REM WORKING PAPER SERIES

National Accounts of Portugal in 2018. Measurement of institutional interrelations in distributive transactions

Susana Santos

REM Working Paper 0305-2023

December 2023

REM – Research in Economics and Mathematics

Rua Miguel Lúpi 20, 1249-078 Lisboa, Portugal

ISSN 2184-108X

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National Accounts of Portugal in 2018.

Measurement of institutional interrelations in distributive transactions.

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Abstract:

Complementing the working paper with the same title - National Accounts of Portugal in 2018 - and subtitle "Integrated economic accounts, matrix representations and extensions" (Santos, 2022), the measurement of institutional interrelations in distributive transactions is now explored in more detail, with a view to facilitating and improving the construction and extension of matrix representations. For the six groups of institutional sectors, identified by the System of National Accounts, starting from the published totals of the current and capital accounts, organized in the form of integrated economic accounts, the nine categories of distributive transactions (disaggregated at the second level) are analysed individually and the possibilities of filling in from-whom-to-whom matrices are explored. Since the resources of some are the uses of others, it will be shown as information about the origin of the resources (from-whom) or the destination of the uses (to-whom) can complete the filling of those matrices.

Like the supply and use tables for industry interrelations in transactions in products, tables with the origin of the resources or the destination of the uses of distributive transactions can have a relevant contribution to the measurement of institutional interrelations. This would take another step towards the possibility of having more credible disaggregation of matrices derived from national accounts (for example, national/social accounting matrices), of undeniable utility in measuring and modelling countries' economic activity.

Key words: National Accounts; Social Accounting Matrix

JEL Codes: E01; E16

Notes:

- This is the English version of the REM (Research in Economics and Mathematics) Working Paper 0306-2023: https://rem.rc.iseg.ulisboa.pt/wps/pdf/REM_WP_0306_2023.pdf.
- This paper is also available in: http://hdl.handle.net/10400.5/29734, with the corresponding spreadsheet (excel file).

(December 2023)

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ACRONYMS AND ABBREVIATIONS	
ESA European System of National and Regional Accounts in the European Union	
EU European Union	
GNI Gross National Income	
IEA Integrated Economic Accounts Table	
INE Instituto Nacional de Estatística - Statistics Portugal (Portuguese Statistical Office)	

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ISWGNA ... Intersecretariat Working Group on National Accounts - with representatives of the United Nations, European Commission, International Monetary Fund, Organisation for Economic Cooperation and Development and World Bank

NPISHs ... Non-Profit Institutions Serving Households

SNA ... System of National Accounts

VAT ... Value added type taxes

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1. Introduction

This working paper complements other with the same title - National Accounts of Portugal in 2018 - and subtitle "Integrated economic accounts, matrix representations and extensions" (Santos, 2022) exploring some details related to the measurement of institutional interrelations in distributive transactions, with a view to facilitating and improving the construction and extension of matrix representations. Both are part of a larger work, of which they are intended to be a real illustrative case.

Since distributive transactions are flows recorded by current and capital accounts, this working paper focuses on them, within the scope of (non-financial) national accounts – produced and made available by the *Instituto Nacional de Estatística* (*INE*) - Statistics Portugal (Portuguese Statistical Office).

As in the initial working paper, the definitions and compilation of national accounts' statistical data of Portugal, continue to be based on the current version (2008) of the SNA - System of National Accounts (ISWGNA,2009), although the aforementioned source of information follow the current version (2010) of the ESA - European System of National and Regional Accounts in the European Union (EU, 2013), which is the adaptation of SNA to the European Union.

The level of aggregation continues to be high, not only to continue the intention to confirm and show in a simpler way the consistency of the underlying system, but also by the unavailability or conditional availability of information. The codes corresponding to the transactions and institutional sectors also accompany (almost always) the explanation.

Although for some it was possible to go a little further, from the published information, we did not go beyond the first level of disaggregation in the institutional sectors and the second level in distributive transactions. We will try to show the possibility of going a little further in the grand totals of all distributive transactions, with the knowledge of the origin of the resources or the destination of the uses – origin "or" destination because, being the resources of some the uses of others, one is enough. Thus, resources and uses are worked out, from an expanded version of the part relating to the above-mentioned accounts (current and capital) of the IEA - Integrated Economic Accounts Table, compiled for the first working paper, from the accounts of the institutional sectors, published by *INE*.

While for transactions in products, or goods and services, already exist the supply and use tables, from which it is possible to study, in more or less detail, various aspects of relations between industries, we now explore an approach to the relations between institutional sectors with regard to distributive transactions. Let's say that, while the former feed the study of the system of production, the latter would feed the study of the system of distribution.

In fact, for the reality worked here, supply and use tables are published for 88 industries and 98 products, from which in the initial work (Santos, 2022) we treated in an aggregated way, for 10 industries and 10 products, the interrelations underlying the system of production, in the accounting

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matrix presented in Section 4.2 d). Now, from the published totals for 6 institutional sectors and 9 distributive transactions, we have sought to address the interrelations underlying the distributive system by filling in the gaps from a proposal for an expanded IEA. Now, based on the published totals for 6 institutional sectors and 9 distributive transactions, we sought to address the interrelations underlying the distributive system by filling in the missing parts from proposal to expand the uses and resources of institutional sectors, by institutional sectors of destination and origin. We know that, in the national accounts, the detail of the relations between industries with regard to transactions in products can go as far as the supply and use tables allow. We explore here the idea that the detail of institutional interrelations with regard to distributive transactions can go as far as the availability of information on their origin or destination, in expanded IEAs or others, allow. Thus, knowing that INE and, certainly, other countries' statistical offices, have teams working on that information, the corresponding disclosure, at a level of detail considered non-confidential, would avoid many less correct estimates and would be a better starting point for the research of a greater detail with the use of statistics beyond of national accounts, such as the household surveys. In turn, information of the essential about the sources and the methods used in the underlying calculations (metadata), would, certainly, allow a more documented and rigorous research.

This work began with the treatment of a small series, for the period 2017-2020, of from-whom-to-whom matrices, for the above-mentioned transactions and institutional sectors, not published but provided particularly by *INE*, with the non-disclosure recommendation. Thus, from the first level of disaggregation in the institutional sectors and from the second level in the distributive transactions, coefficients representative of the proportions of each cell (interinstitutional flow) in the total of each row (of resources of the institutional sector) and of each column (of uses of the institutional sector) were calculated. The intention was, in a first approach, to explore the stability of these coefficients and identify behaviors so that they can, eventually, from broader series, update and design matrices of coefficients that can be applied to the published information, that is, totals in row and column. The failure of such an intention, the experience of this work and some contacts with someone involved in the production of those matrices (to whom the author is very grateful), led us to this working paper.

Thus, following these introductory notes, Chapter 2 describes, in a systematic way, the institutional sectors and transactions covered by this work and inserts them into the various forms of representation of national accounts. Chapter 3, for each of the nine categories that make up the group of transactions under study, starting from its main components and the published information for total resources and uses, compiled in an IEA (table), constructs from-whom-to-whom matrices by filling in the missing cells with the information from a proposal for an expanded IEA. Finally, these matrices are aggregated and their positioning in the in already worked matrix representations is identified. The concluding remarks, in Chapter 4, bring together a number of arguments in favour of publishing the proposed information.

2. Institutional sectors and distributive transactions, description and representation³

2.1. Meaning and disaggregation

Resuming the introduction to the aforementioned initial work (Santos, 2022), institutional sectors are mutually exclusive groups of institutional units, that is, entities with legal responsibility for their actions and various economic functions in the country. Depending on whether or not they are involved in the country's economic activities for a year or more, institutional units are considered resident and non-resident, respectively.

The resident institutional units constitute the "economy" (often associated with the S1 code) and are grouped on the basis of their main functions, behaviours and objectives. Two types of resident institutional units are distinguished: 1) persons or groups of persons; and, 2) legal or social entities whose existence is recognized by law or by society, regardless of the persons, or other entities, that may own or control them. The institutional sector corresponding to the first type is that of "households" (code S14). The second type is organized in the following sectors: "non-financial corporations" (code S11); "financial corporations" (code S12); "general government" (code S13); and "non-profit institutions serving households" (code S15).

All non-resident institutional units which have economic links with resident units constitute the institutional sector "rest of the world" (code S2).

The systems of national accounts, basic and European, foresee some levels of disaggregation for any of the above-mentioned sectors, for which some national accounts are produced. We will not go into that detail because we will not consider it.

In turn, distributive transactions (codes D) are one of the four groups of flows recorded by national accounts. They include, on the one hand, transactions in which the income generated in the process of production is distributed among labour, capital and general government, and, on the other hand, transactions involving redistribution of the income and wealth. As we will see in Chapter 3, this group has nine categories of transactions, in which there may be several levels of disaggregation, although we will not go beyond the first.

2.2. Positioning in flow accounts; origin and destination

Although the published information on distributive transactions integrates the accounts of the institutional sectors, not identifying the accounts of the SNA in which they are recorded, we resume here the compilation made in Santos (2022) in an IEA (table). Therefore, since those transactions are recorded in the current and capital (flow) accounts (the last, within the scope of accumulation

³ In order not to overload the description, the information in the first line of the header will not be mentioned.

accounts), we will position them in the corresponding parts, also treated in Chapter 2 – Section 2.1 and 2.2.a) of Santos (2022).

For the set to be more visible, some tables have a smaller font size, so when reading the file, it is suggested to use the zoom + function.

i) Current accounts - record the uses and resources of transactions associated, on the one hand, to the production and (intermediate and final) consumption of goods and services, and, on the other hand, to the generation, distribution and redistribution of income. The former are transactions in products. The latter are distributive transactions.

Given the focus of this work, we will exclude the production and external of goods and services accounts.

- i.1) Primary distribution of income account composed of (sub)accounts of generation of income and allocation of primary income, records the distribution of income generated in the process of production added value, or internal product, through the receipt and payment of remuneration of production factors and taxes, net of subsidies, on production and products. Tables 2.2-1 and 2 (a and b) represent them with records relating to four categories of distributive transactions: compensation of employees (code D1); taxes on production and imports (code D2); subsidies (code D3); and property income (code D4). The balancing item of the account, seen as a whole, is the balance of primary income, also known as national product or national income⁴.
- i.2) Secondary distribution of income account and redistribution of income in kind account record the (re)distribution of the balance of primary income national income, through the receipt and payment of current transfers. Tables 2.2-3 (a and b) represent them with records relating to three categories of distribution op categories of distributive transactions: current taxes on income, wealth, etc. (code D5); social contributions and benefits (code D6); and other current transfers (code D7). The partition of transactions relating to social contributions and benefits (code D6), on the one hand, into net social contributions (code D61) and social benefits except social transfers in kind (code D62) and, on the other hand, into social transfers in kind (code D63), allows the distinction between the secondary and tertiary distribution of income. The first, represented in the account with the same name, records the redistribution through the current transfers other than social transfers in kind and has as balancing item the available income. The second, represented by the redistribution of income in kind account, records the redistribution through the social transfers in kind, made by the general government and the NPISH to households, and has as balancing item the adjusted available income. The latter is equal to the former to the total economy and financial and non-financial corporations and is different for the remaining institutional sectors.

⁴ As can be seen in Section 2.1.b.5) of Santos (2022), p.11, the entrepreneurial income of non-financial and financial corporations can also be identified within its scope.

- i.3) Use of income account records the distribution of disposable income between final consumption and savings. Table 2.2-4 represents it in the variants corresponding to disposable income and adjusted disposable income, both recording a category of distributive transactions: the adjustment for the change in pension entitlements (code D8). The balancing item of this account is the saving.
- ii) Capital account within the scope of accumulation accounts, this account records: acquisitions and disposals of non-financial assets, produced and not produced; internal bookkeeping transactions linked to production (such as changes in inventories, acquisitions less disposals of valuables and consumption of fixed capital); and redistribution of wealth by means of capital transfers. Table 2.2-5 (a and b) represents it by recording the last category of distribution operations: capital transfers (code D9).

In this account, instead of uses and resources, we have changes in assets and changes in liabilities and net worth. On the other hand, for reasons beyond the scope of this work, capital transfers appear in the side of changes in liabilities and net worth with the distinction "receivable" and "payable", the latter of which has a negative sign. We will treat "capital transfers payable" and "capital transfers receivable" in the same way as the uses and resources, respectively, of the other eight categories of transactions.

We have, therefore, the nine categories of distribution transactions properly positioned in the national accounts where they are recorded and a first approach to their meaning. For the first eight categories (codes D1 to D8) we have information on the total uses and resources of the various institutional sectors. For the last category (code D9) we have information on the total payable and receivable by the various institutional sectors. We know that the resources of some are the uses of others, or what some have to receive will be paid for by others. This is where institutional interrelations arise, the measurement of which may be possible from information regarding the origin of the resources (fromwhom), or of the part to be received, or the destination of the uses (to-whom), or of the part to be paid. Thus, the possibilities of disaggregating the distributive transactions in matrix representations would be expanded, avoiding, in many cases, the use of intuition and subjectivity of its users.

2.2-1a. Part of IEA relating to the primary distribution of income account - generation of income (sub)account - uses.

		Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
			Rest of the	Total of the	NPISHs	Households	General	Financial	Non-		
			World	Economy			Government	Corporations	Financial		
									Corporations		
										Code	Transactions and balancing items
		Uses								I	T
										Blg	Value added, gross / Gross domestic product
										Bln	Value added, net / Net domestic product
l II		91 633		91 633			22 030		59 271		Compensation of employees
account	_	71 223		71 223	2 535	2 636	16 098	2 782	47 171	D11	Wages and salaries
	m	20 410		20 410	978	317	5 932	1 083	12 100	D12	Employers' social contributions
H	account	31 298		31 298						D2	Taxes on production and imports
nco		28 075		28 075						D21	Taxes on products
ofi	ofincome	3 223		3 223	8	1 021	0	469	1 725	D29	Other taxes on production
00	inc	-2 393		-2 393						D3	Subsidies
uti				- 357						D31	Subsidies on products
distribution of income	Generation	-2 036		-2 036	- 265	- 585	- 302	- 3	- 881	D39	Other subsidies on production
list	rat										
	ene	63 245		63 245	650	13 042	5 548	4 264	39 742	B2g	Operating surplus, gross
na	Ğ	21 401		21 401		21 401				B3g	Mixed income, gross
Primary		34 097		34 097	650	10 166	5 468	956	16 857	P51c1	Consumption of fixed capital on gross operating surplus
		1 919		1 919		1 919				P51c2	Consumption of fixed capital on gross mixed income
		29 149		29 149	0	2 876	80	3 308	22 885	B2n	Operating surplus, net
		19 481		19 481		19 481				B3n	Mixed income, net

2.2-1b. Part of IEA relating to the primary distribution of income account - generation of income (sub)account - resources.

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total		
		Non-	Financial	General	Households	NPISHs	Total of the	Rest of the			
		Financial	Corporations	Government			Economy	World			
		Corporations									
Code	Transactions and balancing items										
									Resources		
Blg	Value added, gross / Gross domestic product	99 856	8 597	27 275	37 831	3 907	205 184		205 184		
B1n	Value added, net / Net domestic product	82 999	7 640	21 807	25 746	3 257	169 168		169 168		
D1	Compensation of employees										-
D11	Wages and salaries										Prin
D12	Employers' social contributions									Ge	mary
D2	Taxes on production and imports									Generation	
D21	Taxes on products									rati	distributi
D29	Other taxes on production									ion	rib
D3	Subsidies									of	utio
D31	Subsidies on products									inc	=
D39	Other subsidies on production									ofincome	of i
											inco
B2g	Operating surplus, gross									account	ome
B3g	Mixed income, gross									un	
P51c1	Consumption of fixed capital on gross operating surplus									1	accoun
P51c2	Consumption of fixed capital on gross mixed income										mt
B2n	Operating surplus, net										
<i>B3n</i>	Mixed income, net										

2.2-2a. Part of IEA relating to the primary distribution of income account - allocation of primary income (sub)account - uses.

COM	RRENI ACCOUNTS										
		Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
			Rest of the	Total of the	NPIS Hs	Households	General	Financial	Non-		
			World	Economy			Government	Corporations	Financial		
								_	Corporations		
										Code	Transactions and balancing items
	•	Uses									
										B2g	Operating surplus, gross
										B3g	Mixed income, gross
										B2n	Operating surplus, net
										<i>B3n</i>	Mixed income, net
mt	ınt	461	461							D1	Compensation of employees
03	account	402	402							D11	Wages and salaries
38		59	59							D12	Employers' social contributions
) H	income									D2	Taxes on production and imports
nec	nco									D21	Taxes on products
ofi										D29	Other taxes on production
Primary distribution of income account	of primary									D3	Subsidies
uti	rin									D31	Subsidies on products
fri b	of p									D39	Other subsidies on production
dis	on (47 565	6 762	40 803	12	644	6 918	11 396	21 833		Property income
ry	Allocation	18 729	2 457	16 272	10	596	6 903	4 624			Interest
ma	loc	23 955	2 393	21 562				4 803	16 760		Distributed income of corporations
Pri	A	2 360	1 550	810	0	0	0	311	499	D43	Reinvested earnings on foreign direct investment
, ,		2 019	362	1 657	0	0	0	1 657		D44	Other investment income
		501		501	2	48	16	0	436	D45	Rents
		200 173		200 173	799	137 141	30 229	4 997	27 007		Balance of primary incomes, gross / National income,
		164 157		164 157	149	125 056	24 762	4 041	10 149	B.5n	Balance of primary incomes, net / National income, net

2.2-2b. Part of IEA relating to the primary distribution of income account - allocation of primary income (sub)account - resources.

Code	Transactions and balancing items	S.11 Non- Financial Corporations	S.12 Financial Corporations	S.13 General Government	S.14 Households	S.15 NPISHs	S.1 Total of the Economy	S.2 Rest of the World	Total		
code	Transactions and outdoing tens								Resources	l	
B2g	Operating surplus, gross	39 742	4 264	5 548	13 042	650	63 245		63 245		
B3g	Mixed income, gross				21 401		21 401		21 401		
B2n	Operating surplus, net	22 885	3 308	80	2 876	0	29 149		29 149		
B3n	Mixed income, net				19 481		19 481		19 481		
D1	Compensation of employees				91 941		91 941	153	92 095		F
D11	Wages and salaries				71 491		71 491	134	71 625	Allocatio	Primary
D12	Employers' social contributions				20 450		20 450	20	20 470	300	naı
D2	Taxes on production and imports			30 942			30 942	356	31 298	ltio	
D21	Taxes on products			27 852			27 852	224	28 075	n o	distribution
D29	Other taxes on production			3 091			3 091	132	3 223	of prim	rib
D3	Subsidies			- 799			- 799	-1 594	-2 393	<u>B</u> .	E
D31	Subsidies on products			- 121			- 121	- 236	- 357	ary	
D39	Other subsidies on production			- 678			- 678	-1 358	-2 036	y ii)fi
D4	Property income	9 098	12 129	1 457	11 401	161	34 246	13 319	47 565	income	ofincome
D41	Interest	1 755	7 893	290	2 936	91	12 965	5 765	18 729	me	me
D42	Distributed income of corporations	6 274	3 238	707	6 904	112	17 236	6 720	23 955	aco	
D43	Reinvested earnings on foreign direct investment	936	615	49	0	- 50	1 550	810	2 360	accou	account
D44	Other investment income	82	382	61	1 467	2	1 994	24	2 019		ınt
D45	Rents	50	0	351	94	7	501		501		
B5g	Balance of primary incomes, gross / National income,										
B.5n	Balance of primary incomes, net / National income, net										

2.2-3a. Part of IEA relating to the secondary distribution of income and redistribution of income in kind accounts - uses.

	Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
		Rest of the	Total of the	NPISHs	Households	General	Financial	Non-		
		World	Economy				Corporations	Financial		
		,, 0114	Leonomy			Government	Cor por acrons	Corporations		
								-	Code	Transactions and balancing items
	Uses									
									B5g	Balance of primary incomes, gross / National income,
nt nt									B.5n	Balance of primary incomes, net / National income, net
Secondary distribution of income account	20 931	413	20 518	13	13 601	40	1 073	5 791	D5	Current taxes on income, wealth, etc.
ac	20 366	413	19 953	11	13 164	17	1 036	5 725	D51	Taxes on income
me	565		565	2	436	23	38	66	D59	Other current taxes
100	28 342	70	28 272		28 272				D61	Net social contributions
f.i.	39 525	1 884	37 641	323	26	33 453	2 088	1 751	D62	Social benefits other than social transfers in kind
n G	23 395	6 755	16 639	109	6 051	4 597	4 150	1 732	D7	Other current transfers
utic	3 087	180	2 907	34	1 126	34	885	828	D71	Net non-life insurance premiums
rib	3 122	314	2 808				2 808		D72	Non-life insurance claims
list	0		0			0			D73	Current transfers within general government
, d	645	452	192			192			D74	Current international cooperation
daı	14 842	5 809	9 033	75	4 925	2 672	457	904	D75	Miscellaneous current transfers
con	1 699		1 699			1 699			D76	VAT- and GNI-based EU own resources
Sec										
	204 660		204 660	4 093	137 266	39 383	3 937	19 981		Disposable income, gross
	168 644		168 644	3 443	125 181	33 916	2 980	3 124	B6n	Disposable income, net
o u									B6g	Disposable income, gross
fior kir									B6n	Disposable income, net
but e in	23 316		23 316	4 134		19 182			D63	Social transfers in kind
stributio ome in k account	0		0							
Redistribution of income in kind account	204 660		204 660	- 41	160 582	20 201	3 937	19 981		Adjusted disposable income, gross
~ .	168 644		168 644	- 691	148 497	14 733	2 980	3 124	<i>B7n</i>	Adjusted disposable income, net

2.2-3b. Part of IEA relating to the secondary distribution of income and redistribution of income in kind accounts – resources.

Code	Transactions and balancing items	S.11 Non- Financial Corporations	S.12 Financial Corporations	S.13 General Government	S.14 Households	S.15 NPISHs	S.1 Total of the Economy	S.2 Rest of the World	Total	
Couc	Transactions and odianong rons								Resources	1
B5g	Balance of primary incomes, gross / National income,	27 007	4 997	30 229	137 141	799	200 173		200 173	
B.5n	Balance of primary incomes, net / National income, net	10 149	4 041	24 762	125 056	149	164 157		164 157	
D5	Current taxes on income, wealth, etc.			20 679			20 679	252	20 931	Sec
D51	Taxes on income			20 114			20 114	252	20 366	on o
D59	Other current taxes			565			565	0	565	dar
D61	Net social contributions	1 751	2 069	23 860	26	394	28 100	150	28 250	уd
D62	Social benefits other than social transfers in kind				39 295		39 295	231	39 525	ista
D7	Other current transfers	497	4 182	2 706	8 754	3 345	19 484	3 911	23 395	ıdi:
D71	Net non-life insurance premiums		2 808				2 808	279	3 087	ıti o
D72	Non-life insurance claims	473	877	33	1 495	20	2 897	225	3 122	n o
D73	Current transfers within general government			0			0		0	fin
D74	Current international cooperation			452			452	192	645	0.00
D75	Miscellaneous current transfers	24	497	2 221	7 259	3 325	13 327	1 515	14 842	me
D76	VAT- and GNI-based EU own resources						0	1 699	1 699	Secondary distribution of income account
B6g	Disposable income, gross									nt
B6n	Disposable income, net									
B6g	Disposable income, gross	19 981	3 937	39 383	137 266	4 093	204 660		204 660	±i ₽
B6n	Disposable income, net	3 124	2 980	33 916	125 181	3 443	168 644		168 644	edis nco
D63	Social transfers in kind				23 316		23 316		23 316	istrib ome acco
					0		0		0	bution in k
B7g	Adjusted disposable income, gross									Redistribution o income in kind account
B7n	Adjusted disposable income, net									I of

2.2-4a. Part of IEA relating to the use of disposable income and of use of adjusted disposable income accounts - uses.

CURRENT	<u>ACCOUNTS</u>									
	Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
		Rest of the	Total of the	NPISHs	Households	General	Financial	Non-		
		World	Economy			Government	Corporations	Financial		
			·				•	Corporations		
								•	Code	Transactions and balancing items
	Uses									
									B6g	Disposable income, gross
of disposable ome account									B6n	Disposable income, net
oosable	166 706		166 706	4 134	127 737	34 834			Р3	Final consumption expenditure
ispo	73		73				73		D8	Adjustment for the change in pension entitlements
of di ome										
Use o	38 046		38 046	- 41	9 601	4 549	3 956	19 981	B8g	Saving, gross
D :=	2 030		2 030	- 691	-2 484	- 919	2 999	3 124	B8n	Saving, net
	- 517	- 517							B12	Current external balance
l ne									B7g	Adjusted disposable income, gross
justed income nt									B7n	Adjusted disposable income, net
lju: e in	166 706		166 706	0	151 054	15 652			P4	Actual final consumption
of adjusted sable incorr account	73		73				73		D8	Adjustment for the change in pension entitlements
e o ac										
Use of addisposable accou	38 046		38 046	- 41	9 601	4 549	3 956	19 981	B8g	Saving, gross
Þ	2 030		2 030	- 691	-2 484	- 919	2 999	3 124	B8n	Saving, net

2.2-4b. Part of IEA relating to the use of disposable income and of use of adjusted disposable income accounts - resources.

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total	
		Non-	Financial	General	Households	NPISHs	Total of the	Rest of the	202	
		Financial	Corporations			111111111111111111111111111111111111111	Economy	World		
		Corporations		Government			Leonomy	World		
Code	Transactions and balancing items	Coi poi ations								
Code	Transactions and balancing items								Resources	1
D6a	Disposable income, gross	19 981	4 029	39 383	137 266	4 093	204 752		204 752	
B6g B6n		3 124		33 916			168 736			
	Disposable income, net	3 124	3 0/2	33 910	123 161	3 443	100 / 30		168 736	
P3	Final consumption expenditure								166 706	
D8	Adjustment for the change in pension entitlements				73		73		73	of dis
										sposable
B8g	Saving, gross									sable o unt
B8n	Saving, net									ble nt
B12	Current external balance									
B7g	Adjusted disposable income, gross	19 981	4 029	20 201	160 582	- 41	204 752		204 752	d
<i>B7n</i>	Adjusted disposable income, net	3 124	3 072	14 733	148 497	- 691	168 736		168 736	Us
P4	Actual final consumption								166 706	Use of ad disposable accou
D8	Adjustment for the change in pension entitlements				73		73		73	f ac
B8g	Saving, gross									justed income nt
B8n	Saving, net									ne

2.2.5a. Part of IEA relating to the capital account - changes in assets

ACCUMULATION ACCOUNTS

TICCONICE	ATION ACCO	701110								
	Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
		Rest of the	Total of the	NPISHs	Households	General	Financial	Non-		
		World	Economy			Government	Corporations	Financial		
							F		Code	Transactions and balancing items
CT.									Couc	Transactions and balancing items
Chan	ges in assets									
									B8n	Saving, net
									B12	Current external balance
	37 529		37 529	634	7 257	3 818	224	25 596	P5g	Gross capital formation
	1 513		1 513	- 16	-4 828	-1 650	- 732	8 739	P5n	Net capital formation
			35 953	626	7 127	3 790	224	24 187	P51g	Gross fixed capital formation
	-36 016		-36 016	- 650	-12 085	-5 468	- 956	-16 857	P51c	Consumption of fixed capital
	1 432		1 432	5	56	18	0	1 353	P52	Changes in inventories
ınt	144		144	4	75	10	0	56	P53	Acquisitions less disposals of valuables
Capital account	0	307	- 307	- 3	-1 152	34	- 74	888	NP	Acquisitions less disposals of non-produced assets
ac									D9r	Capital transfers, receivable
ital									D91r	Capital taxes, receivable
api									D92r	Investment grants, receivable
C									D99r	Other capital transfers, receivable
									D9p	Capital transfers, payable
									D91p	Capital taxes, payable
									D92p	Investment grants, payable
									D99p	Other capital transfers, payable
									1	7 1 7
									B101	Changes in net worth due to saving and capital
	0	-2 563	2 563	- 255	3 980	- 716	4 508	-4 954	B9	Net lending (+) / net borrowing (-)

2.2-5b. Part of IEA relating to the capital account - changes in liabilities and net worth

ACCUMULATION ACCOUNTS

								710001	IULATION A	
		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total	
		Non-	Financial	General	Households	NPISHs	Total of the	Rest of the		
		Financial	Corporations	Government			Economy	World		
Code	Transactions and balancing items									
0000	Trunc worker in white commonly wond						Changes	in liabilities a	nd net worth	
B8n	Saving, net	3 124	2 999	- 919	-2 484	- 691	2 030		2 030	
B12	Current external balance	0 12 ,		717	2 70 7	V/1	2 020	- 517	- 517	
P5g	Gross capital formation								37 529	
P5n	Net capital formation								1 513	
P51g	Gross fixed capital formation									
P51c	Consumption of fixed capital								-36 016	
P52	Changes in inventories								1 432	
P53	Acquisitions less disposals of valuables								144	C
NP	Acquisitions less disposals of non-produced assets								0	Capital account
D9r	Capital transfers, receivable	1 751	1 200	978	491	421	4 841	173	5 014	tal
D91r	Capital taxes, receivable			0			0	0	0	ac
D92r	Investment grants, receivable	1 384	1	660	144	272	2 460	58	2 518	100
D99r	Other capital transfers, receivable	367	1 199	318	348	149	2 380	115	2 496	Εŧ
D9p	Capital transfers, payable	- 202	- 498	-2 392	- 6	- 5	-3 102	-1 912	-5 014	
D91p	Capital taxes, payable		0		0	0	0	0	0	
D92p	Investment grants, payable	0		- 638			- 638	-1 881	-2 518	
D99p	Other capital transfers, payable	- 202	- 498	-1 754	- 6	- 5	-2 465	- 31	-2 496	
B101	Changes in net worth due to saving and capital	4 673	3 701	-2 332	-1 999	- 274	3 769	-2 256	1 513	
B9	Net lending (+) / net borrowing (–)									

2.3. Matrix representations

Following Chapter 4 of Santos (2022), we distinguish matrix representations of national accounts in supply and use tables and accounting matrices.

The former, representative of the production and generation of primary income processes, and corresponding interrelations, allow the disaggregation, by industries and products, of production and distributive transactions (compensation of employees, taxes on production and imports, and subsidies), represented in the production account, goods and services account and generation of income account (sub-account of the primary distribution of income account). Input-Output matrices can be derived from them.

The latter broaden the scope of the previous ones to the income and wealth distribution process. They can represent only flows, that is, transactions and other flows, or flows and *stocks*, that is, they can represent all or part of the sequence of national accounts. In them, it is possible or, at least, feasible to measure institutional interrelations. With different treatments at the level of current and goods and services accounts, we identified national accounting and social accounting matrices – the first, representing exactly the sequence of national accounts, defined in the last two versions of the System of National Accounts (1993 and 2008); the second, in a version developed within the scope of the author's research work based on the works of R. Stone and G. Pyatt, in line with the first two versions of that System (1953 and 1968), focusing on issues of income (re)distribution⁵.

Having regard to the intention to measure the institutional interrelations in distributive transactions, which, as we saw in the previous section, are recorded in the current and capital (flow) accounts, we will restrict this work to the representations that cover them. Therefore, we will do below an approach based on what we have called complete (aggregated) versions of the matrices of transactions with

The last two are the most representative in the framework of this work.

It should also be recalled that the first two versions of the SCN (1953 and 1968) were prepared by a group of specialists in national income under the coordination of R. Stone, to whom G. Pyatt was an assistant in the Department of Applied Economics, at the University of Cambridge.

⁵ In addition to the references to this work, relating to the 2008 SCN (ISWGNA (2009)) and to one of the works by R. Stone (Stone, 1981), we complete this information with the following:

⁻ ISWGNA. (1993). *System of National Accounts* 1993, Bruxelas (Bélgica)/Luxemburgo, Nova York (EUA), Paris (França), Washington, D.C. (EUA). [https://unstats.un.org/unsd/nationalaccount/sna1993.asp]

⁻ UN (1968). *A System of National Accounts*, New York (ST/ESA/STAT/SER.F/2/Rev.3). [https://unstats.un.org/unsd/nationalaccount/docs/1968SNA.pdf]

⁻ UN (1953). *A System of National Accounts and Supporting Tables*, New York (ST/ESA/STAT/SER.F/2). [https://unstats.un.org/unsd/nationalaccount/docs/1953SNA.pdf]

⁻ Stone, R. (1986) "Nobel Memorial Lecture 1984. The Accounts of Society", *Journal of Applied Econometrics*, 1(1), 5-28. [http://dx.doi.org/10.1002/jae.3950010103]

⁻ Pyatt, G. (1991) "Fundamentals of Social Accounting". *Economic Systems Research*, 3(3), 315-341. [https://doi.org/10.1080/09535319100000024]

gross balancing items. We leave for the end of the next chapter the approach of a part of a disaggregated version, presented in Santos (2022), Section 4.2d), pp. 77-94.

In both the case of the national accounting matrix and the social accounting matrix, each column and row pair represents an account with the uses represented in the column and the resources in the row. On the other hand, reflecting the existence of equilibrium in the accounts, the sum of each column is equal to the sum of the corresponding row.

Tables 2.3-1 and 2.3-2 are a fusion of the complete and simplified versions of the national and social accounting matrices presented in Santos (2022) - in Sections 4.2a), pp. 51-60, and 4.2c), pp. 68-76, respectively. These are matrices representing the totals of transactions recorded in the sequence of national accounts, where to the description of the accounts, in the rows and columns, preceded by the designation of the simplified version in curved brackets, we added the numbers of the tables in which they are represented in the previous section, in square brackets. In turn, to the description of the cells that explicitly include distributive transactions in which institutional interrelations can be identified, in addition to a thicker border, we added their identifying codes, in order to facilitate the association with the development that we will make in Chapter 3, where their implicit inclusion will also be mentioned.

Table 2.3-1. Aggregated national accounting matrix of transactions with gross balancing items.

Contast Produção Contast Pro		Ų	tilizações/Variações de			Economia	l			() G (1 (1	
Productos Prod			ativos		Contas Produção			Contas instituições		(rw) Conta do resto do	T . 1
(f) Fatores de produção a importação, produção a importação, láguidos de substidios 2 176 279 183 503 (g) Produtos (p) Produtos (portação de substidios 2 180 200 183 503 (g) Produtos (bens e serviços) (dis) Corrente [Quadros 2.2-3 e 4] (dis) Corren			,		(a) Atividades	· · · ·	· /	· / 1	(dif) Financeira		I otal
(p) Produtos (bens e serviços) Rendimento nacional, bruto [excluindo impostos sobre a produção, líquidos de subsidios] = 170 030 Rendimento nacional, bruto [excluindo impostos sobre a produção, líquidos de subsidios] = 170 030 At 12 2 412 Transferências de capital [Quadro 2.2-5] (dif) Financeira Rendimento nacional, bruto [excluindo impostos sobre a produção, líquidos de subsidios (D21-D31) = 0 0 Rendimento nacional, bruto [excluindo impostos sobre a produção, líquidos de subsidios (D21-D31) = 0 0 At 12 2 27 730 Rendimento nacional, bruto [excluindo impostos sobre a produção, líquidos de subsidios (D21-D31) = 0 0 Rendimento nacional, bruto [excluindo impostos sobre a produção, líquidos de subsidios (D21-D31) = 0 0 At 15 2 2 412 At 17 0 030 At 18 2 647 At 16 706 At 16			produção	0	[excluindo impostos sobre a produção e a importação, líquidos de subsídios] =		0	0	0	empregados (D1) + Rendimentos de propriedade (D4) =	183 503
Serviços Consumo intermedo		(a) Atividades		0	0	serviços =	0	0	0	0	366 734
Iquidos de subsídios = 170 030 2 412 27 730 98 599 9 122				0		,		0		serviços =	482 647
(dif) Financeira 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			(dic) Corrente [Quadros 2.2-3 e 4]	[excluindo impostos sobre a produção e a importação, líquidos de subsídios] =	produção, líquidos de subsídios (D29-D39) =	produtos, líquidos de subsídios (D21-D31) =	correntes (D5,D61, D62,D7, D8) =	0	0	(D5,D61,D62,D7) =	307 895
(dif) Financeira 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Contas instituiç	(dik) Capital [Quadro 2.2-5]				Poupança bruta =	(D9) + Aquisições líquidas de cessões de ativos não produzidos =	0	Transferências de capital (D9) + Aquisições líquidas de cessões de ativos não produzidos =	42 887
mundo [Ourdres 2 2 1 2 3 4 e 5] [Ourdres 2 2 1 2 3 4 e 5] [Ourdres 2 2 1 2 3 4 e 5] [Ourdres 2 2 1 2 3 4 e 5] [Ourdres 3 2 1 2 3 4 e 5] [Ourdres 4 control of the con		•	(dif) Financeira	0	0	0	0	/necessidade(-) líquida de financiamento =	financeiros /Aumento líquido do passivo =	+ Discrepância estatística =	23 892
propriedade (D4) – subsidios (D21-D31) – 13 472 –1 225 88 182 4 544 173 12 434	mun	do		empregados (D1)+ Rendimentos de propriedade (D4) =	produção, líquidos de subsídios (D29-D39) =	Impostos sobre os produtos, líquidos de subsídios (D21-D31) =	correntes (D5,D61,D62,D7) =	(D9) =	ativos financeiros =		117 580
Total 183 503 366 734 482 647 307 895 42 887 23 892 117 580	Total									117 580	

Table 2.3-2. Aggregated social accounting matrix of transactions with gross balancing items.

	Ų	Uses/Changes in assets			Economy	y			(rw) Rest of the world	
				Production accounts			Institutions accounts		\ /	Total
		ces/ Changes ties and net worth	(f) Factors of production [Tables 2.2-1 and 2]	(a) Activities (industries)	(p) Products(goods and services)	(dic) Current [Tables 2.2-3 and 4]	(dik) Capital [Table 2.2-5]	(dif) Financial	account [Tables 2.2-1,2,3,4 and 5]	Total
	accounts	(f) Factors of production [Tables 2.2-1e2]	0	Value added, gross [excluding taxes on production and imports, net of subsidies] = 176 279	0	0	0	0	Compensation of employees (D1) + Property income (D4) = 7 224	183 503
.	production [Tables 2.2-1e2] (a) Activities (industries)		0	0	Output of goods and services = 366 734	0	0	0	0	366 734
	Ċ	(p) Products (goods and services)	0	Intermediate consumption = 189 269	Trade and transport margins = 0	Final consumption = 166 706	Gross capital formation = 37 529	0	Exports = 89 144	482 647
Economy		(dic) Current [Tables 2.2-3 and 4]	National income, gross [excluding taxes on production and imports, net of subsidies] =	=	Taxes on products, net of subsidies (D21-D31) =	Current transactions (D5,D61, D62,D7, D8) =	0	0	Current transactions (D5,D61,D62,D7) =	307 895
	con		170 030	2 412	27 730	98 599			9 122	
	Institutions accounts	(dik) Capital [Table 2.2-5]	0	0	0	Gross saving = 38 046	Capital transfers (D9) + Aquisitions less disposals of non-produced assets = 2 622	0	Capital transfers (D9) + Acquisitions less disposals of non-produced assets = 2 219	42 887
		(dif) Financial	0	0	0	0	Net lending (+) / net borrowing (-) = 2 563	Net acquisitions of financial assets / liabilities = 11 457	Net acquisitions of liabilities + Statistical discrepancy = 9 871	23 892
acco	unt	est of the world t 2.2-1,2,3,4 and 5]	Compensation of employees (D1)+ Property income (D4) =	Other net taxes on production, net of subsidies (D29-D39) =	Imports + Taxes on products, net of subsidies (D21-D31) =	Current transactions (D5,D61,D62,D7) =	Capital transfers (D9) =	Net acquisitions of financial assets =		117 580
			13 472	-1 225	88 182	4 544	173	12 434		
Total	1		183 503	366 734	482 647	307 895	42 887	23 892	117 580	

3. Identification of institutional interrelations in distributive transactions. Construction of from-whom-to-whom matrices⁶

For reasons of coherence with previous working paper (Santos, 2022) and with the previous parts of this, we will maintain in this chapter the statistical information unit in millions (10⁶) of euros, with zero decimal places, although some cases could become more comprehensible in thousands (10³) of euros and some rounding errors could be avoided.

Once again, for the set to be more visible, some tables have a smaller font size, so when reading the file, it is suggested to use the zoom + function.

We will continue to represent uses in column and resources in row.

For a better understanding of the various steps in the construction of from-whom-to-whom, we will represent in italics the values calculated from those we are considering as available.

In the categories of transactions for which we have information to work with at the second level of disaggregation, the totals will be calculated by the sum of the components.

In Sections 3.1 to 3.9, we will begin by identifying the positioning of each category of transactions in the flow accounts and matrix representations presented in Sections 2.2 e 2.3, respectively.

3.1. Compensation of employees

With two components - wages and salaries and employers' social contributions, the compensation of employees (code D1) is recorded in both subaccounts of primary distribution of income account. The generation of income (sub)account records it as uses of the total economy and its five institutional sectors - Table 3.1-1. The allocation of primary income (sub)account records it as resources of households and the rest of the world and as uses of the rest of the world - Table 3.1-2.

Table 3.1-1. Recording of compensation of employees in the generation of income account (excerpt from Table 2.2-1a)

S.1 Total of the Economy	S.15 NPISHs	S.14 Households	S.13 General Government	S.12 Financial Corporations	S.11 Non- Financial Corporations	Code	Transactions and balancing items
Uses							
91 633	3 514	2 953	22 030	3 866	59 271	D1	Compensation of employees
71 223	2 535	2 636	16 098	2 782	47 171	D11	Wages and salaries
20 410	978	317	5 932	1 083	12 100	D12	Employers' social contributions

⁶ In order not to overload the description, the information in the first line of the header will not be mentioned.

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Table 3.1-2. Recording of compensation of employees in the allocation of primary income account (excerpts from Tables 2.2-2a and b).

S.2			S.14	S.2
Rest of the World			Households	Rest of the World
	Code	Transactions and balancing items		
Uses				Resources
461	D1	Compensation of employees	91 941	153
402	D11	Wages and salaries	71 491	134
59	D12	Employers' social contributions	20 450	20

In terms of matrix representations, it is possible to explicitly identify these transactions with the rest of the world - cells (V, II.1) and (II.1, V) in the national accounting matrix (Table 2.3 -1); and cells (rw, f) and (f, rw) in the social accounting matrix (Table 2.3-2). In turn, transactions in the economy are implicit in the cells representing value added and national income – cells (II.1, I) and (II.2, II.1) in the national accounting matrix; cells (f, a) and (dic, f) in the social accounting matrix.

In the construction of from-whom-to-whom matrices from the information in the tables above, it is possible to fill in the rows and columns of the totals (S1+S2) and deduce the amounts corresponding to some cells, as can be seen in Table 3.1-3.

Thus, for both components of compensation of employees, we have information regarding the total uses (in column):

- of all sectors of resident institutional units (S1), in the economy and in the rest of the world (S1+S2), amounting to 91 633;
- of the rest of the world, that is, of non-resident institutional units (S2), in the economy (S1), amounting to 461.

In turn, also for both components of compensation of employees, we have information regarding the total resources (in row):

- of households (S14), from the economy and the rest of the world (S1+S2), amounting to 91 941;
- of the rest of the world (S2), from the economy (S1), amounting to 153.

With the above information, knowing that the resources of the rest of the world are uses of the economy and vice versa, we can calculate the total transactions (that we are analysing) in the economy, that is, only between resident institutional units, in this case: $91\ 480 = 91\ 633 - 153 = 91\ 941 - 461$.

Table 3.1-3. Possible filling in of the from-whom-to-whom matrices relating to compensation of employees, from the subaccounts of the primary income distribution account.

		S11	S12	S13	S14	S15	S1	S2	S1+S2
l	S11								
l	S12								
l	S13								
l	S14						71 090	402	71 491
l	S15								
ı	S1	0	0	0	0	0	71 090	402	71 491
ı	S2						134	><	134
ı	S1+S2	47 171	2 782	16 098	2 636	2 535	71 223	402	71 625
D12	Employe	s' social con	tributions						
		S11	S12	S13	S14	S15	S1	S2	S1+S2
l	S11								
l	S12								
l	S13								
							20.200	50	20.450
	S14						20 390	59	20 450
	S14 S15						20 390	39	20 450
		0	0	0	0	0	20 390	59	
	S15	0	0	0	0	0			20 450

D1	Compensation of employees	(D11+D12)	
ν_{1}	Compensation of employees	(011 014)	

		1 2						
	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11								
S12								
S13								
S14						91 480	461	91 941
S15								
S1	0	0	0	0	0	91 480	461	91 941
S2						153	><	153
S1+S2	59 271	3 866	22 030	2 953	3 514	91 633	461	92 095

Since, on the one hand, in the economy (S1) only households (S14) have resources and all sectors (S1) have uses and, on the other hand, the rest of the world (S2) has resources and uses, we can now deduce the following:

- a) of the total received by households (S14), 91 480 originates from the economy (S1) and 461 from the rest of the world (S2), we do not know the distribution of the first amount by institutional sectors (S11-S15);
- b) we do not know the origin by institutional sectors (S11-S15) of the total resources of the rest of the world (S2), that is, 153;
- c) of the total used by the sectors of the economy (S1), 91 480 have as destination the economy (S1), that is, the households (S14) and 153 the rest of the world (S2), we do not know the distribution of both values by institutional sectors (S11-S15).

Note that the reading made in c) is equivalent to that made in a) and b), which means that the unknown parts of our matrices correspond to the shaded parts, that is, the origin of the resources of households and the rest of the world, or the destination of the uses of all institutional sectors.

The information we had access to did not help to overcome this lack of knowledge, however, the available amounts, represented in Tables 3.1-1 and 3.1-2 and the deductions made from them and explained in Table 3.1-3 are sufficient for the construction of the aggregated matrices, as we will see in Section 3.10. They also serve as control totals in possible disaggregations of the parts in which they are included, either explicitly or implicitly, see, for example, in Section 4.2, of Santos (2022), the parts relating to: value added, in d.1), p.82, and national income (part relating to labor income), in d.8), p.89.

3.2. Taxes on production and imports

With two components - taxes on products and other taxes on production, the taxes on production and imports (code D2) are recorded in both subaccounts of primary distribution of income account⁷. The generation of income (sub)account records them as uses of the total economy and its five institutional sectors, without apportioning the taxes on the products among the latter - Table 3.2-1. The allocation of primary income (sub)account records them as resources of the general government and the rest of the world - Table 3.2-2.

Table 3.2-1. Recording of taxes on production and imports in the generation of income account (excerpt from Table 2.2-1a).

S.1	S.15	S.14	S.13	S.12	S.11		
Total of the	NPISHs	Households		Financial	Non-		
Economy			Government	Corporations	Financial Corporations		
						Code	Transactions and balancing items
Uses							
31 298						D2	Taxes on production and imports
28 075						D21	Taxes on products
3 223	8	1 021	0	469	1 725	D29	Other taxes on production

Table 3.2-2. Recording of taxes on production and imports in the allocation of primary income account (excerpt from Table 2.2-2b).

		S.13 General Government	S.2 Rest of the World	Total
Code	Transactions and balancing items			
				Resources
D2	Taxes on production and imports	30 942	356	31 298
D21	Taxes on products	27 852	224	28 075
D29	Other taxes on production	3 091	132	3 223

⁷ Total taxes on products is also recorded as resource of the total economy in the production account and in the goods and services account.

These transactions often appear net of subsidies, that is, deducted from the corresponding subsidy amounts, which we will see in the following section. This is the case of matrix representations, in which in the national accounting matrix (Table 2.3-1) it is possible to identify them, on the one hand, explicitly in the transactions with the rest of the world - cell (V, II.I), and on the other hand, once again, implicitly in the transactions in the economy - cells (II.1, I) and (II.2, II.1), representative of value added and national income. In turn, in the social accounting matrix (Table 2.3-2) it is possible to identify them explicitly, not only in transactions with the rest of the world - cells (rw, a) and (rw, p), but also in transactions in the economy – cells (dic, a) and (dic, p).

In the construction of from-whom-to-whom matrices from the information in the tables above, it is possible to fill in the rows and columns of the totals (S1+S2) and deduce the amounts corresponding to some cells, as can be seen in Table 3.2-3.

Table 3.2-3. Possible filling in of the from-whom-to-whom matrices relating to taxes on production and imports, from the subaccounts of the primary income distribution account.

	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11								
S12								
S13						27 852		27 852
S14								
S15								
S1	0	0	0	0	0	27 852		
S2						224	> <	224
S1+S2						28 075		28 075
Other taxe	es on produc	ction		•	•			
	\$11	S12	S13	S14	S15	S1	\$2	S1+S2

	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11								
S12								
S13						3 091		3 091
S14								
S15								
S1	0	0	0	0	0	3 091		3 091
S2						132	>	132
S1+S2	1 725	469	0	1 021	8	3 223		3 223

	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11								
S12								
S13						30 942		30 942
S14								
S15								
S1	0	0	0	0	0	30 942		30 942
S2						356	> <	356
S1+S2						31 298		31 298

Thus, for both components of taxes on production and imports, we can see that 31 298 corresponds to the total uses (in column) of the economy (S1), in the economy and in the rest of the world (S1+S2).

In turn, also for both components of taxes on production and imports, we have information regarding total resources (in row):

- of the general government (S13), from the economy (S1), amounting to 30 942;
- of the rest of the world (S2), from the economy (S1), amounting to 356.

Since the rest of the world only has resources, which are uses of the economy, we can see that the total of transactions (which we are analysing) in the economy, that is, only between resident institutional units, is $30\ 942 = 31\ 928 - 356$, corresponding to the resources of the general government.

In this case, because we do not know the distribution by institutional sectors (S11-S15) of the uses related to taxes on products, it is not possible to make further deductions, which means that the unknown parts of our matrices correspond to the shaded parts in Table 3.2-3.

Once again, the information we had access to did not help to overcome this lack of knowledge, however, the available amounts, represented in Tables 3.2-1 and 3.2-2 and the few deductions made from them and explained in Table 3.2-3 are sufficient for the construction of the aggregated matrices, as we will see in Section 3.10. They also serve as control totals in possible disaggregations of the parts in which they are included, either explicitly or implicitly, see, for example, in Section 4.2, of Santos (2022), d.5), p.86, and d.6), p.87.

3.3. Subsidies

With two components – subsidies on products and other subsidies on production, subsidies (code D3) are recorded in both subaccounts of the primary income distribution account. As mentioned in the previous section, subsidies are often deducted from the values of taxes on production and imports (code D2) and, as such, their registration is identical to them and preceded by the minus sign⁸. Therefore, the generation of income account records them as uses of the total economy and its five institutional sectors, without apportioning the subsidies on products among the latter - Table 3.3-1. The allocation of primary income account, in turn, records them as resources of general government and the rest of the world - Table 3.3-2.

⁸ Similarly, the total subsidies on products is also recorded (preceded by the minus sign) as resource of the total economy in the production account and the goods and services account.

Table 3.3-1. Recording of subsidies in the in the generation of income account (excerpt from Table 2.2-1a).

S.1	S.15	S.14	S.13	S.12	S.11		
Total of the	NPISHs	Households	General	Financial	Non-		
Economy			Government	Corporations	Financial		
					Corporations		
						Code	Transactions and balancing items
Uses							
-2 393						D3	Subsidies
-357						D31	Subsidies on products
-2 036	-265	-585	-302	-3	-881	D39	Other subsidies on production

Table 3.3-2. Recording of subsidies in the allocation of primary income account (excerpt from Table 2.2-2b).

Code	Transactions and balancing items	S.13 General Government	S.2 Rest of the World	Total
				Resources
D3	Subsidies	-799	-1 594	-2 393
D31	Subsidies on products	-121	-236	-357
D39	Other subsidies on production	-678	-1 358	-2 036

Since the matrix representations presented above consider taxes on production and imports net of subsidies, we remit to the previous section the identification of their positioning.

With regard to the construction of from whom-to-whom matrices from the information in the Tables 3.3-1 and 2, as in the previous section, it is possible to fill in the rows and columns of the totals (S1+S2) and deduce the amounts corresponding to some cells, as can be seen in Table 3.3-3.

Table 3.3-3. Possible filling in of the from-whom-to-whom matrices relating to subsidies, from the subaccounts o

D31 Subsidies on products

respices many in or the from whom to whom matrices relating to substates, from the
of the primary income distribution account.

		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11								
	S12								
	S13						-121		-121
	S14								
	S15								
	S1	0	0	0	0	0	-121		
	S2						-236	\times	-236
	S1+S2						-357		-357
D39	Other sul	bsidies on pr	oduction						
		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11								
	S12								
	S13						-678		-678
	014								

S12								
S13						-678		-678
S14								
S15								
S1	0	0	0	0	0	-678		-678
S2						-1 358	\setminus	-1 358
S1+S2	-881	-3	-302	-585	-265	-2 036		-2 036

D3	Subsidies (D31+D32)						
		C11	9				

	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11								
S12								
S13						-799		-799
S14								
S15								
S1	0	0	0	0	0	-799		-799
S2						-1 594	$>\!\!<$	-1 594
S1+S2						-2 393		-2 393

The treatment of this category of transactions could also be done with positive amounts, transposing the matrices represented in Table 3.3-3.

The addition of the matrices represented in Tables 3.2-3 and 3.3-3 would show us the possible filling in of the from-whom-to-whom matrices relating to taxes on production and importation net of subsidies, with a reading and remarks similar to those of the previous section, with the due adaptations.

3.4. Property income

With five components - interest, distributed income of corporations, reinvested earnings on foreign direct investment, investment income disbursements and rent, property income (code D4) are recorded in the allocation of primary income account (subaccount of the primary income distribution account) - Table 3.4-1.

Table 3.4-1. Recording of property income in the allocation of primary income account (excerpts from Tables 2.2-2a and b).

Total	S.2 Rest of the World	S.1 Total of the Economy	S.15 NPISHs	S.14 Households	S.13 General Government	S.12 Financial Corporations	S.11 Non- Financial Corporations	Code	Transactions and balancing items				
Uses	Uses												
47 565	6 762	40 803	12	644	6 9 1 8	11 396	21 833	D4	Property income				
18 729	2 457	16 272	10	596	6 903	4 624	4 140	D41	Interest				
23 955	2 393	21 562				4 803	16 760	D42	Distributed income of corporations				
2 360	1 550	810	0	0	0	311	499	D43	Reinvested earnings on foreign direct investment				
2 019	362	1 657	0	0	0	1 657		D44	Other investment income				
501		501	2	48	16	0	436	D45	Rents				

Code	Transactions and balancing items	S.11 Non- Financial Corporations	S.12 Financial Corporations	S.13 General Government	S.14 Households	S.15 NPISHs	S.1 Total of the Economy	S.2 Rest of the World	Total			
Resources												
D4	Property income	9 098	12 129	1 457	11 401	161	34 246	13 319	47 565			
D41	Interest	1 755	7 893	290	2 936	91	12 965	5 765	18 729			
D42	Distributed income of corporations	6 274	3 238	707	6 904	112	17 236	6 720	23 955			
D43	Reinvested earnings on foreign direct investment	936	615	49	0	-50	1 550	810	2 360			
D44	Other investment income	82	382	61	1 467	2	1 994	24	2 019			
D45	Rents	50	0	351	94	7	501		501			

Within the scope of matrix representations, the national accounting matrix (Table 2.3-1), allows the explicit identification of this category of transactions both in the economy - cell (II.1, II.1) and with the rest of the world - cells (V, II.1) and (II.1, V). The same does not happen with the social accounting matrix (Table 2.3-2), which only allows the explicit identification of transactions with the rest of the world - cells (rw, f) and (f, rw), with transactions in the economy, once again, implicit in the cells representing value added and national income - cells (f, a) and (dic, f).

When constructing from-whom-to-whom matrices from the information in the tables above, it is possible, once again, to fill in the rows and columns of the totals (S1+S2) and deduce the amounts corresponding to some cells, as can be seen in Table 3.4-2.

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Table 3.4-2. Possible filling in of the from-whom-to-whom matrices relating to property income, from the allocation of primary income account.

D41	Juros									D44	Outros r	endimento	os de inve	stimentos					
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0		1 755		S11						0		82
	S12						0		7 893		S12						0		382
	S13						0		290		S13						0		61
	S14						0		2 936		S14						0		1 467
	S15						0		91		S15						0		2
	S1	0	0	0	0	0	10 507	2 457	12 965		S1		0	0	0	0	1 633	362	1 994
	S2						5 765	\times	5 765		S2						24	\times	24
	S1+S2	4 140	4 624	6 903	596	10	16 272	2 457	18 729		S1+S2		1 657	0	0	0	1 657	362	2 019
D42	Rendime	entos distr	ibuídos d	as socieda	ades					D45	Rendas								
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0		6 274		S11						50		50
	S12						0		3 238		S12						0		0
	S13						0		707		S13						351		351
	S14						0		6 904		S14						94		94
	S15						0		112		S15						7		7
	S1	0	0				14 842	2 393	17 236		S1	436	0	16	48	2	501		501
	S2						6 720	$>\!\!<$	6 720		S2							$>\!\!<$	
	S1+S2	16 760	4 803				21 562	2 393	23 955		S1+S2	436	0	16	48	2	501		501
D43	Lucros o	lo investir	nento dire	ecto estrai	ngeiro reii	vestidos				D4	Rendime	entos de p	ropriedad	le (D41+)	D42+D43	+D44+D	14 5)		
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0		936		S11						0		9 098
	S12						0		615		S12						0		12 129
	S13						0		49		S13						0		1 457
	S14						0		0		S14						0		11 401
	S15						0		- 50		S15						0		161
	S1	0	0	0	0	0	0	1 550	1 550		S1	0	0	0	0	0	27 484	6 762	34 246
	S2						810	$>\!\!<$	810		S2						13 319	$>\!\!<$	13 319
	S1+S2	499	311	0	0	0	810	1 550	2 360		S1+S2	21 833	11 396	6 918	644	12	40 803	6 762	47 565

The fact that we are working with a category of transactions with five components and that all of them record uses and resources of all, or almost all, institutional sectors, restricts us to the possibility of deducing only the total transactions in the economy.

Thus, from the column reading, we know that the resident institutional units (S1) recorded a total of uses in the economy and in the rest of the world (S1+S2) in the amount of 40 803. Because the resources of the rest of the world (S2), which totalled 13 319, are uses of the economy (S1), we can deduce the amount of transactions in the economy (S1), that is, among the resident institutional units: 27484 = 40803 - 13319.

We arrive at the same figure by reading in row, that is, starting from the total resources of the resident institutional units (S1), from the economy and the rest of the world (S1+S2), that is, 34 246. This time we have uses of the rest of the world (S2), which total 6 762, which are resources of the economy (S1), which allow us to deduce the amount of transactions in the economy (S1), that is, among the resident institutional units: 27848 = 34246 - 6762.

Moreover, we do not know the entire network of institutional interrelations of property income, and its components, represented by the shaded parts in Table 3.4-2. Such lack of knowledge could be overcome with information on the institutional sectors of destination of the uses or of origin of the resources.

Table 3.4-3, by expanding the first part of Table 3.4-1, illustrates the first case. Table 3.4-4, in turn, shows how this information makes it possible to fill in all the from-whom-to-whom matrices related to the category of transactions under analysis.

Table 3.4-3. Recording of the uses of property income in the allocation of primary income account, extended to destination institutional sectors.

Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
	Rest of the World	Total of the Economy	NPISHs	Households	General Government	Financial Corporations	Non- Financial Corporations	Code	Transactions and balancing items
Uses								coue	Transactions and cumments near
47 565	6 762	40 803	12	644	6 918	11 396	21 833	D4	Property income
9 098	2 859	6 239	10	94	85	1726	4 324		S11 - Non-Financial Corporations
12 129	3190	8 939	0	499	2 068	3146	3 226		S12 - Financial Corporations
1 457	176	1 281	0	2	0	734	546		S13 - General Government
11 401	565	10 836	0	41	1002	2 242	7 551		S14 - Households
161	-28	190	0	7	3	67	112		S15 – NPISHs
13 319	0	13 319	2	1	3 761	3 481	6074		S2 - Rest of the World
18 729	2 457	16 272	10	596	6 903	4 624	4 140	D41	Interest
1755	122	1 633	8	94	85	360	1 086		S11 - Non-Financial Corporations
7 893	1772	6 122	0	499	2 068	2 050	1505		S12 - Financial Corporations
290	96	194	0	2	0	148	43		S13 - General Government
2 936	446	2 490	0	0	986	740	764		S14 - Households
91	22	69	0	0	3	65	1		S15 – NPISHs
5 765	0	5 765	2	1	3 761	1 262	739		S2 - Rest of the World
23 955	2 393	21 562				4 803	16 760	D42	Distributed income of corporations
6 27 4	1780	4 494				1305	3 190		S11 - Non-Financial Corporations
3 238	584	2 655				934	1 721		S12 - Financial Corporations
707	0	707				555	152		S13 - General Government
6904	30	6 874				124	6750		S14 - Households
112	0	112				1	111		S15 – NPISHs
6720	0	6720				1 884	4 836		52 - Rest of the World
2 360	1 550	810	0	0	0	311	499	D43	Reinvested earnings on foreign direct investment
936	936	0							S11 - Non-Financial Corporations
615	615	0							S12 - Financial Corporations
49	49	0							S13 - General Government
0	0	0							S14 - Households
-50	-50	0							S15 – NPISHs
810		810				311	499		S2 - Rest of the World
2 019	362	1 657	0	0	0	1 657		D44	Other investment income
82	21	61				61			S11 - Non-Financial Corporations
382	220	162				162			S12 - Financial Corporations
61	31	30				30			S13 – General Government
1 467	90	1 377				1 377			S14 - Households
2	0	2				2			S15 – NPISHs
24	0	24				24			S2 – Rest of the World
501		501	2	48	16	0		D45	Rents
50		50	2			0	48		S11 - Non-Financial Corporations
0		0				0	0		S12 - Financial Corporations
351		351				0	351		513 - General Government
94		94		41	16	0	37		S14 - Households
7		7		7		0	0		S15 – NPISHs
0		0				0	0		S2 – Rest of the World

Table 3.4-4. Filling in of the from-whom-to-whom matrices relating to property income, from the corresponding uses in the allocation of primary income account, extended to destination institutional sectors.

D41	Interest									D44	Other in	vestment i	ncome						
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11	1 086	360	85	94	8	1 633	122	1 755		S11		61				61	21	82
	S12	1 505	2 050	2 068	499		6 121	1 772	7 893		S12		162				162	220	382
	S13	43	148	0	2		194	96	290		S13		30				30	31	61
	S14	764	740	986	0		2 490	446	2 936		S14		1 377				1 377	90	1 467
	S15	1	65	3	0		69	22	91		S15		2				2	0	2
	S1	3 400	3 363	3 142	595	8	10 507	2 457	12 964		S1	0	1 633	0	0	0	1 633	362	1 994
	S2	739	1 262	3 761	1	2	5 765	><	5 765		S2		24				24	><	24
	S1+S2	4 140	4 624	6 903	596	10	16 272	2 457	18 729		S1+S2	0	1 657	0	0	0	1 657	362	2 019
D42	Distribut	ed income	of corpo	orations						D45	Rents								
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11	3 190	1 305				4 494	1 780	6 274		S11	48	0			2	50		50
	S12	1 721	934				2 655	584	3 238		S12	0	0				0		0
	S13	152	555				707	0	, , ,		S13	351	0				351		351
	S14	6 750	124				6 874	30	6 904		S14	37	0	16	41		94		94
	S15	111	1				112	0	112		S15	0	0		7		7		7
	S1	11 924	2 919	0	0	0	14 842	2 393	17 236		S1	436	0	16	48	2	501	0	501
	S2	4 836	1 884				6 720	> <	6 720		S2	0	0				0	> <	0
	S1+S2	16 760	4 803	0	0	0	21 562	2 393	23 955		S1+S2	436	0	16	48	2	501	0	501
D43	Reinvest	ed earning	_	_					1	D4	Property	income (/			
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0	936			S11	4 324	1 726	85	94	10	6 239	2 859	9 098
	S12						0	615			S12	3 226	3 146	2 068	499	0	8 938	3 190	12 128
	S13						0	49			S13	546	734	0	2	0	1 281	176	1 457
	S14						0	0	v		S14	7 551	2 242	1 002	41	0	10 836	565	11 401
	S15						0	-50			S15	112	67	3	7	0	190	-28	161
	S1	0	0	0	0	0	0	1 550	1 550		S1	15 759	7 914	3 157	643	10	27 483	6 762	34 246
	S2	499	311				810	$\geq \leq$	810		S2	6 074	3 481	3 761	1	2	13 319	$\geq \leq$	13 319
	S1+S2	499	311	0	0	0	810	1 550	2 360		S1+S2	21 833	11 396	6 918	644	12	40 803	6 762	47 565

Therefore, with the extension proposed in Table 3.4-3, that is, with the information related to the destination institutional sectors of the uses ("to-whom") of property income and its components, we come to know all the corresponding institutional interrelations and to be able to complete the filling in of the corresponding from-whom-to-whom matrices. The same would be possible with the extension of the second part of Table 3.4-1, that is, with the information regarding the origin institutional sectors of the resources ("from-whom") of the property income and its components, an exercise that we leave to the interested parties, based on the Table A-1 of the Annex.

3.5. Current taxes on income, wealth, etc.

With two components - taxes on income and other current taxes, the current taxes on income, wealth, etc. (code D5) are recorded in the secondary distribution of income account - Table 3.5-1. It is a category with uses by all institutional sectors, except in the case of other current taxes by the rest of the world, and with resources only by general government and the rest of the world.

This category of transactions is integrated into current transactions in the economy and with the rest of the world, represented, respectively: in the national accounting matrix (Table 2.3.-1), by cells (II.2,

II.2), (V, II.2) and (II.2, V); and in the social accounting matrix (Table 2.3.-2), by cells (dic, dic), (rw, dic) and (dic, rw).

Table 3.5-1. Recording of current taxes on income, wealth, etc. in the secondary distribution of income account (excerpts from Tables 2.2-3a e b).

Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
	Rest of the World	Total of the Economy	NPISHs	Hous eholds	General Government	Financial Corporations	Non- Financial Corporation		
							•	Code	Transactions and balancing items
Uses									
20 931	413	20 518	13	13 601	40	1 073	5 791	D5	Current taxes on income, wealth, etc.
20 366	413	19 953	11	13 164	17	1 036	5 725	D51	Taxes on income
565		565	2	436	23	38	66	D59	Other current taxes

Code	Transactions and balancing items	S.13 General Government	S.2 Rest of the World	Total
				Resources
D5	Current taxes on income, wealth, etc.	20 679	252	20 931
D51	Taxes on income	20 114	252	20 366
D59	Other current taxes	565	0	565

Table 3.5-2. Possible filling in of the from-whom-to-whom matrices relating to current taxes on income, wealth, etc., from the secondary distribution of income account.

,	,		,						
D51	Taxes on	income							
		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11								
	S12								
	S13						19 701	413	20 114
	S14								
	S15								
	S1	0	0	0	0	0	19 701	413	20 114
	S2						252	><	252
	S1+S2	5 725	1 036	17	13 164	11	19 953	413	20 366
D59	Other cur	rent taxes							
		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11								
	S12								
	S13	66	38	23	436	2	565		565
	S14								
	S15								
	S1	66	38	23	436	2	565		565
	S2						0	><	0
	S1+S2	66	38	23	436	2	565		565
D5	Current to	axes on inco	me, wealth e	etc. (D51+D) 59)				
		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11								
	S12								
	S13						20 266	413	20 679
	S14								
	S15								
	S1	0	0	0	0	0	20 266	413	20 679
	S2						252	> <	252
	S1+S2	5 791	1 073	40	13 601	13	20 518	413	20 931

When constructing from-whom-to-whom matrices from the information in Table 3.5-1, as we did previously, we filled in the rows and columns of the totals (S1+S2) and deduced the amounts corresponding to some cells, as can be seen in Table 3.5-2.

Thus, from the column reading, we know that the resident institutional units (S1) recorded a total of uses in the economy and in the rest of the world (S1+S2) in the amount of 20 518. Because the resources of the rest of the world (S2), which totalled 252, are uses of the economy (S1), we can deduce the amount of transactions in the economy (S1), that is, among the resident institutional units: $20\ 266 = 20\ 518 - 512$.

When reading in row, we see a total of resources of resident institutional units (S1), in this case, of general government (S13), coming from the economy and the rest of the world (S1+S2) in the amount of 20 679. Being the resources from the rest of the world its uses in the economy, in the amount of 413, we deduce, once again, the amount of transactions in the economy (S1), that is, among the resident institutional units, in this case, general government resources from all resident institutional units: $20\ 266 = 20\ 679 - 413$.

Because there are no transactions relating to other current taxes (D59) with the rest of the world, we deduce that the total uses provided in the IEA table correspond to transactions in the economy (S1), that is, uses of resident institutional units (S11-S15) and resources of general government (S13).

We therefore have our matrix, which in this case is a row vector, filled in. The same does not happen with income taxes (D51), where we do not know whether the destination of the uses of resident institutional units (S11-S15) is the economy, that is, general government (S13) or the rest of the world (S2). This lack of knowledge, represented by the shaded parts in Table 3.5-2, also corresponds to the origin of resources of the general government (S13) and the rest of the world (S2).

As we did previously, we overcame our lack of knowledge by expanding the uses, represented in Table 3.5-1, to destination institutional sectors ("to-whom"). Thus, from Table 3.5-3, it was possible to complete the filling in of the from-whom-to-whom matrices relating to the category of transactions under analysis – as shown in Table 3.5-4. The same would have been possible with the information regarding the origin institutional sectors of the resources ("from-whom") of the same category of transactions, as can be tested from Table A-2 of the Annex.

Table 3.5-3. Recording of the uses of current taxes on income, wealth, etc. in the secondary distribution of income account, extended to destination institutional sectors.

Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
	Rest of the World	Total of the Economy	NPIS Hs	Hous eholds	General Government	Financial Corporations	Non- Financial Corporation	Code	Transactions and balancing items
Uses									
20 931	413	20 518	13	13 601	40	1 073	5 791	D5	Current taxes on income, wealth, etc.
0		0	0						S11 - Non-Financial Corporations
0		0							S12 - Financial Corporations
20 679	413	20 266	8	13 557	40	966	5 695		S13 – General Government
0		0							S14 - Households
0		0							S15 – NPISHs
252		252	5	44		108	96		S2 - Rest of the World
20 366	413	19 953	11	13 164	17	1 036	5 725	D51	Taxes on income
									S11 - Non-Financial Corporations
									S12 - Financial Corporations
20 114	413	19 701	6	13 121	17	928	5 629		S13 – General Government
									S14 - Households
									S15 – NPISHs
252		252	5	44		108	96		S2 - Rest of the World
565		565	2	436	23	38	66	D59	Other current taxes
									S11 - Non-Financial Corporations
									S12 - Financial Corporations
565		565	2	436	23	38	66		S13 – General Government
									S14 - Households
									S15 – NPISHs
									S2 - Rest of the World

Table 3.5-4. Filling in of the from-whom-to-whom matrices relating to current taxes on income, wealth, etc., from the corresponding uses in the secondary distribution of income account, extended to destination institutional sectors.

	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11						0		
S12						0		
S13	5 629	928	17	13 121	6	19 701	413	20 1
S14						0		
S15						0		
S1	5 629	928	17	13 121	6	19 701	413	20 1
S2	96	108		44	5	252	><	2
S1+S2	5 725	1 036	17	13 164	11	19 953	413	20 3
9 Outros im	postos corre	entes			•		•	
	S11	S12	S13	S14	S15	S1	S2	S1+S
S11						0		
S12						0		
S13	66	38	23	436	2	565		5
S14						0		
S15						0		
S1	66	38	23	436	2	565	0	4
S2						0	><	
S1+S2	66	38	23	436	2	565	0	5
Impostos	correntes so	bre o rendir	nento, patrir	nónio, etc. (D51+D59)			
	S11	S12	S13	S14	S15	S1	S2	S1+S
S11						0		
S12						0		
S13	5 695	966	40	13 557	8	20 266	413	20 t
S14						0		
S15						0		
S1	5 695	966	40	13 557	8	20 266	413	20 t
S2	96	108	0	44	5	252	><	2
S1+S2	5 791	1 073	40	13 601	13	20 518	413	20 9

3.6. Social contributions and benefits

With three components - net social contributions, social benefits other than social transfers in kind, and social transfers in kind, social contributions and benefits (code D6) are recorded in the secondary distribution of income and redistribution of income in kind accounts - Table 3.6-1. The secondary distribution of income account records the first two components and the redistribution of income in kind account records the last component.

Not directly representing monetary flows, it is not possible to identify social transfers in kind (D63) in our matrix representations, the same does not happen with the other two components (D61 and D62), which are integrated into current transactions in the economy and with the rest of the world, represented, respectively: in the national accounting matrix (Table 2.3.-1), by cells (II.2, II.2), (V, II.2) and (II.2, V); and in the social accounting matrix (Table 2.3.-2), through the cells (dic, dic), (rw, dic) and (dic, rw).

Table 3.6-1. Recording of social contributions and benefits in the secondary distribution of income and redistribution of income in kind accounts (excerpts from Tables 2.2-3a e b).

Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
	Rest of the World	Total of the Economy	NPISHs	Households	General Government	Financial Corporations	Non- Financial Corporation		
							•	Code	Transactions and balancing items
Uses									
28 342	70	28 272		28 272				D61	Net social contributions
39 525	1 884	37 641	323	26	33 453	2 088	1 751	D62	Social benefits other than social transfers in kind
23 316		23 316	4 134		19 182			D63	Social transfers in kind

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total
		Non- Financial Corporation	Financial Corporations	General Government	Hous eholds	NPISHs	Total of the Economy	Rest of the World	
Code	Transactions and balancing items								
									Resources
D61	Net social contributions	1 751	2 161	23 860	26	394	28 192	150	28 342
D62	Social benefits other than social transfers in kind				39 295		39 295	231	39 525
D63	Social transfers in kind				23 316		23 316		23 316

As shown in Table 3.6-2, the amounts in Table 3.6-1 allow filling in the rows and columns of the totals (S1+S2) of the from-whom-to-whom matrices, as well as deducing some of the amounts needed for its construction, following a methodology identical to the one previously adopted.

Table 3.6-2. Possible filling in of the from-whom-to-whom matrices relating to social contributions and benefits, from the secondary distribution of income and redistribution of income in kind accounts.

D61	Net soci	al contrib	utions							D63	Social tr	ansfers in	kind						
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0		1 751		S11								
	S12						0		2 161		S12								
	S13						0		23 860		S13								
	S14						0		26		S14			19 182		4 134	23 316		23 316
	S15						0		394		S15								
	S1				28 122		28 122	70	28 192		S1			19 182		4 134	23 316		23 316
	S2				150		150	> <	150		S2							\times	
	S1+S2				28 272		28 272	70	28 342		S1+S2			19 182		4 134	23 316		23 316
D62	Social be	enefits oth	er than so	ocial trans	fers in kin	ıd				D6	Social co	ontribution	ns and be	nefits (D6	1+D62+I	D63)			
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11										S11						0		1 751
	S12										S12						0		2 161
	S13										S13						0		23 860
	S14						37 411	1 884	39 295		S14						0		62 637
	S15										S15						0		394
	S1	0	0	0	0	0	37 411	1 884	39 295		S1	0	0	0	0	0	88 849	1 954	90 803
	S2			·			231	> <	231		S2						381	\times	381
	S1+S2	1 751	2 088	33 453	26	323	37 641	1 884	39 525		S1+S2	1 751	2 088	52 635	28 298	4 457	89 229	1 954	91 183

Thus, we learn that: net social contributions (D61) record resources by all institutional sectors and uses by households and the rest of the world; social benefits other than social transfers in kind (D62) record resources by households and the rest of the world and uses by all institutional sectors; and that only households register resources related to social transfers in kind (D63), of which public administrations and non-profit institutions serving households record uses. It is therefore possible to deduce institutional interrelations under the last component, but not for the other two, that is, we do not know the grey parts of Table 3.6-2. Once again, we have overcome our lack of knowledge by expanding the uses, represented in Table 3.6-1, to the destination institutional sectors ("to-whom"), as shown in Table 3.6-3.

Table 3.6-3. Recording of the uses of social contributions and benefits in the secondary distribution of income and redistribution of income in kind accounts, extended to destination institutional sectors.

Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
	Rest of the World	Total of the Economy	NPISHs	Households	General Government	Financial Corporations	Non- Financial Corporation	Code	Transactions and balancing items
Uses									
28 342	70	28 272		28 272				D61	Net social contributions
1 751		1 751		1 751					S11 - Non-Financial Corporations
2 161		2 161		2 161					S12 - Financial Corporations
23 860	70	23 790		23 790					S13 - General Government
26		26		26					S14 - Households
394		394		394					S15 – NPISHs
150		150		150					S2 – Rest of the World
39 525	1 884	37 641	323	26	33 453	2 088	1 751	D62	Social benefits other than social transfers in kind
0		0							S11 - Non-Financial Corporations
0		0							S12 - Financial Corporations
0		0							S13 - General Government
39 295	1 884	37 411	323	26	33 222	2 088	1 751		S14 - Households
0		0							S15 – NPISHs
231		231			231				S2 - Rest of the World
23 316		23 316	4 134		19 182			D63	Social transfers in kind
									S11 - Non-Financial Corporations
									S12 - Financial Corporations
						_			S13 - General Government
23 316		23 316	4 134		19 182				S14 - Households
						_			S15 – NPISHs
									S2 - Rest of the World

Therefore, it was possible to quantify the unknown institutional interrelationships, as can be seen in Table 3.6-4. The same result would have been obtained by expanding the resources of the same transactions to the institutional sectors of origin ("from whom"), an exercise that we leave to the interested parties from Table A-3 of the Annex.

Table 3.6-4. Filling in of the from-whom-to-whom matrices relating to social contributions and benefits, from corresponding uses in the secondary distribution of income and redistribution of income in kind accounts, extended to destination institutional sectors.

D61	Net soci	al contrib	utions							D63	Social tr	ansfers in	kind						
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11				1 751		1 751		1 751		S11								
	S12				2 161		2 161		2 161		S12								
	S13				23 790		23 790	70	23 860		S13								
	S14				26		26		26		S14			19 182		4 134	23 316		23 316
	S15				394		394		394		S15								
	S1				28 122		28 122	70	28 192		S1			19 182		4 134	23 316		23 316
	S2				150		150	><	150		S2							\times	
	S1+S2				28 272		28 272	70	28 342		S1+S2			19 182		4 134	23 316		23 316
D62	Social be	enefits oth	ner than so	ocial trans	fers in kin	d				D6	Social c	ontributio	ns and be	nefits (D6	1+D62+	D63)			
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11										S11	0	0	0	1 751	0	1 751	0	1 751
	S12										S12	0	0	0	2 161	0	2 161	0	2 161
	S13										S13	0	0	0	23 790	0	23 790	70	23 860
	S14	1 751	2 088	33 222	26	323	37 411	1 884	39 295		S14	1 751	2 088	52 404	52	4 457	60 753	1 884	62 637
	S15										S15	0	0	0	394	0	394	0	394
	S1	1 751	2 088	33 222	26	323	37 411	1 884	39 295		S1	1 751	2 088	52 404	28 148	4 457	88 849	1 954	90 803
	S2			231			231	> <	231		S2	0	0	231	150	0	381	><	381
	S1+S2	1 751	2 088	33 453	26	323	37 641	1 884	39 525		S1+S2	1 751	2 088	52 635	28 298	4 457	89 229	1 954	91 183

3.7. Other current transfers

With six components - net non-life insurance premiums, non-life insurance claims, current transfers within general government, current international cooperation, miscellaneous current transfers and VAT- and GNI-based EU own resources⁹, other current transfers (code D7) are recorded in the secondary distribution of income account - Table 3.7-1.

This category of transactions is integrated into current transactions in the economy and with the rest of the world, represented, respectively: in the national accounting matrix (Table 2.3.-1), by cells (II.2, II.2), (V, II.2) and (II.2, V); and in the social accounting matrix (Table 2.3.-2), by cells (dic, dic), (rw, dic) and (dic, rw).

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⁹ Component added by the SEC (adaptation of the SCN to the European Union)

Table 3.7-1. Recording of other current transfers in the secondary distribution of income account (excerpts from Tables 2.2-3a e b).

Total	S.2	S.1	S.15	S.14	S.13	S.12	S.11		
	Rest of the	Total of the	NPISHs	Households	General	Financial	Non-		
	World	Economy			Government	Corporations	Financial		
							Corporations		
								Code	Transactions and balancing items
Uses									
23 395	6 755	16 639	109	6 051	4 597	4 150	1 732	D7	Other current transfers
3 087	180	2 907	34	1 126	34	885	828	D71	Net non-life insurance premiums
3 122	314	2 808				2 808		D72	Non-life insurance claims
0		0			0			D73	Current transfers within general government
645	452	192			192			D74	Current international cooperation
14 842	5 809	9 033	75	4 925	2 672	457	904	D75	Miscellaneous current transfers
1 699		1 699			1 699			D76	VAT- and GNI-based EU own resources

Code	Transactions and balancing items	S.11 Non- Financial Corporations	S.12 Financial Corporations	S.13 General Government	S.14 Households	S.15 NPISHs	S.1 Total of the Economy	S.2 Rest of the World	Total
									Resources
D7	Other current transfers	497	4 182	2 706	8 754	3 345	19 484	3 911	23 395
D71	Net non-life insurance premiums		2 808				2 808	279	3 087
D72	Non-life insurance claims	473	877	33	1 495	20	2 897	225	3 122
D73	Current transfers within general government			0			0		0
D74	Current international cooperation			452			452	192	645
D75	Miscellaneous current transfers	24	497	2 221	7 259	3 325	13 327	1 515	14 842
D76	VAT- and GNI-based EU own resources						0	1 699	1 699

When constructing from-whom-to-whom matrices from the information in Table 3.7-1, it is possible, once again, to fill in the rows and columns of the totals (S1+S2) and deduce the amounts corresponding to some cells, as can be seen in Table 3.7-2.

Thus, it was possible to deduce the content of those matrices in the case of the components: current transfers within general government (D73), without recording transactions; current international cooperation (D74), with two records of transactions; and VAT- and GNI-based EU own resources (D76) with a record of transactions. In fact, in the case of current international cooperation (D74), we have: 192, which corresponds to the total uses of the general government (S13) and resources of the rest of the world (S2), that is, the only amount of resources of the latter originating from the former; and 452, which corresponds to the total resources of the general government (S13) and uses of the rest of the world (S2), that is, the only amount of uses of the latter destined to the former. In the case of flows corresponding to the VAT- and GNI-based EU own resources (D76), we just have the amount of 1,699, which corresponds to the total uses of the general government (S13) and resources of the rest of the world (S2), that is, the only amount of resources of the latter originating from the former.

On the other hand, in the remaining components, we verify uses and resources of all, or almost all, institutional sectors, which restricts the possibilities of deducing the amounts of the shaded cells in the corresponding matrices.

In terms of category totals (D7), reading the column, we know that the resident institutional units (S1) recorded a total of uses in the economy and in the rest of the world (S1+S2) in the amount of 16 639. Because the resources of the rest of the world (S2), which totalled 3 911, are uses of the economy

(S1), we can deduce the amount of transactions in the economy (S1), that is, among the resident institutional units: 12728 = 16639 - 3911.

In the same way, reading in row, we have a total of resources of the resident institutional units (S1), coming from the economy and the rest of the world (S1+S2) amounting to 19 484. In turn, we have uses of the rest of the world (S2), which total 6 755 that are resources of the economy (S1), which allow us to deduce the amount of transactions in the economy (S1), that is, among the resident institutional units: 12728 = 19484 - 6755.

The above-mentioned lack of information regarding three of its components makes the entire network of institutional interrelations of the total of the other current transfers (D7), represented by the shaded parts in Table 3.7-2, unknown.

Table 3.7-2. Possible filling in of the from-whom-to-whom matrices relating to other current transfers, from the secondary distribution of income account.

Si1	D71 Net non	-life insura	ance pren	niums						D75	Miscella	neous cur	rent trans	fers					
S12		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
Si3	S11										S11						0		24
S14	S12						2 628	180	2 808		S12						0		497
S15	S13										S13						0		2 221
SI	S14										S14						0		7 259
S2	S15										S15						0		3 325
Si Si Si Si Si Si Si Si		0	0	0	0	0		180	2 808		S1	0	0	0	0	0		5 809	13 327
D72 Non-life insurance claims								><										><	
S11 S12 S13 S14 S15 S1 S2 S1+S2 S14 S15 S1 S2 S1+S2 S15 S1 S2 S1+S2 S16 S1 S1 S1 S1 S1 S1 S1				34	1 126	34	2 907	180	3 087							75	9 033	5 809	14 842
S11	D72 Non-life		claims							D76	VAT- a			own reso	urces				
S12		S11	S12	S13	S14	S15		S2				S11	S12	S13	S14	S15	S1	S2	S1+S2
Si3																			
S14																			
S15																			
S1																			
S2																			
S1+S2 2 808 2 808 314 3 122 513 S1 S1 S1 S1 S1 S1 S1								314											
D73 Current transfers within general government S11 S12 S13 S14 S15 S1 S2 S1+S2								\times										\times	
S11 S12 S13 S14 S15 S1 S2 S1+S2							2 808	314	3 122								1 699		1 699
S11	D73 Current									D7	Other cu								
S12		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15		S2	
S13																			
S14																			
S15							0		0										
S1																			
S2																			
SI+S2				0			0		0			0	0	0	0	0		6 755	
D74 Current international cooperation S11 S12 S13 S14 S15 S1 S2 S1+S2 S11				_				\sim										\geq	
S11 S12 S13 S14 S15 S1 S2 S1+S2 S11 0 0 452 452 S13 0 0 452 452 S14 0 0 452 452 S1 0 0 452 452 S2 192 192 192 192							0		0		S1+S2	1 732	4 150	4 597	6 051	109	16 639	6 755	23 395
S11 Image: square	D74 Current				244	04.5													
S12 0 452 452 S13 0 452 452 S14 0 0 452 452 S1 0 0 452 452 S2 192 192 192 192		S11	S12	S13	S14	S15	S1	S2	S1+S2										
S13 0 452 452 S14 0 0 452 452 S15 0 0 452 452 S2 192 192 192 192																			
S14							0	450	450										
S15 0 0 452 452 S1 0 0 452 452 S2 192 192 192							0	452	452										
S1 0 0 452 452 S2 192 192 192 192																			
S2 192 192 192								452	452										
				_				452											
S1+S2 192 192 452 645				192				452											

Table 3.7-3. Recording of the uses of other current transfers in the secondary distribution of income accounts, extended to destination institutional sectors.

Total	S.2 Rest of the World	S.1 Total of the Economy	S.15 NPISHs	S.14 Households	S.13 General Government	S.12 Financial Corporations	S.11 Non- Financial Corporations	G 1	
Uses								Code	Transactions and balancing items
23 395	6 755	16 639	109	6 051	4 597	4 150	1 732	D7	Other current transfers
497	77	420	0	0	13	407	0		S11 - Non-Financial Corporations
4 182	684	3 498	34	1 126	43	1 536	759		S12 - Financial Corporations
2706	485	2 220	16	1 612	0	42	550		S13 – General Government
8 754	5 284	3 470	0	1 711	264	1 495	0		S14 - Households
3 345	225	3 120	25	530	2 342	54	169		S15 – NPISHs
3 911	0	3 911	34	1 072	1 935	617	254		S2 – Rest of the World
3 087	180	2 907	34	1 126	34	885	828	D71	Net non-life insurance premiums
									S11 - Non-Financial Corporations
2 808	180	2 628	34	1126	34	677	757		S12 - Financial Corporations
									S13 – General Government
									S14 - Households
									S15 – NPISHs
279		279	0	0	0	208	71		S2 - Rest of the World
3 122	314	2 808				2 808		D72	Non-life insurance claims
473	66	407				407			S11 - Non-Financial Corporations
877	248	629				629			S12 - Financial Corporations
33		33				33			S13 - General Government
1 495		1 495				1 495			S14 - Households
20		20				20			S15 – NPISHs
225		225				225			S2 - Rest of the World
0		0			0			D73	Current transfers within general government
645	452	192			192			D74	Current international cooperation
0.5		1,72			1,72			271	S11 - Non-Financial Corporations
									S12 - Financial Corporations
452	452								S13 - General Government
+52	432								S14 - Households
									S15 - NPISHs
192		192			192				S2 - Rest of the World
14 842	5 809	9 033	75	4 925	2 672	457	904	D75	Miscellaneous current transfers
24	11	13	0	0	13	0	0	2010	S11 - Non-Financial Corporations
497	256	241	0	0	9	230	2		S12 - Financial Corporations
2 221	33	2 188	16	1 612	0	10	550		S13 - General Government
7 259	5 284	1 975	0	1 711	264	0	0		S14 - Households
3 325	225	3100	25	530	2 342	35	169		S15 – NPISHs
1 515	0	1 515	34	1 072	43	183	183		S2 - Rest of the World
1 699		1 699	54	10/2	1 699		185	D76	VAT- and GNI-based EU own resources
1 099		1 099			1 699			10/0	S11 - Non-Financial Corporations
									S12 - Financial Corporations
									S13 – General Government S14 – Households
1699		1.000			1 699				S15 - NPISHs S2 - Rest of the World
1 099		1 699			1 099				32 - Kest of the World

Once again, we used an extension of the first part of Table 3.7-1, that is, the information regarding the institutional sectors of destination for the uses ("to-whom") of other current transfers, represented in Table 3.7-3, to overcome this lack of knowledge, as can be seen in Table 3.7-4, with all fromwhom-to-whom matrices related to the category of transactions under analysis filled in.

Table 3.7-4. Filling in of the from-whom-to-whom matrices relating to other current transfers, from the corresponding uses in the secondary distribution of income account, extended to destination institutional sectors.

D71	Net non-	-life insura	ance prem	iums						D75	Miscella	neous cur	rent trans	fers					
ſ		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11										S11	0	0	13	0	0	13	11	24
	S12	757	677	34	1 126	34	2 628	180	2 808		S12	2	230	9	0	0	241	256	497
	S13										S13	550	10	0	1 612	16	2 188	33	2 221
Ī	S14										S14	0	0	264	1 711	0	1 975	5 284	7 259
	S15										S15	169	35	2 342	530	25	3 100	225	3 325
	S1	757	677	34	1 126	34	2 628	180	2 808		S1	721	274	2 629	3 853	41	7 518	5 809	13 327
	S2	71	208	0	0	0	279	\times	279		S2	183	183	43	1 072	34	1 515	\times	1 515
	S1+S2	828	885	34	1 126	34	2 907	180	3 087		S1+S2	904	457	2 672	4 925	75	9 033	5 809	14 842
D72	Non-life	insurance	claims							D76	VAT- a	nd GNI-b	ased EU	own reso	ırces				
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11		407				407	66			S11								
	S12		629				629	248	877		S12								
	S13		33				33		33		S13								
	S14		1 495				1 495		1 495		S14								
	S15		20				20		20		S15								
	S1		2 582				2 582	314	2 897		S1			0			0		0
	S2		225				225	$>\!\!<$	225		S2			1 699			1 699	$>\!\!<$	1 699
L	S1+S2		2 808				2 808	314	3 122		S1+S2			1 699			1 699		1 699
D73	Current t		within gen							D 7	Other cu	ırrent tran							
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
-	S11										S11	0	407	13	0	0	420	77	497
	S12										S12	759	1 536	43	1 126	34	3 498	684	4 182
_	S13						0		0		S13	550	42	0	1 612	16	2 220	485	2 706
_	S14										S14	0	1 495	264	1 711	0	3 470	5 284	8 754
_	S15										S15	169	54	2 342	530	25	3 120	225	3 345
-	S1			0			0		0		S1	1 478	3 534	2 663	4 979	75	12 728	6 755	19 484
-	S2							$\geq \leq$			S2	254	617	1 935	1 072	34	3 911	$\geq \leq$	3 911
	S1+S2			0			0		0		S1+S2	1 732	4 150	4 597	6 051	109	16 639	6 755	23 395
D74	Current i		nal cooper																
-		S11	S12	S13	S14	S15	S1	S2	S1+S2										
-	S11																		
-	S12							4.50	150										
-	S13						0	452	452										
-	S14																		
-	S15							150	150										
-	S1			0			0	452	452										
ļ	S2			192			192		192										
L	S1+S2			192			192	452	645										

Similar to what we have been referring to, the same would have been possible with the extension of the second part of Table 3.7-1, that is, with the information regarding the institutional sectors of origin of the resources ("from-whom") of the other transfers currents and their components, an exercise that we leave to those interested, based on Table A-4 of the Annex.

3.8. Adjustment for the change in pension entitlements

Without decomposition, the adjustment for the change in pension entitlements (code D8) is recorded, in the same way, in the use of disposable income and of adjusted disposable income accounts - Table 3.8-1, as a use of financial corporations and a resource of households.

Thus, we have only one category of transactions which, as can be seen in Table 3.8-2, occupies a single cell of the corresponding from-whom-to-whom matrix, and therefore no extension of the IEA table is required to fill it in.

Table 3.8-1. Recording of adjustment for the change in pension entitlements in the use of disposable income and of adjusted disposable income accounts.

	S.1	S.12			S.14	S.1
7	Total of the Economy	Financial Corporations			Households	Total of the Economy
			Code	Transactions and balancing items		
U	ses					Resources
Е	73	73	D8	Adjustment for the change in pension entitlements	73	73

Table 3.8-2. Filling in of the from-whom-to-whom matrix relating to adjustment for the change in pension entitlements, from the use of disposable income and of adjusted disposable income accounts.

	S11	S12	S13	S14	S15	S1	S2	S1+S2
S11								
S12								
S13								
S14		73				73		73
S15								
S1		73				73		73
S2							><	
S1+S2		73				73		73

Without relations with the rest of the world, the category under analysis occupies the cell (II.4, II.4) of the national accounting matrix (Table 2.3.-1), and integrates current transactions in the economy, cell (dic, dic), of the social accounting matrix (Table 2.3.-2).

3.9. Capital transfers

With three components - capital taxes, investment grants, and other capital transfers, capital transfers (code D9) are recorded in the capital account – Table 3.9-1. As we saw in the previous chapter, this is the only category of distributive transactions recorded in an accumulation account; the other eight categories are recorded in current accounts.

Capital transfers in the economy and with the rest of the world are treated identically respectively: in the national accounting matrix (Table 2.3.-1) - cells (III.1, III.1), (V, III.1) and (III.1, V); and in the social accounting matrix (Table 2.3.-2) - cells (dik, dik), (rw, dik) and (dik, rw).

Table 3.9-1. Recording of capital transfers in the capital account (excerpt from Table 2.2-5b).

Code	Transactions and balancing items	S.11 Non- Financial Corporation	S.12 Financial Corporations	S.13 General Government	S.14 Households	S.15 NPISHs	S.1 Total of the Economy	World	Total
							Changes	in liabilities a	nd net worth
D9r	Capital transfers, receivable	1 751	1 200	978	491	421	4 841	173	5 014
D91r	Capital taxes, receivable			0			0	0	0
D92r	Investment grants, receivable	1 384	1	660	144	272	2 460	58	2 518
D99r	Other capital transfers, receivable	367	1 199	318	348	149	2 380	115	2 496
D9p	Capital transfers, payable	-202	-498	-2 392	-6	-5	-3 102	-1 912	-5 014
D91p	Capital taxes, payable		0		0	0	0	0	0
D92p	Investment grants, payable	0		-638			-638	-1 881	-2 518
D99p	Other capital transfers, payable	-202	-498	-1 754	-6	-5	-2 465	-31	-2 496

Also returning to the previous chapter, we will treat "capital transfers, receivable" as resources and "capital transfers, payable" as uses and without a negative sign. Thus, when constructing from-whom-to-whom matrices based on the information in Table 3.9-1, it was possible, once again, to fill in the rows and columns of the totals (S1+S2) and deduce the values corresponding to some cells, as can be seen in Table 3.9-2.

3.9-2. Possible filling in of the from-whom-to-whom matrices relating to capital transfers, from the capital account.

D91	Capital t									D99	Other ca	pital trans							1
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11										S11						0		367
	S12										S12						0		1 199
	S13								0		S13						0		318
	S14										S14						0		348
	S15										S15						0		149
	S1						0	0	0		S1	0	0	0	0	0	2 349	31	2 380
	S2						0	> <	0		S2						115	> <	115
	S1+S2		0		0	0	0	0	0		S1+S2	202	498	1 754	6	5	2 465	31	2 496
D92	Investm	ent grants	3	•	•	•				D9	Capital t	ransfers (D91+D92	2+D99)					
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0		1 384		S11						0		1 751
	S12						0		1		S12						0		1 200
	S13						0		660		S13						0		978
	S14						0		144		S14						0		491
	S15						0		272		S15						0		421
	S1			580			580	1 881	2 460		S1	0	0	0	0	0	2 929	1 912	4 841
	S2			58			58	> <	58		S2						173	> <	173
	S1+S2	0		638			638	1 881	2 518		S1+S2	202	498	2 392	6	5	3 102	1 912	5 014

Without records in the capital taxes component (D91), we verify the existence of resources by all institutional sectors and uses by general government (S13) and the rest of the world (S2), in the case of investment grants (D92). In the case of other capital transfers (D93) we verify the existence of resources and uses by all institutional sectors.

In terms of category totals (D9), reading in a column, we know that resident institutional units (S1) recorded a total of uses in the economy and in the rest of the world (S1+S2) in the amount of 3 102. Because the resources of the rest of the world (S2), which totalled 173, are uses of the economy (S1), we can deduce the amount of capital transfers in the economy (S1), that is, among the resident institutional units: 2 929 = 3 102 - 173.

In the same way, reading in row, we have a total of resources of the resident institutional units (S1), from the economy and the rest of the world (S1+S2) in the amount of 4 841. In turn, we have uses of the rest of the world (S2), which total 1 912 that are resources of the economy (S1), which allows us to deduce the amount of transactions in the economy (S1), that is, among the resident institutional units: 2 929 = 4 841 - 1 912.

We are therefore unaware of all the shaded parts in Table 3.9-2, that is, the network of institutional interrelations of total capital transfers (D9) and its components.

As we did for some of the other distributive transactions, in order to overcome this gap, we used an extension of the second part of Table 3.9-1, that is, the information on the institutional sectors of destination ("to-whom") of the capital transfers payable (without a negative sign), represented in Table 3.9-3, as can be seen in Table 3.9-4. with all the from-whom-to-whom matrices for the category of transactions under analysis filled in.

Table 3.9-3. Recording of capital transfers payable in the capital account, extended to destination institutional sectors.

Code	Transactions and balancing items	S.11 Non- Financial	S.12 Financial Corporations	S.13 General Government	S.14 Households	S.15 NPISHs	S.1 Total of the Economy	S.2 Rest of the World	Total
	,							s in liabilities a	
D9p	Capital transfers, payable	- 202	- 498			- 5		· ·	
	S11 - Non-Financial Corporations	0		- 662	0	0	- 663		-1 751
	S12 - Financial Corporations	0	0	-1 199		0	-1 199		-1 200
	S13 - General Government	- 140	- 166	0	-6	- 5	- 318	- 660	- 978
	S14 - Households	0	- 330	- 64	0	0	- 393	- 98	- 491
	S15 – NPISHs	0	- 1	- 355	0	0	- 356	- 65	- 421
	S2 – Rest of the World	- 61	0	- 112	0	0	- 173	0	- 173
D91p	Capital taxes, payable		0		0	0	0	0	0
D92p	Investment grants, payable	0		- 638			- 638	-1 881	-2 518
	S11 - Non-Financial Corporations			- 326			- 326	-1 059	-1 384
	S12 - Financial Corporations			0			0	0	- 1
	S13 – General Government			0			0	- 660	- 660
	S14 - Households			- 47			- 47	- 96	- 144
	S15 – NPISHs			- 207			- 207	- 65	- 272
	S2 - Rest of the World			- 58			- 58	0	- 58
D99p	Other capital transfers, payable	- 202	- 498	-1 754	- 6	- 5	-2 465	- 31	-2 496
	S11 - Non-Financial Corporations		- 1	- 337			- 338	- 30	- 367
	S12 - Financial Corporations			-1 199			-1 199	0	-1 199
	S13 - General Government	-140	- 166		-6	- 5	- 318	0	- 318
	S14 - Households		- 330	- 16			- 346	- 1	- 348
	S15 – NPISHs		-1	- 148			- 149	0	- 149
	S2 - Rest of the World	- 61		- 54			- 115	0	- 115

Table 3.9-4. Filling in of the from-whom-to-whom matrices relating to capital transfers, from the transfers payable of capital account, extended to destination institutional sectors.

D91	Capital t	axes								D99	Other ca	pital trans	sfers						
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11										S11		1	337			338	30	367
	S12										S12			1 199			1 199	0	1 199
	S13				0						S13	140	166	0	6	5	318	0	318
	S14										S14		330	16			346	1	348
	S15										S15		1	148			149	0	149
	S1										S1	140	498	1 700	6	5	2 349	31	2 380
	S2							\times			S2	61		54			115	\times	115
	S1+S2										S1+S2	202	498	1 754	6	5	2 465	31	2 496
D92	Investm	ent grants	;							D9	Capital t	ransfers (D91+D92	2+D99)					
		S11	S12	S13	S14	S15	S1	S2	S1+S2			S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11			326			326	1 059	1 384		S11	0	1	662	0	0	663	1 088	1 751
	S12			0			0	0	1		S12	0	0	1 199	0	0	1 199	0	1 200
	S13			0			0	660	660		S13	140	166	0	6	5	318	660	978
	S14			47			47	96	144		S14	0	330	64	0	0	393	98	491
	S15			207			207	65	272		S15	0	1	355	0	0	356	65	421
	S1			580			580	1 881	2 460		S1	140	498	2 280	6	5	2 929	1 912	4 841
	S2			58			58	\times	58		S2	61	0	112	0	0	173	><	173
	S1+S2			638			638	1 881	2 518		S1+S2	202	498	2 392	6	5	3 102	1 912	5 014

Once again, we leave it to the interested parties to fill in the same from-whom-to-whom matrices based on the extension of the first part of Table 3.9-1, that is, the information on the origin institutional sectors ("from-whom") of the capital transfers receivable, available in Table A-5 of the Annex.

3.10. Aggregation and positioning in matrix representations

Throughout the nine previous sections, we have identified the positioning of each of the nine categories of distributive transactions in the aggregated matrix representations of the national and social accounting matrices of transactions, presented in Section 4.2 of Santos (2022) and re-presented in Section 2.3 of this working paper. We now associate the amounts of the from-whom-to-whom matrices, which we have just worked on, to the amounts of the cells of the aforementioned (national and social accounting) matrices, by associating text boxes with excerpts from tables with the corresponding parts and exemplifying some calculations.

In the national accounting matrix, we have identified distributive transactions explicitly in the primary and secondary distribution of income, use of income and capital accounts, as well as in the rest of the world account. With the corresponding connection to the rest of the world account, the primary and secondary distribution of income accounts aggregate several categories of transactions, as shown in Tables 3.10-1 and 3.10-2, and the use of income and capital accounts two categories, as shown in Tables 3.10-3.

Table 3.10-1. Association of the from-whom-to-whom matrices to the primary distribution of income and the rest of the world accounts of the aggregated national accounting matrix of transactions with gross balancing items.

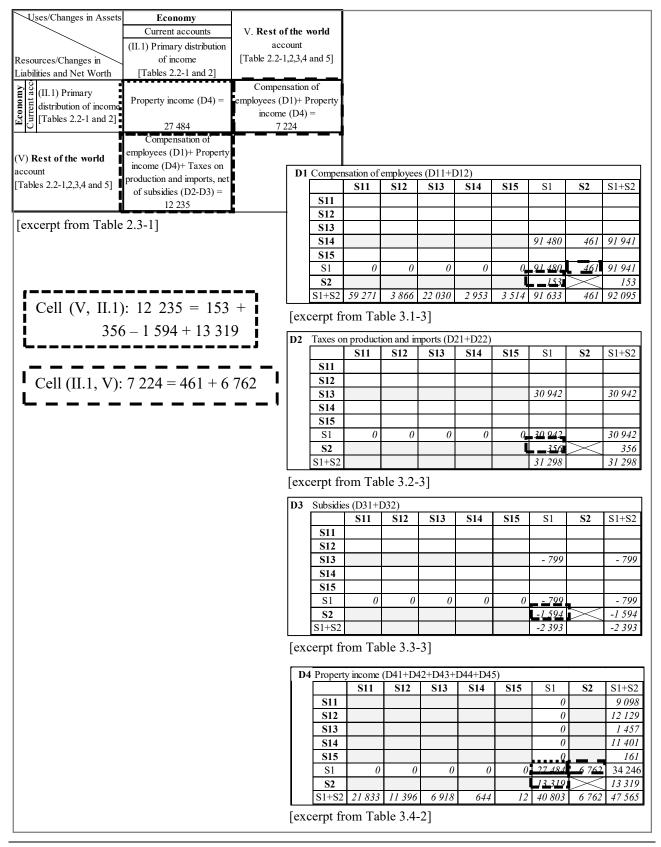


Table 3.10-2. Association of the from-whom-to-whom matrices to the secondary distribution of income and the rest of the world accounts of the aggregated national accounting matrix of transactions with gross balancing items.

Resources/Changes in Liabilities and Net Worth Liabilities and Net Worth (II.2) Secondary distribution of income [Table 2.2-3] (V) Rest of the world account [Tables 2.2-1,2,3,4 and 5]	Current transactions (D5,D61,D62,D7) = 4 544	V. Rest of acco [Table 2.2-1,, Current tra (D5,D61,D	unt 2,3,4 an nsactio 62,D7	ons) =	taxes on i	ncome. w	ealth etc.	(D51+D:	59)			
Cell (II.2, II.2): 98 526 = 20 2			S11 S12 S13 S14 S15 S1 S2 S1+S2	0 5 791	0 1 073	S13 0 40	0 13 601	S15	20 266 20 252 20 518	413 413	20 679 20 679 20 679 252 20 931
Cell (V, II.2):	+ 37 411 + 12 7 : 4 544 = 252 + 231 + 3 9 : 9 122 = 413 + 1884 + 6 7	150 +	D61	Net soci S11 S12 S13 S14 S15 S1 S2 S1+S2 Social b	sial contrib	S12	S13	28 122 150 28 272 26 273 S14	S15	S1 0 0 0 0 28 122 150 28 272 S1 37 411	70 70 82	\$1+\$2 1 751 2 161 23 860 26 394 28 192 150 28 342 \$1+\$2 \$3 9 295
			D7	Other cu S11 S12 S13 S14 S15 S1 S1 S1 S1 S1	1 751 DOM Tab Burrent tran S11 0 1 732	2 088 le 3.6-2	1+D72+I S13 0 4 597	0 26 D73+D74 S14 0 6 051	323 +D75) \$15	S1 0 0 0 0 0 0 0 12 728 3 9 11 16 639	$\geq <$	\$1+\$2 497 4182 2706 8754 3345 19484 3911 23395

Table 3.10-3. Association of the from-whom-to-whom matrices to the use of income, capital and the rest of the world accounts of the aggregated national accounting matrix of transactions with gross balancing items.

Current accounts Current acc		ses/Changes in Assets	Fee	onomy		Ι								
Capital transfers (D9)	Q	ses/Changes in Assets			counts	V.R	est of the	e world						
Capital transfers (D9)						7								
Capital transfers (D9)	Reso	urces/Changes in	` '	` / *		[Table								
Capital transfers (D9)		-	[Table 2.2-4]	[Table 2.2-5]]	_								
Capital transfers (D9) =	သ		Adjustment for the						1					
Capital transfers (D9) =	nt	(II.4) Use of income	change in pension											
Capital transfers (D9) =	urre	[Table 2.2-4]	funds reserve (D8) =											
Capital transfers (D9) =			72			<u>. </u>			_					
Capital transfers (D9) =	Eco lati	(mr. t) a . t . t				_ ^			F					
Capital transfers (D9) =	_ uu	(III.1) Capital	Gross Saving =			-		-	1					
Capital transfers (D9) =	CCI	[1able 2.2-3]	20.046	_	sets =	of non	-	assets =	L					
Capital transfers (D9) =			38 046	2 622		{	2 219		┦					
Capital transfers (D9) =						Ē.								
[excerpt from Table 2.3-1] D8 Adjustment for the change in pension entitlements	. ,			Canital transfers (D9) =	Į.								
[excerpt from Table 2.3-1] D8 Adjustment for the change in pension entitlements S11 S12 S13 S14 S15 S1 S2 S1+S2				- 35.00. 0.00101010	,,	E								
Cell (III.1, III.1): 2 622 = 2 929 - 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) S1	[I ab	les 2.2-1,2,3,4 and 5]				•								
D8 Adjustment for the change in pension entitlements				173		<u> </u>								
D8 Adjustment for the change in pension entitlements	Γev	cernt from Table	2 3-11			_								
Cell (III.1, III.1): 2 622 = 2 929 - 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) Cell (V, III.1): 2 219 = 1 912 + 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) Description Table 3.8-2 Sil Sil	LCA	ccipi nom rabic	2.3 1]		D8	Δdiustm	ent for the	e change i	in nension	entitleme	nte			
Cell (III.1, III.1): 2 622 = 2 929 - 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) Cell (V, III.1): 2 219 = 1 912 + 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) Description Table 3.8-2					D0	Aujusun			_			S1	S2	S1+S2
Cell (III.1, III.1): 2 622 = 2 929 - 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) S12 S14 73 73 73 73 S15 73 73 73 73 S1 73 73 73 73 73 S2 73 73 73 73 73 S1	:	• • • • • • • • • • • • • • • • • • • •	•••••	· · · · · · · · · · · · · · · · · · ·		S11	511	512	515	514	513	51	52	51152
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$:	Cell (III.1, II	I.1): 2 622 =	2 929 -										
of non-produced assets, see Table 2.2-5a) Cell (V, III.1): 2 219 = 1 912 + 307 (acquisitions less disposals of non-produced assets, see Table 2.2-5a) Description Table 3.8-2 S14	÷													
Table 2.2-5a) $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						S14		73				73		73
Cell (V, III.1): $2\ 219 = 1\ 912 + 307$ (acquisitions less disposals of non-produced assets, see Table 2.2-5a) $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$:			, , , ,		S15								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	•	1 4016 2	∠-Ja)			S1		73				73		73
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	7					S2							> <	
(acquisitions less disposals of non-produced assets, see Table 2.2-5a) D9 Capital transfers (D91+D92+D99) S11 S12 S13 S14 S15 S1 S2 S1+S2 S12						S1+S2		73				73		73
(acquisitions less disposals of non-produced assets, see Table 2.2-5a) D9 Capital transfers (D91+D92+D99) S11 S12 S13 S14 S15 S1 S2 S1+S2 S12	1		2210 1.01	2 . 207	Гехо	cerpt fr	om Ta	ble 3.8	-21					
non-produced assets, see Table 2.2-5a) D9 Capital transfers (D91+D92+D99) S11 S12 S13 S14 S15 S1 S2 S1+S2 S1 S12 S13 S14 S15 S1 S2 S1+S2 S13 S14 S15 S1	i	Cell(V, III.1)	: 2 2 1 9 = 1 9 1	2+307	L	1			,					
S11 S12 S13 S14 S15 S1 S2 S1+S2 S11 0 1751 S12 0 1 200 S13 0 978 S14 0 491	•													
S11 0 1751 S12 0 1 200 S13 0 978 S14 0 491	Т			ee Table	D9	Capital t	ransfers (D91+D92	2+D99)					
S12 0 1 200 S13 0 978 S14 0 491		2.2-5a)		1			S11	S12	S13	S14	S15		S2	
S13 0 978 S14 0 491	4			'										
S14 0 491														
												0		
						S15	0	0	0	0	0	2.020	1.013	421
S1 0 0 0 0 0 2 929 1 912 4 841 S2 172						-	U	υ	U	υ			1912	
S2 173 173 S1+S2 202 498 2 392 6 5 3 102 1 912 5 014							202	409	2 202	-	5		1012	
						1				0	3	3 102	1 912	3 014
[excerpt from Table 3.9-2]					[exc	cerpt fr	om Ta	ble 3.9	-2]					

In turn, we have identified distributive transactions explicitly in all accounts of the social accounting matrix, except in the financial account.

The connection of the aggregated version of the social accounting matrix of transactions (Table 2.3-2) with the national accounting matrix, treated in Santos (2022) - in Section 4.2c), pp.68-76, allows us to deduce the possibility of its construction in the same way as the latter, as systematized in Tables 3.10-1 to 3.10-4. Therefore, the possible filling in of the from-whom-to-whom matrices of the distributive transactions from the published information of the accounts of the institutional sectors

allows us to construct aggregated matrices, with the totals of the various categories of transactions. However, versions involving institutional interrelations, at any level of aggregation, are impossible.

In order to overcome this impossibility, we worked in the previous sections on the extension of the published information on the uses of distributive transactions to the destination institutional sectors, which allowed us to quantify institutional interrelations in the from-whom-to-whom matrices. As shown in Tables 3.10-4 and 3.10-5, we now have the necessary information to fill in the sub-matrices that we have called current and capital transactions, in the economy and with the rest of the world, treated in Santos (2022) - in Section 4.2, d.9) and d.10), pp.90-91, in a disaggregated version of the social accounting matrix. We leave it to those interested to exercise the disaggregation of the national accounting matrix, based on the same from-whom-to-whom matrices.

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Table 3.10-4. Association of the from-whom-to-whom matrices to the current transactions of the aggregated and disaggregated social accounting matrices of transactions with gross balancing items.

Utilizações/Variações de Eco	nomia	П		П				dic			
ativos Contas i	nstituições (rw) Conta do resto do mundo	111			nfc	fc	g	h	npi	total	rw
Recursos/Variações do (dic) (Corrente Quadros 2.2-1,2,3,4 e 5	ılL			23	24	25	26	27	totai	37
passivo e do património líquido [Quadros	s 2.2-3 e 4] [Quadros 2.2-1,2,5,4 c 5]	1 -	Lc	122		407	1.2	1.751	0	2 172	77
1,0		11	nfc	23	0	407	13	1 751	0	2 172	77
rimi dinico Ope	rações		fc	24	759	1 536	43	3 287	34	5 659	684
(dic) Corrente corrente	Operações correntes	. 9	g g	25	6 246	1 008	40	38 959	24	46 276	968
4 . 4 .2 ′	(D5,D61,D62,D7) =	7	h	26	1 751	3 655	33 486	1 763		40 980	7 168
98 [Quadros 2.2-3 e 4] D62,D	., .,		npi	27	169	54	2 342	924	25	3 511	225
98	599 9 122		total		8 924	6 660	35 925	46 684	406	98 599	9 122
(rw) Conta do resto do Ope	~	r	rw	37	350	724	2 165	1 266	39	1 511	0
mundo corr	rações rentes ,D62,D7) =		_		ntos (2022 nfc - non		-		_	fc - fina	ancial

[excerpt from Table 2.3-2]

[from: Santos (2022) - Secção 4.2, d.9), p.90] [legend: nfc - non-financial corporations (S11); fc - financial corporations (S12); g - general government (S13); h – households (S14); npi – non-profit institutions serving households (S15)]

D5	Current	taxes on i	ncome, w	ealth etc.	(D51+D	59)			
		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11						0		0
	S12						0		0
	S13	5 695	966	40	13 557	8	20 266	413	20 679
	S14						0		0
	S15						0		0
	S1	5 695	966	40	13 557	8	20 266	413	20 679
	S2	96	108	0	44	5	252	\times	252
	S1+S2	5 791	1 073	40	13 601	13	20 518	413	20 931

[excerpt from Table 3.5-4]

Cells:
(dic, dic): 98 599 = 20 266 + 28 122 + 37 411
+ 12 728 + 73
(rw, dic): $4544 = 252 + 150 + 231 + 3911$
(dic rw): $9.122 = 413 + 70 + 1884 + 6.755$

	S11	S12	S13	S14	S15	S1	S2	S1+5
S11				1 751		1 751		17.
S12				2 161		2 161		2 1
S13				23 790		23 790	70	23 8
S14				26		26		
S15				394	_	394		3
S1				28 122		28 122	70	28 1
S2				150		150	\times	1
S1+S2				28 272		28 272	70	28 3
2 Social b	enefits otl	her than s	ocial trans	fers in kin	ıd			
2 Social b	enefits otl	ner than so	ocial trans	fers in kin	s15	S1	S2	
Social b						S1	S2	
						S1	S2	
S11						S1	S2	
S11 S12			S13			S1 37 411	S2	S1+5
S11 S12 S13	S11	S12	S13	S14	S15			S1+5
S11 S12 S13 S14	S11	S12	S13	S14	S15			S1+5
S11 S12 S13 S14 S15	1 751	\$12 2 088	S13 33 222	S14 26	S15 323	37 411	1 884	S1+5

Cells:

(h(S14), fc(S12)): 3655 = 2088 + 1495 + 73

(g(S13), npi(S15)): 24 = 8 + 16

(nfc(S12), fc(S11)): 759

• • • •

[excerpt from Table 3.6-4]

D 7	Other cu	ırrent tran	sfers (D7	1+D72+I	D73+D74	+D75)			
		S11	S12	S13	S14	S15	S1	S2	S1+S2
	S11	0	407	13	0	0	420	77	497
	S12	759	1 536	43	1 126	34	3 498	684	4 182
	S13	550	42	0	1 612	16	2 220	485	2 706
	S14	0	1 495	264	1 711	0	3 470	5 284	8 754
	S15	169	54	2 342	530	25	3 120	225	3 345
	S1	1 478	3 534	2 663	4 979	75	12 728	6 755	19 484
	S2	254	617	1 935	1 072	34	3 911	\times	3 911
	S1+S2	1 732	4 150	4 597	6 051	109	16 639	6 755	23 395

[excerpt from Table 3.7-4]

	S11	S12	S13	S14	S15	S1	S2	S1+S
S11								
S12		_						
S13				_				
S14		73		•		73		,
S15								
S1		73				73		7
S2							$\overline{}$	
S1+S2		73				73		7

[excerpt from Table 3.8-2]

Table 3.10-5. Association of the from-whom-to-whom matrices to the capital transactions of the aggregated and disaggregated social accounting matrices of transactions with gross balancing items.

Uses/Changes in asse Resources/ Changes in liabilities and net worth Loginary (dik) Capital Resources/ Changes in liabilities and net worth Loginary (dik) Capital Resources/ Changes In liabilities and net worth Resources/ Changes In liabilities and net worth Resources/ Changes In liabilities and net worth	Institutions accounts (dik) Capital [Table 2.2-5] Capital transfers (D9) + Aquisitions less disposals of non-produced assets = 2 622 Capital transfers (D9) =	(rw) Rest of the world account [Tables 2.2-1,2,3,4 and 5] Capital transfers (D9) + Acquisitions less disposals of non-produced assets = 2 219	nfc 28 fc 29 g 30 h 31 npi 32 total rw 37 [from: Sar [legend: r corporation]	nfc - non ns (S12);	-financ ; g - gen	g 30 662 1 1 1 5 9 34 64 355 2 3 1 3 112 eção 4.2 ial corperal gov	0 6 -1152 0 -1145 0 , d.10),	p.91] s (S11) at (S13);	; h – hous	eholds
D9 Capital transfers (S11 S11 0 S12 0 S13 140 S14 0 S15 0 S1 140 S2 61 S1+S2 202 Cells: (nfc(S11), graph (h(S14), h(S14), h(S1	D91+D92+D99) S12 S13 S14 1 662 0 1799 166 0 330 64 1 355 498 2 280 0 112 498 2 392 (S13)): 662 (S13)): 662	0	(S14); npi S2 S1+S2 088 1751 0 1200 660 978 98 491 65 421 912 4841 173 1912 5014	Cells: (dic,	dic): 2 less see 7 dlic): 17 rw): 2 2	622 = disposal Γable 2 73 219 = 1	2 929 - ls of nor 2-5a) 912 + ls of nor	307 (a n-produ 307 (a	cquisition	ns SS,

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4. Concluding remarks

Within the scope of the current System of National Accounts - SNA, 2008 (ISWGNA, 2009) - for Europe, ESA, 2010 (EU, 2013), with national accounts statistics published regularly, it is now possible to study in some detail, in a consistent macroeconomic framework, the system of production and the corresponding relations between industries. However, this is impossible with regard to the system of distribution and the corresponding relations between institutional sectors.

Confidentiality, or statistical secrecy, and uncertainty regarding sources and methods are, in general, the arguments used to justify non-publication and restrictions on the disclosure of national accounts statistics on the origin of resources (from-whom) and the destination of uses (to-whom) of distributive transactions. With them, it is possible to measure institutional interrelations, from which the accounts of the institutional sectors are calculated and published.

We believe that professionals working on national accounts in statistical institutes, with access to a wider range of data from different sources of information and with in-depth knowledge of sampling and error handling methods, are better able and available to produce the best possible quantitative description of the institutional interrelations in the distributive transactions of the country they are dealing with. Certainly, with the disclosure of this information, the subjectivity and intuition inherent in the estimates made by users of the published information to fill the lack of data would be alleviated, if not eliminated.

This perception and the observation of the comparative instability in the representative coefficients of the aforementioned interrelations, calculated from existing but not disclosed information, motivated the preparation of this working paper in which we make a proposal that we consider can be understood as a starting point for reviewing the situation and, at the same time, to overcome the non-full use (or waste) of highly useful statistical data, capable of contributing to completing and making national accounts more consistent, as is supposed by the system that underlies them.

Therefore, based on the development and reasoning made in the previous chapters, we propose that to the statistics of national accounts published regularly, in the part relating to the accounts of institutional sectors, others be added relating to the origin of resources (from-whom) and to the destination of uses (to-whom) of distributive transactions. We showed a possible way to do this, with a disaggregation of institutional sectors that did not exceed six (five for the economy and one for the rest of the world), and of distributive transactions that did not exceed the second level, in each category.

We consider that with such information, accompanied by appropriate metadata, it would become possible, within a consistent macroeconomic framework, to identify institutional interrelations, whose level of disaggregation could go as far as statistical secrecy, as well as sources and methods, would allow.

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Thinking in terms of modelling the economy on the basis of these (more or less detailed) statistics, we could speak of better models and sub-models for the distributive system, just as R. Stone did for the productive system, within the scope of the *Cambridge Growth Project*, m (Stone, 1981, pp.84-85).

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Annex. Recording of the resources of distributive transactions extended to origin institutional sectors ¹⁰.

Table A.1. Property income.

		S.11 Non-	S.12 Financial	S.13 General	S.14 Households	S.15 NPISHs	S.1 Total of the	S.2 Rest of the	Total
		Financial	Corporations			MISHS	Economy	World	
		Corporations					,		
Code	Transactions and balancing items								D
D4	Property income	9 098	12 129	1 457	11 401	161	34 246	13 319	Resources 47 565
D4	S11 - Non-Financial Corporations	4 324	3 226	546		112		6 074	21 833
	S12 - Financial Corporations	1726		734		67		3 481	11 396
	512 - Financial Corporations 513 - General Government	85	2 068	754		3		3 761	6 918
	S14 - Households	94		2	41	7		3/01	644
	S15 - NPISHs	10		0		0		2	12
	S2 - Rest of the World	2 859	3190	176		- 28		0	6762
D41	Interest	1 755		290		91			18 729
D41	S11 - Non-Financial Corporations	1 /33		43		1	3 400	739	4 140
	S12 - Financial Corporations	360	2 050	148		65		1262	4 624
	513 - General Government	85	2 0 6 8	0		3		3761	6 9 0 3
	S14 - Households	94		2		0		1	596
	S15 – NPISHs	8	-	0		0		2	10
	S2 – Rest of the World	122	1772	96		22	_	0	2 457
D42	Distributed income of corporations	6 274				112			23 955
D 12	S11 - Non-Financial Corporations	3190		152		111		4 836	16 760
	S12 - Financial Corporations	1 305		555		1		1884	4 803
	S13 - General Government	1303	7.54	333	124		2717	1004	+003
	S14 - Households								
	S15 – NPISHs								
	S2 - Rest of the World	1780	584		30		2 393		2 393
D43	Reinvested earnings on foreign direct investment	936		49		- 50		810	2 360
2.0	S11 - Non-Financial Corporations	750	010				0	499	499
	S12 - Financial Corporations						0	311	311
	S13 - General Government						0		0
	S14 - Households						0		0
	S15 - NPISHs						0		0
	S2 - Rest of the World	936	615	49		- 50	1550		1550
D44	Other investment income	82				2		24	2 019
	S11 - Non-Financial Corporations						0		0
	S12 - Financial Corporations	61	162	30	1377	2	1 633	24	1 657
	S13 - General Government						0		0
	S14 - Households						0		0
	S15 – NPISHs						0		0
	S2 - Rest of the World	21	220	31	90	0	362		362
D45	Rents	50		351	94	7	501		501
	S11 - Non-Financial Corporations	48		351			436		436
	S12 - Financial Corporations	0	0		0		0		0
	S13 – General Government		0		16		16		16
	S14 - Households		0		41	7	48		48
	S15 – NPISHs	2	0				2		2
	S2 - Rest of the World		0				0		0

¹⁰ In order not to overload the description, the information in the first line of the header will not be mentioned.

Table A.2. Current taxes on income, wealth, etc.

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total
		Non-	Financial	General	Households	NPISHs	Total of the	Rest of the	
		Financial	Corporations	Government			Economy	World	
		Corporations							
Code	Transactions and balancing items								
									Resources
D5	Current taxes on income, wealth, etc.			20 679			20 679		20 931
	S11 - Non-Financial Corporations			5 695			5 695	96	5 791
	S12 - Financial Corporations			966			966	108	1 073
	S13 - General Government			40			40	0	40
	S14 - Households			13 557			13 557	44	13 601
	S15 – NPISHs			8			8	5	13
	S2 - Rest of the World			413			413		413
D51	Taxes on income			20 114			20 114	252	20 366
	S11 - Non-Financial Corporations			5 629			5 629	96	5 725
	S12 - Financial Corporations			928			928	108	1 036
	S13 - General Government			17			17		17
	S14 - Households			13 121			13 121	44	13 164
	S15 – NPISHs			6			6	5	11
	S2 - Rest of the World			413			413		413
D59	Other current taxes			565			565	0	565
	S11 - Non-Financial Corporations			66			66		
	S12 - Financial Corporations			38			38		
	S13 - General Government			23			23		
	S14 - Households			436			436		
	S15 - NPISHs			2			2		
	S2 - Rest of the World						0		

Table A.3. Social contributions and benefits.

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total
		Non-	Financial	General	Households	NPIS Hs	Total of the	Rest of the	
		Financial	Corporations	Government			Economy	World	
		Corporations							
Code	Transactions and balancing items								
									Resources
D61	Net social contributions	1 751	2 161	23 860	26	394	28 192	150	28 342
	S11 - Non-Financial Corporations								
	S12 - Financial Corporations								
	S13 - General Government								
	S14 - Households	1 751	2 161	23 790	26	394	28 122	150	28 272
	S15 – NPISHs								
	S2 - Rest of the World			70			70		70
D62	Social benefits other than social transfers in kind				39 295		39 295	231	39 525
	S11 - Non-Financial Corporations				1 751		1 751		1 751
	S12 - Financial Corporations				2 088		2 088		2 088
	S13 - General Government				33 222		33 222	231	33 453
	S14 – Households				26		26		26
	S15 – NPISHs				323		323		323
	S2 - Rest of the World				1 884		1 884		1 884
D63	Social transfers in kind				23 316		23 316		23 316
	S11 - Non-Financial Corporations								
	S12 - Financial Corporations								
	S13 - General Government				19 182		19 182		19 182
	S14 - Households								
	S15 – NPISHs				4 134		4 134		4 134
	S2 – Rest of the World								

Table A.4. Other current transfers.

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total
Code	Temporations and balancing items	Non- Financial Corporations	Financial Corporations	General	Households	NPISHs	Total of the Economy	Rest of the World	
Code	Transactions and balancing items								Resources
D7	Other current transfers	497	4 182	2 706	8 754	3 345	19 484	3 911	23 395
	S11 - Non-Financial Corporations	0	759	550	0	169	1 478	254	1 732
	S12 - Financial Corporations	407	1 5 3 6	42	1 495	54	3 534	617	4 150
	S13 - General Government	13	43	0	264	2 342	2 663	1 935	4 597
	S14 - Households	0	1126	1 612	1 711	530	4 979	1 072	6 051
	S15 – NPISHs	0	34	16	0	25	75	34	109
	S2 - Rest of the World	77	684	485	5 284	225	6755	0	6 755
D71	Net non-life insurance premiums		2 808				2 808	279	3 087
	S11 - Non-Financial Corporations		757				757	71	828
	S12 - Financial Corporations		677				677	208	885
	S13 - General Government		34				34	0	34
	S14 - Households		1126				1 126	0	1126
	S15 – NPISHs		34				34	0	34
	S2 – Rest of the World		180				180		180
D72	Non-life insurance claims	473	877	33	1 495	20	2 897	225	3 122
	S11 - Non-Financial Corporations								
	S12 - Financial Corporations	407	629	33	1 495	20	2 582	225	2 808
	S13 - General Government								
	S14 - Households								
	S15 – NPISHs								
	S2 – Rest of the World	66	248				314		314
D73	Current transfers within general government			0			0		0
D74	Current international cooperation			452			452	192	645
	S11 - Non-Financial Corporations								
	S12 - Financial Corporations								
	S13 - General Government							192	192
	S14 - Households								
	S15 – NPISHs								
	S2 – Rest of the World			452			452		452
D75	Miscellaneous current transfers	24	497	2 221	7 259	3 325	13 327	1 515	14 842
	S11 - Non-Financial Corporations	0	2	550	0	169	721	183	904
	S12 - Financial Corporations	0	230	10	0	35	274	183	457
	S13 - General Government	13	9	0	264	2 342	2 629	43	2 672
	S14 - Households	0	0	1 612	1 711	530	3 853	1 072	4 925
	S15 – NPISHs	0	0	16	0	25	41	34	75
	S2 – Rest of the World	11	256	33	5 284	225	5 809	0	5 809
D76	VAT- and GNI-based EU own resources						0	1 699	1 699
	S11 - Non-Financial Corporations								
	S12 - Financial Corporations								
	S13 – General Government						0	1 699	1 699
	S14 - Households								
	S15 – NPISHs								
	S2 - Rest of the World								

Table A.5. Capital transfers, receivable.

		S.11	S.12	S.13	S.14	S.15	S.1	S.2	Total
		Non-	Financial	General	Households	NPISHs	Total of the	Rest of the	
		Financial	Corporations	Government			Economy	World	
Code	Transactions and balancing items								
	·						Change	s in liabilities a	ind net worth
D9r	Capital transfers, receivable	1 751	1 200	978	491	421	4 841	173	5 014
	S11 - Non-Financial Corporations	0	0	140	0	0	140	61	202
	S12 - Financial Corporations	1	0	166	330	1	498	0	498
	S13 – General Government	662	1199	0	64	355	2 280	112	2 392
	S14 - Households	0	0	6	0	0	6	0	6
	S15 – NPISHs	0	0	5	0	0	5	0	5
	S2 – Rest of the World	1 088	0	660	98	65	1 912	0	1 912
D91r	Capital taxes, receivable			0			0	0	0
D92r	Investment grants, receivable	1 384	1	660	144	272	2 460	58	2 518
	S11 - Non-Financial Corporations								
	S12 - Financial Corporations								
	S13 – General Government	326	0		47	207	580	58	638
	S14 - Households								
	S15 – NPISHs								
	S2 – Rest of the World	1 059	0	660	96	65	1 881		1 881
D99r	Other capital transfers, receivable	367	1 199	318	348	149	2 380	115	2 496
	S11 - Non-Financial Corporations		0	140			140	61	202
	S12 - Financial Corporations	1	0	166	330	1	498	0	498
	S13 – General Government	337	1 199		16	148	1700	54	1754
	S14 - Households		0	6			6		6
	S15 – NPISHs		0	5			5		5
	S2 - Rest of the World	30	0	0	1		31		31