SAMs as tools for economic analysis of tourism.

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Abstract

Quantitative analysis of tourism and more specifically economic analysis of tourism received increasing attention in recent years, thanks to the stimulating inputs by the UNWTO. Scholars and researches devoted their activity to set up econometric demand and production models and estimated the related parameters, as well as time series analysis, either smoothing or stochastic models, particularly to estimate seasonality indexes and making forecast.

Tourism economic analysis regarded in an overall macroeconomic framework gained consensus as well, implemented by means of I-O Tables and SAMs, which allow analysing the tourism from both the supply and the demand sides, with specification of functions and subjects.

In this paper, a discussion is opened about the advisability to use a SAM, which provides a complete representation of the economic system in all its functions and with the institutional sectors. With the support of a case study, it is shown how a SAM can effectively represent the most appropriate tool to conduct an analysis that allows measuring almost completely the tourism supply chain and its degree of integration into the production structure, as well as its ability to produce Gross Value Added, and to estimate the effects that the exogenous demand for tourism has on the production of the other branches and on the households' income and consumption.

1   Introduction

Quantitative analysis in the study of tourism is recommended by the UNSD, which for about fifteen years now has been hoping for the development of the statistical approach (UNSD, 2008).

This vision implies that the economic analysis of tourism develops and, indeed, supports its parallel strengthening, so much so that the UNSD itself recommends the construction of the Tourism Satellite Account (TSA) as the main tool for quantitative description and statistical-economic analysis of tourism, essential for the progress of research in tourism, now commonly adopted and in use in the countries of the European Union (EU), and as a fundamental information document for the public and private decision makers, recommending to the countries to elaborate it, at least at close periodic cadences (UNSD) (UNSD, 2010a; 2010b).

The way it is structured, the TSA, while very useful, cannot be used as a tool for economic analysis. Other and more performing are the tools that can be used; among these, econometric analysis excels, with regression and time series models, both classic (smoothing) and modern (stochastic processes). However, these are approaches in which the variables involved are few and are not regarded in a general macroeconomic context.

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Instead, the analysis of tourism in a macroeconomic framework is very informative and useful. Two are the tools that can be used, as databases and models, to this goal: the Social Accounting Matrices (SAM) and the Input-Output (I-O) Tables.

This makes it possible to analyse the tourism from a macroeconomic point of view, with income and expenditure and interdependence relationships with other branches, demand for tourist services, creation of Gross Value Added (GVA) and distribution of income and, in the case of SAMs, also income redistribution and institutional sectors. The results are particularly useful information for government policy decisions.

In this direction, the use of SAMs is establishing itself more and more among scholars as *the* tool, because it allows for a coherent and overall satisfactory analysis, based on Keynesian economic theory and Leontief's model, of all aspects connected to production of tourist goods and services and to the demand by the tourists for them.[1]. In addition, it allows doing it in a more complete and detailed way than the I-O table might do.

Although the tourism sector includes different activities (Hotels & Restaurants, air, sea, railway and land Transport, Museums, Parks, Shows, Entertainment, Tour operators), the Hotels & Restaurants activity is generally taken as representative of the whole sector. It is included as a branch in the Input-Output (I-O) tables and in the Social Accounting Matrices (SAMs).

However, a basic uncertainty remains which, even if ignored in practice, has a strong impact on the correct assessment of the economic aspects, heavily affecting the results of the aforementioned analyses.

This uncertainty is due to the weakness of the data and is caused by the inaccurate identification of the content of the items concerning costs and revenues.

In fact, while in practice these are taken in full, it would be necessary to distinguish which of them concern tourists and which non-tourists (that is, people who move for reasons other than purely leisure ones) and residents.

As far as the non-tourists are concerned, uncertainty is eliminated by the very definition of tourism given by the UNWTO, which, in addition to the persons who travel for leisure, includes among the tourists those who travel for personal or business/professional purposes. Therefore, the costs of the services provided by Hotels & Restaurants to the latter and their expenditure in them are, by definition, part of the tourism sector. In our opinion, this introduces a spurious factor that determines a strong over-identification of the sector.

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[1] Among the most recent contributions, it is worth quoting Akkemik, (2012), Ferrari, Mondéjar Jiménez and Secondi (2018); Jones (2010), Polo and Valle (2012); the latter, comparing the SAM with the I-O model.

Instead, the costs of the services provided to the residents and the expenses incurred by them are considered "tourist", with a consequent overestimation of the respective posts.

Of course, this drawback, which affects the statistical-economic information on tourism, remains whatever the quantitative analysis tool one chooses.

Although the problem in question pertains very closely to the economic analyses of tourism, we will not go further in the discussion of the correlated thematic - as our purposes are to discuss the theoretical-methodological assumptions, as well as the practical implications that support the use of SAM and IMM - but we are convinced that the development now achieved by the economic analyses of tourism does not allow to further procrastinate facing it and finding a solution.

We believe that a SAM represents, with its accounting scheme, the most suitable data base for conducting analyzes on tourism which are placed in a general macroeconomic framework and highlight its interdependencies with other productive sectors and with households, enterprises, and the public administration, show the contribution of tourism to the formation and distribution of income and highlight its action of multiplication of the productive sector and household demand, as well as factors and income.

This is what we want to submit for discussion in the following paragraphs, where we will address all the points outlined in an orderly and critical manner, starting from the considerations on the use of a SAM and the related Impact Multiplier Model (Paragraph 2), to continue with the estimation of multipliers, which includes the description of the database, the SAM, highlighting its peculiar characteristics (Paragraph 3), and then to conclude by pulling the strings of the whole discussion (Paragraph 4).

2 Using a SAM and the Impact Multiplier Model

As just claimed above, if one wants to pursue the aims of economic analysis set out, a SAM is more suitable than an I-O Table - which has also been repeatedly used for economic analyses of tourism and still is, even if to a much lesser extent[2] - because, while a SAM provides a complete, consistent, based on Keynesian economic theory, using accounts, quantitative economic description of an economic system, the second provides a partial description, as it does not record anything of what happens in the processes of income distribution and redistribution.

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[2] See, just to mention some of the more recent ones, the works by Guo et al. (2017) and Lopez et al. (2016) for the assessment of the economic impacts of Mississippi and Alabama Gulf Coast visitor spending, and of the international students' expenditure on the Galicia (Spain) region, respectively. Additionally, two studies were published in parallel: Tomlinson et al. (2015) provided an integrated approach to the analysis of the impact of jellyfish blooms on the key sectors of tourism and fisheries in the Catalan coast, and Pratt (2015) provided a cross province comparative analysis of impact multipliers to examine China's relative potential for benefitting from tourism.

From a theoretical point of view, the I-O scheme postulates complete linearity and therefore constant returns to scales and non-substitutability between production factors; two rather strong assumptions, which imply rigidity in the production processes. Even the SAM scheme postulates linearity and non-substitutability in production processes - on the other hand both are placed in a Keynesian context - but it has the ability to fully represent the Keynesian scheme by entering, even in a very detailed way if necessary, the distribution and redistribution of income mechanisms among the institutional sectors that act fundamentally in the economy, i.e. households, businesses and the public administration, which makes the analysis complete and, therefore, much more informative.

Thus, if a SAM is used, as we claim it should be done for the reasons just illustrated, it is convenient conducting an impact multiplier analysis, implying the construction of technical coefficients and multipliers, which indeed can also be carried out using an I-O Table, but in a much more reduced and partial way.

The Impact Multiplier Model (IMM) represents a very informative and eclectic tool to the above aim, because with it one can suitably model an effective exogenous demand (account) that addresses a large number of endogenous subjects (accounts), as many as the branches of the SAM, and involves productive factors and institutional sectors (also seen as account holders).

It is a linear model, and it could not be otherwise, given that it arises as an accounting relationship between total demand on the one hand and final demand and intermediate consumption on the other. In this case, the linearity is completely positive because it allows obtaining a very useful indicator, the linear regression coefficient, which, as we will soon see, will have a particular and extremely interesting and informative structure in the direction of the objectives of interpretation of the propulsive thrust that can be contributed by tourism.

After modelling the exogenous account and the endogenous accounts, this accounting relationship turns into a system of linear equations, $\mathbf{X} = \mathbf{AX} + \mathbf{Z}$, with $\mathbf{X}$ the vector of the total demand accounts, $\mathbf{A}$ the matrix of the endogenous accounts coefficients e $\mathbf{Z}$ the vector of the exogenous account, including tourists' expenditure for Hotels & Restaurants, which, solved with respect to $\mathbf{X}$, becomes $\mathbf{X} = (\mathbf{I}\text{-}\mathbf{A})^{-1} \mathbf{Z} = \mathbf{M} \mathbf{Z}$, where $\mathbf{Z} = (\mathbf{I}\text{-}\mathbf{A})^{-1}$ is the Leontief inverse impact multiplier matrix, which transmits the effect of the demand for tourism services to the economic system, i.e., to branches, factors and institutional sectors.

A look at the column vector of $\mathbf{A}$ concerning the endogenous account "Hotels & Restaurants", allows evaluation of the cost structure of tourism and its degree of integration in the economic system. A review of the row vector gives the entries to the tourism branch and the households' expenditure for tourism.

An analysis of the impact multipliers **M** matrix gives the direct and indirect multiplier effect on the tourism itself due to a unitary increase of the tourism demand and the indirect effects to the economic system as a whole, i.e., the branches other than tourism, the factors and the institutional sectors.

3   Estimating M matrix

The aforementioned analysis by Ferrari et alii (2018) carried out based on a SAM 2017 for the Tuscany region, Italy, 50 accounts, including 28 branches, obtained with the RAS method starting from that of 2011elaborated by IRPET (Istituto Regionale Programmazione Economica della Toscana) according to the ESA 95, has measured the intermediate costs and the degree of integration of tourism on productive structure of the Tuscan economic system, as well as the multiplicative impact of exogenous demand for tourism services on the endogenous accounts (branches), factors, households income and expenditure. Originally, it is a SAM (63x63), which we have reduced to a (50x50) by merging capital incomes, and household consumption, which are in quintiles.

The SAM, splits out into the four submatrices that make it up, is reported in the Appendix.

The column vector of the estimated endogenous coefficients matrix, **A,** concerning the branch (account) "Hotels & Restaurants", allows evaluation of the intermediate costs/degree of integration of tourism in the regional productive structure: there is evidence particularly with the "Food, Beverage, Tobacco" branch, given an endogenous coefficient of 0.1265, but also with Trade" (0.0390), "Housing" (0.0392), "Electricity, Gas, Air conditioning" (0.0270), and "Administration, services" (0.0290), showing a quite long second step, the productive one – out of the three one can subdivide it - of the sector's supply chain. Moreover, there is evidence that tourism creates high GVA, witnessed by the high endogenous coefficients of "Wages and salaries" (0.1869), and "Gross operating surplus" (0.3157).

The column vector of the estimated Leontief impact multiplier matrix, **M**, concerning the account "Hotels & Restaurants", allows evaluation of the direct and indirect multiplying effect of the exogenous demand for tourist goods and services on the branches, including the branch itself, and on GVA and households' income and consumption. It reveals for "Hotels & Restaurants", a direct and indirect coefficient equal to 1.0744, meaning, besides the obvious direct activation, a quite significant indirect activation from the demand for tourist goods and services of the other branches.

Always at the production sphere level, the indirect effects are quite widespread on the productive fabric, the most remarkable being represented by the values 0.1868 of the multiplier of the branch v, the 0.1491 of "Trade", and the 0.1303 of "Housing". Less remarkable, but well worth emphasizing are the multipliers of "Transport" (0.0893), "Scientific activity" (0.0652), "Electricity,

Gas, Air conditioning" (0.0622), "Finance, Insurance" (0.0618), and "Administration, Services" (0.0581).

Both the results obtained with the cost analysis and those obtained with the multiplier analysis are extremely interesting and informative. They are as such, and even more, in view of the thesis supported by us, because they confirm the adequacy and effectiveness, as well as the potential, of a SAM as a tool for assessing and analysing the costs and earnings of tourism and of its ability of activation of the productive fabric, and households' income and consumption and, therefore, its positioning and relevance in the economic framework.

4   Conclusion

Let's pull the strings of the different issues we have raised regarding the advantages offered by a global tool such as a SAM in addressing the quantitative economic study of tourism.

We have argued with arguments that have sometimes a quasi epistemological character, that it is a very appropriate and useful way, justifying it with the many advantages it presents, in the face of the few limitations, inherent in its typically being a macroeconomic approach, which vanish if, precisely, the analysis intends to be conducted at that level, which, on the other hand, seems to us the only one that can allow to conjugate the collection of sufficiently detailed information with an overall aggregate cognitive framework.

If this is the point of view - and we are convinced that if one intends to study tourism quantitatively in terms of value, with the aim of giving it an integrated reading, with the possibility of individually measuring the action of the protagonists of the productive activity and of final demand appropriately modelled into branches, factors and institutional sectors, framed in a Keynesian macroeconomic context, as we think it should be - a database built up on Keynesian macroeconomic assumptions, such as a SAM, is the best tool to rely on.

The arguments developed in the previous pages, corroborated by the example cited, which serves as a case study, make but strengthen this belief.

Indeed, putting aside the problem of the unsatisfactory economic statistical data concerning the tourism to remain on the economic-statistical conceptual level, a SAM allows to better describe the cost structure, i.e., the second step of the supply chain of the tourism, as well as the share of GVA produced by it, clarifying its nature as a capital intensive oriented sector and finally to measure the value of the fraction of tourist goods and services consumed by households. In our case study this step can be seen very clearly, founded on the "Food, Beverage, Tobacco" branch, to then be innervated on a good number of service branches. Similarly, the shares of the labour and capital factors making up the GVA and the demand for tourist consumption of households are measured.

To all this, which is already in itself an achievement full of informative content, adds to, with all its descriptive and interpretative corpus, the power of the IMM model. It makes it possible to measure the ability of tourism to activate the economy, which, together with the knowledge of the structure of costs and revenues provided by matrix **A**, represents a very broad spectrum, consistent and theoretically well-founded information luggage, which can be of great utility to tourism operators, families and policy makers in preparing their management and development choices.

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APPENDIX

Table 1A – 2017 SAM for Tuscany: Interindustry flows matrix

Interindustry flows

#	Industry	1 Agriculture, hunting and forestry	2 Fishing, fish farming and related services	3 Mining industry	4 Food, beverage and tobacco industries	5 Textile industries, manufacture of clothing and leather items and the like	6 Wood, paper and publishing industries	7 Coking plants, refineries, chemical, pharmaceutical	8 Manufacture of rubber and plastic products and other non-metallic mineral products	9 Metallurgical activities; manufacture of metal products, excluding machinery and equipment	10 Manufacture of computer and electronic and optical products, manufacture of electrical equipment, manufacture of machinery n.e.c	11 Manufacturing of means of transport	12 Furniture manufacturing; other manufacturing industries; repair and installation of machines and equipment	13 Supply of electricity, gas, steam and air conditioning	14 Water supply; sewerage, waste treatment and remediation activities	15 Constructions	16 Wholesale and retail trade; repair of motor vehicles and motorcycles	17 Transportation and storage	18 Accommodation and catering services	19 Information and communication services	20 Financial and insurance activities	21 Real estate	22 Professional, scientific and technical activities	23 Administrative activities and support services	24 Public administration and defence; compulsory social insurance	25 Instruction	26 Health and social care	27 Artistic activities, entertainment and fun	28 Other service activities
1	Agriculture, hunting and forestry	175,26	0,03	0,08	1098,62	131,17	29,12	7,58	12,33	5,00	3,48	1,11	2,59	1,63	1,13	6,44	167,24	16,87	155,80	2,29	0,41	0,71	4,41	34,81	0,63	0,24	11,48	2,59	3,23
2	Fishing, fish farming and related services	0,00	1,60	0,00	0,90	0,10	0,00	4,80	0,00	0,00	0,00	0,00	0,30	0,00	0,10	0,00	1,10	5,40	44,10	0,40	0,00	0,00	0,00	0,00	0,50	0,20	1,80	1,00	0,10
3	Mining industry	0,98	0,02	38,79	3,98	7,09	18,23	664,19	165,58	84,33	6,10	3,05	3,75	1082,15	1,62	64,21	41,56	4,59	4,38	4,61	1,82	1,65	8,82	3,87	1,64	0,63	4,17	0,98	1,00
4	Food, beverage and tobacco industries	122,22	2,98	1,66	1103,74	439,03	11,32	78,40	5,05	2,78	5,64	2,35	3,30	1,74	1,68	4,21	141,39	36,82	1228,41	5,45	0,99	1,05	8,27	7,47	2,38	0,78	44,25	10,10	2,26
5	Textile industries, manufacture of clothing and leather items and the like	7,50	3,21	1,34	11,25	5070,30	96,47	55,13	42,59	22,77	35,84	46,86	65,21	9,44	15,81	27,56	122,34	20,00	15,94	10,53	2,68	1,79	17,37	18,76	11,27	1,23	15,32	3,64	11,87
6	Wood, paper and publishing industries	6,11	0,98	2,88	41,06	52,83	1593,20	84,07	47,24	53,81	68,33	30,09	303,75	42,11	21,62	226,95	127,19	86,01	78,14	148,27	46,95	2,64	123,92	207,66	36,18	4,35	24,93	30,73	24,88
7	Coking plants, refineries, chemical, pharmaceutical	99,34	1,16	38,50	72,59	391,57	298,79	2197,81	552,55	183,62	171,29	50,95	99,16	222,64	115,81	157,85	615,75	461,23	72,22	47,98	16,37	6,08	102,42	70,79	38,90	8,32	377,00	8,69	49,35
8	Manufacture of rubber and plastic products and other non-metallic mineral products	18,48	0,83	38,68	59,03	219,44	79,07	433,56	721,43	165,16	216,94	91,95	90,69	477,86	40,56	921,95	165,87	100,02	42,09	17,53	8,14	5,74	51,12	52,02	15,20	4,53	16,17	5,37	9,60
9	Metallurgical activities; manufacture of metal products, excluding machinery and equipment	12,44	1,02	6,10	18,17	38,30	40,62	63,62	102,73	2424,86	1567,59	330,19	294,83	124,90	75,71	640,19	193,36	84,82	18,69	20,40	4,57	8,51	49,70	56,29	29,40	2,68	12,44	4,27	12,97
10	Manufacture of computer and electronic and optical products, manufacture of electrical equipment, manufacture of machinery n.e.c	15,39	2,03	15,14	29,37	74,96	68,96	81,36	74,43	271,69	1992,24	309,99	200,73	249,79	93,62	687,79	226,94	195,55	66,46	211,53	22,53	16,72	192,38	106,18	40,29	5,00	56,81	18,64	36,15
11	Manufacturing of means of transport	1,69	2,94	3,06	5,82	25,15	8,62	18,24	14,78	32,87	144,16	402,87	42,25	15,17	48,11	45,87	292,00	184,34	14,80	23,91	4,97	3,35	37,30	40,97	43,49	3,96	8,63	8,22	5,88
12	Furniture manufacturing; other manufacturing industries; repair and installation of machines and equipment	14,97	0,70	8,44	15,10	40,25	59,71	26,88	21,58	44,31	91,80	45,33	406,30	29,44	41,23	101,55	129,43	75,85	21,55	64,64	3,17	9,57	26,94	34,43	20,81	3,39	106,33	6,79	10,22
13	Supply of electricity, gas, steam and air conditioning	28,36	5,49	23,06	170,50	266,64	289,96	191,77	240,95	158,63	171,10	37,46	89,92	586,72	139,67	54,72	532,20	165,83	261,95	53,78	43,46	44,31	108,36	62,98	129,22	55,64	126,87	28,79	122,55
14	Water supply; sewerage, waste treatment and remediation activities	11,82	0,04	6,19	33,18	130,22	58,64	70,88	32,49	187,73	25,68	11,29	15,26	116,95	292,68	30,58	176,13	101,32	102,16	9,03	4,79	4,77	24,49	20,67	146,99	34,06	33,53	9,77	28,59
15	Constructions	25,78	0,14	7,05	34,54	114,11	53,55	38,90	41,33	47,76	73,92	34,82	32,17	89,31	21,35	2765,74	255,71	183,56	87,65	86,21	115,61	38,91	87,87	43,75	145,48	274,59	170,93	30,87	19,48
16	Wholesale and retail trade; repair of motor vehicles and motorcycles	59,77	1,96	19,29	525,22	960,57	282,54	470,61	262,79	299,80	641,82	196,15	292,50	114,03	101,43	378,66	1321,05	792,93	378,99	257,74	57,16	53,84	210,71	265,48	87,19	16,52	257,08	46,54	47,05
17	Transportation and storage	32,80	1,04	56,45	315,74	432,25	262,16	273,81	250,38	226,25	250,53	86,59	140,86	418,11	76,12	258,79	1159,37	3307,62	158,95	246,48	97,25	25,71	151,85	287,50	143,40	13,17	65,53	23,75	36,74
18	Accommodation and catering services	2,99	0,12	8,93	28,10	83,35	21,07	36,23	25,57	45,05	113,45	20,71	33,33	82,79	7,59	120,46	364,57	200,11	111,52	150,16	31,52	48,08	139,45	198,04	21,14	6,44	172,73	45,51	14,50
19	Information and communication services	4,03	0,68	16,42	57,05	176,11	60,32	71,85	45,49	65,41	182,17	69,81	63,10	197,45	45,79	192,66	668,01	392,91	165,30	672,69	373,90	64,85	548,12	285,84	129,29	22,67	113,85	122,66	48,24
20	Financial and insurance activities	30,04	1,88	10,20	79,09	97,82	85,10	77,62	107,25	148,06	42,17	73,29	71,19	38,72	210,22	69,53	310,29	151,24	116,40	1895,05	594,19	148,59	103,63	331,81	25,98	85,51	35,26	36,43	
21	Real estate	2,75	0,40	11,00	44,18	259,37	65,34	34,31	53,36	70,18	102,19	21,01	73,19	59,27	22,63	165,59	1234,90	237,65	380,66	170,62	254,22	144,18	180,07	115,87	125,33	42,38	103,14	43,65	96,36
22	Professional, scientific and technical activities	24,06	0,56	29,74	214,48	631,93	150,49	249,58	157,69	214,89	435,04	192,29	163,10	57,58	82,63	319,04	1452,50	447,24	216,68	522,95	230,81	178,75	938,18	373,32	157,99	67,23	341,21	106,68	70,17
23	Administrative activities and support services	5,00	0,03	25,99	95,59	311,96	116,12	114,85	85,02	124,48	186,59	72,18	83,12	54,66	130,14	216,09	737,21	584,90	281,24	372,72	80,85	95,65	287,95	368,62	152,56	30,19	178,71	73,47	43,30
24	Public administration and defence; compulsory social insurance	0,06	0,00	0,22	3,22	3,30	1,27	5,50	2,25	1,41	3,52	4,83	0,90	1,48	1,19	0,96	4,79	4,22	0,68	3,30	1,83	0,17	1,56	1,98	0,66	0,08	2,14	0,56	0,96
25	Instruction	0,01	0,00	0,51	3,57	13,56	3,81	6,42	4,35	5,65	15,79	2,99	4,50	1,60	2,76	7,50	38,97	16,93	6,23	12,60	4,61	2,53	18,19	11,48	26,42	5,57	22,09	2,24	9,27
26	Health and social care	0,04	0,00	0,40	0,63	2,16	0,57	1,63	0,53	0,89	3,46	2,57	3,18	0,72	0,37	2,15	3,09	1,27	1,33	2,51	0,78	0,18	4,00	1,77	11,67	0,47	384,90	0,48	0,79
27	Artistic activities, entertainment and fun	0,35	0,00	2,41	24,05	35,13	9,16	12,56	6,81	4,17	9,46	3,53	3,85	6,79	3,09	11,37	64,80	12,01	11,45	96,32	2,91	2,11	35,89	24,41	7,93	5,23	2,76	140,41	5,04
28	Other service activities	7,67	0,14	1,98	10,93	38,94	5,66	13,75	5,46	10,85	34,00	10,93	13,55	34,39	4,14	44,59	50,28	29,99	18,79	42,45	5,54	4,29	23,95	19,30	11,64	1,39	72,59	3,85	42,03

Table 2A - 2017 SAM for Tuscany: Final demand matrix

		Generation and allocation of income			Capital income						Domestic consumption				Secondary distribution and utilization of income											Regional and foreign trade and residents				Capital account (capital investment and transfers and net debt								
		Wages and salaries	Social contributions payable by employers	Gross operating surplus	VAT and net indirect taxes on products	Interest on public debt	Other interests	Profits distributed by companies	Other capital income	Mixed income transferred from producer households to consumers	Household expenditure	PA expenditure	NPISH expenditure	Net credit (+)/debt (-)	Consumer households 1° quintile	Consumer households 2° quintile	Consumer households 3° quintile	Consumer households 4° quintile	Consumer households 5° quintile	Producer households	Non-financial corporations	Financial corporations	NPISH	PA	Total divisible expenditure of the PA and regional NPISH	Regional exports	Foreign exports	Regional expenditure of the other Italians	Regional expenditure of non residents	Consumer households	Producer households	Non-financial corporations	Financial corporations	NPISH	PA	Income from other regions	Income from abroad	TOTAL
		29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	
1	Agriculture, hunting and forestry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	975,69	1,41	1,29	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1657,71	262,47	0,00	0,00	0,00	4,15	20,86	0,58	0,07	3,36	0,00	0,00	4803,87627
2	Fishing, fish farming and related services	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	123,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	54,60	4,00	0,00	0,00	0,00	0,40	2,00	0,06	0,01	0,33	0,00	0,00	246,895428
3	Mining industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	14,47	3,62	0,05	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	268,65	159,55	0,00	0,00	0,25	0,96	4,95	0,14	0,02	0,74	0,00	0,00	2677,18242
4	Food, beverage and tobacco industries	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4224,53	5,80	0,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2937,45	1238,99	0,00	0,00	0,61	7,28	36,27	0,99	0,12	6,27	0,00	0,00	11733,9062
5	Textile industries, manufacture of clothing and leather items and the like	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2326,83	23,17	0,23	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	5373,09	6432,04	0,00	0,00	1,13	21,29	105,92	2,94	0,36	18,86	0,00	0,00	20069,8877
6	Wood, paper and publishing industries	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	365,35	3,81	0,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3034,63	1011,97	0,00	0,00	0,86	13,61	68,33	1,89	0,23	11,40	0,00	0,00	8029,03659
7	Coking plants, refineries, chemical, pharmaceutical	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1989,32	405,71	0,56	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2882,12	2286,26	0,00	0,00	1,04	4,20	21,04	0,57	0,07	3,77	0,00	0,00	14123,391
8	Manufacture of rubber and plastic products and other non-metallic mineral products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	498,37	8,95	0,11	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2315,16	1141,13	0,00	0,00	1,45	-0,49	8,83	0,21	0,05	-1,71	0,00	0,00	8041,10947
9	Metallurgical activities; manufacture of metal products, excluding machinery and equipment	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	348,07	9,96	0,11	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2205,91	3384,10	0,00	0,00	2,08	89,93	446,88	12,35	1,45	75,83	0,00	0,00	12816,0581
10	Manufacture of computer and electronic and optical products, manufacture of electrical equipment, manufacture of machinery n.e.c	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1281,09	79,42	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2747,04	4952,23	0,00	0,00	7,14	422,97	2102,84	58,11	6,78	356,55	0,00	0,00	17377,8814
11	Manufacture of means of transport	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1741,11	47,90	0,61	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	799,57	1608,84	0,00	0,00	3,54	137,43	682,26	18,91	2,19	113,63	0,00	0,00	6639,39957
12	Furniture manufacturing; other manufacturing industries; repair and installation of machines and equipment	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	786,02	5,82	0,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1055,24	1984,91	0,00	0,00	8,81	159,88	794,23	22,01	2,56	133,70	0,00	0,00	6413,92114
13	Supply of electricity, gas, steam and air conditioning	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1641,41	2,12	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	16,32	29,24	0,00	0,00	6,33	5,22	25,95	0,72	0,08	4,33	0,00	0,00	5922,62696
14	Water supply; sewerage, waste treatment and remediation activities	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	728,33	23,88	0,98	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	455,41	62,52	0,00	0,00	2,27	2,00	9,93	0,28	0,03	1,66	0,00	0,00	3007,20109
15	Constructions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	665,84	35,51	0,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	142,10	12,52	0,00	0,00	3916,23	528,29	2623,48	72,77	8,45	417,80	0,00	0,00	13344,1332
16	Wholesale and retail trade; repair of motor vehicles and motorcycles	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	9748,81	293,68	4,55	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3192,89	1556,69	0,00	0,00	12,08	219,67	1091,32	30,23	3,52	183,74	0,00	0,00	24736,6314
17	Transportation and storage	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3586,49	136,87	0,02	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3087,79	982,23	0,00	0,00	11,31	27,79	138,03	3,82	0,44	23,18	0,00	0,00	16797,2156
18	Accommodation and catering services	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	7336,36	60,79	5,81	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	112,97	20,18	0,00	0,00	6,55	5,10	25,30	0,70	0,08	4,23	0,00	0,00	9711,57935
19	Information and communication services	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1876,67	74,48	6,21	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1177,76	246,75	0,00	0,00	14,25	141,83	704,42	19,51	2,27	118,79	0,00	0,00	9239,55923
20	Financial and insurance activities	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2167,95	5,17	0,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2852,52	92,26	0,00	0,00	0,00	5,06	25,12	0,70	0,08	4,15	0,00	0,00	11022,0452
21	Real estate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	9832,31	0,37	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	665,62	80,50	0,00	0,00	3,57	63,98	317,77	8,81	1,01	55,21	0,00	0,00	15142,9506
22	Professional, scientific and technical activities	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	452,58	305,19	3,75	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1876,61	212,08	0,00	0,00	3,96	24,31	120,73	3,35	0,39	19,83	0,00	0,00	11049,5644
23	Administrative activities and support services	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	551,23	39,70	0,22	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1122,69	304,23	0,00	0,00	1,23	2,24	11,33	0,31	0,04	1,84	0,00	0,00	6944,28233
24	Public administration and defence; compulsory social insurance	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	67,80	8053,29	0,13	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	9,19	1,91	0,00	0,00	0,00	0,47	2,33	0,06	0,01	0,39	0,00	0,00	8188,61599
25	Instruction	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	818,06	3350,81	29,68	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4,73	1,76	0,00	0,00	0,53	0,57	2,82	0,08	0,01	0,47	0,00	0,00	4459,66682
26	Health and social care	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1131,18	6556,99	105,33	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	27,37	14,24	0,00	0,00	0,68	0,61	3,06	0,08	0,01	0,51	0,00	0,00	8272,62122
27	Artistic activities, entertainment and fun	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	957,06	318,20	51,88	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	204,78	35,74	0,00	0,00	1,05	3,74	18,57	0,52	0,06	3,09	0,00	0,00	2138,75325
28	Other service activities	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2527,68	44,81	190,73	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	101,08	66,65	0,00	0,00	0,35	9,18	45,58	1,26	0,15	7,70	0,00	0,00	3558,23337

Table 3A - 2017 SAM for Tuscany: Primary factors matrix

	Interindustry flows	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
		Agriculture, hunting and forestry	Fishing, fish farming and related services	Mining industry	Food, beverage and tobacco industries	Textile industries, manufacture of clothing and leather items and the like	Wood, paper and publishing industries	Coking plants, refineries, chemical, pharmaceutical	Manufacture of rubber and plastic products and other non-metallic mineral products	Metallurgical activities; manufacture of metal products, excluding machinery and equipment	Manufacture of computer and electronic and optical products, manufacture of electrical equipment, manufacture of machinery	Manufacturing of means of transport	Furniture manufacturing; other manufacturing industries; repair and installation of machines and equipment	Supply of electricity, gas, steam and air conditioning	Water supply; sewerage, waste treatment and remediation activities	Constructions	Wholesale and retail trade; repair of motor vehicles and motorcycles	Transportation and storage	Accommodation and catering services	Information and communication services	Financial and insurance activities	Real estate	Professional, scientific and technical activities	Administrative activities and support services	Public administration and defence; compulsory social insurance	Instruction	Health and social care	Artistic activities, entertainment and fun	Other service activities
29	Wages and salaries	355,80	15,30	72,00	408,30	1579,10	515,30	533,30	594,50	644,60	988,70	483,60	624,70	223,20	336,40	1617,50	3310,00	2176,60	1815,00	760,20	1894,80	81,40	1142,20	822,40	2685,80	2273,90	2537,50	264,50	1465,70
30	Social contributions payable by employers	107,90	4,10	34,90	165,40	624,10	221,30	233,40	260,40	280,30	417,20	209,50	254,00	97,50	142,00	724,00	1233,10	642,30	377,90	283,10	775,10	29,30	376,50	292,30	1166,50	1034,20	845,10	85,60	288,40
31	Gross operating surplus	1272,23	27,32	81,05	537,98	1620,13	500,78	393,98	370,32	736,24	1237,23	63,31	478,33	667,79	360,46	3081,97	6472,72	2798,70	3065,61	2366,79	2559,40	12956,52	3835,32	1081,55	1389,50	428,22	1746,65	493,40	794,83
32	VAT and net indirect taxes on products	32,59	0,41	6,80	20,80	101,10	38,23	67,12	54,80	52,30	47,10	31,10	26,09	89,99	39,01	112,70	412,51	263,52	100,50	57,61	244,39	40,12	104,30	72,09	239,81	59,99	293,91	58,91	44,70
33	Interest on public debt	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
34	Other interests	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
35	Profits distributed by companies	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
36	Other capital income	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
37	Mixed income transferred from producer households to consumers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
38	Households expenditure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
39	PA expenditure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
40	NPISH expenditure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
41	Net credit (+)/debt (-)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
42	Consumer households 1° quintile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
43	Consumer households 2° quintile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
44	Consumer households 3° quintile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
45	Consumer households 4° quintile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
46	Consumer households 5° quintile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
47	Producer households	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
48	Non-financial corporations	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
49	Financial corporations	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
50	NPISH	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
51	PA	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
52	Total divisible expenditure of the PA and regional NPISH	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
53	Regional exports	1644,29	96,74	280,31	4746,70	2950,31	1887,06	3537,20	2226,47	4125,80	3646,49	1048,05	1632,74	521,66	400,08	109,96	1528,92	2012,64	30,20	1641,16	1792,97	632,31	1618,19	1267,37	834,69	17,74	22,00	363,43	68,43
54	Foreign exports	681,23	73,00	1827,67	1754,73	2977,98	1083,88	3964,51	1482,25	2114,91	4340,16	2679,84	799,19	172,50	302,03	34,29	797,26	842,61	224,84	757,18	442,06	43,14	441,41	590,26	3,31	8,57	14,68	57,53	106,87
55	Regional expenditure of the other Italians	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
56	Regional expenditure of non residents	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
57	Consumer households	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
58	Producer households	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
59	Non-financial corporations	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
60	Financial corporations	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
61	NPISH	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
62	PA	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
63	Income from other regions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
64	Income from abroad	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	TOTAL	4804	247	2677	11734	20070	8029	14123	8041	12816	17377	6639	6414	5923	3007	13344	24737	16797	9711	9240	11022	15143	11050	6944	8189	4460	8273	2139	3558

Table 4A - 2017 SAM for Tuscany: Distribution and redistribution of income matrix

Column code legend:

Code	Column
29	Wages and salaries
30	Social contributions payable by employers
31	Gross operating surplus
32	VAT and net indirect taxes on products
33	Interest on public debt
34	Other interests
35	Profits distributed by companies
36	Other capital income
37	Mixed income transferred from producer households to consumers
38	Households expenditure
39	PA expenditure
40	NPISH expenditure
41	Net credit (+)/debt (-)
42	Consumer households 1° quintile
43	Consumer households 2° quintile
44	Consumer households 3° quintile
45	Consumer households 4° quintile
46	Consumer households 5° quintile
47	Producer households
48	Non-financial corporations
49	Financial corporations
50	NPISH
51	PA
52	Total divisible expenditure of the PA and regional NPISH
53	Regional exports
54	Foreign exports
55	Regional expenditure of the other Italians
56	Regional expenditure of non residents
57	Consumer households
58	Producer households
59	Non-financial corporations
60	Financial corporations
61	NPISH
62	PA
63	Income from other regions
64	Income from abroad

#	Row	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	TOTAL
29	Wages and salaries	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	904,61	0,25	31127
30	Social contributions payable by employers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	332,18	0,07	11538
31	Gross operating surplus	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	51418
32	VAT and net indirect taxes on products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	7251,99	46,99	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	7,39	169,47	860,00	24,07	2,71	157,20	0,00	0,00	11504
33	Interest on public debt	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4723,21	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4723
34	Other interests	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	42,60	53,97	86,46	84,83	81,91	85,57	753,40	5124,35	5,95	8,29	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2759,67	2137,86	11225
35	Profits distributed by companies	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	7999,93	1092,44	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	7697,20	1363,58	18153
36	Other capital income	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	238,86	494,07	1202,91	0,00	2,19	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	942,48	524,06	3405
37	Mixed income transferred from producer households to consumers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	12063,20	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	12063
38	Households expenditure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	6113,43	8962,36	10902,37	12928,84	19401,92	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3919,42	3790,97	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	66019
39	PA expenditure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2369,77	2338,28	2346,46	2316,30	2306,84	0,00	0,00	0,00	0,00	8263,74	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	19941
40	NPISH expenditure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	107,59	84,78	81,29	68,97	61,01	0,00	0,00	0,00	0,00	2,19	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	404
41	Net credit (+)/debt (-)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1607,97	2284,58	-536,63	754,81	-34,53	630,32	0,00	0,00	4707
42	Consumer households 1° quintile	2415,43	969,82	864,48	0,00	33,8	153,1	707,6	84,3	824,9	0,00	0,00	0,00	0,00	2,55	2,64	3,92	2,71	8,83	9,38	190,85	264,84	129,23	2107,60	2477,37	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	23,84	50,88	11328
43	Consumer households 2° quintile	3912,79	1510,47	1420,91	0,00	47,0	212,0	965,2	98,1	985,9	0,00	0,00	0,00	0,00	2,31	1,57	2,89	2,09	6,35	15,17	303,76	441,11	131,49	3513,02	2423,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	40,60	82,22	16118
44	Consumer households 3° quintile	4664,27	1719,71	1721,16	0,00	78,2	353,6	1577,3	139,1	1376,0	0,00	0,00	0,00	0,00	2,64	2,12	2,85	2,45	6,34	20,41	385,18	658,28	137,16	4601,00	2427,75	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	56,95	108,99	20041
45	Consumer households 4° quintile	7230,45	2701,82	1925,58	0,00	103,9	468,3	2129,1	188,5	1840,8	0,00	0,00	0,00	0,00	2,04	1,72	2,73	1,84	5,85	20,41	366,43	711,47	123,45	4617,16	2385,27	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	61,32	115,16	25003
46	Consumer households 5° quintile	11918,27	4268,42	2410,10	0,00	231,2	1043,7	4701,2	704,5	7034,5	0,00	0,00	0,00	0,00	5,15	3,90	5,19	4,77	10,61	24,59	435,35	1071,05	123,39	4932,62	2367,85	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	83,27	158,88	41539
47	Producer households	0,00	0,00	16560,26	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	15,22	11,81	17,27	28,92	60,14	0,00	252,00	0,00	0,00	26,53	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	17,60	1,34	17203
48	Non-financial corporations	0,00	0,00	20619,32	0,00	109,4	420,3	1316,0	373,0	0,00	0,00	0,00	0,00	0,00	120,67	189,17	232,13	366,27	569,16	0,00	0,00	0,00	0,00	1128,66	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	113,95	0,00	0,00	25646
49	Financial corporations	0,00	0,00	1994,23	0,00	2124,9	4607,9	966,6	243,5	0,00	0,00	0,00	0,00	0,00	199,44	317,63	388,79	610,88	953,41	170,75	1106,31	0,00	3,56	177,36	0,00	0,00	0,00	3,56	3,34	0,00	0,00	0,00	0,00	0,00	0,00	8,13	144,02	14021
50	NPISH	0,00	0,00	15,25	0,00	0,0	0,0	0,0	0,0	0,0	0,00	0,00	0,00	0,00	18,61	31,10	37,62	58,88	94,53	0,00	0,00	13,59	0,00	388,12	0,00	0,00	0,00	0,00	0,00	3,04	0,00	0,00	0,00	0,00	0,00	0,00	26,60	687
51	PA	0,00	0,00	4138,14	11275,85	20,1	192,6	142,3	246,9	0,0	0,00	0,00	0,00	0,00	1926,34	2831,81	3956,45	6228,39	12429,97	143,69	3171,58	253,01	1,14	11947,70	0,00	0,00	0,00	0,00	0,00	0,20	0,00	0,00	0,00	0,00	208,46	0,00	0,00	59115
52	Total divisible expenditure of the PA and regional NPISH	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	12081,30	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	12081
53	Regional exports	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-304,93	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	40379
54	Foreign exports	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-159,88	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	28458
55	Regional expenditure of the other Italians	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2692,75	143,94	200,93	241,75	276,30	363,53	220,02	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3919
56	Regional expenditure of non residents	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3062,32	87,53	119,63	141,71	160,68	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3792
57	Consumer households	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-182,10	550,02	1020,83	1311,03	3636,92	4347,40	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4,10	0,90	6337
58	Producer households	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,44	0,00	0,22	0,22	0,00	6,07	0,00	0,00	4355
59	Non-financial corporations	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	9927,42	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	13,17	0,00	6,37	6,99	0,00	2,50	0,00	11,49	9968
60	Financial corporations	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1655,42	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,98	0,00	0,47	0,52	0,00	0,00	0,00	0,00	1657
61	NPISH	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-1,22	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	-1
62	PA	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	430,88	0,00	0,00	0,00	0,00	0,00	695,45	0,00	174,08	606,26	0,00	1494,58	41,61	417,71	3861
63	Income from other regions	981,10	365,62	0,00	0,00	0,0	2926,3	5207,7	984,1	0,0	0,00	0,00	0,00	0,00	252,49	260,37	381,36	256,20	858,73	64,36	511,12	62,52	33,43	97,73	0,00	0,00	0,00	0,00	0,00	4,10	0,00	2,54	1,56	0,00	0,01	0,00	0,00	13058
64	Income from abroad	1,40	0,88	-251,93	229,19	1974,9	698,5	441,8	279,3	0,0	0,00	0,00	0,00	-391,40	95,29	156,83	188,52	295,74	475,32	0,00	0,00	84,92	0,00	1074,71	0,00	0,00	0,00	0,00	0,00	2,05	0,00	1,14	1,11	0,00	0,16	0,00	0,00	5359
	TOTAL	31124	11537	51417	11505	4723	11226	18155	3404	12062	66016	19944	404	4705	11326	16121	20041	25006	41551	17204	25645	14020	687	59107	12081	40381	28458	3919	3791	6339	4356	9968	1657	-1	3861	13054	5359	