premiums	X		X	X	X	X			X	X	X	X	X	
D72R	Non-life insurance claims	X		X	X	X	X			X	X	X	X	X	
D75N	Net miscellaneous current transfers	X	X	X	X	X	X			X	X	X	X	X	X
D75R	Miscellaneous current transfers received	X	X	X	X	X	X			X	X	X	X	X	X
D75P	Miscellaneous current transfers paid	X	X	X	X	X	X			X	X	X	X	X	X
D75x	of which transfers between resident households				X					X					
B6	**Disposable income**	X	X	X	X	X	X		X	X	X	X	X	X	X
D63R	**STiK**	X	X	X	X	X	X	X		X	X	X	X	X	X
D63R1	Education	X	X		X	X	X	X		X	X	X	X	X	X
D63R2	Health	X	X		X	X	X	X		X	X	X	X	X	X
D63R3	Other	X	X		X	X	X	X		X	X	X	X	X	X
B7	**Adjusted disposable income**	X	X	X	X	X	X			X	X	X	X	X	X

Income		Household type								Main source of income						
		AUS	FRA	GBR	ISR	ITA	NZL	SVN	SWE	USA	AUS	FRA	GBR	ISR	SVN	SWE	USA
B2R+B3R	**Operating surplus and mixed income**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
B2R	Operating surplus	X	X	X		X	X	X	X	X	X	X	X		X	X	X
B2R1	Own occupied dwellings		X				X	X	X	X		X			X	X	X
B2R2	Leasing of dwellings		X					X		X		X			X		X
B3R	Mixed income	X	X	X		X	X	X	X	X	X	X	X		X	X	X
B3R1	Own account production		X					X				X			X		
B3R2	Underground production		X					X	X	X		X			X	X	X
B3R3	Mixed income excluding underground and own account production		X				X	X	X	X		X			X	X	X
D1R	**Compensation of employees**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D11R	Wages and salaries		X	X		X	X	X	X	X		X	X		X	X	X
D121R	Employers'' actual social contributions		X	X		X	X	X	X	X		X	X		X	X	X
D122R	Employers' imputed social contributions		X	X		X		X		X		X	X		X		X
D4N	**Net property income received**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D4R	Property income received	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D41R	Interest received	X	X	X			X	X	X	X	X	X	X		X	X	X
D41R'	Interest received (not adjusted for FISIM)	X	X	X			X	X	X	X	X	X	X		X	X	X
D41R_FISIM	Adjustment for FISIM (positive sign)	X	X	X			X	X	X	X	X	X	X		X	X	X
D42R	Distributed income of corporations	X	X	X				X	X	X	X	X	X		X	X	X
D43R	Reinvested earnings on foreign direct investment	X									X						
D44R	Investment income disbursements		X	X			X	X	X	X		X	X		X	X	X
D441R	Investment income attributable to insurance policy holders		X					X	X	X		X	X		X	X	X
D441AR	Property income received attributed to non-life insurance policy holders							X	X	X					X	X	X
D441BR	Property income received attributed to life insurance policy holders							X	X	X					X	X	X
D442R	Investment income payable on pension entitlements			X				X	X	X			X		X	X	X
D443R	Investment income attributable to collective investment funds share holders		X					X	X			X	X		X	X	
D45R	Rent received	X	X	X				X	X		X	X	X		X	X	
D4P	Property income paid	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D41P	Interest paid	X	X	X			X	X	X	X	X	X	X		X	X	X
D41P'	Interest paid (not adjusted for FISIM)	X	X	X			X	X	X	X	X	X	X		X	X	X
D41P_FISIM	Adjustment for FISIM (negative sign)	X	X	X			X	X	X	X	X	X	X		X	X	X
D45P	Rent paid	X	X	X				X	X		X	X	X		X	X	
B5	**Balance of primary incomes**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D5P	**Current taxes on income and wealth**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D61P	**Net social contributions paid**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D611P	Employers'' actual social contributions paid		X	X			X	X	X	X		X	X		X	X	X
D612P	Employers' imputed social contributions paid		X	X				X		X		X	X		X		X
D613P+D614P	Households' social contributions (actual and supplements)		X	X			X	X	X	X		X	X		X	X	X
D613P	Households' actual social contributions		X	X			X	X	X	X		X	X		X	X	X
D614P	Households' social contributions supplements			X			X	X	X	X			X		X	X	X
D61xP	Social insurance scheme service charges			X				X	X				X		X	X	
D61R	**Net social contributions received**			X		X		X					X		X		
D611R	Employers'' actual social contributions received																
D612R	Employers' imputed social contributions received			X				X					X		X		
D62P	**Social benefits other than STiK paid**			X		X		X					X		X		
D62R	**Social benefits other than STiK received**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D7N	**Other current transfers (net)**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D72R-D71P	Net non-life insurance claims minus premiums	X	X				X	X	X	X	X	X			X	X	X
D71P	Non-life insurance premiums	X	X	X			X	X	X		X	X	X		X	X	
D72R	Non-life insurance claims	X	X	X			X	X	X		X	X	X		X	X	
D75N	Net miscellaneous current transfers	X	X	X			X	X	X	X	X	X	X		X	X	X
D75R	Miscellaneous current transfers received	X	X	X			X	X	X	X	X	X	X		X	X	X
D75P	Miscellaneous current transfers paid	X	X	X			X	X	X	X	X	X	X		X	X	X
D75x	of which transfers between resident households		X									X					
B6	**Disposable income**	X	X	X		X	X	X	X	X	X	X	X		X	X	X
D63R	**STiK**	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
D63R1	Education	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
D63R2	Health	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
D63R3	Other	X	X	X	X		X		X	X	X	X	X	X	X	X	X
B7	**Adjusted disposable income**	X	X	X			X	X	X	X	X	X	X		X	X	X

		Quintiles												
Consumption and savings		AUS	CAN	CZE	FRA	GBR	IRL	ISR	ITA	MEX	NLD	NZL	SVN	SWE	USA
CP010	Food and non-alcoholic beverages	X	X	X	X	X	X	X		X	X	X	X	X	X
CP020	Alcoholic beverages, tobacco and narcotics	X	X	X	X	X	X	X		X	X	X	X	X	X
CP030	Clothing and footwear	X	X	X	X	X	X	X		X	X	X	X	X	X
CP040	Housing, water, electricity, gas and other fuels	X	X	X	X	X	X	X		X	X	X	X	X	X
CP041	Actual rentals on housing	X	X	X	X	X	X	X		X		X	X	X	X
CP042	Imputed rentals on housing	X	X	X	X	X	X	X		X	X	X	X	X	X
CP043	Maintenance and repair of dwellings		X	X	X	X	X	X		X			X	X	
CP044	Water supply and miscellaneous	X	X	X	X	X	X	X		X		X	X		X
CP045	Electricity, gas and other fuels	X	X	X	X	X	X	X		X		X	X	X	X
CP050	Furnishings, households equipment and routine maintenance of the house	X	X	X	X	X	X	X		X	X	X	X	X	X
CP060	Health	X	X	X	X	X	X	X		X	X	X	X	X	X
CP061	Medical products, appliances and equipment			X	X	X	X	X		X			X	X	X
CP062	Out-patient services			X	X	X	X	X		X			X	X	X
CP063	Hospital services			X	X	X	X	X		X			X	X	X
CP070	Transport	X	X	X	X	X	X	X		X	X	X	X	X	X
CP071	Purchases of vehicles	X	X	X	X	X	X	X		X		X	X	X	X
CP072	Operation of personal transport equipment	X	X	X	X	X	X	X		X		X	X	X	X
CP073	Transports services	X	X	X	X	X	X	X		X		X	X	X	X
CP080	Communications	X	X	X	X	X	X	X		X	X	X	X	X	X
CP090	Recreation and culture	X	X	X	X	X	X	X		X	X	X	X	X	X
CP100	Education	X	X	X	X	X	X	X		X	X	X	X	X	X
CP110	Restaurants and hotels	X	X	X	X	X	X	X		X	X	X	X	X	X
CP120	Miscellaneous goods and services	X	X	X	X	X	X	X		X	X	X	X	X	X
CP12x	Miscellaneous (less FISIM, less insurance)	X	X	X	X	X	X	X		X		X	X	X	X
CP1261	FISIM	X	X	X	X	X	X	X		X	X	X	X	X	X
CP125	Insurances expenditures (life and non-life)	X	X	X	X	X	X	X		X			X	X	X
P31DC	**Final domestic consumption expenditure**	**X**		**X**		**X**	**X**	**X**		**X**		**X**		**X**	**X**
P33-P34	expenditures by non-resident households on the territory			X		X	X	X		X		X		X	X
P33	Final consumption expenditure of resident households abroad			X		X	X	X		X		X		X	
P34	Final consumption expenditure of non-resident households on the territory			X		X	X								
P31NC	**Final national consumption expenditure**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		**X**	**X**	**X**	**X**	**X**	**X**
D63R	STiK	X	X	X	X	X	X	X		X	X	X	X	X	X
P4	**Actual final consumption**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		**X**	**X**	**X**	**X**	**X**	**X**
B7	Adjusted disposable income	X	X	X	X	X	X			X	X	X	X	X	X
D8R	Adjustment for the change in pension entitlements		X	X		X	X			X	X	X	X	X	
B8	**Gross Saving**	**X**	**X**	**X**	**X**	**X**	**X**			**X**	**X**	**X**	**X**	**X**	

Consumption and savings		Household types						Main source of income			
		AUS	FRA	GBR	ISR	NZL	SVN	AUS	GBR	ISR	SVN
CP010	Food and non-alcoholic beverages	X	X	X	X	X	X	X	X	X	X
CP020	Alcoholic beverages, tobacco and narcotics	X	X	X	X	X	X	X	X	X	X
CP030	Clothing and footwear	X	X	X	X	X	X	X	X	X	X
CP040	Housing, water, electricity, gas and other fuels	X	X	X	X	X	X	X	X	X	X
CP041	Actual rentals on housing	X	X	X	X	X	X	X	X	X	X
CP042	Imputed rentals on housing	X	X	X	X	X	X	X	X	X	X
CP043	Maintenance and repair of dwellings		X	X	X		X		X	X	X
CP044	Water supply and miscellaneous	X	X	X	X	X	X	X	X	X	X
CP045	Electricity, gas and other fuels	X	X	X	X	X	X	X	X	X	X
CP050	Furnishings, households equipment and routine maintenance of the house	X	X	X	X	X	X	X	X	X	X
CP060	Health	X	X	X	X	X	X	X	X	X	X
CP061	Medical products, appliances and equipment		X	X	X		X		X	X	X
CP062	Out-patient services		X	X	X		X		X	X	X
CP063	Hospital services		X	X	X		X		X	X	X
CP070	Transport	X	X	X	X	X	X	X	X	X	X
CP071	Purchases of vehicles	X	X	X	X	X	X	X	X	X	X
CP072	Operation of personal transport equipment	X	X	X	X	X	X	X	X	X	X
CP073	Transports services	X	X	X	X	X	X	X	X	X	X
CP080	Communications	X	X	X	X	X	X	X	X	X	X
CP090	Recreation and culture	X	X	X	X	X	X	X	X	X	X
CP100	Education	X	X	X	X	X	X	X	X	X	X
CP110	Restaurants and hotels	X	X	X	X	X	X	X	X	X	X
CP120	Miscellaneous goods and services	X	X	X	X	X	X	X	X	X	X
CP12x	Miscellaneous (less FISIM, less insurance)	X	X	X	X	X	X	X		X	X
CP1261	FISIM	X	X	X	X	X	X	X		X	X
CP125	Insurances expenditures (life and non-life)	X	X	X	X		X	X	X	X	X
P31DC	**Final domestic consumption expenditure**	**X**		**X**	**X**	**X**		**X**	**X**	**X**	
P33-P34	expenditures by non-resident households on the territory			X		X			X		
P33	Final consumption expenditure of resident households abroad			X		X			X		
P34	Final consumption expenditure of non-resident households on the territory			X					X		
P31NC	**Final national consumption expenditure**	**X**	**X**	**X**		**X**	**X**	**X**	**X**		**X**
D63R	STiK	X	X	X	X	X	X	X	X	X	X
P4	**Actual final consumption**	**X**	**X**	**X**		**X**	**X**	**X**	**X**		**X**
B7	Adjusted disposable income	X	X	X		X	X	X	X		X
D8R	Adjustment for the change in pension entitlements			X		X	X		X		X
B8	**Gross Saving**	**X**	**X**	**X**		**X**	**X**	**X**	**X**		**X**

	Quintiles													Household type												Main source of income											
	AUS	CAN	CZE	FRA	IRL	ISR	ITA	MEX	NLD	NZL	SVN	SWE	GBR	USA	AUS	CAN	CZE	FRA	IRL	ISR	ITA	MEX	NLD	NZL	SVN	SWE	GBR	USA	AUS	CAN	CZE	FRA	IRL	ISR	ITA	MEX	NLD	NZL	SVN	SWE	GBR	USA
Number of consumption units		x	x	x	x	x	x	x	x	x	x	x	x	x				x		x	x			x	x	x						x		x					x	x		
Total Number of households	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x		x	x			x	x	x		x	x			x		x					x	x		x
Household types	x	x		x		x	x	x	x	x	x	x	x	x																													
Single less 65 year old	x	x		x		x	x	x	x	x	x	x	x	x																													
Single 65 and older	x	x		x		x	x	x	x	x	x	x	x	x																													
Single with children living at home	x	x		x		x	x	x	x	x	x	x	x	x																													
Two adults less than 65 no child living at home	x	x		x		x	x	x	x	x	x	x	x	x																													
Two adults at least one 65 or older no child living at home	x	x		x		x	x	x	x	x	x	x	x	x																													
Two adults with less than 3 children living at home	x	x		x		x	x	x	x	x	x	x	x	x																													
Two adults with at least 3 children living at home		x		x		x	x	x	x	x	x	x	x	x																													
Others.	x	x		x		x	x	x	x	x	x	x	x	x																													
Housing status		x		x		x		x	x	x	x	x		x																													
Rental		x		x		x		x		x	x	x		x																													
Owner-occupied with mortgage		x		x		x		x		x	x	x		x																													
Owner-occupied without mortgage		x		x		x		x		x	x	x		x																													
Total resident population (number of persons):		x	x	x			x	x	x	x	x	x	x	x																													
Age		x		x		x		x	x	x	x	x	x	x																													
0-14		x		x		x		x	x	x	x	x	x	x																													
15-24		x		x		x		x	x	x	x	x	x	x																													
25-34		x		x		x		x	x	x	x	x	x	x																													
35-44		x		x		x		x	x	x	x	x	x	x																													
45-64		x		x		x		x	x	x	x	x	x	x																													
65+		x		x		x		x	x	x	x	x	x	x																													
Sex		x		x		x		x	x	x	x	x	x	x																													
M		x		x		x		x	x	x	x	x	x	x																													
F		x		x		x		x	x	x	x	x	x	x																													
Labour market status				x		x		x	x		x																															
Unemployed		x		x		x		x			x																															
Employee				x		x		x			x																															
Employer				x		x		x			x																															
Own-account worker				x		x		x			x																															
Unpaid family worker				x				x			x																															
Member of producer's cooperative																																										
Student		x		x		x		x			x																															
Retired				x		x		x			x																															
Not classifiable by status				x		x		x			x																															
Education		x		x		x		x	x		x		x	x																													
Low		x		x		x		x			x		x	x																													
Middle		x		x		x		x			x		x	x																													
High		x		x		x		x			x		x	x																													
n.e.c./n.a.				x		x					x		x	x																													