

P.1 Introduction

This chapter describes the transformation of the 2022 Social Accounting Matrix (SAM) for Peru into the GTAP Input-Output Table 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.

P.2 Source Data

The original SAM was developed by the Central Bank of Peru. The contributed table consist of 54 sectors measured in millions of Peruvian Soles. The original SAM contains over 300 commodities and over 150 activities. Various vectors of taxes are available.

P.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 available upon request.

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.

P.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 8.29).

Table 8.29: Concordance between Original sectors and GTAP sectors

GTAP code	Description	Contributed
pdr	Paddy rice	S1
wht	Wheat	S1
gro	Cereal grains nec	S1
v_f	Vegetables, fruit, nuts	S1
osd	Oil seeds	S1
c_b	Sugar cane, sugar beet	S1
pfb	Plant-based fibers	pfb
ocr	Crops nec	S1
ctl	Bovine cattle, sheep and goats, horses	S3
oap	Animal products nec	S3
rmk	Raw milk	S3
wol	Wool, silk-worm cocoons	S3
frs	Forestry	frs
fsh	Fishing	fsh
coa	Coal	oil
oil	Oil	oil
gas	Gas	gas
oxt	Other Extraction (formerly omn Minerals nec)	oxt
cmt	Bovine meat products	S9
omt	Meat products nec	S9
vol	Vegetable oils and fats	mil
mil	Dairy products	pcr
pcr	Processed rice	sgr
sgr	Sugar	ofd
ofd	Food products nec	vol
b_t	Beverages and tobacco products	b_t
tex	Textiles	tex
wap	Wearing apparel	wap
lea	Leather products	lea
lum	Wood products	lum
ppp	Paper products, publishing	ppp
p_c	Petroleum, coal products	p_c
chm	Chemical products	chm
bph	Basic pharmaceutical products	bph
rpp	Rubber and plastic products	rpp
nmm	Mineral products nec	nmm
i_s	Ferrous metals	i_s
nfm	Metals nec	nfm
fmp	Metal products	fmp
ele	Computer, electronic and optical products	ele
eeq	Electrical equipment	eeq
ome	Machinery and equipment nec	ome
mvh	Motor vehicles and parts	mvh
otn	Transport equipment nec	otn
omf	Manufactures nec	omf
ely	Electricity	ely
gdt	Gas manufacture, distribution	gdt
wtr	Water	wtr
cns	Construction	cns

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GTAP code	Description	Contributed
trd	Trade	trd
afs	Accommodation, Food and service activities	cmn
otp	Transport nec	afs
wtp	Water transport	otp
atp	Air transport	wtp
whs	Warehousing and support activities	atp
cmn	Communication	whs
ofi	Financial services nec	ofi
ins	Insurance (formerly isr)	ins
rsa	Real estate activities	rsa
obs	Business services nec	ros
ros	Recreational and other services	dwe
osg	Public Administration and defense	osg
edu	Education	edu
hht	Human health and social work activities	hht
dwe	Dwellings	obs

P.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

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.