

Bhutan

South and Central Asia

Basic Economic Indicators

Economic Aggregates (\$ million)	2000	2007	2010	2013	2016	2019	2020
Value-added at basic price	430	1,161	1,522	1,705	2,022	2,412	2,430
Gross output	679	1,943	2,691	3,026	3,256	4,022	4,238
Total intermediate inputs	246	770	1,146	1,288	1,191	1,560	1,760
Taxes less subsidies on products	3	12	23	33	43	51	47
International transport margins	0	0	0	0	0	0	0
CIF/FOB adjustment	0	0	0	0	0	0	0
Direct purchases abroad by residents	0	0	0	0	0	0	0
Purchases by nonresidents on the domestic territory	0	0	0	0	0	0	0
Household final consumption expenditure	177	366	479	651	750	1,011	1,023
Final consumption expenditure by NPISHs	0	0	0	0	0	0	0
Government final consumption expenditure	92	203	271	268	308	429	506
Gross fixed capital formation	180	373	639	521	796	724	811
Changes in inventories	-8	48	17	-57	5	-6	-215
Total final demand	441	990	1,406	1,383	1,859	2,158	2,125
Exports	74	447	521	757	665	861	791
Imports	158	589	981	1,028	1,210	1,274	992

Economic Aggregates, Top 3 Sectors (\$ million)	2000	2007	2010	2013	2016	2019	2020
Value-added at basic price							
Agriculture	118	223	266	298	352	400	399
Utilities	50	244	279	245	303	322	313
Construction	61	164	225	300	330	291	302
Gross output							
Construction	164	389	584	845	823	697	802
Utilities	51	309	340	272	331	552	537
Agriculture	131	248	297	326	379	446	445
Total intermediate inputs							
Construction	101	219	348	528	472	386	484
Utilities	0	65	60	26	27	227	214
Inland transport	19	59	81	103	106	171	214
Total final demand							
Construction	149	328	517	471	718	596	652
Public administration	61	130	171	182	204	275	341
Agriculture	103	137	193	193	271	361	263
Exports							
Mining	2	10	24	27	46	180	141
Utilities	27	207	196	156	220	116	105
Minerals, NEC	4	41	63	22	34	122	78
Imports							
Manufacturing, NEC	40	192	207	214	197	278	221
Agriculture	6	37	115	137	118	191	177
Electricals	9	22	78	70	59	68	63

Domestic Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
First-round effect							
Chemicals	0.49	0.53	0.54	0.63	0.60	0.61	0.63
Wood	0.44	0.56	0.57	0.62	0.55	0.58	0.61
Manufacturing, NEC	0.49	0.53	0.54	0.60	0.55	0.56	0.59
Industrial support effect							
Chemicals	0.09	0.13	0.15	0.18	0.13	0.18	0.24
Rubber and plastics	0.11	0.17	0.19	0.28	0.20	0.15	0.24
Manufacturing, NEC	0.09	0.13	0.15	0.17	0.12	0.17	0.23
Production-induced effect							
Chemicals	0.58	0.66	0.70	0.81	0.73	0.79	0.87
Manufacturing, NEC	0.58	0.66	0.70	0.78	0.67	0.73	0.82
Wood	0.50	0.65	0.68	0.71	0.61	0.70	0.76

Bhutan

South and Central Asia

Domestic Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
Simple value-added multiplier							
Real estate	0.99	0.82	0.78	0.97	0.98	0.99	0.99
Agriculture	0.96	0.96	0.96	0.97	0.97	0.96	0.97
Transport activities, NEC	0.88	0.87	0.87	0.95	0.95	0.96	0.96
Type I value-added multiplier							
Wood	1.95	2.55	2.70	3.22	2.74	2.80	2.97
Food and beverages	1.98	2.34	2.46	2.87	2.47	2.41	2.89
Chemicals	2.04	2.36	2.49	3.11	2.79	2.63	2.84
Direct backward linkage							
Chemicals	0.49	0.53	0.54	0.63	0.60	0.61	0.63
Wood	0.44	0.56	0.57	0.62	0.55	0.58	0.61
Manufacturing, NEC	0.49	0.53	0.54	0.60	0.55	0.56	0.59
Complete hypothetical extraction (backward)							
Chemicals	1.56	1.64	1.66	1.76	1.69	1.79	1.87
Manufacturing, NEC	1.57	1.64	1.66	1.73	1.63	1.69	1.79
Wood	1.50	1.65	1.68	1.71	1.61	1.70	1.76
Partial hypothetical extraction (backward)							
Chemicals	0.58	0.65	0.68	0.79	0.71	0.79	0.87
Manufacturing, NEC	0.58	0.65	0.68	0.76	0.65	0.71	0.80
Wood	0.50	0.65	0.68	0.71	0.61	0.70	0.76
Total backward linkage							
Chemicals	1.58	1.66	1.70	1.81	1.73	1.79	1.87
Manufacturing, NEC	1.58	1.66	1.70	1.78	1.67	1.73	1.82
Wood	1.50	1.65	1.68	1.71	1.61	1.70	1.76
Direct forward linkage							
Business activities, NEC	0.00	0.59	0.74	0.68	0.59	0.77	0.80
Manufacturing, NEC	0.64	0.70	0.74	0.75	0.67	0.86	0.79
Real estate	0.51	0.26	0.49	0.63	0.50	0.62	0.72
Complete hypothetical extraction (forward)							
Real estate	1.69	1.38	1.72	1.95	1.67	1.91	2.18
Business activities, NEC	1.00	1.77	1.99	1.91	1.74	2.00	2.11
Finance	1.95	1.81	1.98	1.92	1.65	1.79	2.09
Partial hypothetical extraction (forward)							
Real estate	0.69	0.38	0.73	0.95	0.67	0.91	1.19
Business activities, NEC	0.00	0.77	1.00	0.92	0.75	1.00	1.11
Finance	0.95	0.81	0.98	0.92	0.65	0.79	1.10
Total forward linkage							
Real estate	1.69	1.38	1.73	1.95	1.67	1.91	2.19
Finance	1.96	1.81	1.98	1.93	1.66	1.79	2.12
Business activities, NEC	1.00	1.78	2.01	1.93	1.75	2.00	2.12
Normalized backward linkage							
Chemicals	1.19	1.18	1.18	1.28	1.30	1.32	1.28
Manufacturing, NEC	1.19	1.18	1.18	1.25	1.25	1.27	1.24
Wood	1.13	1.18	1.17	1.21	1.21	1.25	1.21
Normalized forward linkage							
Real estate	1.20	0.97	1.17	1.32	1.24	1.52	1.63
Finance	1.39	1.27	1.35	1.31	1.23	1.43	1.59
Business activities, NEC	0.71	1.25	1.36	1.31	1.30	1.59	1.58
Net backward linkage							
Chemicals	0.50	0.55	0.46	0.45	0.60	1.63	1.84
Food and beverages	1.33	1.46	1.49	1.55	1.50	1.58	1.72
Metals	1.22	1.12	1.23	1.28	1.25	1.56	1.71
Net forward linkage							
Real estate	1.64	0.91	1.00	1.86	1.62	1.88	2.09
Finance	1.75	1.75	1.82	1.71	1.50	1.58	1.70
Retail trade	1.18	1.19	0.88	1.03	1.05	1.18	1.31

Bhutan

South and Central Asia

International Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
Self-sufficiency ratio							
Air transport	1.23	1.35	1.72	1.82	1.82	20.91	7.66
Transport activities, NEC	0.84	1.03	1.01	0.92	0.60	3.74	5.59
Mining	1.19	1.31	1.67	1.54	1.76	20.08	4.29
Import-to-input ratio							
Air transport	0.20	0.47	0.47	0.42	0.48	0.48	0.36
Rubber and plastics	0.29	0.30	0.31	0.28	0.32	0.33	0.25
Paper	0.20	0.26	0.27	0.24	0.27	0.28	0.23
Export-to-output ratio							
Chemicals	0.25	0.33	0.21	0.19	0.24	0.90	0.98
Water transport	1.00	0.00	0.60	0.67	0.65	1.00	0.96
Transport activities, NEC	0.39	0.18	0.21	0.17	0.15	0.99	0.96
Domestic inputs share to output							
Chemicals	0.49	0.53	0.54	0.63	0.60	0.61	0.63
Wood	0.44	0.56	0.57	0.62	0.55	0.58	0.61
Manufacturing, NEC	0.49	0.53	0.54	0.60	0.55	0.56	0.59
Foreign inputs share to output							
Air transport	0.20	0.47	0.47	0.42	0.48	0.48	0.36
Rubber and plastics	0.29	0.30	0.31	0.28	0.32	0.33	0.25
Paper	0.20	0.26	0.27	0.24	0.27	0.28	0.23
Backward import multipliers							
Air transport	0.23	0.55	0.54	0.50	0.55	0.55	0.44
Rubber and plastics	0.32	0.37	0.38	0.36	0.39	0.40	0.32
Paper	0.23	0.32	0.33	0.29	0.32	0.36	0.30
Forward import multipliers							
Metals	0.19	0.62	0.47	0.49	0.43	0.99	0.97
Rubber and plastics	0.18	0.49	0.33	0.45	0.37	0.99	0.91
Chemicals	0.20	0.46	0.27	0.37	0.28	0.71	0.77
Intraregional transfer multiplier							
Chemicals	1.58	1.66	1.70	1.81	1.73	1.79	1.87
Manufacturing, NEC	1.58	1.66	1.70	1.78	1.67	1.73	1.82
Wood	1.50	1.65	1.68	1.71	1.61	1.70	1.76
Interregional spillover multiplier							
Air transport	1.37	1.91	1.93	1.84	2.00	1.95	1.72
Rubber and plastics	1.54	1.59	1.64	1.59	1.69	1.64	1.49
Paper	1.36	1.46	1.50	1.45	1.51	1.52	1.44
Interregional feedback multiplier							
Air transport	1.08	1.23	1.28	1.22	1.21	1.24	1.16
Rubber and plastics	1.14	1.16	1.19	1.17	1.17	1.15	1.11
Transport equipment	1.07	1.12	1.15	1.12	1.12	1.13	1.10
Intraregional effect on gross output (\$ million)							
Construction	161.72	382.80	578.78	552.58	800.40	685.58	789.40
Agriculture	128.03	195.18	263.52	277.45	343.56	435.81	421.94
Utilities	25.28	89.74	131.94	91.00	96.90	368.75	370.00
Interregional effect on gross output (\$ million)							
Utilities	20.35	169.73	164.16	141.88	181.38	147.05	137.29
Mining	1.84	11.84	24.51	34.10	47.60	82.05	72.26
Inland transport	4.14	13.44	30.18	54.52	42.03	50.00	54.56
Feedback effect on gross output (\$ million)							
Utilities	5.03	49.59	43.44	39.51	52.95	36.09	30.17
Mining	0.16	1.03	1.75	3.44	3.65	20.17	15.86
Inland transport	0.75	2.92	6.13	11.13	10.46	12.69	12.17
Directly absorbed value-added exports (DAVAX) (\$ million)							
Mining	1.97	8.47	20.17	21.42	38.89	134.19	109.01
Minerals, NEC	3.74	33.15	52.19	19.57	30.96	100.65	65.69
Utilities	18.29	113.53	113.72	94.73	136.92	63.06	63.28
Reflection (REF) (\$ million)							
Metals	0.00	0.01	0.01	0.01	0.01	0.02	0.01
Mining	0.00	0.00	0.01	0.01	0.01	0.01	0.01
Minerals, NEC	0.00	0.01	0.00	0.00	0.00	0.01	0.00

Bhutan

South and Central Asia

International Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
Reexports (REX) (\$ million)							
Utilities	8.46	66.88	61.16	52.66	72.64	26.30	22.40
Mining	0.16	0.74	1.69	2.27	3.44	25.36	18.69
Hotels and restaurants	0.21	0.92	2.15	4.70	9.55	15.37	11.37
Foreign value added (FVA) (\$ million)							
Air transport	0.37	4.74	10.25	11.11	15.18	41.67	33.68
Utilities	0.11	26.70	21.30	8.67	10.49	27.07	19.51
Metals	0.48	6.57	10.70	12.82	13.26	25.67	14.85
Pure double-counting (PDC) (\$ million)							
Air transport	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trade-based GVC participation rate							
Air transport	0.43	0.61	0.62	0.60	0.66	0.66	0.54
Personal services, NEC	0.34	0.33	0.32	0.33	0.45	0.54	0.50
Rubber and plastics	0.39	0.43	0.45	0.50	0.53	0.56	0.47
Production-based GVC participation rate							
Metals	0.19	0.62	0.47	0.49	0.43	0.99	0.97
Rubber and plastics	0.18	0.49	0.33	0.45	0.37	0.99	0.91
Chemicals	0.20	0.46	0.27	0.37	0.28	0.71	0.77
Trade-based backward GVC participation rate							
Air transport	0.23	0.55	0.54	0.50	0.55	0.55	0.44
Rubber and plastics	0.32	0.37	0.38	0.36	0.39	0.40	0.32
Paper	0.23	0.32	0.33	0.29	0.32	0.36	0.30
Trade-based forward GVC participation rate							
Personal services, NEC	0.18	0.14	0.13	0.18	0.28	0.38	0.37
Finance	0.33	0.36	0.35	0.35	0.34	0.36	0.31
Retail trade	0.18	0.30	0.24	0.29	0.28	0.28	0.28
Traditional revealed comparative advantage							
Utilities	67.94	74.22	82.11	46.84	59.92	22.39	20.35
Minerals, NEC	5.16	9.79	13.75	3.19	5.41	15.43	10.73
Air transport	1.60	1.55	2.93	2.53	3.18	6.45	8.90
New revealed comparative advantage							
Utilities	18.37	17.80	17.90	11.18	15.72	9.24	8.40
Minerals, NEC	3.06	4.08	5.59	4.94	4.31	11.21	6.61
Hotels and restaurants	0.95	0.84	1.44	2.44	4.31	4.63	5.34
Backward production length							
Air transport	1.76	2.80	2.91	2.81	2.79	2.78	2.73
Rubber and plastics	2.15	2.48	2.62	2.73	2.66	2.53	2.54
Metals	1.96	2.31	2.42	2.42	2.35	2.43	2.42
Forward production length							
Chemicals	2.24	2.84	2.55	2.76	2.41	2.89	3.06
Metals	1.56	2.56	2.22	2.26	2.04	2.94	2.91
Rubber and plastics	2.44	2.93	2.82	3.21	2.91	3.01	2.87
Backward production length of GVC segment							
Sale of motor vehicles	3.68	4.03	4.16	4.00	3.94	4.17	4.38
Wholesale trade	3.48	3.99	4.13	3.97	3.85	4.09	4.36
Minerals, NEC	3.87	4.18	4.25	4.25	4.18	4.22	4.35
Forward production length of GVC segment							
Real estate	3.78	4.50	4.38	4.70	4.34	4.74	5.04
Telecommunications	3.69	4.32	4.43	4.14	3.74	4.65	4.92
Finance	3.91	4.22	4.04	4.52	4.12	4.62	4.92
Backward agglomeration index							
Leather	-	1.87	1.57	1.87	1.81	2.24	2.23
Textiles	-	1.41	1.59	2.06	1.88	2.30	1.75
Metals	-	0.96	0.60	0.46	0.55	1.48	1.59
Forward agglomeration index							
Leather	-	2.27	2.07	1.84	1.90	1.99	1.93
Transport equipment	-	2.12	1.83	1.73	1.73	1.54	1.56
Textiles	-	1.69	1.99	1.97	1.85	1.88	1.47

CIF = cost, insurance, and freight; FOB = free on board; GVC = global value chain; NEC = not elsewhere classified; NPISHs = nonprofit institutions serving households.
Source: Calculations using the Asian Development Bank Multiregional Input-Output Table. <https://mrio.adb.org/> (accessed July 2021).

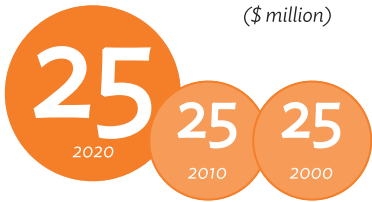
Bhutan

South and Central Asia

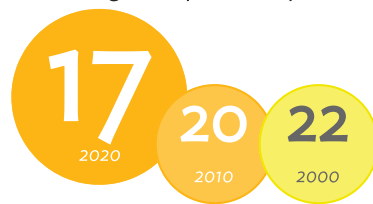
The four select sectors are chosen based on their gross outputs in the economy as of 2019.

Economy Ranking out of 25 Economies

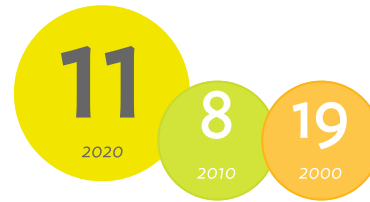
Value-Added at Basic Prices
(\$ million)



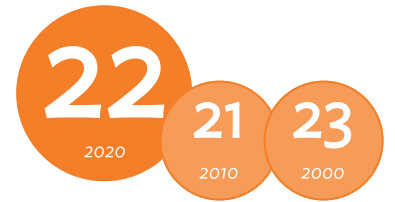
Average Output Multiplier



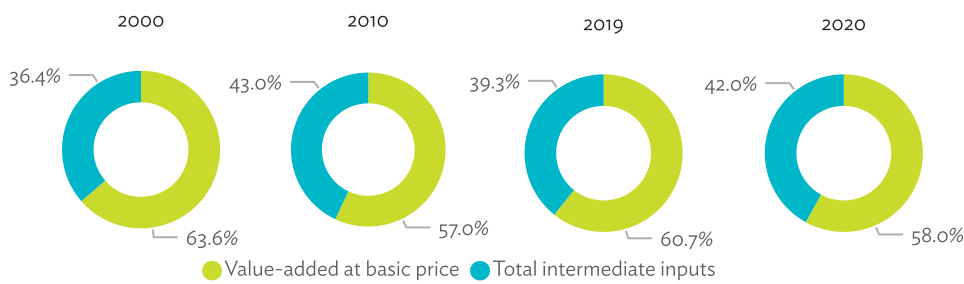
Trade Openness



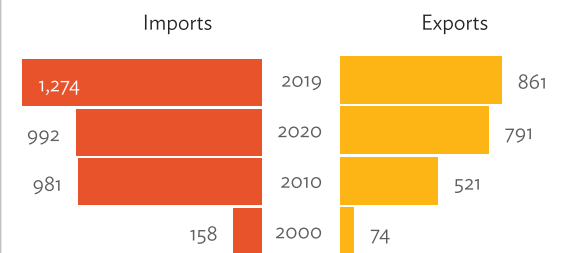
Trade-Based GVC Participation



Share of Intermediate Consumption and Gross Value-Added in Output

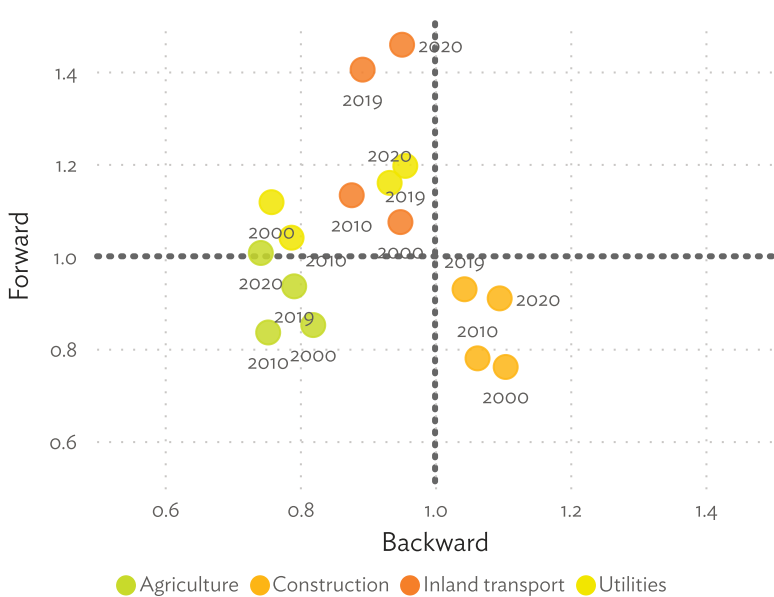


Imports and Exports, 2019-2020
(\$ million)

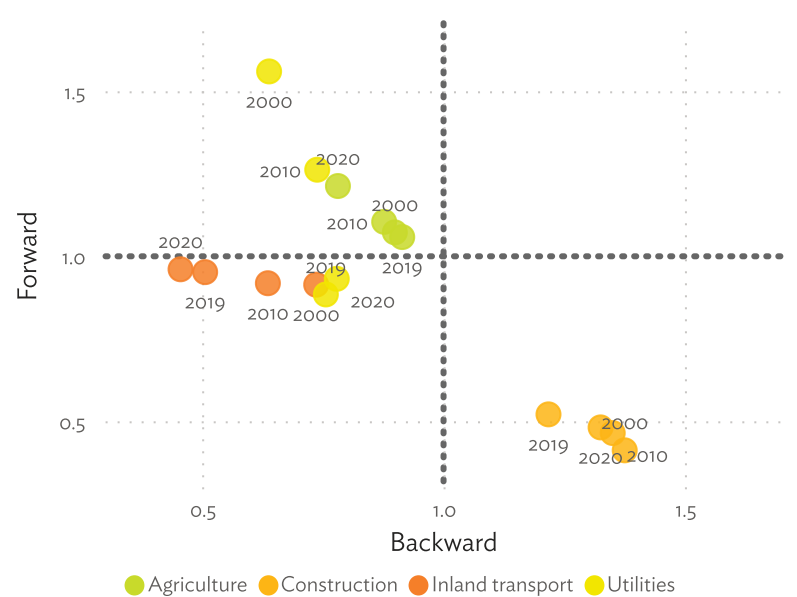


Domestic Linkages

Normalized Linkages



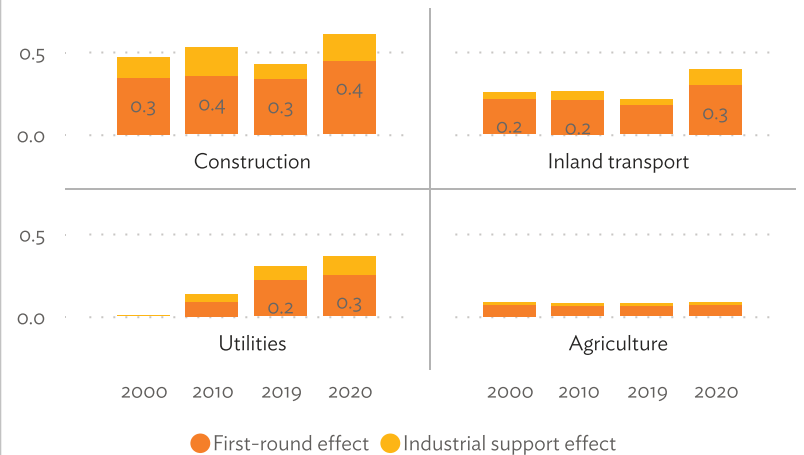
Net Linkages



Value-Added Multipliers



Production-Induced Effect



Bhutan

South and Central Asia

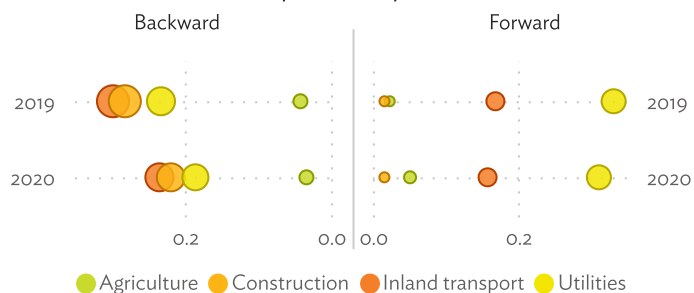
International Linkages

Change in Exports, by Value-Added Components, 2019-2020

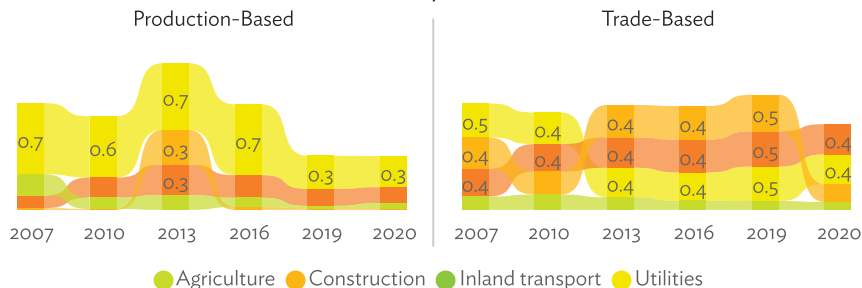
(\$ million)



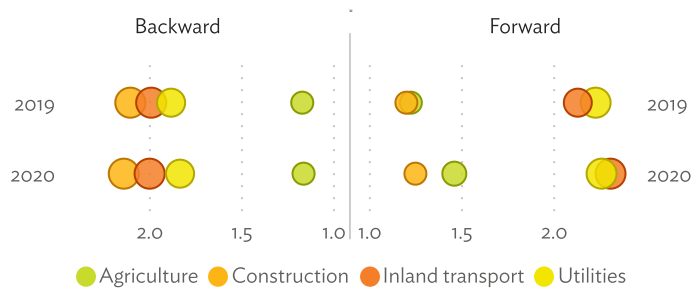
Import Multipliers



GVC Participation Rates



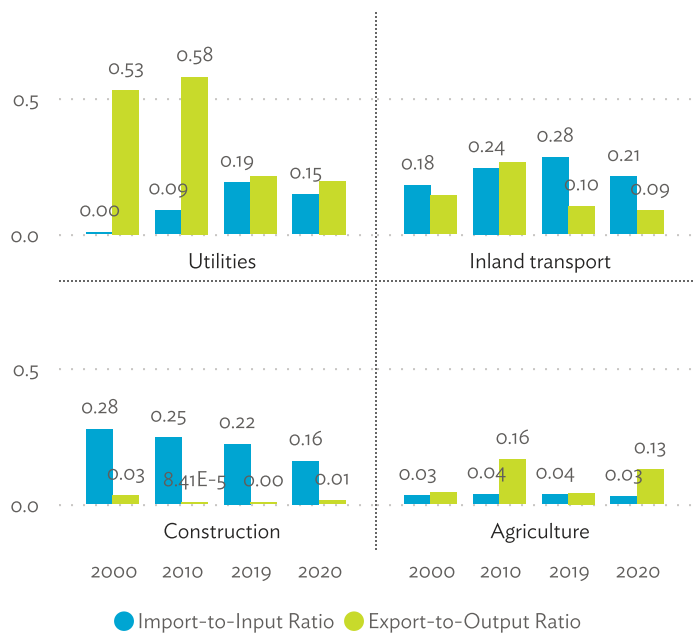
Average Production Length



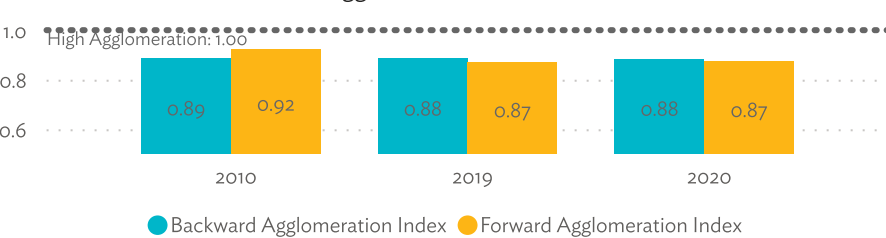
New Revealed Comparative Advantage



Trade Orientation

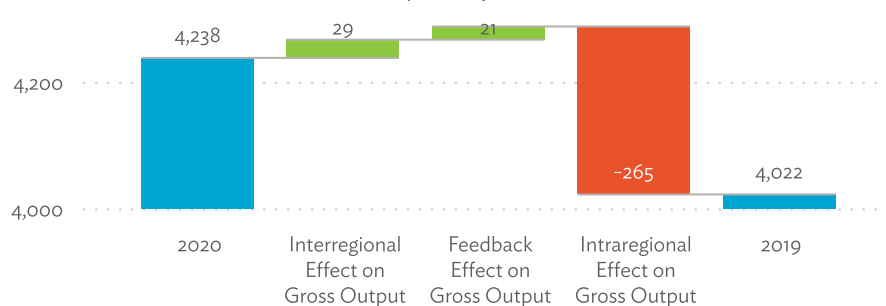


Agglomeration Indices



Domestic Transfer Effects and International Spillover Effects

(\$ million)



GVC = global value chain; NEC = not elsewhere classified.

Source: Calculations using the Asian Development Bank Multiregional Input-Output Table. <https://mrio.adb.online/> (accessed July 2021).