

Economic Aggregates (\$ million)	2000	2007	2010	2013	2016	2019	2020
Value-added at basic price	89,321	167,258	223,268	286,736	290,558	355,357	324,163
Gross output	252,981	460,843	612,758	799,744	818,163	944,898	849,841
Total intermediate inputs	163,423	293,149	388,829	512,329	526,794	588,430	524,740
Taxes less subsidies on products	238	435	660	679	811	1,111	938
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	26,790	43,677	61,015	82,635	84,131	80,335	66,624
Final consumption expenditure by NPISHs	0	0	0	0	0	0	0
Government final consumption expenditure	10,431	16,985	24,083	30,456	33,082	38,564	42,212
Gross fixed capital formation	17,002	23,279	42,918	56,450	58,597	50,597	44,116
Changes in inventories	601	-1,257	751	1,185	434	3,395	841
Total final demand	54,824	82,684	128,767	170,726	176,244	172,891	153,792
Exports	112,950	231,817	284,178	372,887	345,107	452,607	395,395
Imports	96,657	177,226	221,720	304,352	264,175	346,776	286,877

Economic Aggregates, Top 3 Sectors (\$ million)	2000	2007	2010	2013	2016	2019	2020
Value-added at basic price							
Wholesale trade	9,016	29,239	38,283	49,498	43,439	56,503	53,014
Finance	9,003	19,185	24,286	34,014	34,939	49,971	50,950
Business activities, NEC	6,375	14,589	25,133	29,296	45,275	47,329	42,342
Gross output							
Electricals	46,107	58,229	87,509	85,336	82,388	145,299	139,278
Wholesale trade	17,243	54,640	73,043	100,202	97,195	126,426	118,619
Finance	19,769	36,628	46,928	65,766	67,997	100,150	102,112
Total intermediate inputs							
Electricals	34,327	44,248	66,957	66,251	63,436	111,290	106,678
Wholesale trade	8,218	25,379	34,745	50,696	53,745	69,910	65,594
Business activities, NEC	10,441	20,346	28,489	29,870	46,006	60,882	54,468
Total final demand							
Public administration	10,798	18,601	19,779	24,617	26,509	31,619	29,138
Finance	2,288	5,663	5,895	8,489	10,951	16,275	21,281
Construction	12,319	11,865	21,134	27,368	28,698	24,708	17,008
Exports							
Electricals	41,114	46,491	62,507	68,018	57,240	118,832	100,911
Wholesale trade	10,838	39,719	57,602	79,803	70,455	72,303	72,464
Refined fuels	8,949	39,488	38,338	43,781	43,517	50,510	42,649
Imports							
Business activities, NEC	12,458	22,348	35,144	45,444	44,735	67,622	58,638
Electricals	23,485	27,059	35,522	44,471	34,417	38,084	31,964
Water transport	1,661	10,279	14,615	28,103	27,727	36,768	29,919

Domestic Linkages

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
First-round effect							
Public administration	0.37	0.52	0.52	0.51	0.57	0.61	0.62
Construction	0.62	0.59	0.59	0.61	0.63	0.61	0.62
Paper	0.31	0.27	0.30	0.29	0.32	0.51	0.52
Industrial support effect							
Construction	0.71	0.56	0.51	0.56	0.66	0.55	0.53
Paper	0.16	0.12	0.14	0.12	0.16	0.25	0.28
Public administration	0.21	0.28	0.24	0.23	0.30	0.26	0.27
Production-induced effect							
Construction	1.33	1.15	1.09	1.16	1.28	1.16	1.15
Public administration	0.59	0.80	0.77	0.74	0.87	0.87	0.89
Paper	0.47	0.39	0.44	0.41	0.49	0.76	0.80

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
Simple value-added multiplier							
Education	0.88	0.86	0.90	0.88	0.89	0.88	0.88
Real estate	0.91	0.87	0.89	0.88	0.90	0.87	0.88
Retail trade	0.84	0.85	0.85	0.85	0.84	0.82	0.83
Type I value-added multiplier							
Public administration	1.58	1.97	2.46	2.26	2.41	2.57	2.60
Refined fuels	1.58	2.66	3.57	11.45	4.17	2.71	2.49
Minerals, NEC	1.68	1.73	1.85	1.97	2.11	2.24	2.49
Direct backward linkage							
Public administration	0.37	0.52	0.52	0.51	0.57	0.61	0.62
Construction	0.62	0.59	0.59	0.61	0.63	0.61	0.62
Paper	0.31	0.27	0.30	0.29	0.32	0.51	0.52
Complete hypothetical extraction (backward)							
Public administration	1.57	1.79	1.73	1.71	1.84	1.83	1.88
Retail trade	1.65	1.67	1.66	1.68	1.68	1.68	1.69
Sale of motor vehicles	1.59	1.33	1.42	1.47	1.55	1.64	1.67
Partial hypothetical extraction (backward)							
Public administration	0.58	0.79	0.75	0.72	0.86	0.85	0.88
Construction	0.70	0.67	0.69	0.70	0.73	0.71	0.76
Retail trade	0.67	0.68	0.68	0.69	0.71	0.68	0.69
Total backward linkage							
Construction	2.33	2.15	2.09	2.16	2.28	2.16	2.15
Public administration	1.59	1.80	1.77	1.74	1.87	1.87	1.89
Paper	1.47	1.39	1.44	1.41	1.49	1.76	1.80
Direct forward linkage							
Utilities	0.78	0.82	0.77	0.78	0.77	0.77	0.90
Minerals, NEC	0.66	0.77	0.84	0.87	0.91	0.86	0.86
Leather	0.16	0.28	0.41	0.00	0.00	0.74	0.82
Complete hypothetical extraction (forward)							
Sale of motor vehicles	1.66	2.15	2.18	1.26	2.22	2.17	2.21
Leather	1.03	1.04	1.28	1.00	1.00	2.09	2.17
Minerals, NEC	2.05	2.16	2.06	2.28	2.27	2.19	2.11
Partial hypothetical extraction (forward)							
Minerals, NEC	1.13	1.29	1.28	1.42	1.47	1.32	1.26
Sale of motor vehicles	0.68	1.18	1.20	0.26	1.23	1.19	1.24
Leather	0.17	0.29	0.51	0.00	0.00	1.14	1.22
Total forward linkage							
Minerals, NEC	2.23	2.49	2.64	2.66	2.82	2.51	2.49
Utilities	2.29	2.35	2.29	2.22	2.27	2.12	2.38
Leather	1.20	1.40	1.66	1.00	1.00	2.19	2.29
Normalized backward linkage							
Construction	1.55	1.47	1.40	1.49	1.48	1.43	1.39
Public administration	1.05	1.23	1.18	1.19	1.21	1.23	1.22
Paper	0.98	0.95	0.96	0.97	0.96	1.16	1.16
Normalized forward linkage							
Minerals, NEC	1.41	1.58	1.63	1.74	1.75	1.61	1.57
Utilities	1.44	1.50	1.42	1.45	1.41	1.36	1.50
Leather	0.75	0.89	1.03	0.65	0.62	1.41	1.45
Net backward linkage							
Public administration	1.42	1.68	1.65	1.62	1.74	1.72	1.83
Retail trade	0.91	1.38	1.34	1.48	1.47	1.68	1.69
Refined fuels	1.12	1.12	1.06	0.95	1.04	1.65	1.62
Net forward linkage							
Real estate	1.20	0.96	0.99	0.96	0.98	1.21	1.23
Inland transport	0.88	0.81	0.93	0.94	0.94	0.95	0.99
Sale of motor vehicles	0.87	0.78	0.76	0.51	0.95	0.94	0.96

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
Self-sufficiency ratio							
Retail trade	1.02	1.04	1.05	1.04	1.03	36.92	38.98
Chemicals	1.64	2.64	1.75	1.73	1.74	2.36	2.62
Refined fuels	0.57	1.04	0.91	0.81	0.97	1.87	2.01
Import-to-input ratio							
Water transport	0.50	0.61	0.58	0.55	0.55	0.78	0.72
Refined fuels	0.78	0.63	0.66	0.69	0.56	0.38	0.38
Air transport	0.48	0.32	0.40	0.39	0.33	0.41	0.38
Export-to-output ratio							
Mining	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Retail trade	0.02	0.04	0.05	0.04	0.03	0.99	0.99
Refined fuels	0.94	0.77	0.72	0.63	0.62	1.00	0.99
Domestic inputs share to output							
Public administration	0.37	0.52	0.52	0.51	0.57	0.61	0.62
Construction	0.62	0.59	0.59	0.61	0.63	0.61	0.62
Paper	0.31	0.27	0.30	0.29	0.32	0.51	0.52
Foreign inputs share to output							
Water transport	0.50	0.61	0.58	0.55	0.55	0.78	0.72
Refined fuels	0.78	0.63	0.66	0.69	0.56	0.38	0.38
Air transport	0.48	0.32	0.40	0.39	0.33	0.41	0.38
Backward import multipliers							
Water transport	0.65	0.69	0.71	0.73	0.71	0.84	0.82
Minerals, NEC	0.57	0.56	0.50	0.62	0.58	0.63	0.59
Refined fuels	0.82	0.81	0.85	0.93	0.84	0.57	0.55
Forward import multipliers							
Chemicals	0.78	0.79	0.76	0.77	0.68	0.78	0.79
Metals	0.57	0.62	0.64	0.54	0.56	0.78	0.79
Refined fuels	0.63	0.61	0.59	0.54	0.56	0.75	0.76
Intraregional transfer multiplier							
Construction	2.33	2.15	2.09	2.16	2.28	2.16	2.15
Public administration	1.59	1.80	1.77	1.74	1.87	1.87	1.89
Paper	1.47	1.39	1.44	1.41	1.49	1.76	1.80
Interregional spillover multiplier							
Water transport	1.81	2.05	1.99	1.94	1.99	2.43	2.40
Refined fuels	2.34	2.18	2.19	2.21	2.16	1.77	1.83
Air transport	1.81	1.58	1.70	1.69	1.59	1.75	1.71
Interregional feedback multiplier							
Water transport	1.20	1.28	1.30	1.33	1.29	1.37	1.33
Refined fuels	1.56	1.45	1.50	1.61	1.39	1.20	1.21
Metals	1.21	1.27	1.27	1.29	1.24	1.18	1.16
Intraregional effect on gross output (\$ million)							
Electricals	18,745.01	25,459.97	38,668.07	34,827.15	36,376.16	85,851.38	72,808.20
Finance	9,739.69	20,689.71	23,733.98	31,667.40	34,684.62	50,550.48	61,662.56
Wholesale trade	7,044.14	16,842.84	18,168.74	30,237.28	33,338.29	54,679.58	49,277.12
Interregional effect on gross output (\$ million)							
Wholesale trade	7,913.07	29,421.50	43,650.83	56,185.71	51,029.99	57,496.92	55,933.77
Electricals	19,130.21	22,409.73	34,070.87	34,077.61	30,955.42	41,119.24	47,726.52
Business activities, NEC	7,137.61	14,436.67	20,824.29	23,358.00	36,192.85	41,102.88	38,763.31
Feedback effect on gross output (\$ million)							
Electricals	8,232.21	10,359.41	14,770.42	16,431.60	15,056.33	18,328.57	18,743.28
Wholesale trade	2,285.85	8,375.50	11,223.01	13,779.20	12,826.97	14,249.17	13,408.50
Finance	2,125.98	3,495.25	4,799.55	6,872.12	6,954.65	10,800.86	9,439.29
Directly absorbed value-added exports (DAVAX) (\$ million)							
Electricals	10,406.94	11,413.88	15,498.09	14,204.02	14,411.84	43,413.06	37,318.71
Wholesale trade	5,819.15	20,591.17	29,027.01	40,220.31	34,524.43	34,294.67	35,692.09
Business activities, NEC	3,058.43	5,197.97	8,064.47	9,590.49	13,593.91	15,233.17	18,102.93
Reflection (REF) (\$ million)							
Electricals	78.35	48.46	91.88	100.93	84.89	89.94	90.16
Wholesale trade	28.02	48.86	64.08	113.77	82.88	60.07	61.99
Refined fuels	19.59	17.63	15.28	9.18	13.74	56.70	40.57

Indicator and Top 3 Sectors, 2020	2000	2007	2010	2013	2016	2019	2020
Foreign value added (FVA) (\$ million)							
Electricals	25,171.80	28,773.48	38,471.34	45,179.72	34,412.62	62,892.26	50,982.20
Wholesale trade	2,825.03	12,181.32	18,842.98	27,633.39	26,365.78	29,357.41	27,644.73
Reexports (REX) (\$ million)							
Electricals	4,876.04	5,894.41	7,915.70	7,823.30	7,867.86	11,687.19	11,898.99
Wholesale trade	2,120.99	6,753.74	9,403.11	10,933.27	8,837.37	8,210.11	8,751.72
Refined fuels	497.85	2,166.76	1,687.23	751.10	1,597.12	5,612.86	4,997.38
Pure double-counting (PDC) (\$ million)							
Electricals	580.70	360.53	530.48	709.60	462.39	749.83	621.02
Wholesale trade	44.59	143.90	264.85	902.33	644.85	380.92	313.25
Water transport	107.84	184.18	509.07	1,060.63	660.26	371.97	237.50
Trade-based GVC participation rate							
Water transport	0.81	0.78	0.82	0.81	0.80	0.89	0.88
Refined fuels	0.88	0.86	0.90	0.95	0.88	0.68	0.67
Minerals, NEC	0.65	0.66	0.62	0.73	0.70	0.72	0.65
Production-based GVC participation rate							
Chemicals	0.78	0.79	0.76	0.77	0.68	0.78	0.79
Metals	0.57	0.62	0.64	0.54	0.56	0.78	0.79
Refined fuels	0.63	0.61	0.59	0.54	0.56	0.75	0.76
Trade-based backward GVC participation rate							
Water transport	0.65	0.69	0.71	0.73	0.71	0.84	0.82
Minerals, NEC	0.57	0.56	0.50	0.62	0.58	0.63	0.59
Refined fuels	0.82	0.81	0.85	0.93	0.84	0.57	0.55
Trade-based forward GVC participation rate							
Transport activities, NEC	0.16	0.16	0.19	0.18	0.17	0.25	0.23
Rubber and plastics	0.18	0.16	0.19	0.15	0.18	0.25	0.22
Chemicals	0.14	0.19	0.16	0.19	0.18	0.20	0.21
Traditional revealed comparative advantage							
Water transport	3.32	3.73	5.18	6.50	7.16	7.94	7.16
Wholesale trade	1.75	3.35	3.18	3.34	3.09	3.67	4.65
Retail trade	0.06	0.13	0.14	0.12	0.09	3.77	4.50
New revealed comparative advantage							
Water transport	4.85	4.14	4.03	5.11	5.78	4.37	3.65
Wholesale trade	1.64	3.02	2.92	2.91	2.42	2.61	2.72
Refined fuels	1.94	2.00	0.98	0.14	1.10	2.44	2.60
Backward production length							
Water transport	2.76	2.82	3.09	3.27	3.21	3.20	3.25
Refined fuels	3.29	3.61	3.73	4.06	4.08	3.09	3.10
Minerals, NEC	2.83	3.00	2.99	3.29	3.35	3.04	3.09
Forward production length							
Water transport	3.89	3.28	3.55	3.50	3.49	3.45	3.58
Transport activities, NEC	3.07	3.29	3.43	3.60	3.54	3.56	3.49
Rubber and plastics	2.82	3.07	3.44	3.27	3.40	3.48	3.45
Backward production length of GVC segment							
Construction	4.69	4.80	4.81	5.02	5.16	4.56	4.63
Retail trade	4.45	4.73	4.64	4.80	4.82	4.47	4.48
Inland transport	4.23	4.80	4.72	4.70	4.82	4.38	4.43
Forward production length of GVC segment							
Sale of motor vehicles	4.76	4.76	4.90	3.20	4.95	5.02	5.06
Utilities	4.77	4.95	4.88	4.89	5.05	4.76	4.99
Hotels and restaurants	4.63	4.57	4.64	4.64	4.72	4.83	4.90
Backward agglomeration index							
Leather	-	0.19	0.28	0.00	0.00	1.48	1.69
Rubber and plastics	-	0.23	0.29	0.29	0.53	1.40	1.00
Inland transport	-	0.88	0.97	0.90	0.92	0.99	0.97
Forward agglomeration index							
Leather	-	0.34	0.59	0.00	0.00	1.39	1.28
Personal services, NEC	-	0.81	1.06	1.06	1.07	1.08	1.07
Public administration	-	0.98	0.98	0.98	0.98	0.98	0.99

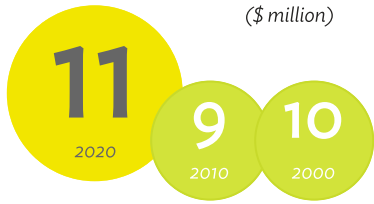
Singapore

Southeast Asia and the Pacific

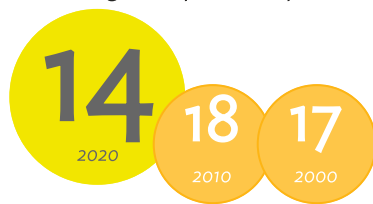
The four select sectors are chosen based on their gross outputs in the economy as of 2019.

Economy Ranking out of 25 Economies

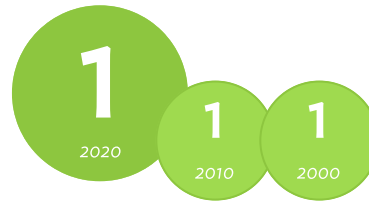
Value-Added at Basic Prices
(\$ million)



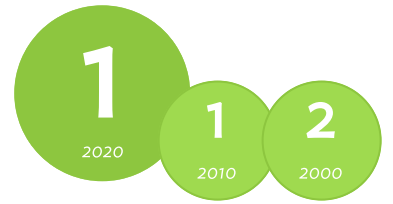
Average Output Multiplier



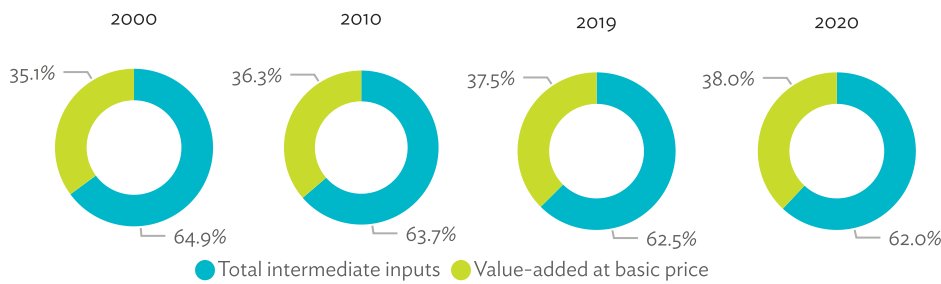
Trade Openness



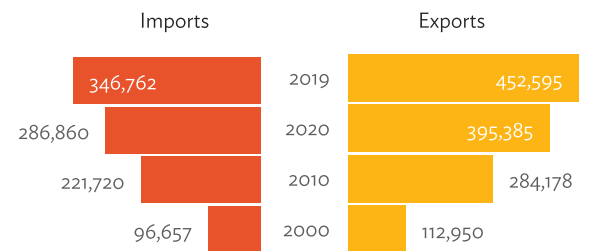
Trade-Based GVC Participation



Share of Intermediate Consumption and Gross Value-Added in Output

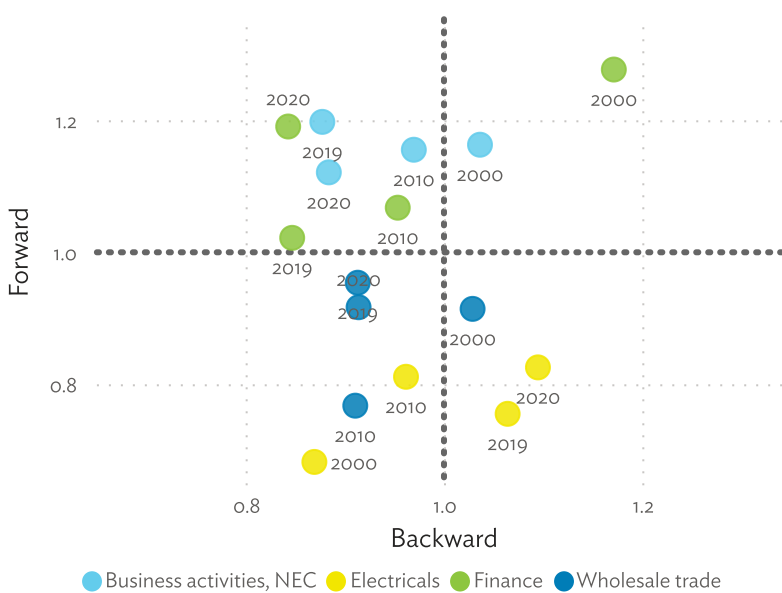


Imports and Exports, 2019-2020
(\$ million)

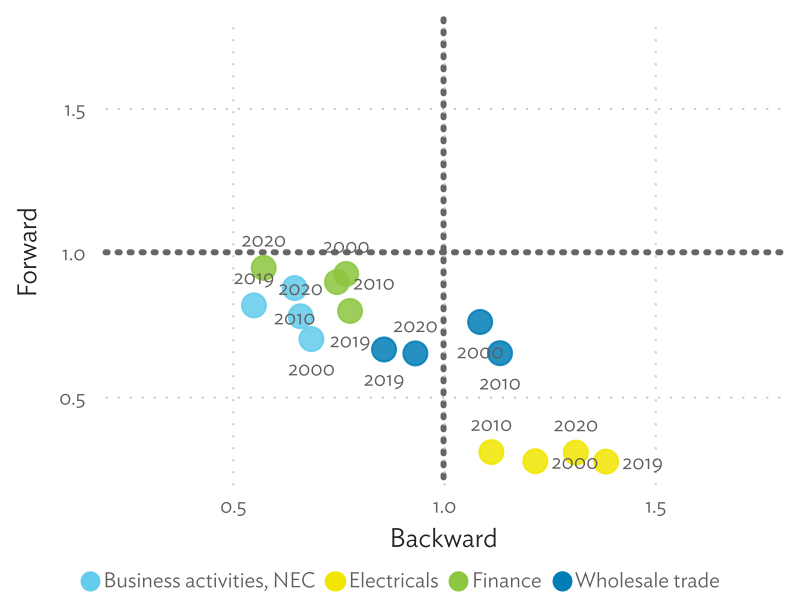


Domestic Linkages

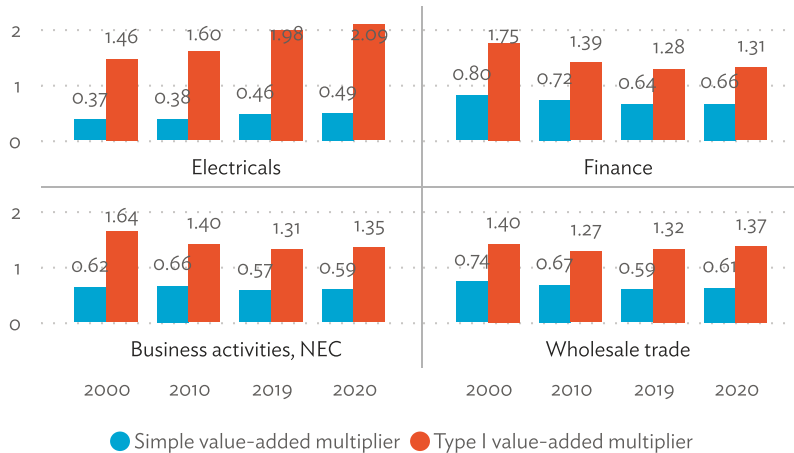
Normalized Linkages



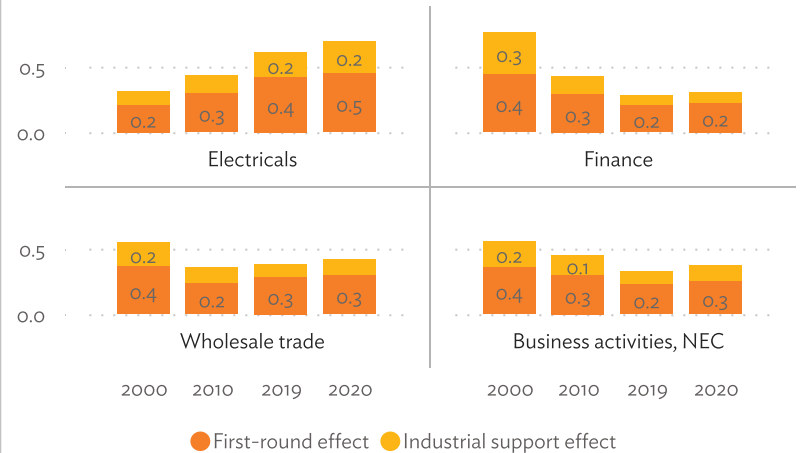
Net Linkages



Value-Added Multipliers

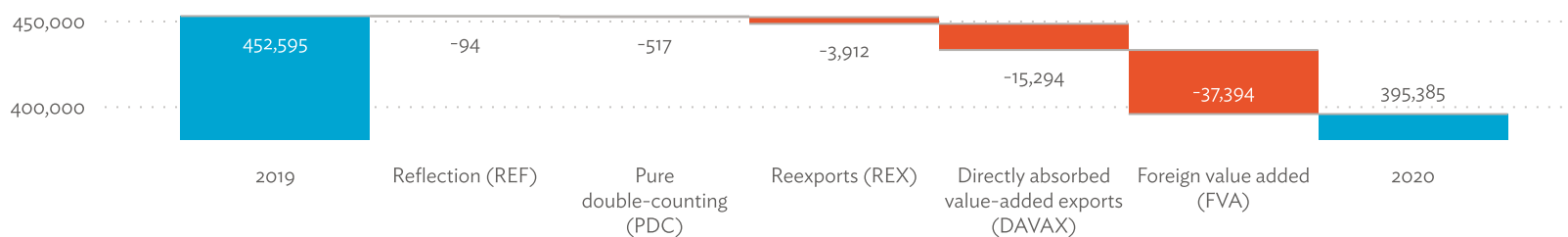


Production-Induced Effect



International Linkages

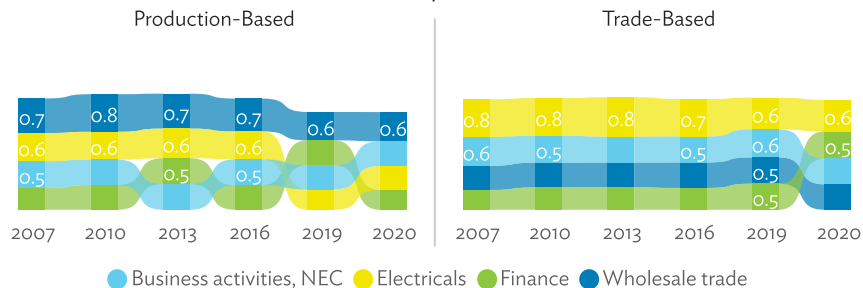
Change in Exports, by Value-Added Components, 2019-2020
(\$ million)



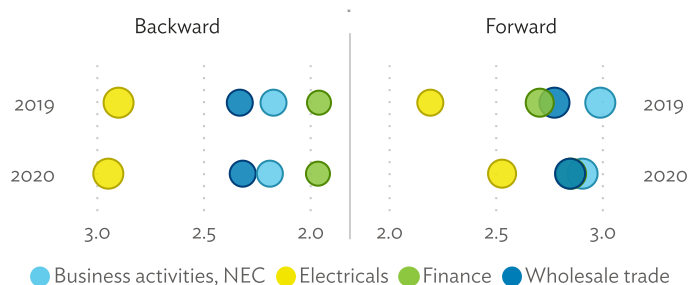
Import Multipliers



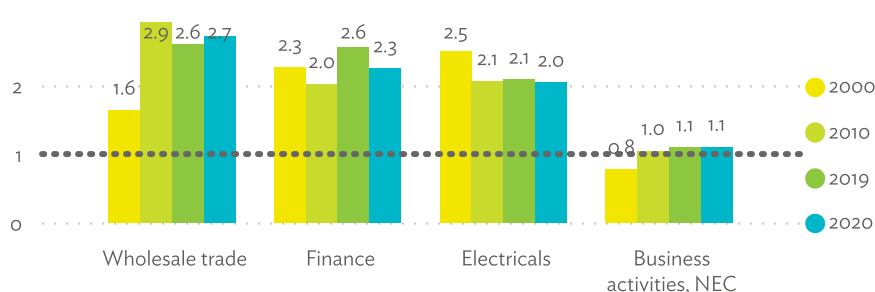
GVC Participation Rates



Average Production Length



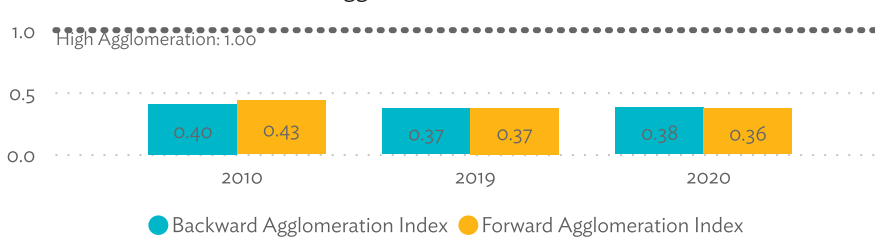
New Revealed Comparative Advantage



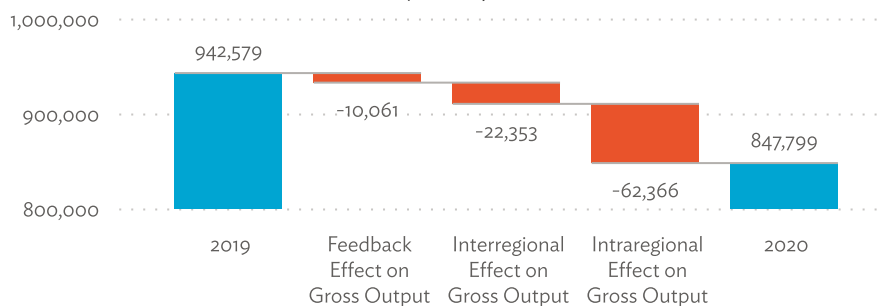
Trade Orientation



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).