

AM.1 Introduction

This document presents Pakistan Input-Output Table (IOT) 2017. It is an industry by industry table comprising 35 sectors. It is denominated in USD million, at basic prices.

AM.2 Source Data

The reference year of the Pakistan IOT is 2017 and the unit of accounts is USD million. It is an extension of Zeshan and Nasir (2019), and Asian Development Bank (2017). It utilizes the supply and use tables created by the Pakistan Bureau of Statistics with the support of the Asian Development Bank (2017), and develops the Pakistan IOT (2017) following Asian Development Bank Multiregional Input-Output Database (Mariasingham, 2019). It is an industry by industry table and comprises 35 sectors (see Table 8.81 in Annex).

In this table, the final demand comprises final consumption expenditure by households, final consumption expenditure by government, gross fixed capital formation, changes in inventories and valuables, and exports. Further it provides taxes less subsidies on products, and value-added at basic prices.

AM.3 Treatment of Final Demand and Value-added Components

Zero values are assigned to the components of the final demand where data are not available, such as:

- Import taxes
- Import tariffs

Zero values are assigned to the factor inputs where data are not available, such as:

- Land
- Production taxes

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In the original IOT (2017), value-added represents aggregated values of labor and capital. The value-added is disaggregated between labor and capital using their relevant shares in value-added from Zeshan and Nasir (2019).

Zero values are assigned to the dwelling (dwe) sector.

AM.4 Mapping to GTAP (GSEC 3) Sectoral Aggregation

The 35 sectors in the Pakistan IOT are aggregated to 34 GTAP sectors (see Tables 8.81 and 8.82 in Annex), such that Sectors 20 (wholesale trade and commission trade, except of motor vehicles and motorcycles) and 21 (retail trade, except of motor vehicles and motorcycles; repair of household goods) are aggregated to GSEC 3 sector 50 (trade).

AM.5 Deviations from the GTAP and Quality of the I-O Data

Originally the Pakistan IOT (2017) has 35 sectors (including dwelling sector) while the GTAP (GSEC 3) comprises 65 sectors. There is a need of sectoral disaggregation to match the GSEC 3 format.

Further, mapping the original 35 sectors to GSEC 3 aggregates the original IOT to 34 sectors resulting in loss of information.

Reference

Asian Development Bank (2017), ‘Compendium of Supply and Use Tables for Selected Economies in Asia and the Pacific’, Manila, Philippines.

Mariasingham, J 2019, ‘ADB Multi-Region Input-Output Database: Sources and Methods’, Asian Development Bank.

Zeshan, M and Nasir, M (2019), ‘Pakistan Input-Output Table 2011’, Pakistan Institute of Development Economics (PIDE), Working Paper No. 162/CEECC:16.

Appendix

Table 8.81: Sectoral Description of Pakistan IOT 2017

No.	Sector	Description
1	Agri	Agriculture, hunting, forestry, and fishing
2	Mining	Mining and quarrying
3	ofd_b_t	Food, beverages, and tobacco

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No.	Sector	Description
4	tex	Textiles and textile products
5	lea	Leather, leather products, and footwear
6	lum	Wood and products of wood and cork
7	ppp	Pulp, paper, paper products, printing, and publishing
8	p_c	Coke, refined petroleum, and nuclear fuel
9	chm	Chemicals and chemical products
10	rpp	Rubber and plastics
11	nmm	Other nonmetallic minerals
12	i_s_nfm	Basic metals and fabricated metal
13	fmp_ome	Machinery, nec
14	ele_eeq	Electrical and optical equipment
15	otn	Transport equipment
16	omf	Manufacturing, nec; recycling
17	e_g_w	Electricity, gas, and water supply
18	cns	Construction
19	Mvh	Sale, maintenance, and repair of motor vehicles and motorcycles; retail sale of fuel
20	trd1	Wholesale trade and commission trade, except of motor vehicles and motorcycles
21	trd2	Retail trade, except of motor vehicles and motorcycles; repair of household goods
22	afs	Hotels and restaurants
23	otp	Inland transport
24	wtp	Water transport
25	atp	Air transport
26	whs	Other supporting and auxiliary transport activities; activities of travel agencies
27	cmn	Post and telecommunications
28	ofi_ins	Financial intermediation
29	rsa	Real estate activities
30	obs	Renting of M&Eq and other business activities
31	osg	Public administration and defense; compulsory social security
32	edu	Education
33	hht	Health and social work
34	ros	Other community, social, and personal services
35	dwe	Dwellings

Table 8.82: Mapping Pakistan IOT 2017 with GSEC 3

No.	Sector	Description	Mapping
1	pdr	Paddy rice	Agri
2	wht	Wheat	Agri
3	gro	Cereal grains nec	Agri
4	v_f	Vegetables, fruit, nuts	Agri
5	osd	Oil seeds	Agri
6	c_b	Sugar cane, sugar beet	Agri
7	pfb	Plant-based fibers	Agri
8	ocr	Crops nec	Agri
9	ctl	Bovine cattle, sheep and goats, horses	Agri
10	oap	Animal products nec	Agri
11	rmk	Raw milk	Agri
12	wol	Wool, silk-worm cocoons	Agri
13	frs	Forestry	Agri

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No.	Sector	Description	Mapping
14	fsh	Fishing	Agri
15	coa	Coal	Mining
16	oil	Oil	Mining
17	gas	Gas	Mining
18	oxt	Other Extraction (formerly omn Minerals nec)	Mining
19	cmt	Bovine meat products	ofd_b_t
20	omt	Meat products nec	ofd_b_t
21	vol	Vegetable oils and fats	ofd_b_t
22	mil	Dairy products	ofd_b_t
23	pcr	Processed rice	ofd_b_t
24	sgr	Sugar	ofd_b_t
25	ofd	Food products nec	ofd_b_t
26	b_t	Beverages and tobacco products	ofd_b_t
27	tex	Textiles	tex
28	wap	Wearing apparel	tex
29	lea	Leather products	lea
30	lum	Wood products	lum
31	ppp	Paper products, publishing	ppp
32	p_c	Petroleum, coal products	p_c
33	chm	Chemical products	chm
34	bph	Basic pharmaceutical products	chm
35	rpp	Rubber and plastic products	rpp
36	nmm	Mineral products nec	nmm
37	i_s	Ferrous metals	i_s_nfm
38	nfm	Metals nec	i_s_nfm
39	fmp	Metal products	fmp_ome
40	ele	Computer, electronic and optical products	ele_eeq
41	eeq	Electrical equipment	ele_eeq
42	ome	Machinery and equipment nec	fmp_ome
43	mvh	Motor vehicles and parts	mvh
44	otn	Transport equipment nec	otn
45	omf	Manufactures nec	omf
46	ely	Electricity	e_g_w
47	gdt	Gas manufacture, distribution	e_g_w
48	wtr	Water	e_g_w
49	cns	Construction	cns
50	trd	Trade	trd1_trd2
51	afs	Accommodation, Food and service activities	afs
52	otp	Transport nec	otp
53	wtp	Water transport	wtp
54	atp	Air transport	atp
55	whs	Warehousing and support activities	whs
56	cmn	Communication	cmn
57	ofi	Financial services nec	ofi_ins
58	ins	Insurance (formerly isr)	ofi_ins
59	rsa	Real estate activities	rsa
60	obs	Business services nec	obs
61	ros	Recreational and other services	ros
62	osg	Public Administration and defense	osg
63	edu	Education	edu
64	hht	Human health and social work activities	hht

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No.	Sector	Description	Mapping
65	dwe	Dwellings	dwe