

Chile

Source data

The Banco Central de Chile¹ provided the input-output (I/O) source data information for 1996. It consists on a complete set of I/O tables, with separated comprehensive worksheets for supply, intermediate and final usage, as well as value added information. These worksheets were discriminated for both domestic and imported products. The tables were valued at 1996 Chilean Peso (\$) and they were expressed at purchaser, producer and basic prices in millions of Pesos (10^6 \$).

The source data contain 73 commodities / 74 activities. One of the industries (74th) is a Financial Dummy, used to deal with the value of production of the Financial Sector. This is a fictional sector that “uses” a substantial amount of Financial Sector Services, and has an equivalent Operational Surplus loss of 1,015,444 million Chilean Peso (\$).

Due to the different sectoral definitions, data manipulation (described bellow) was required to match with GTAP commodity/commodity classification code (GSC2). Finally, the available data doesn't bring any information about the return to land.

Data manipulation

The tables were provided in the GTAP's “unified format” as it is shown in Table 1 of the manuscript *Contributing Input-Output Tables to de GTAP Data Base* (Huff, K., McDougall, R., Walmsley, T., January 2000). We provide the available information expressed at basic prices.

The transformation of commodity / activity matrix into the commodity / commodity one:

We've used the available production matrix to calculate a market share matrix in order to transform the commodity (row) / activity (column) structure of the source data into a commodity / commodity layout. Once we calculated the market share matrix we multiply the intermediate consumption matrices with it obtaining the preferred square structure. The same procedure was done with the components of the value added matrix.

¹ Matriz de Insumo Producto de la Economía Chilena 1996, Banco Central de Chile, September 2001, <http://www.bcentral.cl/esp/publ/estad/aeg/aeg06.htm> .

Valued added matrix transformation:

The value added matrix of the source data are composed by salaries, gross operating surplus and fix capital consumption. We consider the capital category of the GTAP structure as the addition of the operating surplus and the fix capital consumption. According with this new classification, the col (Coal) sector has a negative value because in the basis data there was an operating loss surpassing the fix capital consumption value. It isn't possible to reflect positive profits in this sector without alter the basis data. But in order to adapt the tables to the GTAP format, which only accepts a positive operating surplus, we changed its value according to a labor/capital relation of a similar country. We decided to choose New Zealand as the closest country. To keep the balance of the tables, the difference was imputed to the change in stocks.

Non-commodity indirect taxes category corresponds to the net balance between indirect taxes on products and subsidies so it can be observed that there are some products that have negative values of it. Non-deductible value added tax and specific taxes on products (tobacco and combustibles) were excluded from the tables.

Transformation the 73 commodities/commodity into the GSC2 GTAP classification:

There was a need to split or aggregate, depending the case, the Chilean I/O products/activities' categories to match (as possible) with the GTAP sectoral classification (GSC2).

The correspondence between the Chilean I/O tables and the GSC2 is shown in the Table 1, which is reproduced in the SMAP worksheet of the excel file: GTAP_CHILE96.xls

We provide the information as much sectoral detail as the source data support. In the actual data, Agriculture is a multi-production sector, including several commodities. We don't have further information in order to make a detailed disaggregation. As a consequence, we find difficult to provide full sectoral detail in Agriculture according to de GSC2 product classification. As it is shown in Table 1, this trouble occurs with other categories.

It is important to note that there is no official correspondence between the Chilean I/O tables and the ISIC3 code, so the classification provided is based on concurrence and experience.

An imbalance was detected in the source table expressed at basic prices. By making a comparison between this table and the expressed at producer prices we detect that this imbalance came from the p_c sector (combustibles) which includes on their demand the amount of specific product tax. We took away this imbalance by modifying the values of the p_c sector and rebalance the tables adapting the change of stocks of this sector.

The treatment of the Financial Dummy sector:

The first attempt to eliminate the Financial Dummy consisted of distributing its value according to the share of usage of the financial services' sector and subtracting the correspondent operating loss value from each activity's Gross Operational Surplus at the same share. However, this procedure generated unsolvable imbalances over the tables. So we decided to consider the Financial Dummy as a part of the final demand, adding its value to the consumption of financial services (ofi) and eliminating its operational loss from the value added. This method produce no discrepancy a long the table but increase, as a consequence, the total value added and the final demand in an equivalent amount to the value of the financial dummy (1,015,444 million Chilean Peso).

Table 1: Map from Chilean commodities to GTAP (GSC2) ones

Actual Number	English Translation of Chilean Commodities/Activities	GSC2 Number	Code	Description
1	Agriculture	1	pdr	Paddy rice
		2	wht	Wheat
		3	gro	Cereal grains nec
		5	osd	Oil seeds
		7	prf	Plant-based fibers
		8	ocr	Crops nec
2	Fruits	4	v_f	Vegetables, fruit, nuts
3	Livestock and cattle products	9	ctl	Bovine cattle, sheep and goats, horses
		10	oap	Animal products nec
		12	wol	Wool, silk-worm cocoons
4	Forestry	13	for	Forestry
5	Fishery	14	fsh	Fishing
6	Coal	15	col	Coal
7	Oil	16	oil	Oil
8	Iron	35	i_s	Ferrous metals
9	Copper	36	nfm	Metals nec
10	Other minerals	18	omn	Minerals nec
11	Meat	19	cmt	Bovine cattle, sheep and goat, horse meat products
		20	omt	Meat products nec
12	Fishing products	25	ofd, pcr	Food products nec
13	Food products from fruits and vegetables			
14	Oils and fats	21	vol	Vegetable oils and fats
15	Milk and Dairy products	22	mil	Dairy products
		11	rmk	Raw milk
16	Grain mill products	25	ofd	Food products nec
17	Food for animals			
18	Bread and pasta products			
19	Sugar and starch	24	sgr	Sugar
		6	c_b	Sugar cane, sugar beet
20	Other food products	25	ofd, pcr	Food products nec
21	Alcohol and liquor	26	b_t	Beverages and tobacco products
22	Wines			
23	Beers			
24	No alcoholic beverages			
25	Tabacco			
26	Textiles	27	tex	Textiles
27	Wearing Apparel	28	wap	Wearing apparel
28	Leather and leather products	29	lea	Leather products
29	Footwear			
30	Wood and wood products	30	lum	Wood products

31	Paper and paper products	31	ppp	Paper products, publishing
32	Publishing and editing			
33	Petroleum refineries and related products	32	p_c	Petroleum, coal products
34	Basic chemical products			
35	Other chemical products	33	crp	Chemical, rubber, plastic products
36	Rubber products			
37	Plastic products			
38	Glass products	42	omf	Manufactures nec
39	Non metallic mineral products	34	nmm	Mineral products nec
40	Basic iron and steel products	37	fmp	Metal products
41	Basic non ferrous products	34	nmm	Mineral products nec
42	Metalic products	37	fmp	Metal products
43	Non electrical machinery and equipment	41	ome	Machinery and equipment nec
44	Electrical machinery and equipment	40	ele	Electronic equipment
45	Transport equipment	38	mvh	Motor vehicles and parts
46	Furniture	39	otn	Transport equipment nec
47	Other manufactures	30	lum	Wood products
48	Electricity	42	omf	Manufactures nec
		43	ely	Electricity
49	Gas (there's no gas production in Chile)	17	gas	Gas
		44	gdt	Gas manufacture, distribution
50	Water	45	wtr	Water
51	Construction	46	cns	Construction
52	Trade services			
53	Hotels	47	trd	Trade
54	Restaurants			
55	Railway transport			
56	Passenger transport	48	otp	Transport nec
57	Land transportation			
58	Water transport	49	wtp	Water transport
59	Air transport	50	atp	Air transport
60	Other transport related services	48	otp	Transport nec
61	Communications	51	cmn	Communication
62	Financial services	52	ofi	Financial services nec
63	Insurance services	53	isr	Insurance
64	Real estate services			
65	Business services	54	obs	Business services nec
66	Dwellings	57	dwe	Dwellings
67	Public administration			
68	Public education	56	osg	Public administration and defense, education, health
69	Private education			
70	Public health			
71	Private health			
72	Recreational services			
73	Other services	55	ros	Recreational and other services
74	Other goods and services			