

N Democratic Republic of the Congo

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N.1 Introduction

This chapter describes the transformation of the 2013 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.

N.2 Source Data

The source of the DRC SAM comes from the National Statistical office.²¹ The SAM was aggregated into a symmetric industry by industry and consists of 41 sectors. The data was measured in millions of Congolese Francs (CDF). The table is in basic prices. Vectors for net taxes on commodities (sales), exports, value added, imports and production activities are available. There is a vector of import values and land values.

N.3 Data processing

The aggregated I-O table does not fully satisfy the requirements of the GTAP data base described in Huff et al. 2000. Main adjustments to the I-O tables are as follows:

- 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. 2008.²²

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.

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²¹Institut National de la Statistique (INS). Tableau des Ressources et des Emplois (TRE), 2013. In electronic form

²²Programs and documentation available from: https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=2850

N.4 Concordance between I-O sectors and GSEC3

The 41 sectors in the DRC table are first aggregated into 37 sectors that are then mapped to the GTAP classification of 65 sectors (Table 8.29).

Table 8.29: Concordance between DRC SAM sectors, GTAP 65 sectors and aggregate sectors in the contributed table

Original sectors	Aggregate Sectors	Concordance to GTAP	GTAP 65
agr - food crops	pdr_wht	pdr_wht	pdr
		pdr_wht	wht
		pdr_wht	gro
		pdr_wht	v_f
		pdr_wht	osd
		pdr_wht	c_b
agr - non-food crops	ocr_pfb	ocr_pfb	pfb
		ocr_pfb	ocr
agr - livestock	ctl	ctl	ctl
		ctl	oap
		ctl	rmk
		ctl	wol
agr - forestry	frs	frs	frs
agr - fishing	fsh	fsh	fsh
ind - extractive	oxt	oxt	coa
		oxt	oil
		oxt	gas
		oxt	oxt
ind - meat & fish	cmt	cmt	cmt
		cmt	omt
ind - oils and fats	vol	vol	vol
		cmt	mil
ind - flour	ofd	ofd	per
ind - cereal-based food	ofd		
ind - sugar-chocolate-candy	sgr	sgr	sgr
ind - other food	ofd	ofd	ofd
ind - beverages	b_t	b_t	b_t
ind - tobacco products	b_t		
ind - textiles	tex	tex	tex
		tex	wap
ind - leather & skin	lea	lea	lea
ind - wood	lum	lum	lum
ind - paper	ppp	ppp	ppp
ind - refined petro	p_c	p_c	p_c
ind - chemical	chm	chm	chm
		chm	bph
ind - rubber & plastic	rpp	rpp	rpp
ind - non-metal mineral	nmm	nmm	nmm
ind - metal	i_s	i_s	i_s
		i_s	nfm
ind - machinery	ome	ome	fmp
ind - radio-TV	ele	ele	ele

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Original sectors	Aggregate Sectors	Concordance to GTAP	GTAP 65
		ele	eeq
		ome	ome
ind - transport materials	otn	otn	mvh
		otn	otn
ind - furniture	omf	omf	omf
ind - electricity-gas-water	ely	ely	ely
		ely	gdt
		ely	wtr
ind - construction	cns	cns	cns
ser - trade	trd	trd	trd
ser - repairs	trd		
ser - hotels & restaurants	afs	afs	afs
ser - transportation	otp	otp	otp
		otp	wtp
		otp	atp
		otp	whs
ser - communication (mail - tele)	cmn	cmn	cmn
ser - financial (bank & insurance)	ofi_isr	ofi_isr	ofi
		ofi_isr	ins
ser - business (to enterprises)	obs	obs	rsa
		obs	obs
		ros	ros
ser - public admin	osg	osg	osg
ser - education	edu	edu	edu
ser - health & social	hht	hht	hht
ser - housing	dwe	dwe	dwe

N.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.