D Azerbaijan

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D.1 Introduction

This chapter describes the transformation of the 2016 Azerbaijan Input Output Table (IOT) 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.

D.2 Source Data

The symmetric product by product IOT had 81 sectors measured in thousands of local currency.[10] 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.

D.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:

— Mixed income allocated proportionally between labor and capital.

— Re-exports removed from two sectors, usign simple assumptions.

— Split total use into import and domestic matrices and

— Construct the Product-Tax Matrix

The latter two adjustments are implemented using the GEMPACK programs documented in Horridge et al. 2008.[11]

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.

[10] Available from: `https://www.stat.gov.az/source/system\_nat\_accounts/?lang=en`

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

D.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 8.18).

Table 8.18: Concordance between Original sectors and GTAPsectors

No.	Original I-O sectors	GTAP 65
1	Products of agriculture, hunting and related services	GTAP1-12
2	Products of forestry, logging and related services	GTAP13
3	Fish and other fishing products; aquaculture products; support services to fishing	GTAP14
4	Coal and lignite	GTAP15
5	Crude petroleum and natural gas	GTAP1617
6	Metal ores	GTAP18
7	Other mining and quarrying products	GTAP18
8	Mining support services	GTAP18
9	Food products	GTAP1925
10	Beverages	GTAP26
11	Tobacco products	GTAP26
12	Textiles	GTAP27
13	Wearing apparel	GTAP28
14	Leather and related products	GTAP29
15	Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	GTAP30
16	Paper and paper products	GTAP31
17	Printing and recording services	GTAP31
18	Coke and refined petroleum products	GTAP32
19	Chemicals and chemical products	GTAP33
20	Basic pharmaceutical products and pharmaceutical preparations	GTAP34
21	Rubber and plastics products	GTAP35
22	Other non-metallic mineral products	GTAP36
23	Basic metals	GTAP3738
24	Fabricated metal products, except machinery and equipment	GTAP39
25	Computer, electronic and optical products	GTAP40
26	Electrical equipment	GTAP41
27	Machinery and equipment not elsewhere classified	GTAP42
28	Motor vehicles, trailers and semi-trailers	GTAP43
29	Other transport equipment	GTAP44
30	Furniture	GTAP45
31	Other manufactured goods	GTAP45
32	Repair and installation services of machinery and equipment	GTAP45
33	Electricity, gas, steam and air conditioning	GTAP4647
34	Natural water; water treatment and supply services	GTAP48
35	Sewerage services; sewage sludge	GTAP48
36	Waste collection, treatment and disposal services; materials recovery services	GTAP48
37	Remediation services and other waste management services	GTAP48
38	Constructions and construction works	GTAP49
39	Wholesale and retail trade services; repair services of motor vehicles and motorcycles	GTAP50
40	Land transport services and transport services via pipelines	GTAP52
41	Water transport services	GTAP53
42	Air transport services	GTAP54

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No.	Original I-O sectors	GTAP 65
43	Warehousing and support services for transportation	GTAP55
44	Postal and courier services	GTAP56
45	Accommodation services	GTAP51
46	Food and beverage serving services	GTAP51
47	Publishing services	GTAP56
48	Motion picture, video and television programme production services, sound recording and music publishing	GTAP56
49	Programming and broadcasting services	GTAP56
50	Telecommunications services	GTAP56
51	Computer programming, consultancy and related services	GTAP56
52	Information services	GTAP56
53	Financial services, except insurance and pension funding	GTAP57
54	Insurance, reinsurance and pension funding services, except compulsory social security	GTAP58
55	Services auxiliary to financial services and insurance services	GTAP56
56	Real estate services	GTAP5965
57	Legal and accounting services	GTAP60
58	Services of head offices; management consulting services	GTAP60
59	Architectural and engineering services; technical testing and analysis services	GTAP60
60	Scientific research and development services	GTAP60
61	Advertising and market research services	GTAP60
62	Other professional, scientific and technical services	GTAP60
63	Veterinary services	GTAP60
64	Rental and leasing services	GTAP60
65	Employment services	GTAP60
66	Travel agency, tour operator and other reservation services and related services	GTAP60
67	Security and investigation services	GTAP60
68	Services to buildings and landscape	GTAP60
69	Office administrative, office support and other business support services	GTAP60
70	Public administration and defence services; compulsory social security services	GTAP62
71	Education services	GTAP63
72	Human health services	GTAP64
73	Residential care services	GTAP64
74	Social work services without accommodation	GTAP64
75	Creative, arts and entertainment services	GTAP61
76	Library, archive, museum and other cultural services	GTAP61
77	Gambling and betting services	GTAP61
78	Sporting services and amusement and recreation services	GTAP61
79	Services furnished by membership organisations	GTAP61
80	Repair services of computers and personal and household goods	GTAP61
81	Other personal services	GTAP61

D.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.

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