

WHO PRODUCES FOR WHOM IN THE WORLD ECONOMY?

Guillaume Daudin (Lille-I (EQUIPPE) & Sciences Po (OFCE), Christine Riffart, Danielle Schweisguth
(Sciences Po (OFCE))¹

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1. Online Statistical Appendix

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Vertical trade

Table 1: Vertical trade per industry, 2004

Industry	Total exports (millions \$)	Import content of exports (VS/X)	Exports consumed or invested domestically VS1*/X	VA from other domestic sectors embedded in exports (as a share of X)	VA embedded in other domestic sectors' exports (as a share of X)	Ratio of VA exports over standard exports	Exports used as input for further exports VS1/X
Paddy rice	1 455	11%	3.6%	26%	447%	506%	19%
Wheat	20 845	15%	1.0%	36%	16%	65%	19%
Cereal grains nec	18 138	15%	1.1%	41%	31%	73%	14%
Vegetables, fruit, nuts	68 098	13%	0.6%	24%	28%	90%	7%
Oil seeds	23 290	13%	1.4%	33%	47%	99%	22%
Sugar cane, sugar beet	78	15%	28.6%	25%	4682%	4714%	21%
Plant-based fibers	11 296	15%	3.0%	31%	59%	110%	41%
Crops nec	40 482	12%	0.9%	21%	34%	100%	17%
Bovine cattle, sheep, and goats, horses	6 855	18%	1.9%	41%	148%	188%	14%
Animal products nec	18 393	17%	1.3%	46%	74%	109%	23%
Raw milk	290	18%	21.8%	38%	2889%	2911%	15%
Wool, silk-worm cocoons	2 210	14%	1.1%	38%	73%	120%	33%
Forestry	12 998	11%	4.3%	25%	203%	262%	33%
Fishing	14 119	17%	1.2%	29%	53%	105%	14%
<i>Agriculture</i>	<i>238 548</i>	<i>14%</i>	<i>1.3%</i>	<i>30%</i>	<i>58%</i>	<i>112%</i>	<i>17%</i>
Coal	31 573	10%	2.8%	25%	52%	114%	32%
Oil	484 089	10%	1.0%	12%	22%	98%	36%
Gas	71 871	7%	1.9%	16%	33%	108%	29%
Minerals nec	100 844	17%	1.8%	30%	34%	86%	43%
<i>Raw materials</i>	<i>688 376</i>	<i>11%</i>	<i>1.3%</i>	<i>16%</i>	<i>26%</i>	<i>98%</i>	<i>36%</i>
Primary sector	926 925	12%	1.3%	19%	34%	102%	31%
Bovine meat products	27 371	17%	0.4%	59%	10%	34%	10%
Meat products nec	40 855	20%	0.4%	56%	6%	30%	9%
Vegetable oils and fats	44 009	21%	0.2%	53%	5%	30%	15%
Dairy products	43 036	23%	0.4%	51%	11%	37%	10%
Processed rice	8 083	16%	0.2%	61%	8%	32%	8%
Sugar	12 784	18%	0.3%	53%	13%	42%	12%
Food products nec	202 230	24%	0.5%	45%	11%	41%	10%
Beverages and tobacco products	74 905	18%	0.3%	46%	14%	49%	6%
<i>Farm industries</i>	<i>453 273</i>	<i>21%</i>	<i>0.4%</i>	<i>49%</i>	<i>10%</i>	<i>39%</i>	<i>10%</i>
Textiles	263 857	30%	1.2%	34%	12%	47%	30%
Wearing apparel	194 963	31%	0.2%	39%	2%	32%	5%
Leather products	102 403	29%	0.4%	40%	2%	33%	14%
<i>Textiles et al.</i>	<i>561 222</i>	<i>30%</i>	<i>0.7%</i>	<i>37%</i>	<i>7%</i>	<i>39%</i>	<i>18%</i>
Wood products	168 103	24%	1.1%	37%	11%	50%	19%
Paper products, publishing	192 921	20%	2.5%	34%	40%	83%	24%
<i>Wood and paper</i>	<i>361 023</i>	<i>22%</i>	<i>1.9%</i>	<i>35%</i>	<i>27%</i>	<i>67%</i>	<i>22%</i>
Petroleum, coal products	198 883	47%	0.5%	41%	19%	30%	33%
Chemical, rubber, plastic products	1 172 718	29%	1.9%	31%	11%	49%	35%
Mineral products nec	105 226	21%	1.8%	37%	31%	71%	20%
Ferrous metals	247 962	29%	2.2%	36%	30%	64%	43%
Metals nec	246 364	29%	1.5%	38%	15%	46%	49%
<i>Chemicals and metals</i>	<i>1 971 153</i>	<i>30%</i>	<i>1.8%</i>	<i>34%</i>	<i>16%</i>	<i>50%</i>	<i>37%</i>
Metal products	192 339	25%	3.5%	36%	45%	81%	29%
Motor vehicles and parts	865 977	32%	1.1%	36%	2%	33%	19%
Transport equipment nec	256 662	28%	1.1%	34%	5%	42%	22%
<i>Metal products and transport</i>	<i>1 314 978</i>	<i>30%</i>	<i>1.5%</i>	<i>35%</i>	<i>9%</i>	<i>42%</i>	<i>21%</i>
Electronic equipment	1 104 466	40%	0.8%	29%	3%	33%	34%
Machinery and equipment nec	1 376 467	27%	1.3%	34%	6%	43%	21%
Manufactures nec	181 159	27%	0.6%	36%	11%	47%	11%
<i>Other manufactures</i>	<i>2 662 092</i>	<i>33%</i>	<i>1.0%</i>	<i>32%</i>	<i>5%</i>	<i>39%</i>	<i>26%</i>
Electricity	27 445	17%	14.3%	26%	549%	591%	27%
Gas manufacture, distribution	5 658	9%	11.3%	31%	255%	303%	26%
Water	1 999	12%	24.8%	31%	728%	761%	17%
Construction	44 998	22%	4.4%	38%	111%	147%	5%
<i>Utilities</i>	<i>80 101</i>	<i>19%</i>	<i>8.8%</i>	<i>33%</i>	<i>287%</i>	<i>326%</i>	<i>14%</i>
Secondary sector	7 403 843	30%	1.4%	35%	13%	47%	26%
Trade	210 328	15%	9.9%	25%	321%	371%	23%
Transport	784 478	22%	1.5%	25%	28%	80%	25%
Communication	60 798	12%	4.1%	21%	150%	214%	20%
<i>Communication and trade</i>	<i>1 055 605</i>	<i>20%</i>	<i>3.3%</i>	<i>24%</i>	<i>93%</i>	<i>146%</i>	<i>24%</i>
Financial services nec	109 050	23%	7.0%	31%	179%	219%	33%
Insurance	85 016	17%	1.7%	34%	35%	83%	18%
Business services nec	532 625	11%	4.6%	17%	106%	174%	23%
<i>Business services</i>	<i>726 690</i>	<i>13%</i>	<i>4.6%</i>	<i>21%</i>	<i>109%</i>	<i>170%</i>	<i>24%</i>
Recreational and other services	111 833	13%	1.6%	31%	52%	106%	12%

Public Administration, Defense, Education, Health Dwellings	162 292 0	8%	1.9%	20%	57%	127%	5%
<hr/> <i>Other services</i>	274 125	10%	1.8%	25%	58%	121%	8%
Tertiary Sector	2 056 420	16%	3.5%	23%	94%	151%	22%
Total	10 387 188	26%	1.8%	31%	31%	73%	26%

Sources: GTAP 7, Authors' computations

Table 2: Vertical trade per industry, 2004

Industry	Share of total exports	Share of total value-added exports	Ratio of VA exports over standard exports	Standard openness rate (exports/industry's GDP)	Value-added openness rate (Value-added exports/industry's GDP)
Paddy rice	0.0%	0.1%	506%	4%	11%
Wheat	0.2%	0.2%	65%	46%	30%
Cereal grains nec	0.2%	0.2%	73%	27%	20%
Vegetables, fruit, nuts	0.7%	0.8%	90%	19%	17%
Oil seeds	0.2%	0.3%	99%	38%	38%
Sugar cane, sugar beet	0.0%	0.0%	4714%	0%	15%
Plant-based fibers	0.1%	0.2%	110%	37%	41%
Crops nec	0.4%	0.5%	100%	27%	27%
Bovine cattle, sheep and goats, horses	0.1%	0.2%	188%	11%	20%
Animal products nec	0.2%	0.3%	109%	14%	15%
Raw milk	0.0%	0.1%	2911%	0%	12%
Wool, silk-worm cocoons	0.0%	0.0%	120%	33%	40%
Forestry	0.1%	0.5%	262%	13%	33%
Fishing	0.1%	0.2%	105%	17%	17%
<i>Agriculture</i>	<i>2.3%</i>	<i>3.6%</i>	<i>112%</i>	<i>19%</i>	<i>21%</i>
Coal	0.3%	0.5%	114%	35%	40%
Oil	4.7%	6.3%	98%	74%	73%
Gas	0.7%	1.0%	108%	58%	62%
Minerals nec	1.0%	1.1%	86%	64%	55%
Raw materials	6.6%	8.9%	98%	67%	66%
Primary sector	8.9%	12.5%	102%	41%	41%
Bovine meat products	0.3%	0.1%	34%	46%	15%
Meat products nec	0.4%	0.2%	30%	67%	20%
Vegetable oils and fats	0.4%	0.2%	30%	140%	42%
Dairy products	0.4%	0.2%	37%	37%	13%
Processed rice	0.1%	0.0%	32%	27%	9%
Sugar	0.1%	0.1%	42%	45%	19%
Food products nec	1.9%	1.1%	41%	39%	16%
Beverages and tobacco products	0.7%	0.5%	49%	28%	14%
<i>Farm industries</i>	<i>4.4%</i>	<i>2.4%</i>	<i>39%</i>	<i>41%</i>	<i>16%</i>
Textiles	2.5%	1.6%	47%	101%	47%
Wearing apparel	1.9%	0.8%	32%	111%	36%
Leather products	1.0%	0.4%	33%	154%	50%
<i>Textiles and al.</i>	<i>5.4%</i>	<i>2.9%</i>	<i>39%</i>	<i>111%</i>	<i>43%</i>
Wood products	1.6%	1.1%	50%	65%	32%
Paper products, publishing	1.9%	2.1%	83%	32%	26%
<i>Wood and paper</i>	<i>3.5%</i>	<i>3.2%</i>	<i>67%</i>	<i>42%</i>	<i>28%</i>
Petroleum, coal products	1.9%	0.8%	30%	136%	41%
Chemical, rubber, plastic products	11.3%	7.7%	49%	95%	47%
Mineral products nec	1.0%	1.0%	71%	34%	24%
Ferrous metals	2.4%	2.1%	64%	78%	50%
Metals nec	2.4%	1.5%	46%	134%	62%
<i>Chemicals and metals</i>	<i>19.0%</i>	<i>13.1%</i>	<i>50%</i>	<i>90%</i>	<i>45%</i>
Metal products	1.9%	2.1%	81%	41%	33%
Motor vehicles and parts	8.3%	3.8%	33%	141%	47%
Transport equipment nec	2.5%	1.4%	42%	112%	47%
<i>Metal products and transport</i>	<i>12.7%</i>	<i>7.3%</i>	<i>42%</i>	<i>100%</i>	<i>42%</i>
Electronic equipment	10.6%	4.9%	33%	176%	59%
Machinery and equipment nec	13.3%	7.9%	43%	108%	47%
Manufactures nec	1.7%	1.1%	47%	68%	32%
<i>Other manufactures</i>	<i>25.6%</i>	<i>13.9%</i>	<i>39%</i>	<i>123%</i>	<i>48%</i>
Electricity	0.3%	2.2%	591%	4%	24%

Gas manufacture, distribution	0.1%	0.2%	303%	6%	18%
Water	0.0%	0.2%	761%	1%	11%
Construction	0.4%	0.9%	147%	2%	3%
Utilities	0.8%	3.5%	326%	3%	9%
Secondary sector	71.3%	46.3%	47%	66%	31%
Trade	2.0%	10.4%	371%	4%	15%
Transport	7.6%	8.3%	80%	44%	35%
Communication	0.6%	1.7%	214%	7%	15%
<i>Communication and trade</i>	<i>10.2%</i>	<i>20.4%</i>	<i>146%</i>	<i>14%</i>	<i>20%</i>
Financial services nec	1.0%	3.2%	219%	6%	14%
Insurance	0.8%	0.9%	83%	16%	13%
Business services nec	5.1%	12.3%	174%	11%	20%
<i>Business services</i>	<i>7.0%</i>	<i>16.4%</i>	<i>170%</i>	<i>10%</i>	<i>18%</i>
Recreational and other services	1.1%	1.6%	106%	10%	10%
Public					
Administration, Defense, Education, Health	1.6%	2.7%	127%	2%	3%
Dwellings	0.0%	0.1%	#DIV/0!	0%	0%
<i>Other services</i>	<i>2.6%</i>	<i>4.4%</i>	<i>121%</i>	<i>3%</i>	<i>3%</i>
Tertiary Sector	19.8%	41.2%	151%	8%	12%
Total	100.0%	100.0%	73%	27%	20%

Sources: GTAP 7, Authors' computations

Table 3: Vertical trade per country, 2004

Country	Total trade (in billions \$) (I+X)	Import content of exports $2*VS/(I+X)$	Exports consumed or invested domestically $(I+X)/(2*VS1^*)$	Share of vertical trade in total trade $2*(VS+VS1^*)/(I+X)$	Share of exports used as inputs for further exports (VS1/X)	Ratio of standard trade to GDP $(I+X)/(2*GDP)$	Ratio of value- added trade to GDP $[(I+X)-2*(VS+VS1^*)]/(2*GDP)$
Australia	231	12.7%	0.6%	13.3%	28.0%	19.0%	16.4%
New Zealand	54	19.2%	0.1%	19.4%	16.9%	30.7%	24.8%
Rest of Oceania	20	23.8%	0.1%	23.9%	25.3%	52.7%	40.1%
China	1,279	32.9%	1.3%	34.1%	21.9%	38.6%	25.4%
Hong Kong	240	31.8%	0.3%	32.1%	22.8%	73.7%	50.0%
Japan	1,189	14.2%	2.3%	16.5%	29.0%	13.2%	11.0%
Korea	563	41.2%	0.4%	41.6%	28.7%	42.4%	24.8%
Taiwan	400	49.2%	0.2%	49.4%	31.5%	66.7%	33.8%
Rest of East Asia	23	25.9%	0.0%	25.9%	18.2%	45.3%	33.6%
Cambodia	7	47.4%	0.0%	47.4%	10.1%	79.6%	41.9%
Indonesia	164	23.9%	0.5%	24.3%	29.8%	33.4%	25.3%
Laos People's Democratic Republic	2	23.1%	0.0%	23.1%	23.6%	33.7%	25.9%
Myanmar	6	17.9%	0.1%	18.0%	27.6%	43.0%	35.2%
Malaysia	261	51.1%	0.3%	51.4%	32.4%	114.7%	55.7%
Philippines	100	44.9%	0.1%	45.0%	34.1%	61.2%	33.7%
Singapore	327	65.4%	0.1%	65.6%	32.1%	164.6%	56.7%
Thailand	224	45.1%	0.2%	45.3%	27.1%	70.7%	38.7%
Vietnam	69	38.1%	0.2%	38.3%	20.4%	82.4%	50.8%
Rest of Southeast Asia	6	27.0%	0.0%	27.0%	27.5%	61.2%	44.7%
Bangladesh	24	24.4%	0.0%	24.4%	12.1%	21.9%	16.5%
India	231	17.8%	0.3%	18.2%	22.5%	18.6%	15.3%
Pakistan	44	14.7%	0.0%	14.8%	18.9%	24.2%	20.6%
Sri Lanka	17	32.3%	0.0%	32.3%	14.9%	44.3%	30.0%
Rest of South Asia	8	14.8%	0.0%	14.8%	19.6%	31.6%	26.9%
Asia	5,489	32.2%	1.0%	33.2%	26.9%	28.6%	19.1%

Country	Total trade (in billions \$) (I+X)	Import content of exports $2*VS/(I+X)$	Exports consumed or invested domestically $(2*VS1^*)/(I+X)$	Share of vertical trade in total trade $2*(VS+VS1^*)/(I+X)$	Share of exports used as inputs for further exports (VS1/X)	Ratio of standard trade to GDP $(I+X)/(2*GDP)$	Ratio of value-added trade to GDP $[(I+X)-2*(VS+VS1^*)]/(2*GDP)$
Canada	641	30.3%	0.9%	31.2%	14.1%	34.9%	24.0%
United States of America	2,726	11.7%	7.0%	18.7%	28.0%	11.9%	9.7%
Mexico	380	27.4%	0.6%	28.0%	13.0%	31.0%	22.3%
Rest of North America	5	14.9%	0.0%	14.9%	20.5%	54.7%	46.6%
Argentina	66	19.9%	0.2%	20.2%	21.5%	24.0%	19.2%
Bolivia	5	15.5%	0.0%	15.5%	25.4%	29.3%	24.8%
Brazil	196	16.3%	0.5%	16.8%	22.3%	17.2%	14.3%
Chile	66	26.2%	0.1%	26.3%	29.8%	39.9%	29.4%
Colombia	37	14.8%	0.1%	14.9%	20.0%	20.7%	17.6%
Ecuador	19	11.9%	0.1%	12.0%	17.5%	33.6%	29.6%
Paraguay	8	19.8%	0.1%	19.9%	28.8%	48.6%	38.9%
Peru	25	8.2%	0.1%	8.2%	28.4%	18.5%	16.9%
Uruguay	9	32.1%	0.0%	32.1%	18.4%	37.6%	25.5%
Venezuela	55	14.6%	0.1%	14.7%	22.4%	26.0%	22.1%
Rest of South America	4	26.8%	0.0%	26.8%	34.9%	69.2%	50.7%
Costa Rica	21	37.7%	0.0%	37.7%	20.6%	55.0%	34.2%
Guatemala	14	16.3%	0.2%	16.5%	13.6%	27.1%	22.7%
Nicaragua	4	22.1%	0.0%	22.1%	10.6%	55.6%	43.3%
Panama	7	15.8%	0.0%	15.8%	21.3%	31.3%	26.4%
Rest of Central America	22	24.7%	0.1%	24.8%	11.5%	48.4%	36.3%
Caribbean	104	20.6%	0.1%	20.7%	21.3%	30.6%	24.2%
America	4,414	16.9%	4.5%	21.4%	23.2%	15.4%	12.1%

Country	Total trade (in billions \$) (I+X)	Import content of exports $2^*VS/(I+X)$	Exports consumed or invested domestically $(2^*VS1^*)/(I+X)$	Share of vertical trade in total trade $2^*(VS+VS1^*)/$ (I+X)	Share of exports used as inputs for further exports (VS1/X)	Ratio of standard trade to GDP (I+X)/ (2^*GDP)	Ratio of value-added trade to GDP $[(I+X)-$ $2^*(VS+VS1^*)]/$ (2^*GDP)
Austria	287	29.1%	0.5%	29.6%	26.1%	57.9%	40.8%
Belgium	582	53.1%	0.3%	53.4%	24.4%	83.7%	39.0%
Cyprus	15	22.3%	0.0%	22.4%	21.1%	49.7%	38.6%
Czech Republic	134	38.5%	0.3%	38.8%	27.7%	72.8%	44.6%
Denmark	190	25.1%	0.3%	25.4%	23.5%	47.2%	35.2%
Estonia	18	41.4%	0.1%	41.5%	26.6%	108.1%	63.2%
Finland	137	36.3%	0.2%	36.5%	26.2%	41.8%	26.5%
France	1,003	21.1%	1.8%	22.9%	24.7%	28.1%	21.7%
Germany	1,784	25.1%	2.7%	27.8%	25.2%	37.0%	26.7%
Greece	115	17.6%	0.2%	17.8%	25.2%	32.4%	26.6%
Hungary	123	47.7%	0.1%	47.8%	25.1%	67.8%	35.4%
Ireland	269	40.9%	0.2%	41.1%	27.0%	87.1%	51.3%
Italy	809	26.9%	0.9%	27.8%	22.4%	25.9%	18.7%
Latvia	14	28.2%	0.1%	28.3%	25.7%	53.2%	38.2%
Lithuania	25	34.6%	0.1%	34.7%	25.0%	56.9%	37.2%
Luxembourg	84	63.2%	0.0%	63.3%	27.8%	134.8%	49.5%
Malta	10	38.5%	0.0%	38.5%	28.8%	100.6%	61.9%
Netherlands	461	27.7%	0.6%	28.3%	25.9%	48.0%	34.5%
Poland	167	24.6%	0.3%	24.9%	25.6%	41.2%	31.0%
Portugal	114	23.0%	0.2%	23.2%	21.7%	37.0%	28.4%
Slovakia	58	44.0%	0.2%	44.2%	28.5%	71.2%	39.7%
Slovenia	38	37.7%	0.1%	37.9%	25.1%	58.8%	36.5%
Spain	544	20.3%	0.8%	21.1%	21.5%	30.2%	23.8%
Sweden	275	25.4%	0.6%	26.0%	25.7%	40.4%	29.9%
United Kingdom	1,037	16.1%	1.6%	17.7%	26.0%	28.6%	23.6%
Switzerland	306	37.5%	0.3%	37.8%	25.6%	44.3%	27.5%
Norway	172	18.0%	0.4%	18.4%	33.0%	34.9%	28.4%
Rest of EFTA	13	28.1%	0.0%	28.1%	23.6%	48.1%	34.6%
Albania	5	14.2%	0.0%	14.2%	22.8%	31.9%	27.4%
Bulgaria	30	37.0%	0.0%	37.1%	23.5%	61.3%	38.6%
Belarus	29	54.2%	0.1%	54.3%	22.4%	64.6%	29.5%
Croatia	36	26.3%	0.1%	26.4%	21.7%	54.0%	39.7%
Romania	61	27.9%	0.1%	28.0%	23.7%	43.6%	31.4%
Russian Federation	293	12.9%	1.8%	14.7%	38.5%	29.5%	25.2%
Ukraine	77	35.8%	0.2%	36.0%	27.7%	62.6%	40.1%
Rest of Eastern Europe	5	34.2%	0.0%	34.3%	17.9%	89.9%	59.1%
Rest of Europe	34	20.5%	0.2%	20.7%	25.5%	42.4%	33.7%
Kazakhstan	41	20.5%	0.2%	20.7%	37.3%	46.4%	36.8%
Kyrgyzstan	3	25.6%	0.0%	25.6%	31.4%	66.9%	49.7%
Rest of Former Soviet Union	19	20.0%	0.2%	20.3%	38.6%	49.0%	39.0%
Armenia	3	25.4%	0.0%	25.4%	25.5%	40.7%	30.3%
Azerbaijan	12	11.9%	0.0%	11.9%	32.9%	69.1%	60.9%
Georgia	4	17.9%	0.0%	17.9%	24.7%	49.3%	40.5%
Turkey	182	22.1%	0.2%	22.3%	20.9%	31.9%	24.7%
Europe and P.	10,313	26.4%	1.1%	27.5%	25.9%	37.3%	27.0%

Country	Total trade (in billions \$) (I+X)	Import content of exports $2*VS/(I+X)$	Exports consumed or invested domestically $(2*VS1^*)/(I+X)$	Share of vertical trade in total trade $2*(VS+VS1^*)/(I+X)$	Share of exports used as inputs for further exports (VS1/X)	Ratio of standard trade to GDP $(I+X)/(2*GDP)$	Ratio of value- added trade to GDP $[(I+X)-2*(VS+VS1^*)]/(2*GDP)$
Iran, Islamic Republic of	87	5.4%	0.3%	5.6%	35.3%	28.2%	26.6%
Rest of Western Asia	607	18.3%	0.8%	19.2%	29.6%	45.2%	36.5%
Egypt	47	21.3%	0.0%	21.4%	20.9%	30.5%	24.0%
Morocco	39	22.7%	0.0%	22.7%	18.0%	39.9%	30.8%
Tunisia	28	31.0%	0.1%	31.1%	19.0%	52.0%	35.8%
Rest of North Africa	80	9.9%	0.2%	10.2%	32.1%	36.8%	33.0%
Nigeria	58	8.8%	0.3%	9.1%	25.0%	45.0%	40.9%
Senegal	5	19.1%	0.0%	19.2%	19.2%	43.6%	35.3%
Rest of Western Africa	44	20.3%	0.1%	20.4%	25.6%	48.4%	38.6%
Rest of Central Africa	23	10.1%	0.0%	10.2%	31.9%	30.6%	27.5%
Rest of South Central Africa	26	15.8%	0.1%	15.9%	30.7%	57.3%	48.2%
Ethiopia	5	15.5%	0.0%	15.5%	19.2%	41.4%	35.0%
Madagascar	4	29.3%	0.0%	29.3%	18.3%	44.4%	31.3%
Malawi	2	25.0%	0.0%	25.1%	19.6%	56.2%	42.1%
Mauritius	8	31.9%	0.0%	31.9%	20.2%	73.1%	49.8%
Mozambique	4	24.4%	0.0%	24.4%	40.0%	38.2%	28.8%
Tanzania	6	16.3%	0.0%	16.3%	23.8%	28.8%	24.1%
Uganda	4	18.7%	0.0%	18.7%	27.8%	27.3%	22.2%
Zambia	4	23.8%	0.1%	23.8%	47.0%	39.4%	30.0%
Zimbabwe	5	32.6%	0.1%	32.7%	29.0%	57.6%	38.7%
Rest of Eastern Africa	27	12.7%	0.1%	12.7%	21.2%	28.1%	24.5%
Botswana	8	13.6%	0.1%	13.6%	26.0%	44.8%	38.7%
South Africa	118	20.9%	0.8%	21.7%	28.7%	29.5%	23.1%
Rest of South African Customs Union	12	35.2%	0.2%	35.4%	20.6%	71.8%	46.3%
Africa allnd AFRICMiddle-East	1,251	17.3%	0.5%	17.9%	28.6%	39.6%	32.5%

Sources: GTAP 7, Authors' computations

Table 4: description of 66 countries/regions of GTAP5 in relation to GTAP7

GTAP 5 (1997 year)

GTAP 7 (2004 year) aggregated

1	Australia	Australia
2	New Zealand	New Zealand
3	China	China
4	Hong Kong	Hong Kong
5	Japan	Japan
6	Korea, Republic of	Korea
7	Taiwan	Taiwan
8	Indonesia	Indonesia
9	Malaysia	Malaysia
10	Philippines	Philippines
11	Singapore	Singapore
12	Thailand	Thailand

13	Viet Nam	Viet Nam
14	Bangladesh	Bangladesh
15	India	India
16	Sri Lanka	Sri Lanka
17	Rest of South Asia	Pakistan, Rest of South Asia
18	Canada	Canada
19	United States	United States of America
20	Mexico	Mexico
21	Central America and Caribbean	Costa Rica, Guatemala, Nicaragua, Panama, Caribbean, Rest of Central America
22	Colombia	Colombia
23	Peru	Peru
24	Venezuela	Venezuela
25	Rest of Andean Pact	Bolivia, Ecuador, Rest of Andean pact
26	Argentina	Argentina
27	Brazil	Brazil
28	Chile	Chile
29	Uruguay	Uruguay
30	Rest of South America	Paraguay, Rest of South America
31	Austria	Austria
32	Belgium	Belgium
33	Denmark	Denmark
34	Finland	Finland
35	France	France
36	Germany	Germany
37	United Kingdom	United Kingdom
38	Greece	Greece
39	Ireland	Ireland
40	Italy	Italy
41	Luxembourg	Luxembourg
42	Netherlands	Netherlands
43	Portugal	Portugal
44	Spain	Spain
45	Sweden	Sweden
46	Switzerland	Switzerland
47	Rest of EFTA	Norway, Rest of EFTA
48	Hungary	Hungary
49	Poland	Poland
50	Rest of Central European Assoc.	Czech Republic, Slovakia, Slovenia, Bulgaria, Romania
51	Former Soviet Union	Estonia, Latvia, Lithuania, Belarus, Russian Federation, Ukraine, Kazakhstan, Kyrgyztan, Rest of Former Soviet Union, Armenia, Azerbaijan, Georgia
52	Turkey	Turkey
53	Rest of Middle East	Iran Islamic Republic of, Rest of Western Asia
54	Morocco	Morocco
55	Rest of North Africa	Egypt, Tunisia, Rest of North Africa
56	Botswana	Botswana
57	Rest of SACU	South Africa, Rest of South African Customs
58	Malawi	Malawi
59	Mozambique	Mozambique
60	Tanzania	Tanzania
61	Zambia	Zambia

62	Zimbabwe	Zimbabwe
63	Rest of southern Africa	Mauritius, Madagascar, South Central Africa
64	Uganda	Uganda
65	Rest of sub-Saharan Africa	Nigeria, Senegal, Rest of Western Africa, Central Africa, Ethiopia, Rest of Eastern Africa
66	Rest of world	Rest of Oceania, Rest of East Asia, Cambodia, Laos People's Democratic Republic, Myanmar, Rest of Southeast Asia, Rest of North America, Cyprus, Malta, Albania, Croatia, Rest of Eastern Europe, Rest of Europe

Sources: GTAP5, GTAP7

TIBI for 13 regions

Table 5: Standard TIBI, 2004

Exports From	To	Europe		America			Asia pacific					Africa and Middle East		
		Euro Zone	North	East	United States	Other NAFTA	Rest of America	Japan	China +HK	Asian dragons	Rest of Asia	Oceania	North Africa and ME	Sub-Saharan
Euro Zone		0.49	0.41	0.30	-0.42	-0.64	-0.27	-0.54	-0.49	-0.55	-0.47	-0.32	0.07	-0.03
Northern Europe		0.32	0.17	-0.04	-0.12	-0.38	-0.21	-0.24	-0.40	-0.38	-0.21	-0.04	0.04	-0.04
Eastern Europe		0.28	-0.04	0.69	-0.47	-0.70	-0.32	-0.50	-0.42	-0.49	-0.42	-0.59	0.09	-0.36
United States		-0.30	-0.09	-0.41	N.A.	0.90	0.42	0.26	-0.11	0.21	-0.11	0.18	0.06	-0.11
Other North America		-0.77	-0.52	-0.78	0.91	-0.47	0.00	-0.46	-0.56	-0.63	-0.63	-0.50	-0.59	-0.60
Rest of America		-0.27	-0.28	-0.35	0.36	0.04	0.78	-0.16	-0.14	-0.25	-0.34	-0.44	-0.05	-0.02
Japan		-0.45	-0.39	-0.42	0.22	-0.28	-0.22	N.A.	0.52	0.59	0.34	0.28	-0.06	-0.15
China and Hong-Kong		-0.33	-0.26	-0.35	0.29	-0.21	-0.13	0.51	N.A.	0.23	0.16	0.18	-0.13	-0.07
Asian dragons		-0.50	-0.40	-0.39	0.01	-0.38	-0.19	0.23	0.71	0.05	0.48	0.16	-0.09	-0.06
Rest of Asia		-0.39	-0.25	-0.45	0.07	-0.43	-0.34	0.39	0.32	0.38	0.39	0.27	0.13	0.05
Oceania		-0.60	-0.16	-0.60	-0.17	-0.41	-0.28	0.57	0.24	0.33	0.41	0.79	0.05	0.03
North Africa and ME		-0.16	-0.43	-0.30	0.01	-0.60	-0.30	0.50	-0.15	0.42	0.40	-0.29	0.00	0.26
Sub-Saharan Africa		-0.14	-0.02	-0.45	0.12	-0.63	0.03	-0.04	-0.01	-0.11	0.21	-0.21	-0.12	0.79

See note 1 for the description of regions

Intra-continental trade is coloured.

Sources: GTAP 7, Authors' computations

Table 6: Value-added TIBI, 2004

Exports From	To	Europe		America			Asia pacific					Africa and Middle East		
		Euro Zone	North	East	United States	Other NAFTA	Rest of America	Japan	China +HK	Asian dragons	Rest of Asia	Oceania	North Africa and ME	Sub-Saharan
Euro Zone		0.40	0.35	0.27	-0.34	-0.56	-0.23	-0.44	-0.38	-0.46	-0.35	-0.28	0.05	-0.03
Northern Europe		0.26	0.07	-0.01	-0.07	-0.33	-0.18	-0.21	-0.30	-0.31	-0.14	-0.05	0.00	-0.02
Eastern Europe		0.24	-0.01	0.59	-0.34	-0.56	-0.25	-0.36	-0.28	-0.38	-0.27	-0.44	0.07	-0.23
United States		-0.21	-0.02	-0.26	N.A.	0.85	0.38	0.29	0.01	0.26	-0.04	0.20	0.11	-0.04
Other North America		-0.67	-0.49	-0.67	0.85	-0.34	0.01	-0.36	-0.46	-0.48	-0.51	-0.42	-0.50	-0.51
Rest of America		-0.23	-0.25	-0.26	0.31	0.02	0.69	-0.16	-0.09	-0.20	-0.24	-0.35	-0.04	-0.04
Japan		-0.34	-0.28	-0.31	0.28	-0.19	-0.16	N.A.	0.49	0.52	0.26	0.28	-0.02	-0.10
China and Hong-Kong		-0.28	-0.20	-0.27	0.27	-0.17	-0.12	0.45	N.A.	0.20	0.11	0.15	-0.11	-0.06
Asian dragons		-0.36	-0.28	-0.27	0.14	-0.24	-0.10	0.26	0.58	-0.13	0.24	0.09	-0.04	-0.01
Rest of Asia		-0.28	-0.16	-0.35	0.10	-0.33	-0.28	0.35	0.24	0.24	0.33	0.23	0.12	0.08
Oceania		-0.50	-0.14	-0.48	-0.07	-0.35	-0.25	0.51	0.26	0.34	0.38	0.68	0.04	-0.04
North Africa and ME		-0.16	-0.32	-0.21	0.03	-0.43	-0.22	0.44	0.04	0.28	0.44	-0.12	-0.10	0.20
Sub-Saharan Africa		-0.13	-0.02	-0.35	0.11	-0.41	0.00	-0.04	0.04	-0.13	0.27	-0.17	-0.12	0.68

See note 1 for the description of regions

Intra continental trade is coloured.

Sources: GTAP 7, Authors' computations

Table 7: Value-added TIBI compared to standard TIBI (2004)

Exports	To	Europe			America			Asia pacific				Africa and Middle East		
		Euro Zone	North	East	United States	Other NAFTA	Rest of America	Japan	China +HK	Asian dragons	Rest of Asia	Oceania	North Africa and ME	Sub-Saharan
Euro Zone		-0.09	-0.07	-0.03	0.08	0.08	0.04	0.10	0.11	0.09	0.12	0.05	-0.02	0.00
Northern Europe		-0.06	-0.09	0.04	0.05	0.05	0.03	0.03	0.10	0.08	0.07	-0.01	-0.03	0.02
Eastern Europe		-0.04	0.03	-0.11	0.14	0.14	0.07	0.14	0.14	0.11	0.15	0.16	-0.02	0.12
United States		0.09	0.07	0.15	N.A.	-0.05	-0.04	0.03	0.12	0.05	0.07	0.01	0.05	0.07
Other North America		0.10	0.04	0.11	-0.06	0.13	0.01	0.10	0.10	0.15	0.13	0.08	0.09	0.09
Rest of America		0.04	0.03	0.08	-0.05	-0.03	-0.09	0.01	0.05	0.06	0.09	0.09	0.02	-0.02
Japan		0.11	0.11	0.11	0.06	0.09	0.06	N.A.	-0.03	-0.07	-0.08	0.01	0.03	0.05
China and Hong-Kong		0.05	0.05	0.08	-0.03	0.04	0.01	-0.06	N.A.	-0.03	-0.05	-0.03	0.01	0.01
Asian dragons		0.14	0.12	0.12	0.13	0.14	0.09	0.02	-0.12	-0.18	-0.23	-0.07	0.05	0.05
Rest of Asia		0.11	0.08	0.09	0.03	0.10	0.07	-0.04	-0.08	-0.14	-0.07	-0.03	0.00	0.03
Oceania		0.10	0.03	0.12	0.10	0.06	0.03	-0.05	0.02	0.01	-0.03	-0.11	-0.01	-0.07
North Africa and ME		0.00	0.11	0.09	0.02	0.17	0.08	-0.05	0.19	-0.14	0.03	0.17	-0.09	-0.06
Sub-Saharan Africa		0.01	0.00	0.11	-0.01	0.22	-0.03	0.00	0.05	-0.01	0.06	0.03	0.00	-0.11

See note 1 for the description of regions.

Sources: GTAP 7, Authors' computations

Note 1: Description of regions from GTAP 7 (year 2004)

Euro Zone: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain

Northern Europe: Denmark, Sweden, United Kingdom, Switzerland, Norway, Rest of EFTA

Eastern Europe: Albania, Bulgaria, Croatia, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, Turkey, Rest of Eastern Europe, Rest of Europe, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Ukraine, Rest of Former Soviet Union

Other NAFTA: Canada, Mexico, Rest of North America

Rest of America: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Rest of South America, Costa Rica, Guatemala, Nicaragua, Panama, Rest of Central America, Caribbean

Asian dragons: Korea, Taiwan, Singapore

Rest of Asia: Cambodia, Indonesia, Lao People's Democratic Republic, Myanmar, Malaysia, Philippines, Thailand, Viet Nam, Rest of Southeast Asia, Bangladesh, India, Pakistan, Sri Lanka, Rest of South Asia, Rest of East Asia

Oceania: Australia, New Zealand, Rest of Oceania

North Africa and Middle East: Egypt, Morocco, Tunisia, Rest of North Africa, Iran, Rest of Western Asia

Sub-Saharan Africa: Nigeria, Senegal, Rest of Western Africa, Rest of Central Africa, Rest of South Central Africa, Ethiopia, Madagascar, Malawi, Mauritius, Mozambique, Tanzania, Uganda, Zambia, Zimbabwe, Rest of Eastern Africa, Botswana, South Africa, Rest of South African Customs