

X Mozambique

Angel Aguiar

X.1 Introduction

This chapter describes the transformation of the 2015 Mozambique 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.

X.2 Source Data

The Mozambique SAM was provided by World Bank staff. The table consists of 54 sectors. The data was measured in Millions of Meticals. The SAM contains vectors for net taxes on products and net taxes on production. There are vectors of import values, import duties and land.

X.3 Data processing

The Input-Output Table (IOT) derived from this SAM does not fully satisfy the requirements of the GTAP data base described in Huff et al. 2000. Main adjustments to the derived IOT are as follows:

- Split total use into import and domestic matrices and
- Construct the Product-Tax Matrix

The derivation of the IOT from a SAM and further adjustments to meet the GTAP IOT format are implemented using the GAMS programs documented in Aguiar and Pereira n.d.²⁶

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.

²⁶Programs and further documentation are available upon request.

X.4 Concordance between I-O sectors and GSEC3

The 54 sectors in the original data are first aggregated and then mapped to the GTAP classification of 65 sectors (Table 8.42).

Table 8.42: Concordance between original sectors and GTAP classification

No.	Original sectors	GTAP classification
1	Maize	wht_gro
2	Sorghum and millet	wht_gro
3	Rice	pdr
4	Other cereals	wht_gro
5	Pulses	v_f
6	Groundnuts	osd
7	Other oilseeds	osd
8	Cassava	v_f
9	Other roots	v_f
10	Vegetables	v_f
11	Sugar cane	c_b
12	Tobacco	ocr
13	Cotton and fibres	pfb
14	Fruits and nuts	v_f
15	Cocoa	ocr
16	Coffee and tea	ocr
17	Other crops	ocr
18	Cattle	ctl
19	Poultry	oap
20	Other livestock	rmk_wol
21	Forestry	frs
22	Fishing	fsh
23	Coal and lignite	coa
24	Crude oil	oilgas
25	Natural gas	oilgas
26	Other mining	oxt
27	Meat	cmt_omt
28	Cereal and vegetable processing	volpcsrgr
29	Other foods	mil_ofd
30	Beverages and tobacco processing	b_t
31	Textiles	tex
32	Clothing	wap
33	Leather and footwear	lea
34	Wood and paper	lum_ppp
35	Petroleum	pcelygdt
36	Chemicals	crp
37	Non-metal minerals	nmm
38	Metals and metal products	i_snfmfmp
39	Machinery and equipment	ele_ome
40	Other manufacturing	mvh_omf
41	Electricity, gas and steam	pcelygdt
42	Water supply and sewage	wtr
43	Construction	cns

Continued ...

... Continued		
No.	Original sectors	GTAP classification
44	Wholesale and retail trade	trd
45	Transportation and storage	otp_whs
46	Accomodation and food services	afs
47	Information and communication	cmn
48	Finance and insurance	ofi_ins
49	Real estate activities	rsa_dwe
50	Business services	obs
51	Public administration	osg
52	Education	edu
53	Health and social work	hht
54	Other services	ros

X.5 Diagnostics

Before and after conversion, the IOT 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

- Aguiar, Angel H and Maria Seara e Pereira (n.d.). “Transforming a Social Accounting Matrix (SAM) into GTAP format”.
- 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.