4 Adjustment of National Accounts totals

The first step in the methodology concerns the adjustment of national accounts totals to exclude any amounts that do not relate to private households, i.e. the target population for the results. This chapter describes the specific adjustments that may be needed for this purpose.

4.1. Introduction

Considering that distributional results specifically relate to private households, the first step in the methodology concerns the application of any necessary adjustments to the national accounts totals to exclude those parts that do not relate to private households. This may entail three main types of adjustments. Firstly, if no separate information is available on the household sector but data are instead combined with information on non-profit institutions serving households (NPISHs), the compiler first needs to separate these two. Secondly, depending on the compilation and publication practices of the national accounts in a country, the consumption results at the detailed level may include consumption of non-residents on the territory (which is then only excluded at the aggregate level). This would require a correction at this detailed level to exclude these expenditures. Furthermore, dependent on how the relevant micro data sources cover information on expenditure of residents abroad, compilers may consider adjustments to include these expenditures at the detailed level of consumption expenditure. Finally, as the results only relate to private households, the amounts that relate to institutional households, which are also part of the household sector in the System of National Accounts, should be excluded.

This chapter discusses each of these adjustments in detail with the aim of providing guidance on their practical implementation and discussing potential challenges that may arise during the process.

4.2. Adjustment for NPISHs

The adjustment for NPISHs is necessary when households and NPISHs are compiled and/or published together in the national accounts. This may be the case when the requisite data sources to distinguish between the two are not available and/or when the NPISH sector is thought to be economically insignificant. As the distributional results only concern (private) households, any amounts related to NPISHs should be adjusted for.

Before examining the implementation of this adjustment, it is worth recalling the definition and classification of NPISHs. The System of National Accounts (European Commission et al., 2009[1]) (hereinafter referred to as *2008 SNA*) defines NPISHs as consisting of non-market non-profit institutions that are not controlled by the government. They provide goods and services to households for free or at economically insignificant prices. Most of these goods and services represent individual consumption, often provided to the members of these institutions, but it is also possible for NPISHs to provide collective services, such as medical research, which is made available to the society at large for free.

The NPISH sector covers a broad as well as a diverse range of institutions. First of all, it includes non-philanthropic organisations such as labour unions, political organisations, consumer associations and professional societies. Secondly, it covers philanthropic organisations such as charities, emergency or relief services and aid agencies. Finally, it includes institutions that provide collective services such as research institutions and environmental groups (see 2008 SNA, §4.167-170).

In order to implement the adjustment for NPISHs, the compiler will need to identify data sources that may provide distinct information on either households or NPISHs. This may concern data from satellite accounts, financial statements, tax reports and/or other types of administrative data. Depending on the type of available information, the compiler may directly target results for the household sector or derive results for the NPISH sector that can then be deducted from the totals as recorded in the national accounts. An alternative is to estimate the shares of households and NPISHs in the sum of the two. In this process, it is recommended that compilers derive results at the level of the detailed income and consumption components rather than applying a constant correction factor across all items. In this regard, it is important to realise that the shares can differ significantly across items and, moreover, that some items will by definition only relate to households. This is for example the case for *compensation of employees received* (D11) and *net social contributions paid* (D61P).

When multiple sources of information are used to determine the split for the various income and consumption items, it is also important to assess the consistency and plausibility of the adjustments across items. If these do not provide a consistent picture (for example when the adjustment factors are very different for income and consumption), it may be needed to modify some of the adjustments to bring them more in line.

In the case where no reliable data are available to derive the split between the household and the NPISH sector, an alternative is to derive a breakdown on the basis of available information from other countries. Figure 4.1 provides an overview of the share of the NPISH sector in the sum of the household sector and the NPISH sector for several countries for 2020. If the compiler is able to identify countries (or a country) where the economic role of NPISHs is thought to be more or less similar as in its own country, the ratio between households and NPISHs can be applied to those components for which a direct data source is lacking[1] (still assessing the consistency and plausibility of the adjustment factors across the various items). This approach has the advantage of allowing for expeditious item-specific adjustments. Of course, the accuracy of the adjustments depends on how well the income and consumption profiles of NPISHs in the surrogate country match with those in the target country. Any country-specific circumstances in both the proxy and/or target country should be taken into consideration, possibly deviating from the obtained ratios in specific circumstances.

Furthermore, as the weights of the various underlying items in the aggregates are likely to differ across countries and as it may be the case that countries do not share the exact same set of applicable items, decisions may have to be made at what level to apply the adjustment coefficients. Starting at different levels of aggregation may lead to different results for the aggregates. For example, starting from the underlying items of *operating surplus* (B2) (i.e. *owner-occupied dwellings* (B2R1) and *leasing of dwellings* (B2R2)) may lead to a different result than directly targeting this item at the aggregated level. In this regard, it is advised to focus on that level of aggregation that is regarded to provide the best proxy. In some cases, this may imply making assumptions on some specific (underlying) items, to make sure the results are consistent with the derived results.

4.3. Adjustment for consumption of non-resident households on the territory and where relevant of residents abroad at the detailed level

The second adjustment that may be needed pertains to separating out the consumption expenditures of non-resident households on the economic territory for each detailed consumption component in case these are included in the initial national accounts totals as derived from the supply-and-use tables and to include expenditures by residents abroad at the detailed level in case this leads to a better match with the micro data. While total household final consumption expenditure indeed only refers to resident households, this may not always be the case at the most detailed level. In that regard, the 2008 SNA explains that it may be more practical to calculate the total expenditure made by both resident and non-resident households within the economic territory and to then adjust this figure by including expenditures by residents abroad and excluding expenditures by non-residents within the economic territory at the aggregated level (see 2008 SNA, § 9.80). This approach is based on the rationale that it is easier to balance the supply and use of goods and services by considering the total domestic consumption expenditure, i.e. by residents and non-residents, instead of trying to already exclude the consumption of non-residents at this level of detail. Similarly, the consumption expenditure of residents abroad is usually not available at the detailed level of goods and services, but only added to domestic consumption expenditure at an aggregated level.

Figure 4.1. Share of NPISHs in sum of the household sector and the NPISH sector for 2020

Code	Item	AUT	BEL	CHE	CZE	DEU	DNK	ESP	EST	FIN	FRA	GBR	GRC	HUN	IRL	ITA	LTU	LUX	LVA	MEX	NLD	NOR	POL	PRT	SVK	SVN	SWE	USA
B2R+B3R	Operating surplus and mixed income	1.1%	0.5%	2.9%	0.8%	2.0%	0.7%	0.5%	1.3%	2.5%	1.5%	5.5%	0.2%	1.6%	0.8%	0.2%	0.1%	0.8%	0.8%	1.5%	0.2%	2.8%	0.1%	2.1%	0.3%	0.9%	1.8%	5.0%
B2R	Operating surplus	2.4%	1.1%	100.0%	2.1%	5.7%	1.4%	1.3%	10.8%	4.1%	2.4%	9.6%	0.8%	3.7%	1.7%	0.4%	0.4%	1.1%	1.4%	5.3%	0.8%	3.3%	1.5%	4.9%	0.6%	2.3%	4.1%	11.1%
B3R	Mixed income	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D1R	Compensation of employees	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D11R	Wages and salaries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D12R	Employers' social contributions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D4R	Property income received	1.0%	0.5%	1.7%	0.5%	1.0%	0.8%	2.1%	0.5%	8.1%	0.8%	1.4%	0.9%	0.9%	5.2%	0.3%	0.1%	1.6%	0.1%	0.0%	0.1%	2.3%	0.7%	1.1%	1.0%	1.1%	3.5%	1.9%
D41R	Interest received	2.7%	3.6%	6.0%	0.9%	6.0%	12.1%	24.0%	5.3%	2.4%	1.4%	2.2%	1.5%	1.4%	5.8%	2.8%	0.1%	3.4%	2.1%	n.a.	0.5%	4.4%	1.7%	6.2%	2.2%	1.2%	24.4%	0.0%
D41R'	Interest received (not adjusted for FISIM)	3.2%	5.1%	3.7%	1.8%	3.8%	14.3%	10.1%	6.3%	2.3%	4.9%	2.8%	1.9%	3.0%	4.7%	3.7%	1.5%	3.9%	2.2%	0.0%	-3.7%	4.9%	3.1%	6.4%	3.7%	1.6%	10.8%	1.2%
D42R	Distributed income of corporations received	0.8%	0.0%	2.2%	0.1%	0.2%	0.9%	0.7%	0.0%	7.5%	0.0%	1.8%	0.2%	0.0%	7.9%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%	2.1%	0.0%	0.0%	0.0%	1.1%	4.7%	2.8%
D43R	Reinvested earnings on foreign direct investment	0.0%	n.a.	n.a.	0.0%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.0%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	100.0%	n.a.	100.0%	n.a.	n.a.
D44R	Investment income disbursements	0.8%	0.7%	0.8%	0.3%	2.4%	0.3%	0.0%	0.1%	11.1%	0.2%	0.2%	0.0%	0.3%	0.0%	0.0%	0.1%	0.8%	0.0%	0.0%	0.0%	1.6%	0.4%	0.1%	0.0%	0.2%	1.9%	9.4%
D45R	Rent received	n.a.	0.0%	n.a.	0.0%	5.8%	0.0%	0.0%	0.2%	17.7%	0.0%	83.5%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	3.4%	n.a.	6.3%	14.5%	0.0%	0.0%	n.a.
D4P	Property income paid (adjusted for FISIM)	1.2%	0.6%	1.6%	0.7%	0.6%	1.0%	0.9%	-6.3%	4.4%	0.7%	2.6%	1.7%	0.2%	0.6%	4.5%	0.1%	0.4%	0.9%	0.0%	-0.4%	-0.4%	1.1%	3.4%	5.4%	0.5%	0.9%	0.6%
D41P	Interest paid	1.2%	0.4%	1.7%	0.2%	1.1%	0.9%	0.8%	4.1%	1.8%	1.4%	1.3%	3.2%	0.1%	0.9%	2.3%	0.2%	0.4%	0.9%	n.a.	0.4%	0.4%	0.8%	4.3%	2.5%	0.3%	0.6%	1.0%
D41P'	Interest paid (not adjusted for FISIM)	1.2%	0.7%	1.6%	0.2%	0.7%	1.2%	1.2%	-6.3%	9.3%	0.8%	2.6%	3.0%	0.2%	0.8%	8.8%	0.2%	0.4%	0.9%	0.0%	-0.4%	-0.5%	1.1%	0.1%	6.0%	0.6%	0.9%	0.6%
D45P	Rent paid	n.a.	0.0%	n.a.	2.7%	0.0%	0.0%	0.0%	n.a.	1.5%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	4.9%	1.7%	0.0%	0.2%	n.a.
B5	Balance of primary incomes	0.3%	0.1%	0.6%	0.2%	0.4%	0.1%	0.2%	0.1%	1.0%	0.3%	1.3%	0.1%	0.5%	0.4%	0.1%	0.0%	0.2%	0.1%	0.6%	0.0%	0.5%	0.1%	0.6%	0.1%	0.2%	0.5%	1.4%
D5P	Current taxes on income and wealth	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.3%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.1%	0.1%	0.0%
D61P	Net social contributions paid	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D611P	Actual social contributions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	0.0%
D612P	Imputed social contributions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	0.0%
D61xP	Social insurance scheme service charges	n.a.	82.5%	45.8%	17.8%	100.0%	n.a.	18.8%	99.3%	100.0%	98.1%	81.2%	n.a.	100.0%	n.a.	11.0%	61.6%	0.0%	75.9%	100.0%	7.4%	76.1%	27.3%	92.1%	7.4%	24.5%	100.0%	n.a.
D61R	Net social contributions received	n.a.	82.5%	45.8%	17.8%	100.0%	n.a.	18.3%	83.3%	n.a.	0.0%	81.2%	n.a.	100.0%	n.a.	8.3%	61.6%	100.0%	75.9%	100.0%	7.4%	76.1%	27.3%	95.9%	7.4%	24.5%	n.a.	n.a.
D611R	Actual social contributions	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7.6%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	100.0%	n.a.	n.a.	n.a.	n.a.
D612R	Imputed social contributions	n.a.	82.5%	n.a.	17.8%	100.0%	n.a.	18.3%	83.3%	n.a.	0.0%	81.2%	n.a.	100.0%	n.a.	12.2%	61.6%	n.a.	75.9%	100.0%	7.4%	76.1%	27.3%	90.2%	7.4%	24.5%	n.a.	n.a.
D62P	Social benefits other than STiK paid	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
D62R	Social benefits other than STiK received	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D7N	Other current transfers received	2.5%	6.5%	0.1%	1.0%	1.5%	28.8%	3.1%	1.1%	12.1%	1.9%	10.4%	0.1%	9.5%	6.3%	6.1%	8.6%	18.9%	0.0%	1.8%	15.6%	4.1%	7.4%	1.8%	4.6%	4.7%	27.3%	21.4%
D71P	Non-life insurance premiums	0.0%	0.1%	0.3%	0.8%	0.2%	0.6%	0.9%	0.0%	0.2%	0.2%	0.9%	0.0%	0.5%	0.6%	0.4%	0.7%	0.4%	0.0%	1.7%	0.4%	0.0%	1.1%	3.2%	0.1%	1.6%	0.0%	n.a.
D72R	Non-life insurance benefits	0.0%	0.1%	0.3%	1.0%	0.2%	0.9%	0.8%	0.1%	0.2%	0.2%	0.9%	0.0%	0.8%	0.5%	0.2%	0.4%	0.6%	0.0%	0.0%	0.4%	0.0%	1.0%	1.9%	0.0%	1.6%	0.0%	n.a.
D75R	Miscellaneous current transfers received	88.7%	60.5%	87.5%	13.7%	81.0%	69.7%	24.4%	48.9%	90.2%	57.6%	76.9%	34.1%	72.1%	83.7%	33.6%	11.7%	82.1%	39.9%	9.5%	54.4%	80.0%	29.6%	34.2%	11.3%	60.4%	65.3%	71.6%
D75P	Miscellaneous current transfers paid	4.1%	11.5%	0.0%	1.0%	3.7%	41.1%	3.5%	1.5%	19.3%	3.6%	16.2%	0.1%	12.8%	11.7%	8.1%	35.2%	33.8%	0.1%	1.8%	25.2%	5.4%	11.4%	1.5%	4.9%	7.0%	34.4%	21.4%
B6	Disposable income	4.4%	2.0%	3.9%	1.8%	3.0%	3.4%	2.2%	3.3%	4.2%	3.5%	3.8%	1.1%	4.8%	1.3%	0.7%	0.3%	5.4%	2.3%	2.0%	1.3%	5.6%	0.7%	3.2%	1.5%	2.1%	3.0%	2.7%
D63R	Social Transfers in Kind received	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
B7	Adjusted disposable income	0.5%	0.2%	0.4%	0.1%	0.4%	0.3%	0.4%	0.1%	0.4%	0.2%	0.4%	-1.1%	1.0%	-0.1%	0.0%	0.0%	0.0%	0.4%	0.5%	0.0%	1.0%	-0.6%	0.4%	0.0%	0.6%	0.5%	-0.2%
D8R	Adjustment for change in pension entitlements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.
P3	Final consumption expenditure	4.7%	2.2%	4.4%	2.0%	3.1%	3.1%	2.0%	3.5%	4.3%	4.0%	3.8%	2.4%	4.3%	1.9%	0.8%	0.4%	7.1%	2.1%	1.8%	1.7%	5.2%	1.6%	3.1%	1.7%	1.8%	2.7%	3.7%
B8	Gross saving	3.1%	1.0%	1.5%	0.9%	2.2%	3.5%	2.8%	1.2%	3.7%	1.5%	3.0%	-53.1%	7.6%	-0.4%	0.0%	-0.2%	0.0%	3.0%	2.0%	-0.2%	6.2%	-6.3%	3.7%	0.3%	3.2%	3.0%	-1.0%

Source: OECD.stat, Table 14A Non-financial accounts by sector.

Figure 4.2 depicts an excerpt of Table 14.12 in the 2008 SNA which shows how this works in practice. Supply and use are balanced in the use table at the detailed level with both resident and non-resident households included together in column 30. Afterwards, a correction is applied at the aggregated level to exclude *domestic purchases by non-residents* (row 13) and to include *direct purchases abroad by residents* (row 12). For this latter item, there is a direct counterpart in the supply table as an addition to imports. The domestic purchases by non-residents are added at the aggregated level to the exports of goods and services in the use table (row 13 in columns 27 and 28).

Figure 4.2. Aggregate adjustments for household final consumption expenditure in supply-and-use tables

Use of products	Total supply at purchasers' prices	...	...	Exports		Final consumption expenditure				
				Goods	Services	Sub-total final consumption expenditure	Households	NPISHs	...	...
	(1)	...	...	(27)	(28)	(29)	(30)	(31)	...	...
Products										
Total uses										
(1) Agriculture										
... ...										
... ...										
(12) Direct purchases abroad by residents										
(13) Domestic pruchases by non-residents										
(14) Total										

Source*:* 2008 SNA (European Commission et al., 2009[1]).

If countries have indeed followed this approach, it is necessary to determine the expenditures of non-resident households for each detailed consumption item included in the results in order to arrive at the appropriate starting point for the work, i.e. to exclude the expenditure by non-residents at this detailed level. This is crucial, as the information will be aligned to micro data that only relates to resident private households.

As a priori, the adjustment of household final consumption is only known at the aggregated level with the individual consumption components containing information for both residents and non-residents on the economic territory, the compiler will need to determine the consumption expenditure by residents for each domestic consumption component, subject to the constraint that the resident consumption expenditure items add up to the total of the final domestic resident consumption expenditure (i.e. P31NC) which is known from the supply-and-use tables.

In order to implement the necessary adjustments, the compiler can use data from tourism satellite accounts or balance of payments, among others, to determine the shares of non-residents per detailed consumption component. For example, in using tourism satellite accounts, the compiler may be able to make adjustments at the detailed consumption component level by using outbound and inbound tourism consumption.

In case no detailed information is available on the expenditure of non-residents in the domestic economy, one possible solution is to use the breakdown of expenditure of residents abroad as a proxy if this information is available. Otherwise, estimates may be made for the specific categories that these spending will most likely relate to (mainly *recreation and culture* (CP090), *restaurants and hotels* (CP110) and *transport* (CP070)). Furthermore, it may be relevant to assess whether the country may be dealing with a relatively large number of cross-border shoppers (e.g. in relation to relatively low excise duties or a relatively large number of cross-border workers) which may affect specific other consumption categories. As with the previous adjustments to exclude data related to NPISHs, it may be the case that after estimating shares for the individual components, the compiler will need to balance the new estimates in order that they add up to the aggregate.

One could also implement the adjustment for expenditures of residents abroad at the detailed level of consumption items. In case these expenditures are covered in the micro data sources and good quality information is available to break down the aggregated amount to underlying items at the macro level (e.g. on the basis of tourism satellite accounts), this may lead to a better match and better results. For international consistency, some adjustments then need to be applied at the end of the compilation process, to move the amounts that relate to expenditure abroad at the detailed level to the aggregated correction item. In this way, results can be provided in line with the internationally agreed template. It can also be decided to already make this specific correction at the micro level, removing the expenditure of households abroad from all the underlying items at the micro level and aggregating these amounts to match it with the aggregated adjustment item in the national accounts, but this will mainly depend on what is expected to provide the most reliable results.

4.4. Adjustment for institutional households

Finally, the national accounts totals, which after the first two adjustments only relate to resident households, must also be adjusted to exclude amounts that do not relate to private households. This means that amounts related to institutional households should be removed from the totals to arrive at the correct benchmark for the distributional results. This step also further aligns the micro and macro data, as the sampling frame of micro sources also typically focuses on private households.

Persons living permanently in an institution or who may be expected to reside in an institution for a long or indefinite period of time are treated as belonging to institutional households as they have little or no autonomy of action or decision in economic matters (2008 SNA, §4.149-4.154). Examples of institutional households are people living in prison, boarding schools, retirement homes, hospitals and nursing homes, religious institutions, hotels and so on for a long period of time. They are excluded from the scope of the distributional results as they behave differently from private households and their (equivalised) results would not be comparable (see also Section 2.2). For that reason, it is recommended to present results for these institutional households separately.[2]

The implementation of the adjustment to exclude amounts relating to institutional households requires sources of information that provide details on the structure and characteristics of these households. Certain countries may compile satellite accounts on households that can be used to distinguish between these two types of households. Another practical method that can be employed concerns the use of census data. This may contain information on the number of persons living in institutional households versus persons living in private households. Furthermore, it may provide background information on people living in institutional households, for example related to socio-demographic characteristics or the type of institutional household they belong to. On the basis of that type of information, the income and consumption of individuals living in institutional households may be approximated by the income and consumption patterns of specific private households also taking into account that specific items may not be relevant for individuals living in certain types of institutional households. To arrive at results at the individual level, the assumption can be employed that each person living in an institutional household is acting as a single person household, so that his income and consumption levels can be approximated by “per household” values in relation to corresponding persons living in private households. The accuracy of these estimates will depend in part on the population breakdowns available in auxiliary data sources as well as the assumptions applied by the compiler.

As with the previous adjustment, it is recommended to apply an item-specific approach in deriving the shares of institutional households for the various income and consumption components. Institutional households may have a significant impact on specific income and consumption items such as social protection spending and social transfers in kind related to health, whereas their impact may be negligible for other items, for example imputed rents under the assumption that most people living in institutional households will usually not own a house.

4.5. Overview of adjustments

This chapter has explained the necessary steps to go from the available national accounts totals to the amounts related to the population in scope of distributional results, i.e. resident private households.

Table 4.1 provides an overview of these steps for the income part of the work. Depending on the coverage of the available national accounts totals, a first correction needs to be made to exclude that part of the data that relates to the NPISH sector. In that case, the totals relating to the household and NPISH sector are presented in the first column (1), after which data related to the NPISH sector (S15) can be reported for each individual income item in column 2 to arrive at data that only relate to resident households (S14), reflected in column 3. Subsequently, the part that relates to institutional households should be subtracted (in column 4) to arrive at the results relating to private households (column 5).

Table 4.1. Overview of adjustments to national accounts totals to arrive at totals for the relevant income components relating to private households

Income item	S14+S15 (1)	S15 (2)	S14 (3) = (1) – (2)	Institutional households (4)	Private households (5) = (3) – (4)
Operating surplus					
Owner-occupied dwellings					
Leasing of dwellings					
Mixed income					
…					
…					

Source: The Author.

Table 4.2 provides a similar overview for the consumption part of the work. It starts with the data available from the supply-and-use tables in the first column (1). As these may include consumption by NPISHs and by non-resident households, these should be excluded (in columns 2 and 3 respectively) to arrive at data for resident households only. A correction is then needed to include any consumption expenditure by resident households abroad (in column 4), which may be done at the detailed level or at the aggregated level at the bottom of the table. Via this route, results are obtained relating to total final consumption expenditure by resident households in column 5. Subsequently, the part that relates to institutional households (column 6) should be subtracted to arrive at the results relating to private households only (column 7).

From the exercises conducted by the EG DNA, information can be obtained how the adjustment of national accounts totals to exclude those amounts that do not relate to resident private households affects the results. Of course, it has to be borne in mind that this may concern different adjustments across countries depending on the available national accounts data in countries, but it gives a sense of the magnitude of this correction across countries.

Table 4.2. Overview of adjustments to national accounts totals to arrive at totals for the relevant consumption components relating to private households

Consumption item	Sub-total final consumption expenditure from SUT (1)	Final consumption expenditure by NPISHs (2)	Final consumption expenditure by non-residents (3)	Final consumption expenditure of residents abroad (4)	Final consumption expenditure by resident households (5) = (1) – (2) – (3) + (4)	Institutional households (6)	Private households (7) = (5) – (6)
Food and non-alcoholic beverages							
Alcoholic beverages, tobacco and narcotics							
…							
…							
…							
Final domestic consumption expenditure							
Adjustment for expenditures by resident households abroad							
Final national consumption expenditure							
Social transfers in kind							
Actual final consumption							

Source: The Author.

Table 4.3 presents the overall adjustment as percentage of the initial national accounts totals for those countries providing this information in the collection round conducted in 2020. 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 which implies that their distributional results included 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 was less than 0.4% for income and 1.1% for consumption. When looking at results over time, the adjustment coefficients showed to be relatively stable over time.

Although the overall adjustment ratios seem rather low, it has to be borne in mind that these adjustments are still very relevant when breaking down the results into underlying household groups. Without these adjustments, these amounts would have been inaccurately allocated to specific household groups, therewith affecting the overall distributional results. This stresses the importance of this specific step in the compilation process.

Table 4.3. 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)
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 States (2015)	-0.36	-2.80

Note: The results for the income column 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. Furthermore, for Israel and Italy, information is only available for either consumption or income.
Source: Zwijnenburg et al. (2021[2]).

References

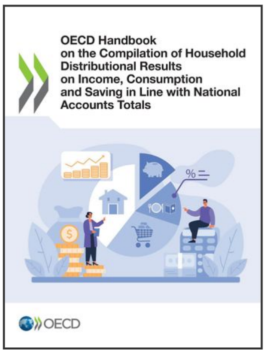
European Commission et al. (2009), *System of National Accounts 2008*, https://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf (accessed on 29 September 2017). [1]

Zwijnenburg, J. et al. (2021), "Distribution of household income, consumption and saving in line with national accounts: Methodology and results from the 2020 collection round", *OECD Statistics Working Papers*, No. 2021/01, OECD, Paris, https://www.oecd-ilibrary.org/docserver/615c9eec-en.pdf?expires=1669202191&id=id&accname=ocid84004878&checksum=689A9023E81B32F43D91EF34FBDE7A7A (accessed on 23 November 2022). [2]

Notes

[1] Please note that information on final consumption expenditure is only available at an aggregated level, as the breakdown in the supply-and-use tables for the underlying consumption items does not allow for a split between the household sector and the NPISH sector. That means that assumptions will need to be made on this split for underlying items. For that purpose, it will need to be assessed what type of consumption items are most likely consumed by NPISHs.

[2] An alternative is to treat all persons within an institutional household as separate one-person households in compiling the distributional results. This may be preferred when the number of institutional households in a specific country is relatively large or has a large representation in specific household groups. However, compilers and users need to be aware that this may not do justice to the specific circumstances these individuals live in. Furthermore, they have to be transparent to users on this specific treatment of institutional households.



From:

OECD Handbook on the Compilation of Household Distributional Results on Income, Consumption and Saving in Line with National Accounts Totals

Access the complete publication at:

https://doi.org/10.1787/5a3b9119-en

Please cite this chapter as:

OECD (2024), "Adjustment of National Accounts totals", in *OECD Handbook on the Compilation of Household Distributional Results on Income, Consumption and Saving in Line with National Accounts Totals*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/629e862f-en