

Uruguay¹

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14.15.1 Sources

The source Input-Output (I/O) table for the Uruguay was provided by Banco Central del Uruguay² for 1983 and contains 55 commodities (or industries) expressed in thousand new pesos in purchaser's prices.

The Uruguayan I/O table was supplied with separate matrices for intermediate and final usage of domestic and imported products. As the I/O Uruguayan matrix is valued at purchaser's prices, these data were converted to data at basic prices using information about indirect taxes, transport and retail costs. These data come from different sources.

Information on indirect taxes was elaborated by the Centro de Investigaciones Económicas (CINVE). A tax matrix was built using a sample of representative products from each industry and the information about the specific tax on each product and the amount of the tax effectively collected by the Government.

Data on transport, wholesale, and retail cost were estimated using the information from rows 49 (wholesale and retail costs) and 51 (transport costs) of the I/O table. For imported goods, results

¹ We like to thank the Banco del Uruguay and the Centro de Investigaciones Económicas (CINVE) who provided the information that made this work possible.

² "Matriz de transacciones intersectoriales de bienes y Servicios nacionales e importados, Año 1983", *Cuentas Nacionales, 1991*, Banco Central del Uruguay, Departamento de Estadísticas Económicas.

from a survey carried out by the Banco Central del Uruguay about transport, wholesale and retail expense of importers was used.

The source for import taxes is the sectoral tax estimated by the Banco Central del Uruguay. It was assumed that all goods of the same industry imported into the country pay the same tax.

Additional information was needed to split those sectors that did not match the GTAP classification. For agricultural sectors, the data was based on the publication: "Estimación a nivel global y subsectorial del uso de insumos en el sector agropecuario en 1991," Ministerio de Ganadería, Agricultura y Pesca October 1994.

The cost data by industry was provided by the Banco Central del Uruguay. The source of this information is the annual survey "Encuesta Industrial Anual, 1983" from the Dirección General de Estadísticas y Censos. This survey provides information about costs by industry (four digits of ISIC R2), output value by industry and value added by industry at purchaser's prices.

14.15.2 The structure of the original tables and their treatment

The procedure followed to change the original structure of the I/O table into the new GTAP classification is described below:

Step a. The original I/O tables of domestic and imported goods at purchaser's prices were converted to producer's price using the indirect tax matrix and the matrices of transport, wholesale and retail costs. The final product of this first step was the Uruguayan I/O table, with the original 55 sectors for domestic and imported goods, and including taxes, transport, and retail costs. This table with the original 55 sectors was used as a reference for checking the final result of the table with the new sectors.

Step b. There was a need to split some of the Uruguayan I/O categories to match with the GTAP sectoral classification. These sectors are shown in the attached table which shows the GTAP-Uruguayan I/O concordance. Splitting of sectors 4 and 33 of the Uruguay I/O matrix was needed for imports, because there is no domestic production for sectors 15, 16 and 17 of the GTAP sectoral classification.

Splitting of the agriculture sector (sectors 1 and 2 in the Uruguay matrix) is based on the information from a publication from the Agricultural Secretary: "Estimación a nivel global y subsectorial del uso de insumos en el sector agropecuario en 1991," October 1994. This work estimates the purchases of inputs for rice, other grains and oilseeds, sugar, citrus, fruits, horticulture, forestry, other crops, sheep, bovine cattle, and non-ruminants for the year 1991. To split the "other

grains and oilseeds” in the GTAP classification, costs for the different crops provided by the Agricultural Secretary were used. With the 1991 data, technical coefficients were derived, and these coefficients were used to split the total amount of inputs of sectors 1 and 2 in the 1983 I/O matrix. For the remaining few inputs for which there was no information, the split was done using output values. Information about the output values for different crops and livestock productions were provided by the Banco Central Del Uruguay.

The split of the manufacturing sectors was estimated using industry cost data provided by the Banco Central del Uruguay. The source of this information is an annual survey on the production of the manufacturing sector: “Encuesta Industrial Anual, 1983” from the Dirección General de Estadísticas y Censos.

With the available information, cost structures were estimated for both the agricultural and manufacturing sectors. A table of technological coefficients was then constructed for the new sectors, using these cost structures, as well as the information about intermediate and final sales contained in the original I/O table, and also the output values of the new sectors provided by the Banco Central del Uruguay,

A RAS procedure was then applied to this table to get the balanced flow for the new sectors that will match the output values of these sectors in the year 1983 as provided by the Banco Central. The final product of this step is a complete I/O table which matches with the GTAP sectoral classification, at purchaser’s prices.

The last step was then to apply the procedure described in step a, to convert this table in purchaser’s prices, to basic prices.

GTAP-Uruguayan I/O concordance

GTAP sector	Uruguay I/O sector	ISIC R2
Paddy rice	1 *Crops	1110, 1120
Wheat	1 *Crops	1110, 1120
Cereal grains n.e.c.	1 *Crops	1110, 1120
Vegetables, fruits, nuts	1 *Crops	1110, 1120
Oilseeds	1 *Crops	1110, 1120
Sugar cane, sugar beet	1 *Crops	1110, 1120
Plant based fibers	1 *Crops	1110, 1120
Crops n.e.c.	1 *Crops	1110, 1120
Bovine cattle, sheep and goats, horses	2 *Livestock	1110, 1130
Animal products n.e.c.	2 *Livestock	1110, 1130
Raw milk	2 *Livestock	1110, 1130
Wool, silk-worm cocoons	2 *Livestock	1110, 1130
Forestry	1 *Crops	1210, 1220
Fishing	3 Fishery	1301, 1302
Coal	4 *Mining and quarrying	2100
	33 * Petroleum Refineries and miscellaneous products	3540p
Oil	4 *Mining and quarrying	2200
Gas	33 * Petroleum Refineries and miscellaneous products	3530p
Minerals n.e.c.	4 *Mining and quarrying	2901, 2902,2903,2909
Cattle, sheep & goat, horse meat prod.	5 Meat	3111.1,3111.2
Meat products n.e.c.	5 Meat	3111,3
Vegetable oils and fats	8 Fats and oils	3115
Dairy products	6 Dairy products	3112
Processed rice	9 *Grain mill products	3116,1
Sugar	11 Sugar	3118
Food products n.e.c.	9 *Grain mill products	3116.2,3116.3
Food products n.e.c.	7 Sea products	3114
Food products n.e.c.	10 Bakery products	3117
Food products n.e.c.	12 *Other food products	3113, 3119, 3121, 3122
Beverages and tobacco products	13 Alcoholic Beverages	3131
Beverages and tobacco products	14 Wines	3132
Beverages and tobacco products	15 Beer	3133
Beverages and tobacco products	16 Soft drinks	3134
Beverages and tobacco products	17 Tobacco	3140
Textiles	18 Textiles	3211

(Cont)

GTAP-Uruguayan I/O concordance (continued)

GTAP sector	Uruguay I/O sector	ISIC R2
Textiles	20 Knitting mills	3213
Textiles	21 Other textile products	3214,3215,3219
Wearing apparel	22 Wearing Apparel	3220
Leather products	23 Tanneries& leather finishing	3231,3232
Leather products	24 Leather products	3233
Leather products	25 Footwear	3240
Wood products	26 Wood and Wood products	3311331233193320
Paper products, publishing	27 Pulp, paper and paper products	3411,3412,3419
Petroleum, coal products	33 *Petroleum Refineries and miscellaneous products	3530,3540
Chemical, rubber, plastic products	29 Basic industrial chemicals	3511
Chemical, rubber, plastic products	30 Fertilizers and pesticides	3512
Chemical, rubber, plastic products	31 Soap and Cleaning&others	3523
Chemical, rubber, plastic products	32 Other chemical products	3513,3521,3522,3529
Chemical, rubber, plastic products	34 Tire and tube industries	3551,3559
Chemical, rubber, plastic products	35 Plastic products	3560
Mineral products n.e.c.	36 Pottery and earthenware	3610
Mineral products n.e.c.	37 Glass and glass products	3620
Mineral products n.e.c.	38 Non-metallic mineral prod. n.e.c.	3691,3692,3699
Ferrous metals	39 *Iron and steel basic industries	3710
Metals n.e.c.	39 *Iron and steel basic industries	3720
Metal products	40 *Machinery & other metal prod.	3811,3812,3813,3819
Motor vehicles and parts	42 *Transport equipment	3843
Transport equipment n.e.c.	42 *Transport equipment	3841,3842,38445,3849
Electronic equipment	41 Electrical and office equipment	3831,3832,3833,3839
Machinery and equipment n.e.c.	40 *Machinery & other metal prod.	3821,3822,3823,3824,3825,3829
Machinery and equipment n.e.c.	43 *Other industries	3851,3852,3853
Manufactures n.e.c.	43 *Other industries	3901,3902,3903,3909
Electricity	44 Electricity	4101
Gas manufacture, distribution	45 Gas	4102
Water	46 Water	4200
Construction	47 Building construction	5000
Construction	48 Other construction	5000
Trade, transport	49 Wholesale and retail trade	6100,6200
Trade, transport	50 Restaurants&hotels	6310,6320
Trade, transport	51 Transport&storage	711,712,713,719

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GTAP-Uruguayan I/O concordance (continued)

GTAP sector	Uruguay I/O sector	ISIC R2
Trade, transport	52 Communication	7200
Financial, business, recreational services	53 Finance and insurance	8101,8102,8103,8200
Dwellings	54 Real estate	8310
Financial, business, recreational services	55 *Other services	832,833,941,941,949,951,952,953,959
Public administration and defense, education, health services	55 *Other services	910,920,931,932,933,934,935,939,960