

C Burundi

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C.1 Introduction

This document describes the process of adapting the 2016 Supply-Use Table into a table compatible with the Global Trade Analysis Project (GTAP) Data Base.

This document is structured as follows: Section 1 briefly presents the data sources, Section 2 examines the strengths and limitations of the basic data, Section 3 describes the treatment applied to correct anomalies in the raw data; Section 4 presents the correspondence between the 80 sectors of Burundi's Supply-Use Table and the GTAP sectors and Section 5 the verification of sectoral balance and non-negativity conditions.

C.2 Data sources

The main data sources used in this work come mainly from the 2016 Supply-Use Table as produced by the Technical Department of the National Institute of Statistics of Burundi.

The TAR is constructed in an aggregated manner, at the level of the classification of activities used in the compilation of national accounts. The raw data from the TAR do not correspond to the GTAP format from the outset. The TAR must first be disaggregated at level 2 of the activity classification and then the correspondence between the National Accounts nomenclature and that of the GTAP, thus by constructing the TAWP TAWP which will be used later for the preparation of a TES in GTAP format. The data are in millions of Burundian francs.

Description of the Supply-Use Table under the GTAP Nomenclature: The Resources Table includes the production of 80 products, imports, transport and trade margins, and taxes on domestic and imported products, by product. The table of Uses presents the demand for these products by branch of activity in the form of intermediate consumption, the demand by product for the consumption of households, governments and NPIs, investments, changes in stocks and exports by product.

The National Production Matrix at Basic Prices, Product by Activity: This matrix shows the output of each industry for the 80 products. It is symmetrical, because the products correspond to the branches of activity, however, it is not diagonal. There are industries that produce more than one product, and products that come from more than one industry.

The intermediate consumption matrix, which shows the demand for local and imported products of the 80 branches of activity, is symmetrical, because the branches of activity correspond to the products, and allows us to see the use of the 80 products by branch of activity, but also the products that a particular branch of activity needs to ensure its production. The matrix also includes household final consumption expenditure, investment, exports, and changes in inventories

by product. It also contains the values of compensation of employees and operating surplus, by sector of activity, not to mention the matrix of jobs by sector.

C.3 Strengths and limitations of the baseline data

This section details the strengths and limitations of the source data used for this work.

Strengths

The data used in this work provide detailed information on supply and demand for the 80 products and industries. They provide most of the data needed to develop the Input-Output Table in GTAP format, including the matrices on domestic and imported products, with their base values; trade and transport margins by product, data related to taxes and duties by product, etc., and all these tables are balanced.

Limitations

1. The goods export matrix shows some export flows that are higher than the value of locally produced goods, implying that these products are re-exported.
2. The import matrix is not measured at a completed basic price, i.e. the Supply Table presents separately the value of imports and the value of taxes on imports.
3. The Resources table presents separate matrices on taxes on products.
4. There are no separate values for capital and ground rents. They are grouped together in a single vector of income account/mixed income.

C.4 Data processing

This part describes the procedures or actions that are implemented to resolve the data issues described in the previous section.

1. Customs statistics were used to exclude re-exports in the export matrix, allowing only domestic exports to be retained.
2. To bring imports back to the completed basic price, the import matrix has been modified, including taxes on imports, to remove them from the total taxes thereafter.
3. All taxes and duties on products have been aggregated: non-deductible VAT, taxes on exports, subsidies on products, and other taxes on products.
4. By default, all capital and land rents have been allocated to the capital variable, and the

Converting the Resource-Use Table of PROD x BRANC into a PROD x PROD Input-Output Table

GTAP requires input-output tables on a product-by-product basis, and Burundi's Basic Supply-Use Table is developed on an industry-by-industry basis. To convert it into a product-by-product table, the assumption is that of industrial technology (Model B) and the tool used in this work is the one developed by the Real Sector Division of the Statistics Department of the International Monetary Fund for its countries.

The latter follows the best practices in the System of National Accounts, 2008; Eurostat Handbook on Supply and Use Tables and Input Output Tables with Extensions and Applications (New York 2018); Miller, Ronald E., and Peter D. Blair. Input-Output Analysis: Foundations and Extensions. Cambridge University Press, 2009.

Correspondence between the nomenclature of the Table of Resources-Empis of the Burundi and the APWG

The 80 sectors of Burundi's Supply-Use Table have been grouped into a set of sectors that correspond to the elements of the GTAP's standard commodities. The correspondence of the latter is presented in the table below.

Table 8.8: Concordance between the nomenclature of the Table of Supply-Use of Burundi and the nomenclature of the GTAP

No.	Code	Labeled	Correspondence
1	A01001	Grain	pdrwhtgro
2	A01002	Tubers and dried leguminous vegetables	v_f
3	A01003	Oilseeds	osd
4	A01004	Vegetables	v_f
5	A01005	Cherry Coffee	ocr
6	A01007	Café marchand (green coffee)	ocr
7	A01008	Green tea	ocr
8	A01009	Banana	v_f
9	A01010	Seed cotton	pfb
10	A01011	Products of Cotton Ginning	pfb
11	A01012	Sugar cane,	c_b
12	A01013	Fruits	v_f
13	A01014	Plants (nurseries); horticultural products	ocr
14	A01015	Other products n.e.c.	ocr
15	A02001	Cattle	ctlrmk
16	A02002	Sheep and goats	Oaprol
17	A02003	Live pigs	Oaprol
18	A02004	Poultry	Oaprol
19	A02005	Animals n.e.c.	Obs
20	A02006	Support service for cultivation and breeding	Obs
21	A03	Products of forestry and logging	frs
22	A04000	Fisheries, fish farming and aquaculture products	fsh

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No.	Code	Labeled	Correspondence
23	B05	Extractive products	mine
24	C06001	Products of the Slaughter, Processing and Preservation of Meat	cmtomt
25	C06002	Processing products and preservation of fish, crustaceans and molluscs	ofd
26	C06003	Fruit and vegetable processing and preservation products	ofd
27	C06004	Dairy products, ice cream; Fats of animal and vegetable origin	mil
28	C06005	Grain and starch products	per
29	C06006	Sugar Manufacturing	SGR
30	C06007	Processed coffee	ofd
31	C06008	Processed tea	ofd
32	C06009	Other agri-food products	theft
33	C06010	Alcoholic beverages	b_t
34	C06011	Table water and soft drinks	b_t
35	C07001	Yarns, fabrics and textiles	tex
36	C07002	Clothing	wap
37	C07003	Leather goods	lea
38	C08001	Sawn and planed wood	lum
39	C09001	Paper and paperboard articles	ppp
40	C09002	Printing and Related Products, Reproduction of Recordings	ppp
41	C10001	Petroleum products	p_c
42	C10002	Chemicals, plastics and rubber	chmrpp
43	C10003	Pharmaceuticals and traditional medicines	bph
44	C11001	Glass and other ceramic products	nmm
45	C11002	Cement, lime and plaster and products thereof	nmm
46	C12001	Metallurgical and foundry products, metal products	i_snfmfmp
47	C13001	Electronics, computers and electrical equipment products	eleeeqome
48	C13002	Transport equipment	mvhotn
49	C14001	Mattresses, box springs and furniture	omf
50	C14002	Products of other manufacturing industries n.e.c.	omf
51	C14003	Installation and repair service for industrial machinery and equipment	omf
52	D15000	Generation, transmission and distribution of electricity, gaseous fuels and ice	elygdt
53	E16	Water production and distribution and waste treatment	wtr
54	F17	Construction and civil engineering	cns
55	G18	Trade Department	trd
56	H19001	Ground Transportation Service	OTP
57	H19002	Water Transportation Service	wtp
58	H19003	Air Transport Service	ATP
59	H19004	Related transportation services	whs
60	H19005	Universal postal, mail and distribution service	cmn
61	I20000	Accommodation, catering and drinking establishments	Afs
62	Day 21	Information and Communication Service	cmn
63	K22001	Central banking services	ofiins
64	K22002	Other monetary intermediation services	ofiins
65	K22003	Insurance Service	ofiins
66	K22004	Financial and insurance auxiliary services	ofiins
67	L23000	Real Estate Services	rsadwe
68	M24	Professional, scientific and technical services	Obs
69	N25000	Support and clerical services	Obs
70	O26	Public administration services	OSG
71	P27000	Teaching Service	edu
72	Q28000	Health and social services	hht
73	R29000	Art, Sports and Recreational Services	Praise

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No.	Code	Labeled	Correspondence
74	S30001	Religious, trade union, political, and other associative and professional organizations	OSG
75	S30002	Home Equipment Repair Service	Praise
76	S30003	Other personal services	Praise
77	T31000	Specialized Household Services	Praise
78	U32000	Territorial correction	OSG
79	V33000	CAFFAB	OSG
80	Z99999	Products on hold	OSG

C.5 Verification of sectoral balance and non-negativity conditions

After conversion of the Burundi Supply-Use Table into an Input-Output Table in the required format of the GTAP database, sectoral balance and non-negativity verification tests were applied and the latter met the required conditions.