

# Republic of Korea

East Asia

Basic Economic Indicators

Economic Aggregates (\$ million)	2000	2007	2010	2013	2016	2019	2020
Value-added at basic price	504,457	1,013,652	991,192	1,191,048	1,282,768	1,507,364	1,493,186
Gross output	1,175,976	2,516,482	2,638,334	3,201,879	3,350,901	3,628,467	3,544,033
Total intermediate inputs	645,799	1,448,265	1,582,801	1,931,477	2,024,205	2,038,584	1,970,058
Taxes less subsidies on products	15,544	32,510	34,280	39,256	43,928	82,519	80,789
International transport margins	10,177	22,054	30,062	40,099	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	257,273	494,774	457,643	543,270	538,207	679,743	650,838
Final consumption expenditure by NPISHs	0	0	0	0	0	0	0
Government final consumption expenditure	62,103	158,179	158,885	195,106	207,090	271,168	284,341
Gross fixed capital formation	138,611	265,576	256,646	299,697	338,926	392,793	413,656
Changes in inventories	5,201	17,670	13,152	-2,476	7,390	26,982	10,908
Total final demand	463,188	936,199	886,327	1,035,596	1,091,613	1,370,686	1,359,742
Exports	191,713	408,206	518,902	686,573	643,588	657,824	601,615
Imports	162,976	363,673	440,528	562,228	509,489	610,103	541,017

Economic Aggregates, Top 3 Sectors (\$ million)	2000	2007	2010	2013	2016	2019	2020
<b>Value-added at basic price</b>							
Business activities, NEC	33,502	79,163	78,111	98,169	103,901	178,120	180,361
Electricals	38,493	77,808	85,181	105,400	105,118	134,154	132,917
Real estate	45,988	83,813	76,513	91,864	102,001	122,482	124,324
<b>Gross output</b>							
Electricals	143,595	292,054	328,037	382,512	377,304	336,136	333,037
Business activities, NEC	56,989	137,319	137,184	171,727	179,369	318,287	322,292
Construction	81,214	173,201	157,671	177,017	191,861	225,545	224,841
<b>Total intermediate inputs</b>							
Electricals	102,569	210,026	236,949	270,090	270,957	195,291	193,427
Transport equipment	45,132	136,305	144,183	177,945	185,709	175,257	163,069
Metals	41,865	128,380	148,105	169,359	166,574	147,844	138,186
<b>Total final demand</b>							
Construction	77,922	163,593	149,144	167,113	183,182	207,702	208,686
Public administration	43,155	97,305	96,932	119,861	128,663	136,441	143,473
Health and social work	23,012	63,895	67,263	87,167	96,160	132,009	136,027
<b>Exports</b>							
Electricals	67,423	127,990	164,945	206,103	184,143	186,240	177,571
Chemicals	13,606	34,990	49,484	69,730	70,706	82,431	84,486
Transport equipment	22,477	72,069	102,406	129,491	114,927	76,459	70,616
<b>Imports</b>							
Electricals	39,061	54,802	68,945	85,890	76,207	77,038	78,727
Mining	27,042	67,950	90,493	128,173	104,532	88,780	72,374
Metals	16,750	46,708	50,332	54,494	48,712	55,756	50,152

## Domestic Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
<b>First-round effect</b>							
Food and beverages	0.71	0.71	0.70	0.71	0.74	0.68	0.68
Textiles	0.57	0.61	0.62	0.62	0.64	0.61	0.62
Hotels and restaurants	0.39	0.42	0.44	0.45	0.43	0.60	0.61
<b>Industrial support effect</b>							
Textiles	0.51	0.62	0.66	0.66	0.75	0.63	0.65
Food and beverages	0.55	0.63	0.67	0.68	0.80	0.60	0.63
Leather	0.60	0.72	0.73	0.76	0.84	0.59	0.62
<b>Production-induced effect</b>							
Food and beverages	1.26	1.34	1.37	1.39	1.54	1.28	1.31
Textiles	1.08	1.23	1.28	1.27	1.39	1.24	1.27
Leather	1.19	1.36	1.38	1.41	1.50	1.17	1.21

# Republic of Korea

East Asia

Domestic Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
<b>Simple value-added multiplier</b>							
Real estate	0.97	0.96	0.96	0.96	0.96	0.94	0.95
Public administration	0.92	0.92	0.91	0.91	0.92	0.93	0.94
Education	0.93	0.92	0.91	0.90	0.90	0.90	0.91
<b>Type I value-added multiplier</b>							
Water transport	1.66	1.75	1.86	1.78	1.87	3.38	3.77
Food and beverages	3.91	3.84	3.96	4.05	4.39	3.47	3.54
Refined fuels	1.73	1.71	1.68	1.67	3.25	2.94	3.28
<b>Direct backward linkage</b>							
Food and beverages	0.71	0.71	0.70	0.71	0.74	0.68	0.68
Textiles	0.57	0.61	0.62	0.62	0.64	0.61	0.62
Hotels and restaurants	0.39	0.42	0.44	0.45	0.43	0.60	0.61
<b>Complete hypothetical extraction (backward)</b>							
Hotels and restaurants	1.75	1.82	1.86	1.89	1.90	2.12	2.15
Manufacturing, NEC	1.70	1.94	2.11	2.09	2.15	2.03	2.05
Water transport	1.71	1.80	1.84	1.80	1.90	1.90	1.95
<b>Partial hypothetical extraction (backward)</b>							
Hotels and restaurants	0.75	0.83	0.87	0.90	0.91	1.14	1.17
Manufacturing, NEC	0.72	0.97	1.15	1.14	1.20	1.07	1.10
Leather	1.02	1.13	1.10	1.14	1.19	1.02	1.05
<b>Total backward linkage</b>							
Food and beverages	2.26	2.34	2.37	2.39	2.54	2.28	2.31
Textiles	2.08	2.23	2.28	2.27	2.39	2.24	2.27
Leather	2.19	2.36	2.38	2.41	2.50	2.17	2.21
<b>Direct forward linkage</b>							
Wood	0.96	0.97	0.96	0.95	0.90	0.75	0.88
Minerals, NEC	0.83	0.85	0.86	0.82	0.85	0.83	0.84
Transport activities, NEC	0.87	0.88	0.90	0.88	0.90	0.82	0.83
<b>Complete hypothetical extraction (forward)</b>							
Transport activities, NEC	2.42	2.61	2.71	2.68	2.80	2.56	2.60
Mining	3.87	3.55	3.40	3.11	3.15	2.31	2.43
Water transport	1.00	1.00	1.00	1.00	1.11	2.33	2.38
<b>Partial hypothetical extraction (forward)</b>							
Transport activities, NEC	1.52	1.67	1.76	1.72	1.84	1.60	1.64
Agriculture	1.02	1.12	1.24	1.33	1.51	1.47	1.46
Mining	2.87	2.56	2.40	2.11	2.15	1.31	1.43
<b>Total forward linkage</b>							
Wood	2.48	2.78	2.91	2.86	2.81	2.41	2.73
Transport activities, NEC	2.68	2.79	2.86	2.81	2.93	2.65	2.69
Agriculture	2.15	2.26	2.40	2.50	2.72	2.63	2.65
<b>Normalized backward linkage</b>							
Food and beverages	1.29	1.27	1.28	1.29	1.32	1.26	1.26
Textiles	1.19	1.21	1.22	1.23	1.24	1.24	1.24
Leather	1.25	1.29	1.28	1.30	1.30	1.20	1.20
<b>Normalized forward linkage</b>							
Wood	1.34	1.43	1.45	1.45	1.36	1.24	1.38
Transport activities, NEC	1.45	1.43	1.43	1.42	1.42	1.36	1.36
Agriculture	1.16	1.16	1.20	1.27	1.32	1.35	1.34
<b>Net backward linkage</b>							
Construction	1.82	1.88	1.89	1.85	1.90	1.75	1.77
Health and social work	1.70	1.70	1.63	1.64	1.61	1.62	1.63
Education	1.36	1.39	1.40	1.39	1.45	1.42	1.42
<b>Net forward linkage</b>							
Agriculture	1.39	1.32	1.30	1.36	1.45	1.44	1.45
Sale of motor vehicles	1.12	1.18	1.23	1.17	1.24	1.27	1.31
Paper	1.07	1.01	0.95	0.96	0.96	1.27	1.30

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
<b>Self-sufficiency ratio</b>							
Air transport	1.38	2.40	1.95	1.86	1.81	1.56	1.47
Electricals	1.25	1.33	1.41	1.46	1.40	1.48	1.42
Chemicals	1.01	1.05	1.10	1.14	1.12	1.37	1.37
<b>Import-to-input ratio</b>							
Refined fuels	0.63	0.64	0.68	0.67	0.64	0.47	0.44
Utilities	0.22	0.26	0.31	0.31	0.25	0.39	0.37
Water transport	0.10	0.11	0.13	0.13	0.12	0.27	0.24
<b>Export-to-output ratio</b>							
Refined fuels	0.28	0.31	0.39	0.43	0.40	0.44	0.64
Air transport	0.47	0.85	0.70	0.70	0.63	0.66	0.58
Electricals	0.47	0.44	0.50	0.54	0.49	0.55	0.53
<b>Domestic inputs share to output</b>							
Food and beverages	0.71	0.71	0.70	0.71	0.74	0.68	0.68
Textiles	0.57	0.61	0.62	0.62	0.64	0.61	0.62
Hotels and restaurants	0.39	0.42	0.44	0.45	0.43	0.60	0.61
<b>Foreign inputs share to output</b>							
Refined fuels	0.63	0.64	0.68	0.67	0.64	0.47	0.44
Utilities	0.22	0.26	0.31	0.31	0.25	0.39	0.37
Water transport	0.10	0.11	0.13	0.13	0.12	0.27	0.24
<b>Backward import multipliers</b>							
Refined fuels	0.68	0.70	0.74	0.75	0.75	0.60	0.55
Utilities	0.30	0.36	0.42	0.45	0.41	0.50	0.48
Metals	0.31	0.36	0.41	0.40	0.38	0.40	0.38
<b>Forward import multipliers</b>							
Refined fuels	0.38	0.43	0.50	0.56	0.55	0.56	0.61
Chemicals	0.46	0.45	0.51	0.55	0.53	0.61	0.58
Electricals	0.39	0.40	0.40	0.47	0.48	0.58	0.57
<b>Intraregional transfer multiplier</b>							
Food and beverages	2.26	2.34	2.37	2.39	2.54	2.28	2.31
Textiles	2.08	2.23	2.28	2.27	2.39	2.24	2.27
Leather	2.19	2.36	2.38	2.41	2.50	2.17	2.21
<b>Interregional spillover multiplier</b>							
Refined fuels	1.90	2.03	2.15	2.23	2.20	1.84	1.81
Utilities	1.31	1.43	1.53	1.58	1.48	1.70	1.68
Metals	1.34	1.41	1.48	1.47	1.44	1.50	1.49
<b>Interregional feedback multiplier</b>							
Refined fuels	1.16	1.21	1.19	1.23	1.23	1.12	1.12
Water transport	1.04	1.05	1.07	1.08	1.07	1.12	1.11
Air transport	1.02	1.05	1.07	1.08	1.06	1.12	1.11
<b>Intraregional effect on gross output (\$ million)</b>							
Business activities, NEC	44,576.34	108,368.69	111,665.42	133,852.30	136,783.85	259,660.93	266,188.36
Construction	81,007.19	172,328.23	156,528.80	175,651.83	190,550.86	219,638.26	220,484.19
Transport equipment	61,210.88	155,605.12	166,951.37	191,951.95	196,566.04	177,520.19	169,098.56
<b>Interregional effect on gross output (\$ million)</b>							
Electricals	41,341.83	83,201.74	95,062.32	127,810.41	130,998.97	146,941.49	143,740.23
Chemicals	25,901.26	52,630.70	67,951.98	95,078.83	104,077.72	73,832.99	74,866.99
Metals	16,817.54	45,664.78	59,889.86	72,184.93	66,578.88	74,355.62	67,907.62
<b>Feedback effect on gross output (\$ million)</b>							
Electricals	15,137.66	33,995.05	37,789.22	52,174.74	48,564.96	48,100.07	45,447.15
Chemicals	7,174.26	17,687.04	21,832.61	30,875.61	34,596.21	21,067.64	21,579.25
Metals	4,653.15	16,001.45	19,150.36	24,110.06	23,262.38	24,439.24	21,566.98
<b>Directly absorbed value-added exports (DAVAX) (\$ million)</b>							
Electricals	31,981.54	58,007.80	74,697.80	92,221.15	84,326.11	86,753.46	85,168.33
Chemicals	5,964.46	13,632.18	19,093.86	25,976.16	27,402.10	37,882.25	42,228.09
Transport equipment	16,156.86	47,606.04	65,764.19	79,426.23	72,477.73	40,619.98	39,547.38
<b>Reflection (REF) (\$ million)</b>							
Electricals	320.65	746.07	692.49	869.16	859.96	1,427.75	1,564.15
Chemicals	70.45	246.17	275.98	349.19	382.15	458.79	476.02
Metals	72.07	202.98	240.69	277.91	305.28	382.75	415.97

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
<b>Reexports (REX) (\$ million)</b>							
Electricals	12,862.61	30,305.57	31,756.70	39,694.33	37,041.32	53,125.33	50,117.44
Chemicals	3,097.96	8,693.04	10,461.66	13,632.23	14,737.63	16,735.53	17,580.48
Metals	2,603.49	7,443.57	8,861.59	10,204.21	10,522.33	13,691.44	12,417.47
<b>Foreign value added (FVA) (\$ million)</b>							
Electricals	21,929.40	38,180.92	56,620.64	71,649.58	60,348.22	43,997.87	39,756.68
Transport equipment	5,664.30	20,181.16	31,956.75	41,974.09	35,056.30	27,682.77	24,366.56
Chemicals	4,446.30	12,309.36	19,480.72	29,451.86	27,862.46	27,126.78	23,981.12
<b>Pure double-counting (PDC) (\$ million)</b>							
Electricals	329.18	749.79	1,177.28	1,668.71	1,567.43	935.48	964.55
Transport equipment	51.33	250.07	411.06	631.82	585.33	412.74	390.85
Chemicals	27.15	109.37	171.58	320.79	321.85	227.61	220.23
<b>Trade-based GVC participation rate</b>							
Refined fuels	0.74	0.77	0.81	0.83	0.82	0.70	0.67
Water transport	0.42	0.50	0.52	0.54	0.52	0.70	0.64
Metals	0.51	0.61	0.62	0.62	0.61	0.63	0.61
<b>Production-based GVC participation rate</b>							
Refined fuels	0.38	0.43	0.50	0.56	0.55	0.56	0.61
Chemicals	0.46	0.45	0.51	0.55	0.53	0.61	0.58
Electricals	0.39	0.40	0.40	0.47	0.48	0.58	0.57
<b>Trade-based backward GVC participation rate</b>							
Refined fuels	0.68	0.70	0.74	0.75	0.75	0.60	0.55
Utilities	0.30	0.36	0.42	0.45	0.41	0.50	0.48
Metals	0.31	0.36	0.41	0.40	0.38	0.40	0.38
<b>Trade-based forward GVC participation rate</b>							
Transport activities, NEC	0.30	0.31	0.32	0.29	0.29	0.38	0.36
Textiles	0.24	0.28	0.25	0.26	0.27	0.31	0.30
Electricals	0.20	0.24	0.20	0.20	0.21	0.29	0.29
<b>Traditional revealed comparative advantage</b>							
Electricals	2.16	2.31	2.38	2.39	2.30	2.31	2.27
Refined fuels	2.11	1.57	1.71	1.88	2.04	2.08	1.93
Chemicals	1.04	1.18	1.25	1.39	1.49	1.56	1.63
<b>New revealed comparative advantage</b>							
Electricals	2.41	3.00	3.08	3.22	2.93	3.51	3.43
Metals	1.45	1.57	1.92	1.89	1.78	1.90	1.83
Rubber and plastics	0.93	0.74	0.83	0.75	0.78	1.96	1.79
<b>Backward production length</b>							
Leather	2.88	3.09	3.23	3.30	3.35	3.15	3.15
Transport equipment	2.75	3.11	3.09	3.15	3.27	3.11	3.11
Textiles	2.65	2.89	2.99	3.05	3.09	3.06	3.05
<b>Forward production length</b>							
Mining	4.87	4.65	4.63	4.41	4.50	3.95	3.98
Transport activities, NEC	3.14	3.40	3.53	3.61	3.79	3.53	3.54
Rubber and plastics	2.93	3.17	3.26	3.32	3.47	3.53	3.53
<b>Backward production length of GVC segment</b>							
Real estate	4.52	4.85	4.96	5.13	5.16	4.68	4.77
Personal services, NEC	4.49	4.81	4.88	5.02	5.12	4.69	4.76
Machinery, NEC	4.32	4.83	4.82	4.88	5.02	4.66	4.71
<b>Forward production length of GVC segment</b>							
Real estate	5.26	4.77	5.21	5.50	5.61	5.75	5.83
Agriculture	5.19	5.82	5.84	5.96	6.30	5.76	5.83
Telecommunications	4.96	5.27	5.39	5.38	5.52	5.53	5.64
<b>Backward agglomeration index</b>							
Textiles	-	1.59	1.42	1.15	1.13	1.78	1.77
Rubber and plastics	-	0.80	0.60	0.33	0.00	1.79	1.72
Electricals	-	0.87	0.62	0.61	0.71	1.38	1.51
<b>Forward agglomeration index</b>							
Textiles	-	1.17	0.98	0.73	0.74	1.22	1.27
Manufacturing, NEC	-	1.02	0.84	0.81	0.81	1.13	1.14
Leather	-	1.65	1.11	0.94	0.91	1.17	1.12

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).

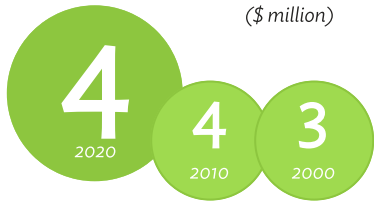
# Republic of Korea

East Asia

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

## Economy Ranking out of 25 Economies

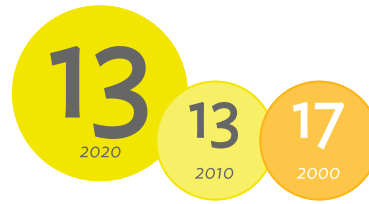
Value-Added at Basic Prices  
(\$ million)



Average Output Multiplier



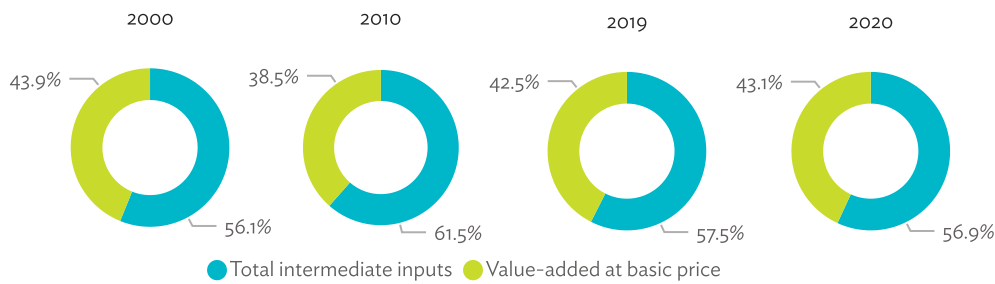
Trade Openness



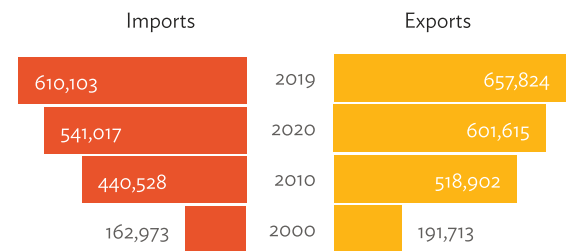
Trade-Based GVC Participation



Share of Intermediate Consumption and Gross Value-Added in Output

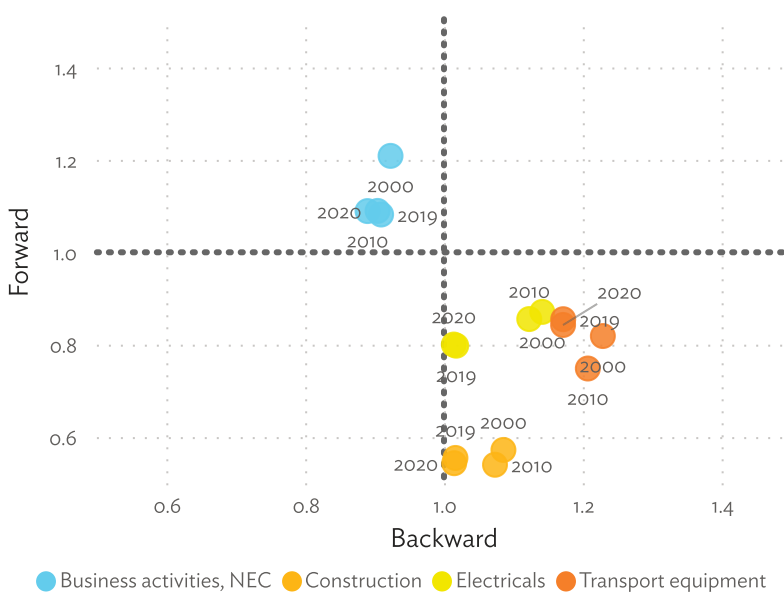


Imports and Exports, 2019-2020  
(\$ million)

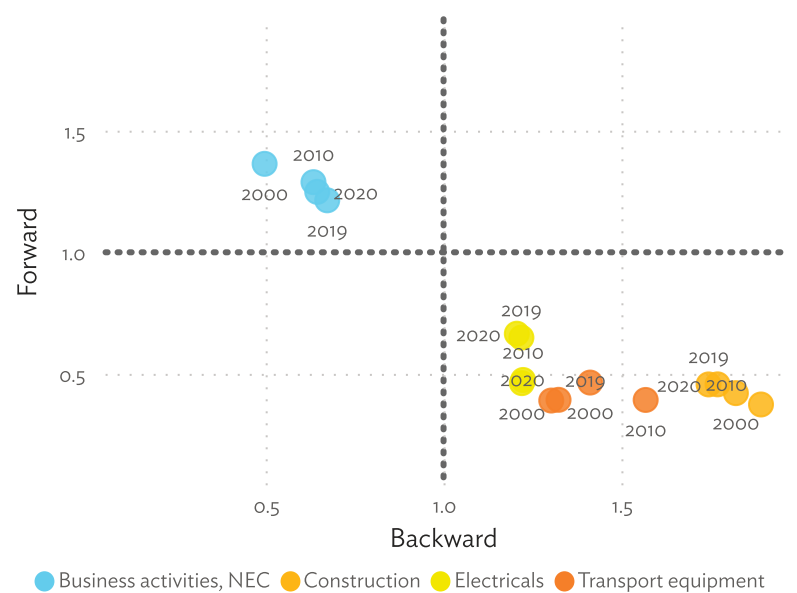


## Domestic Linkages

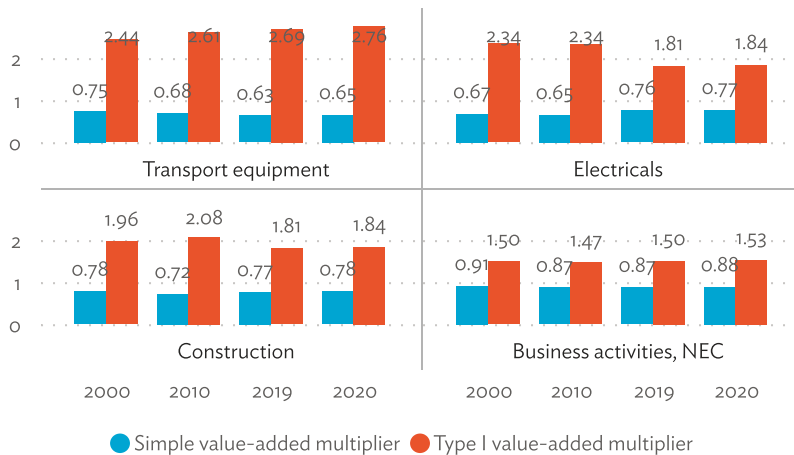
Normalized Linkages



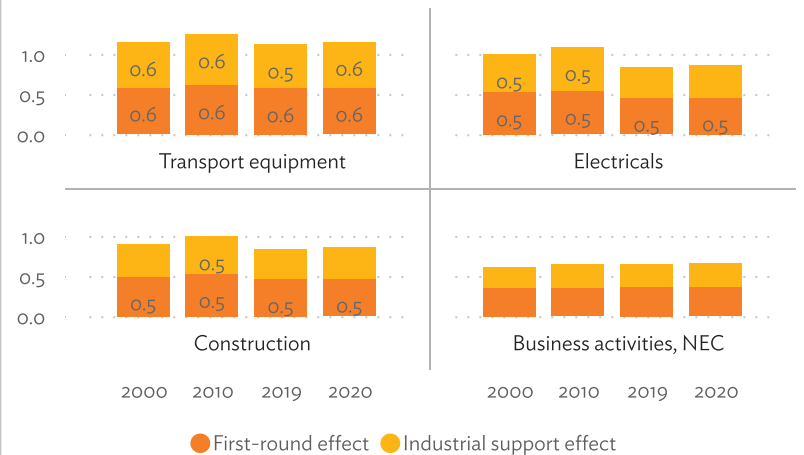
Net Linkages



Value-Added Multipliers

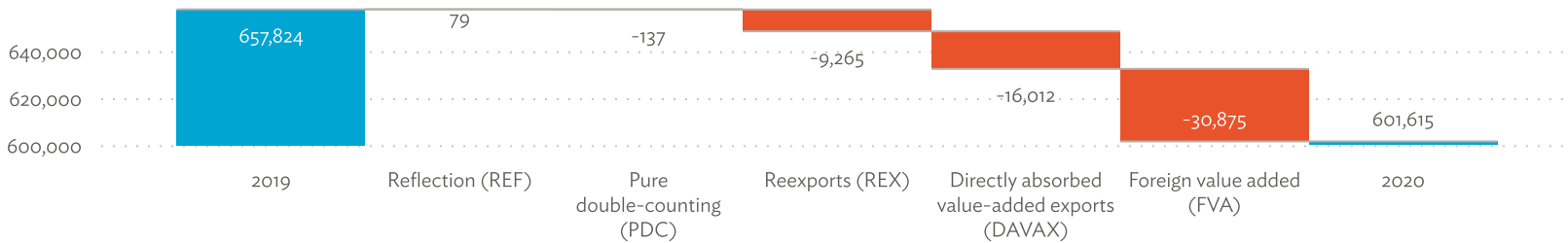


Production-Induced Effect

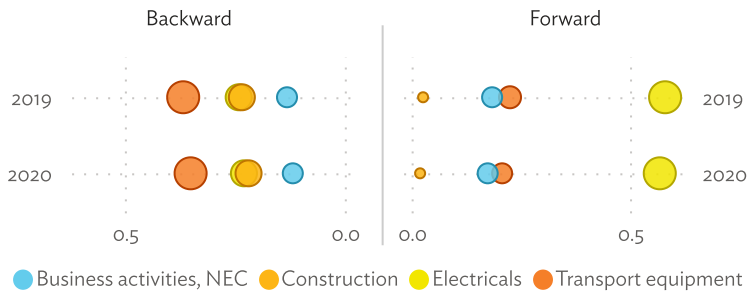


## International Linkages

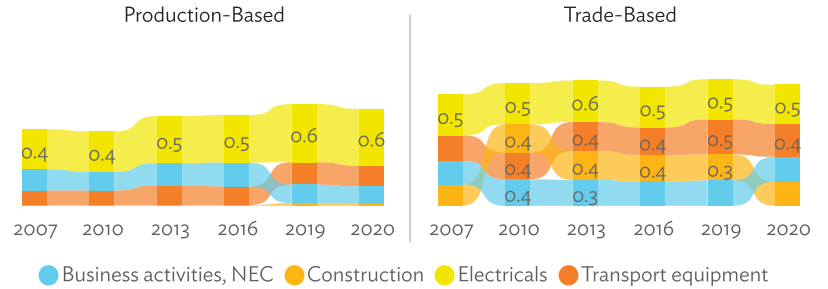
Change in Exports, by Value-Added Components, 2019-2020  
(\$ million)



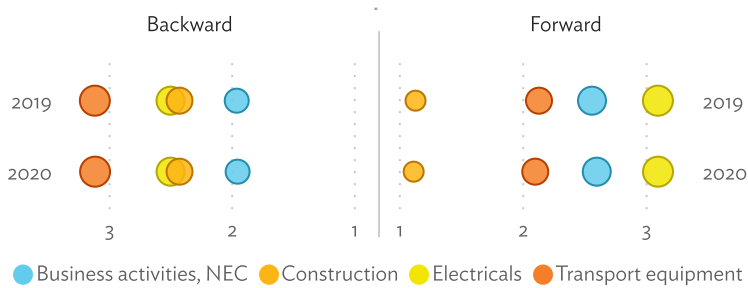
Import Multipliers



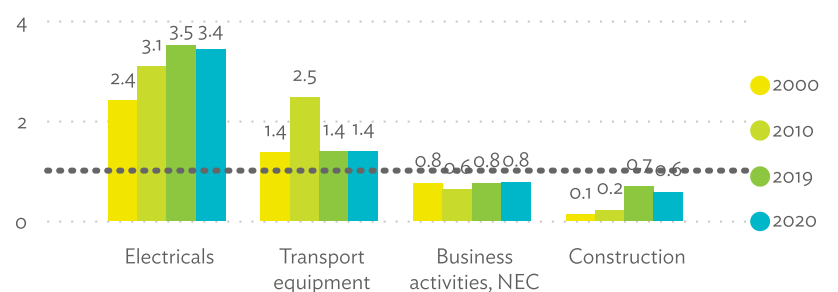
GVC Participation Rates



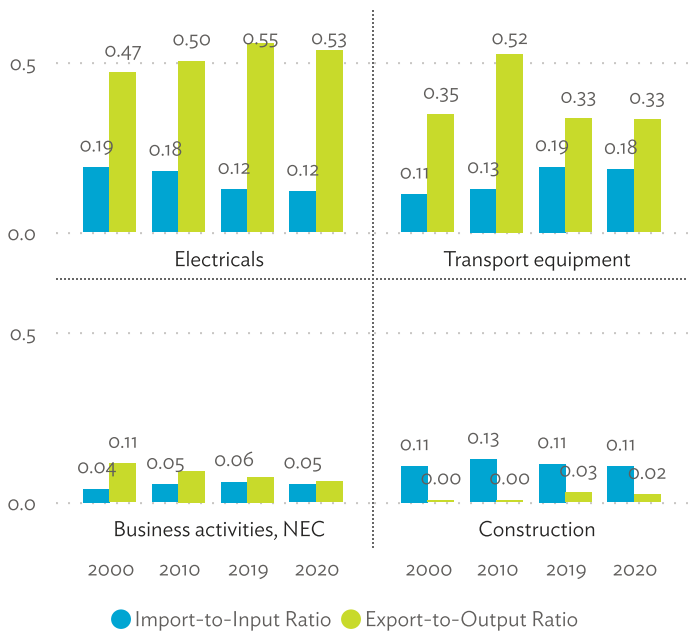
Average Production Length



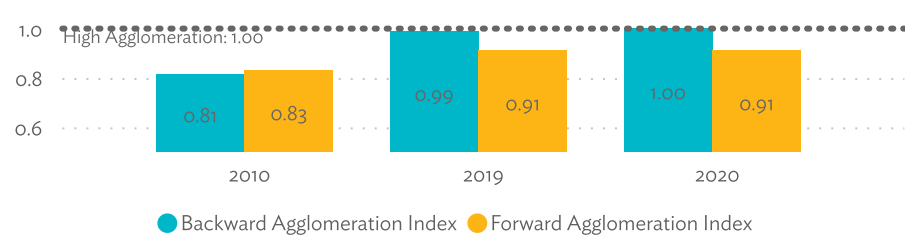
New Revealed Comparative Advantage



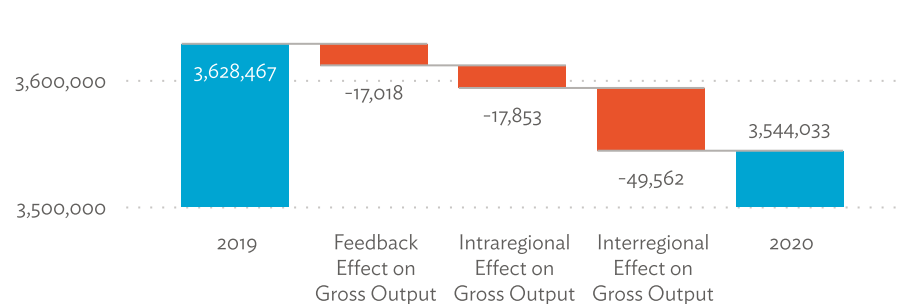
Trade Orientation



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).