

BC Uzbekistan

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BC.1 Introduction

This chapter describes the transformation of the 2018 Uzbekistan Social Accounting Matrix (SAM) to the GTAP format. The next section presents the source data. Section 3 describes the reformatting steps. Section 4 describes the concordance between the original classification of sectors and the GTAP sectors.

BC.2 Source Data

The SAM had 78 sectors measured in local currency. The table is in basic prices. Vectors for net taxes on products and net taxes on production are available. While there is a vector of import values, import duties and land values are not available.

BC.3 Data processing

The original data does not fully satisfy the requirements of the GTAP data base described in Huff et al. 2000. Main adjustments to the data are as follows:

- MAKE and USE tables are transformed into an Input Output Table
- Split total use into import and domestic matrices and
- Construct the Product-Tax Matrix

These adjustments are implemented using the GEMPACK programs documented in Horridge et al. 2008.⁹²

The matrix of imports is estimated assuming the import share is uniform across users, except for exports as it would imply re-exports. Domestic flows are then obtained as residual given the initial data and the newly estimated matrix of imports.

The product-tax matrix is constructed for the newly developed domestic and import components. No taxes are levied on changes in stocks and lower taxes are levied on export and intermediate users.

⁹²Programs and documentation available from: https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=2850

BC.4 Concordance between original sectors and GSEC3

The original data sectors were first aggregated and then mapped to the GTAP classification of 65 sectors (Table 8.123).

Table 8.123: Concordance between Original sectors and GTAPsectors

No.	Original I-O sectors	GTAP 65
1	Crop and animal production, hunting and related service activities	pdr, wht, gro, v_f, osd, c_b, pfb, ocr, ctl, oap, rmk, wol
2	Forestry and logging	frs
3	Fishing and aquaculture	fsh
4	Mining of coal and lignite	coa
5	Extraction of crude petroleum and natural gas	oil_gas
6	Mining of metal ores	oxt
7	Other mining and quarrying	oxt
8	Mining support service activities	oxt
9	Manufacture of food products	cmt, omt, vol, mil, pcr, sgr, ofd, b_t
10	Manufacture of beverages	b_t
11	Manufacture of tobacco products	b_t
12	Manufacture of textiles	tex
13	Manufacture of wearing apparel	wap
14	Manufacture of leather and related products	lea
15	Manufacture of wood and of products of wood and cork, except furniture;	lum
16	Manufacture of paper and paper products	ppp
17	Printing and reproduction of recorded media	ppp
18	Manufacture of coke and refined petroleum products	p_c
19	Manufacture of chemicals and chemical products	chm
20	Manufacture of pharmaceuticals, medicinal chemical and botanical products	bph
21	Manufacture of rubber and plastics products	rpp
22	Manufacture of other non-metallic mineral products	nmm
23	Manufacture of basic metals	i_s
24	Manufacture of fabricated metal products, except machinery and equipment	fmp
25	Manufacture of computer, electronic and optical products	ele
26	Manufacture of electrical equipment	eeq
27	Manufacture of machinery and equipment n.e.c.	ome
28	Manufacture of motor vehicles, trailers and semi-trailers	mvh
29	Manufacture of other transport equipment	otn
30	Manufacture of furniture	omf
31	Other manufacturing	omf
32	Repair and installation of machinery and equipment	omf
33	Electricity, gas, steam and air conditioning supply	ely_gdt
34	Water collection, treatment and supply	wtr
35	Sewerage	wtr

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No.	Original I-O sectors	GTAP 65
36	Waste collection, treatment and disposal activities; materials recovery	wtr
37	Remediation activities and other waste management services	wtr
38	Construction of buildings	cns
39	Wholesale and retail trade and repair of motor vehicles and motorcycles	trd
40	Wholesale trade, except of motor vehicles and motorcycles	trd
41	Warehousing and support activities for transportation	whs
42	Postal and courier activities	cmn
43	Accommodation	afs
44	Food and beverage service activities	afs
45	Publishing activities	cmn
46	Motion picture, video and television programme production, sound recording	cmn
47	Programming and broadcasting activities	cmn
48	Telecommunications	cmn
49	Computer programming, consultancy and related activities	cmn
50	Information service activities	cmn
51	Financial service activities, except insurance and pension funding	ofi
52	Insurance, reinsurance and pension funding, except compulsory social security	ins
53	Activities auxiliary to financial service and insurance activities	ofi
54	Real estate activities	rsa_dwe
55	Legal and accounting activities	obs
56	Activities of head offices; management consultancy activities	obs
57	Architectural and engineering activities; technical testing and analysis	obs
58	Scientific research and development	obs
59	Advertising and market research	obs
60	Other professional, scientific and technical activities	obs
61	Veterinary activities	obs
62	Rental and leasing activities	obs
63	Employment activities	obs
64	Travel agency, tour operator, reservation service and related activities	obs
65	Security and investigation activities	obs
66	Services to buildings and landscape activities	obs
67	Office administrative, office support and other business support activities	obs
68	Public administration and defence; compulsory social security	osg
69	Education	edu
70	Human health activities	hht
71	Residential care activities	hht
72	Social work activities without accommodation	hht
73	Creative, arts and entertainment activities	ros
74	Libraries, archives, museums and other cultural activities	ros
75	Sports activities and amusement and recreation activities	ros
76	Activities of membership organizations	ros
77	Repair of computers and personal and household goods	ros
78	Other personal service activities	ros

BC.5 Diagnostics

Before and after conversion, the data met all balance and sign conditions. There were no tax rates over 100% in the data. The GTAP cost shares comparisons appear correct or at least consistent with the original data.

References

- Horridge, Mark et al. (2008). *Exercises in Contributing I-O Tables to the GTAP Data Base*. Department of Agricultural Economics, Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). URL: https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=2850.
- Huff, Karen et al. (2000). *Contributing Input-Output Tables to the GTAP Data Base*. GTAP Technical Paper 01. Department of Agricultural Economics, Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). URL: https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=304.