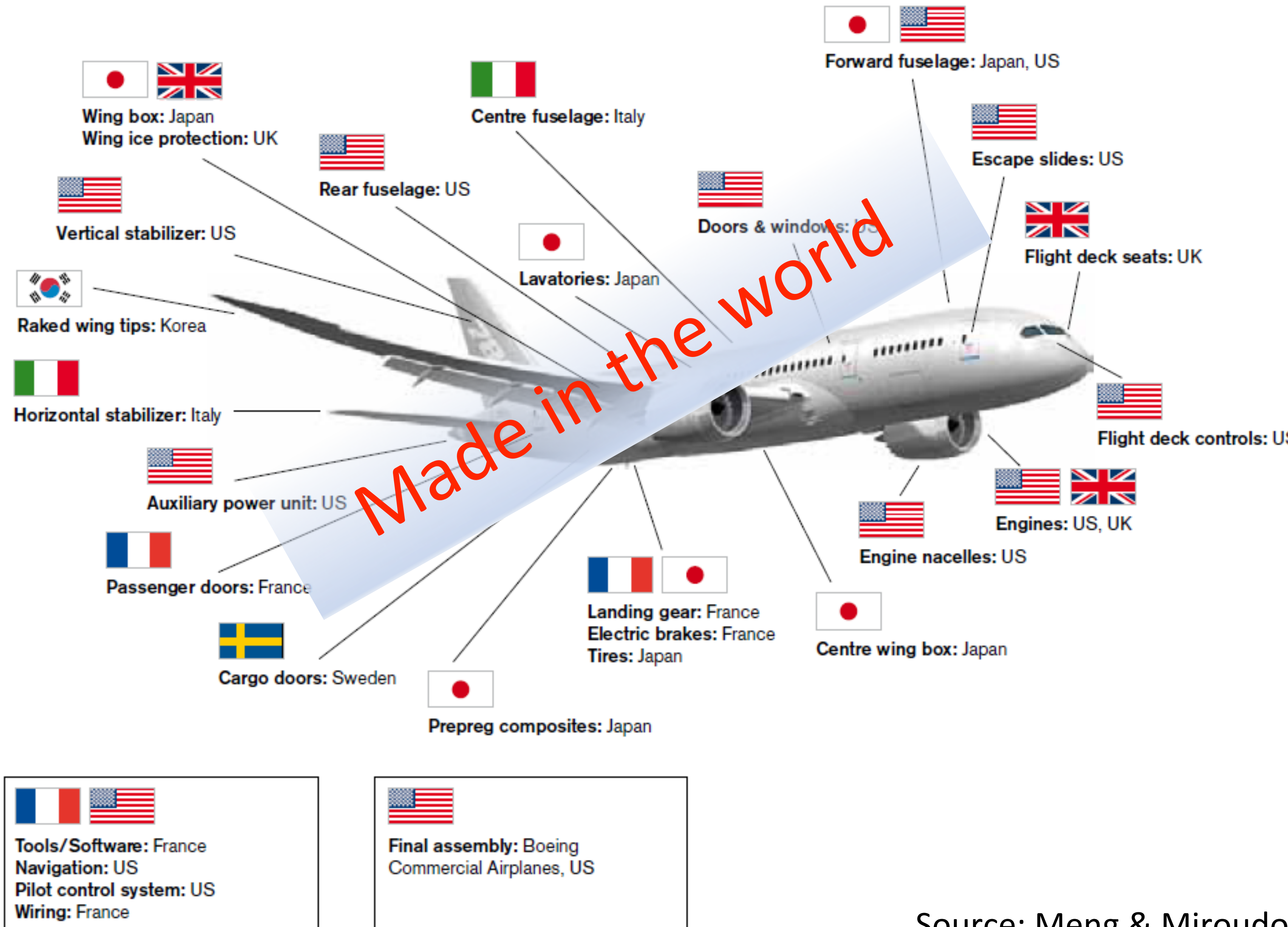
INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- Global value chains
- Global value chains, Asia and regional integration
- What policy implications?

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

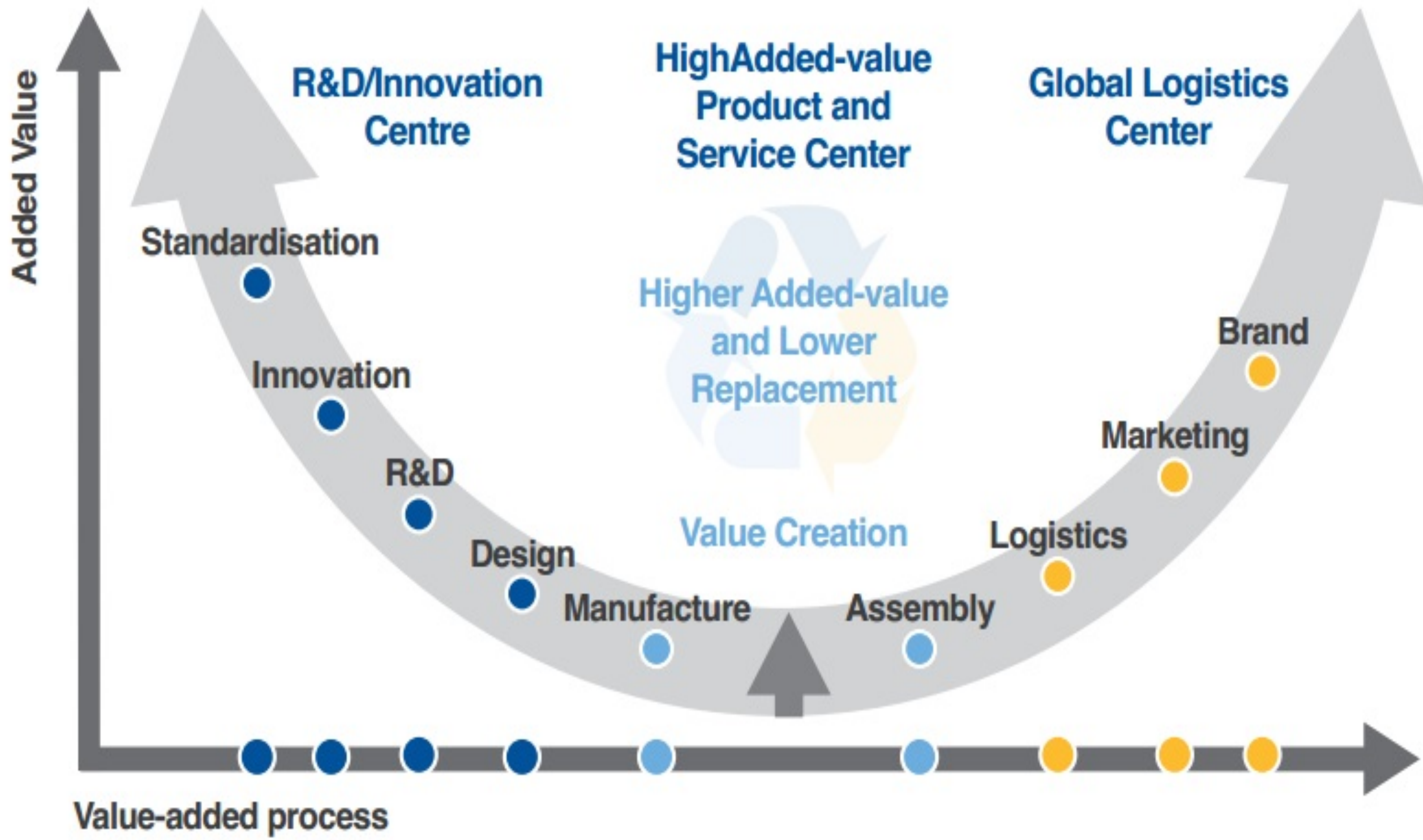
- Global value chains

- From "traditional" trade to the Great Unbundling; "made in one country" to "made in the world"; "trade in goods" to "trade in tasks"
- Measuring international trade flows: gross values vs. value-added; latter more accurate reflection of who benefits
- The world of Apple: iPods, iPhones, iPads

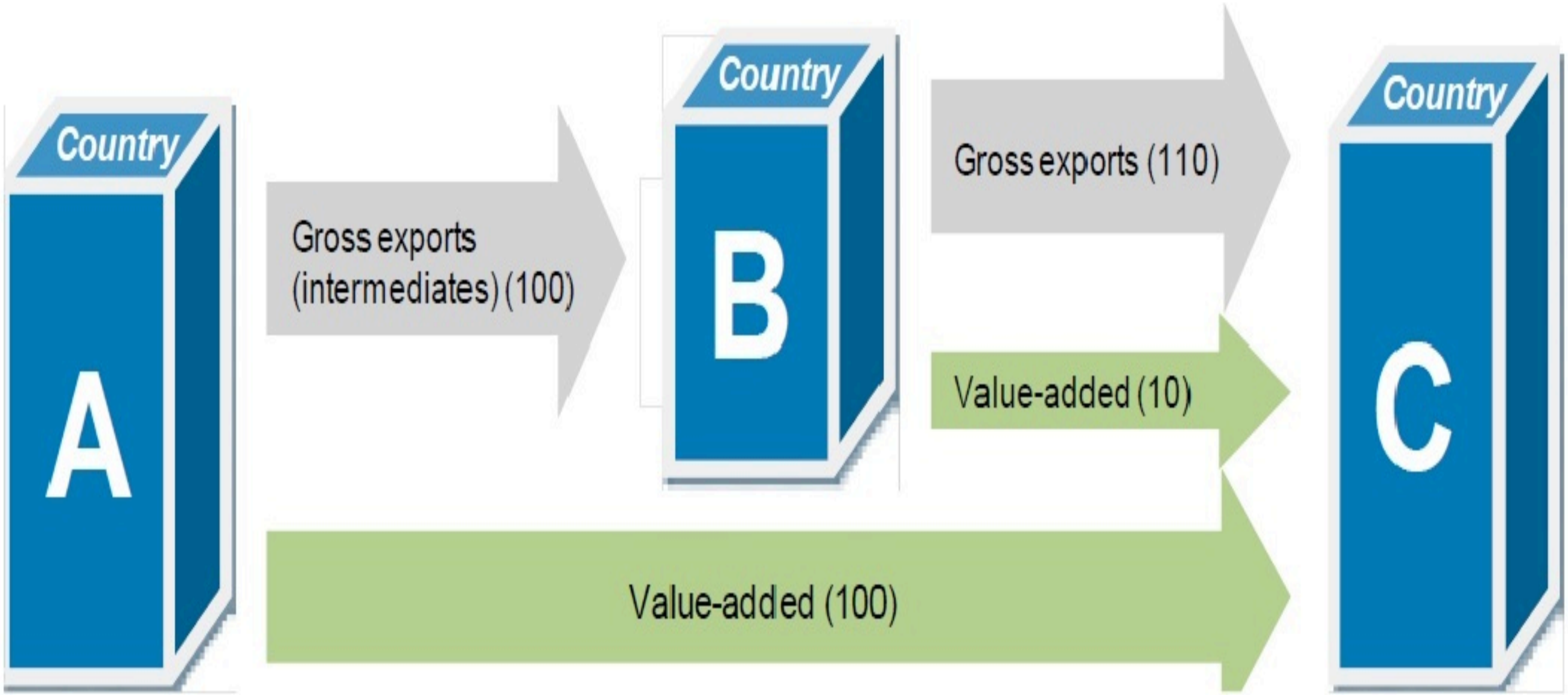


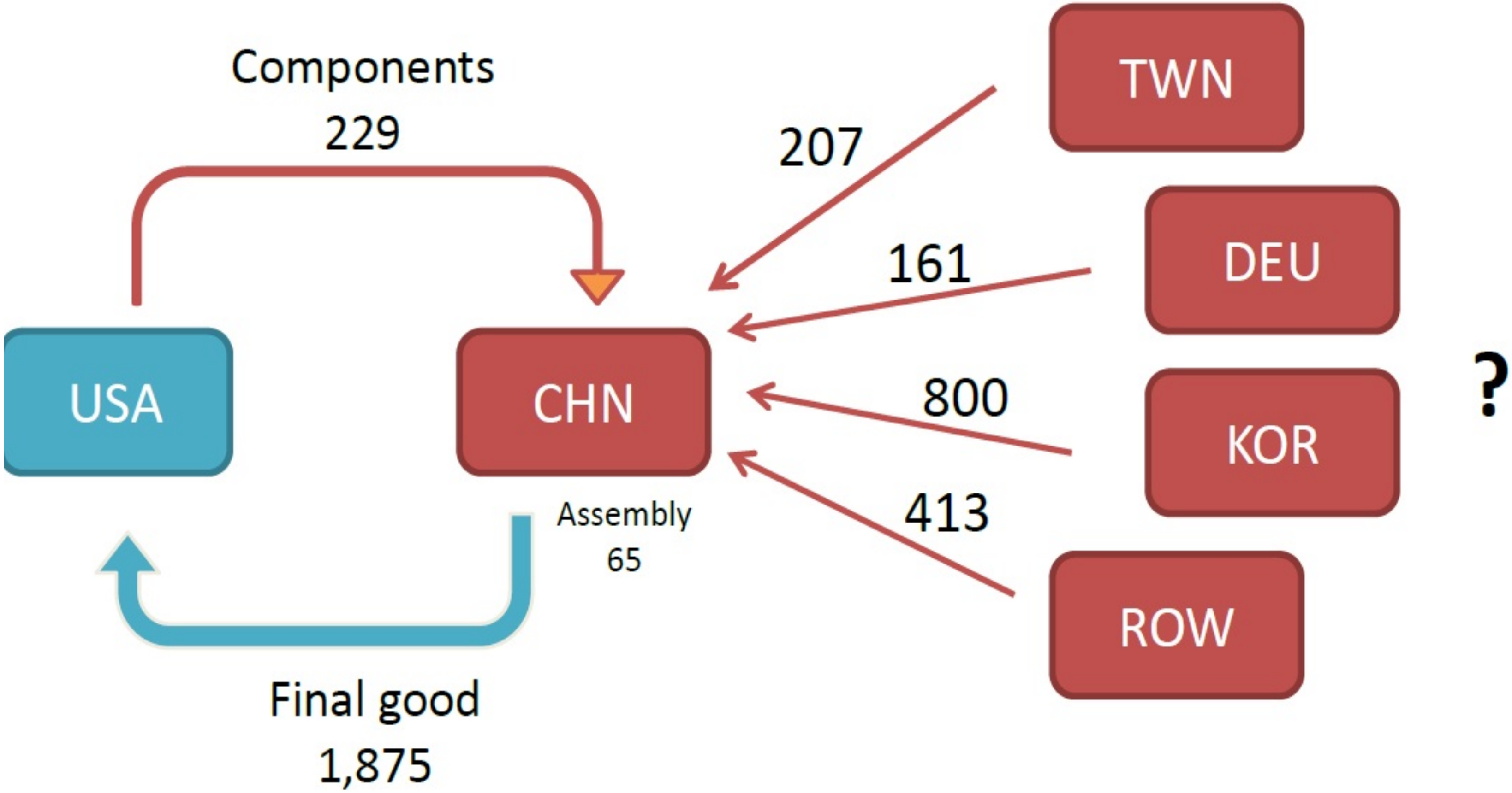
Source: Meng & Miroudot

"Smiley Face": conceptual model of the shift to a high value added, globally integrated, services economy



Source : Business Week International online extra, May 16, 2005, Stan Shih on Taiwan and China


Country
A
Gross exports
(intermediates) (100)
Country
B
Gross exports (110)
Value-added (10)
Country
C
Value-added (100)



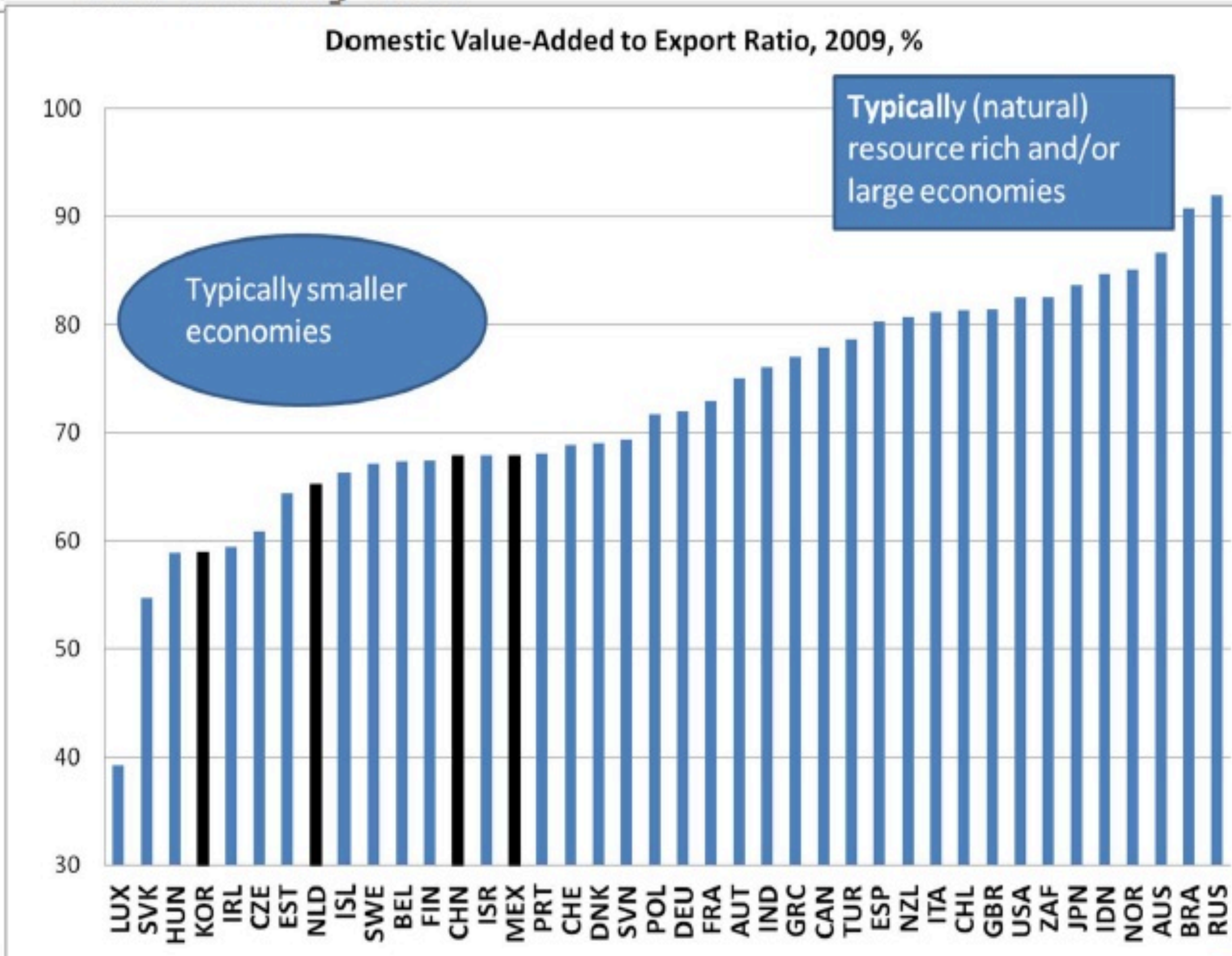
US trade balance in iPhones with:	CHN	TWN	DEU	KOR	ROW	World
Gross	-1,646	0	0	0	0	-1,646
Value added	-65	-207	-161	-800	-413	-1,646

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- Global value chains (cont.)

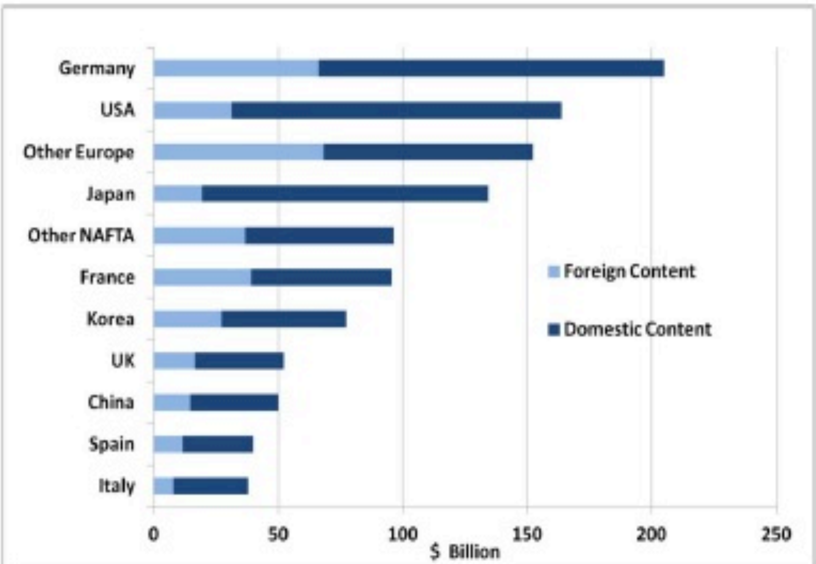
- Increasing foreign value-added in exports – tighter connection between imports and exports
- High services content in value-added of manufacturing exports
- Alters picture of bilateral trade balances
- Regional production hubs in GVCs: NAFTA, EU and Factory Asia

3.1. No surprise: contents of domestic value-added rises with natural resource endowments and country size

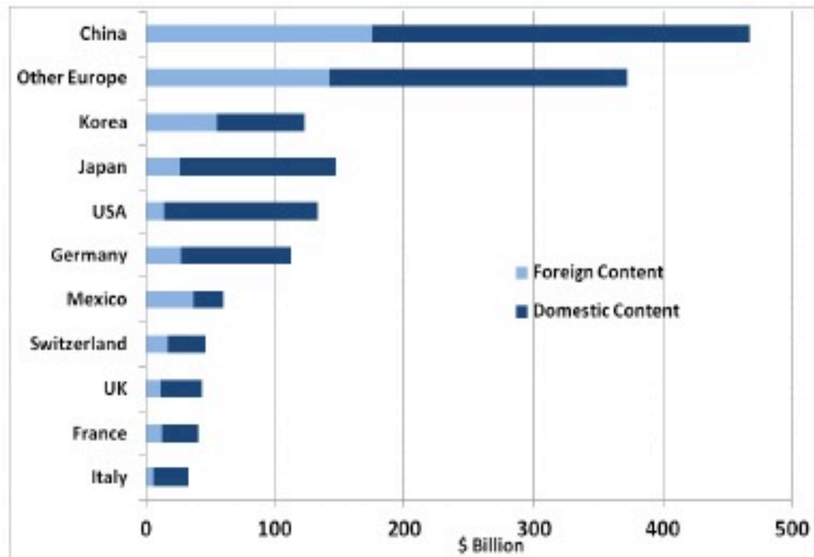


3.4. Exports require imports

Transport equipment

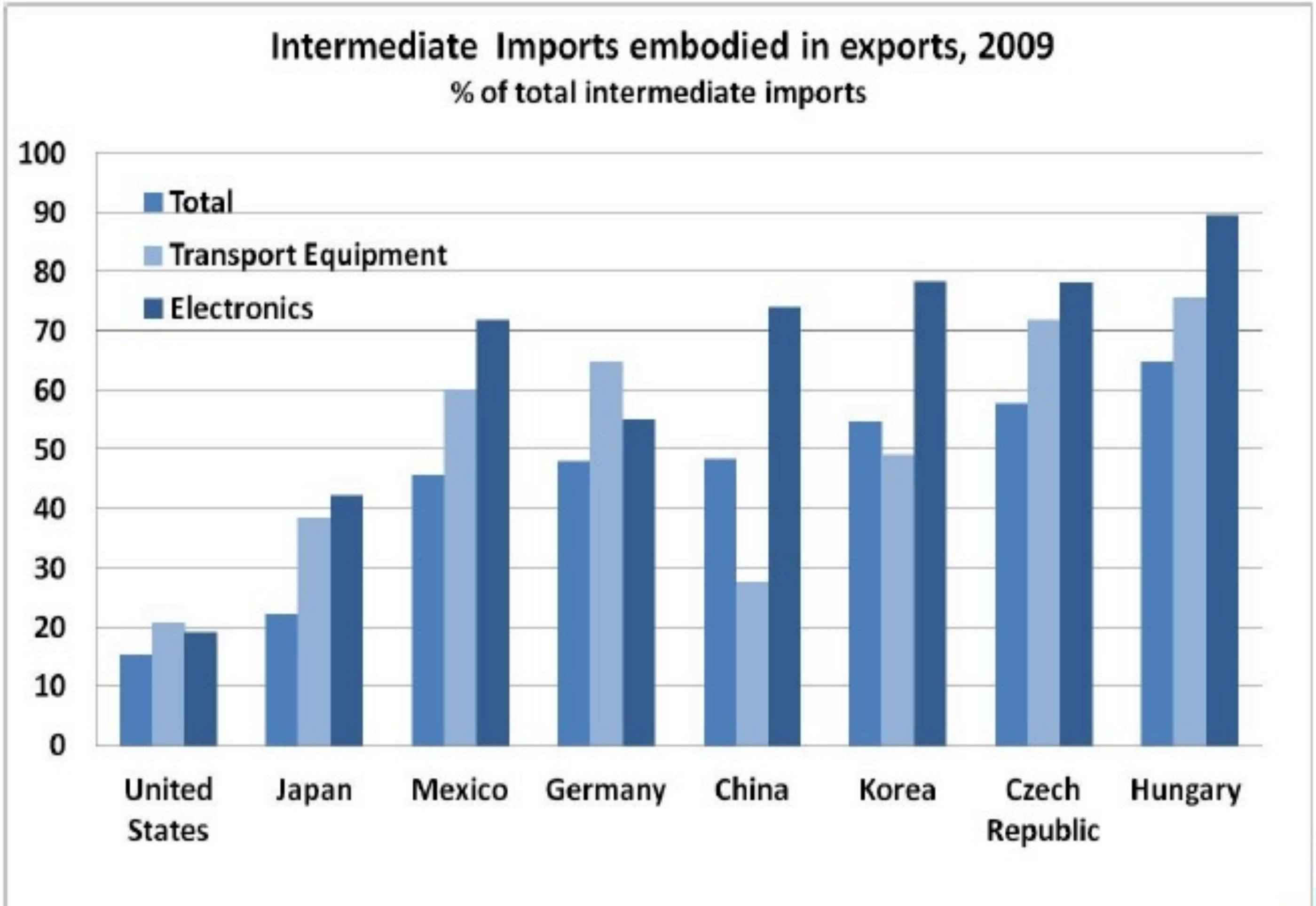


Electronics



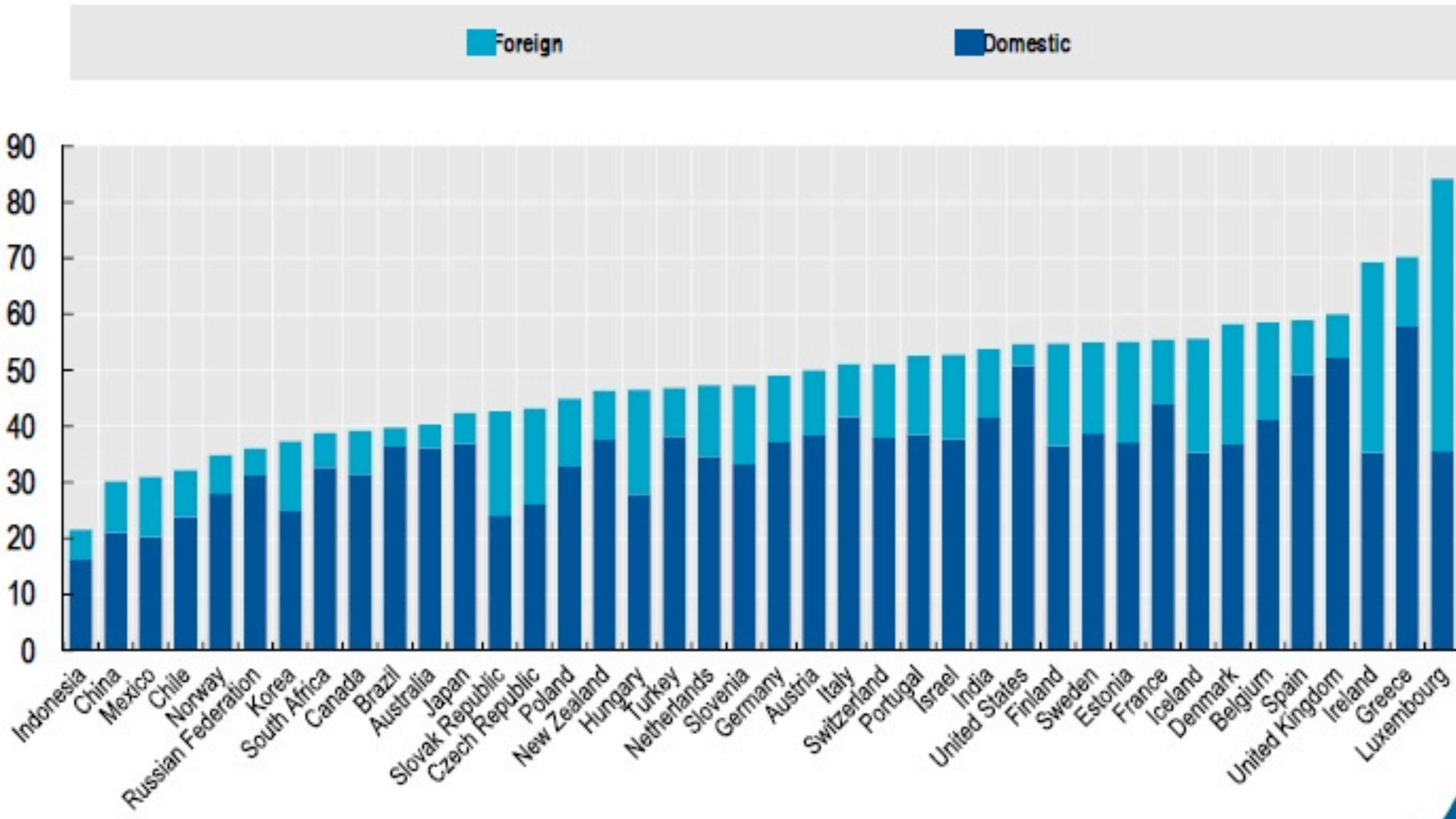
OECD

3.5. … a significant share of total intermediate imports is used in exports

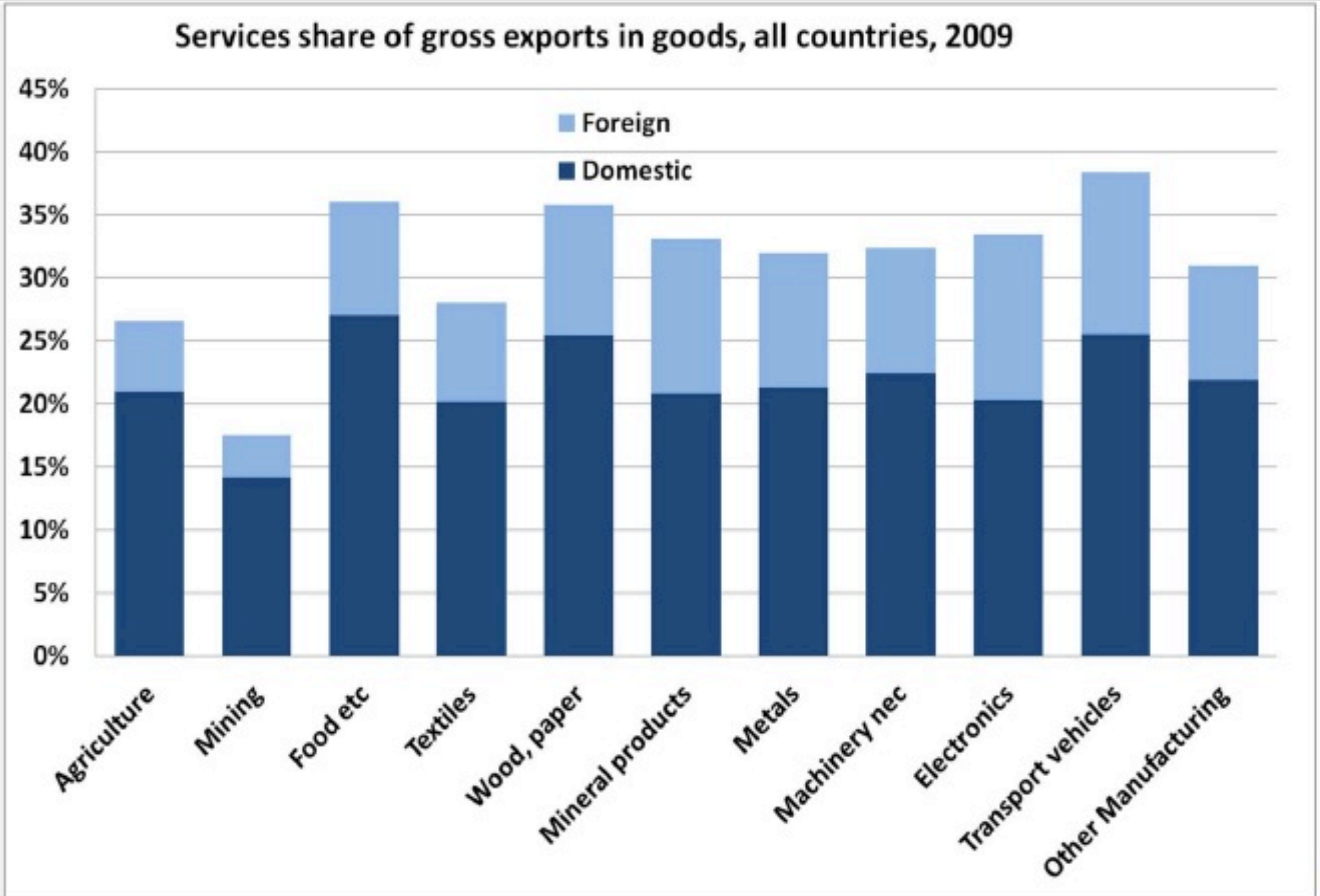


3.2. Services matter, whether considered by country…

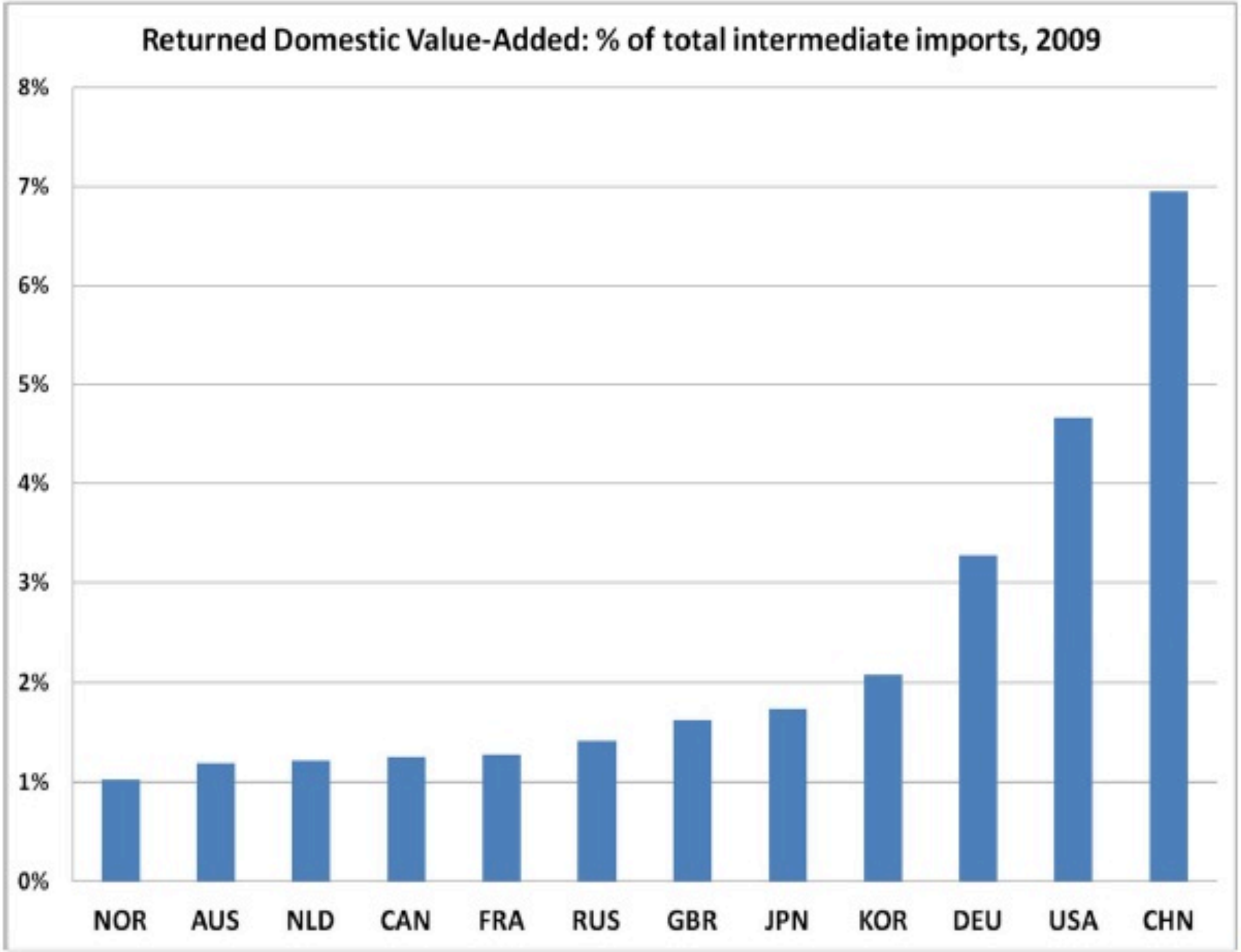
Services Value-Added: % of exports, 2009



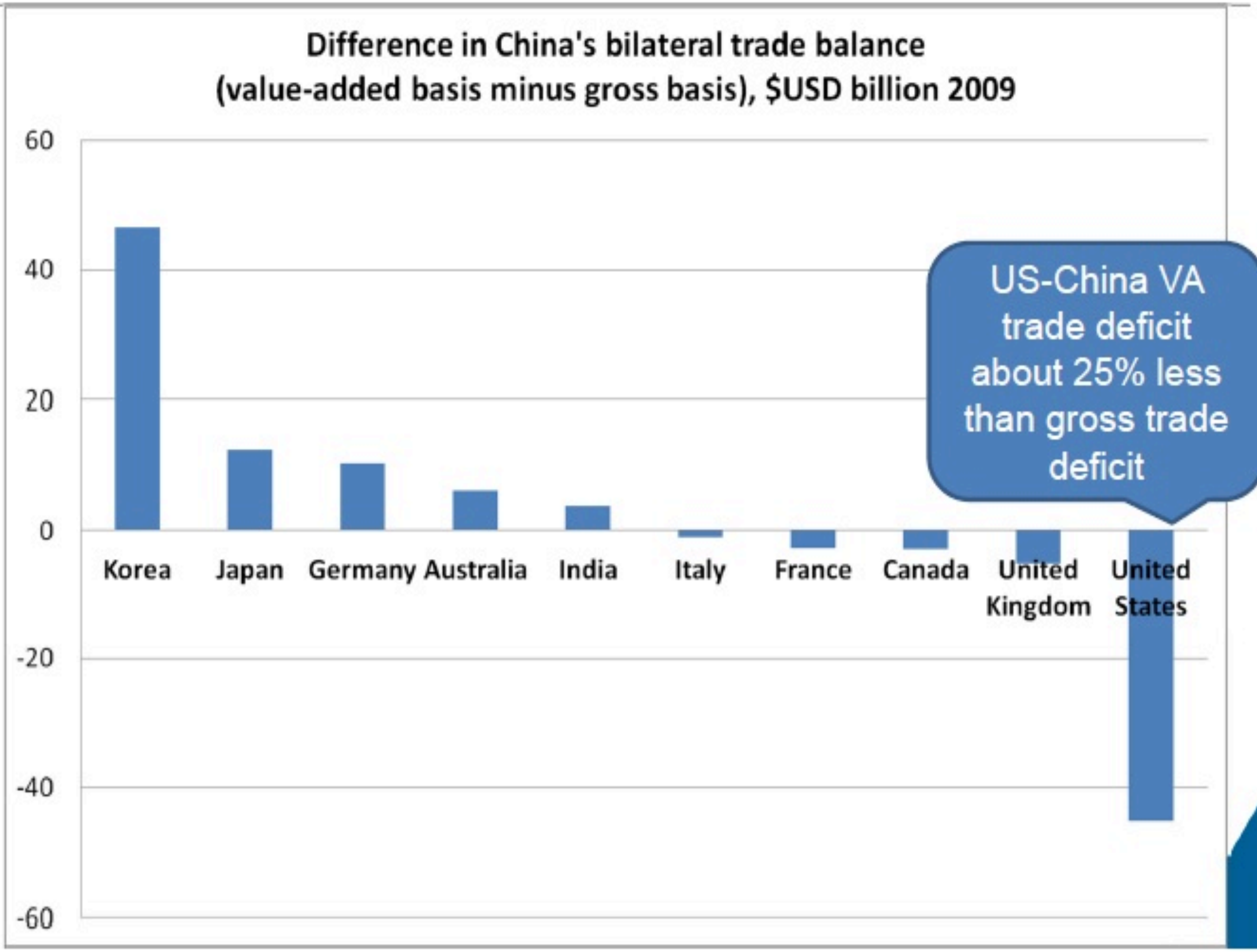
3.3. …or by industry



3.6….and Value-Added often returns

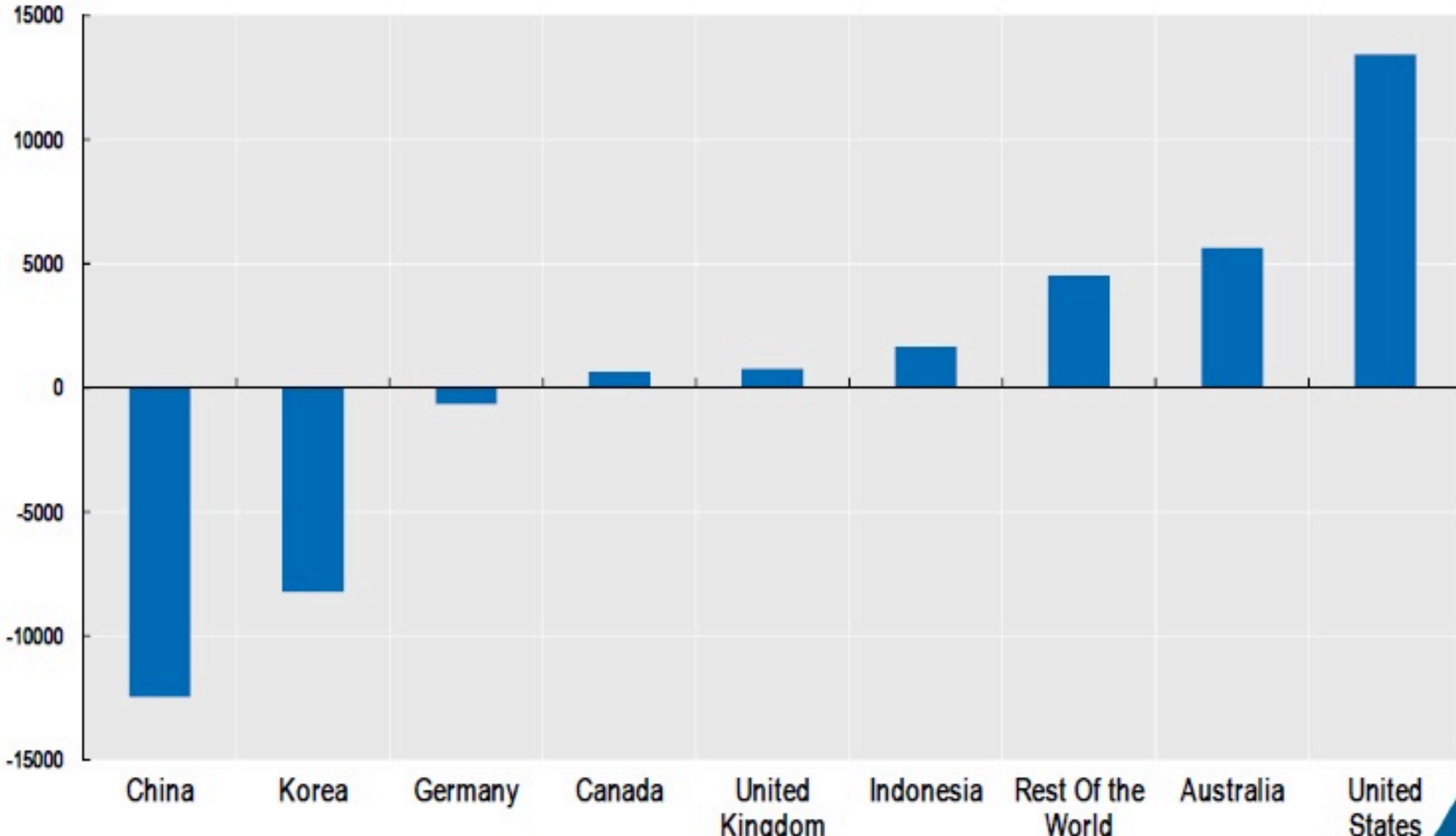


3.7. China – changes in balances



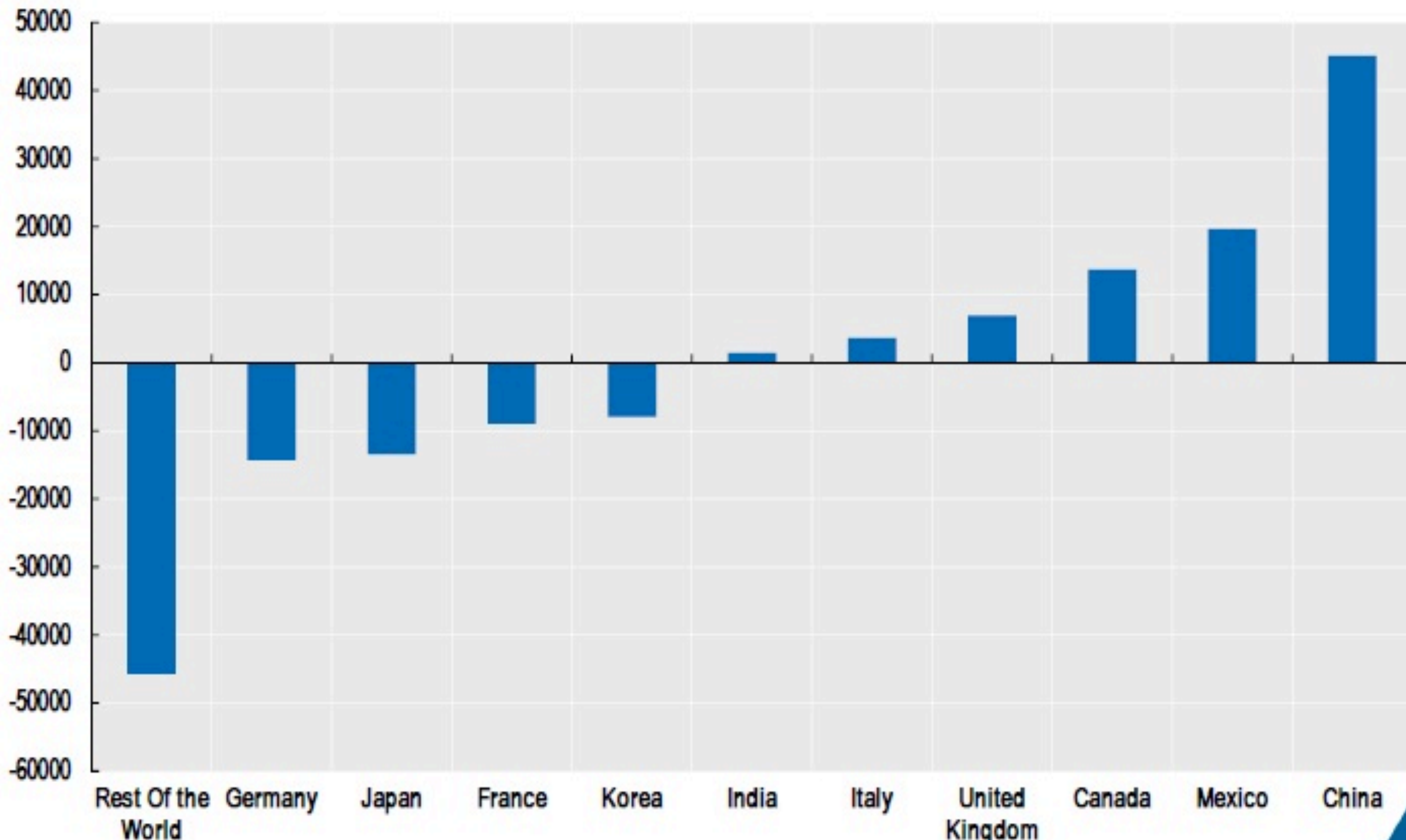
3.8. Japan – changes in balances

value-added minus gross, USD millions, 2009



3.9. US – changes in balances

value-added minus gross, USD millions, 2009



INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- GVCs, Asia and regional integration

- East Asia: intra-regional trade substantial and growing; increasing intra-regional FDI

- East Asia highly dependent on "processing" trade/regional production networks (esp. ICT); driving force of increasing intra-regional trade, esp. parts and components

- But linked tightly to extra-regional final markets; *increasing* dependence on them

- Partial, skewed integration; contrast with W. Europe and N. America

Intra-Regional Trade Share 1980–2006 (%)

Region	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006
NIE (4) [2]	8.6	9.2	11.9	15.5	15.5	15.3	15.8	15.2	14.6	13.9	13.6
ASEAN (10) [3]	17.9	20.3	18.8	24	24.7	24.1	24.4	26.6	26.7	27.2	27.2
ASEAN + PRC; Korea; Hong Kong; Teipei (14)	22.7	27.2	33	39.1	40.6	41.1	43.4	44.7	45.2	45.5	45.8
ASEAN + 3 (13) [4]	30.2	30.2	29.4	37.6	37.3	37.1	37.9	39	39.2	38.9	38.3
ASEAN + 3 + Hong Kong + Teipei (15)	36.8	39	43.1	51.9	52.1	51.9	53.8	55.4	55.9	55.4	54.5
ASEAN + 6 (16) [5]	34.6	34.8	33.7	40.8	40.5	40.6	41.3	42.4	43	43.1	42.6
ASEAN + 6 + Hong Kong + Teipei (18)	40.5	42.7	46.3	54.5	54.6	54.5	56.3	57.7	58.5	58.4	57.6
NAFTA (3)	33.8	38.7	37.9	43.1	48.8	49.1	48.4	47.4	46.4	46.1	44.3
MERCOSUR	11.1	7.2	10.9	19.2	20.3	17.9	13.6	14.7	15.2	15.5	15.7
Old EU (15)	60.7	59.8	66.2	64.2	62.3	62.2	62.5	63	62.2	60.4	59.5
New EU (27)	61.5	60	66.8	66.9	66.3	66.7	67.4	68.1	67.6	66.2	65.8

Sources: Masahiro and Wignaraja (2008)

Emerging East Asia's Foreign Direct Investment (FDI) Inflows, 1995–2005

	FDI Source						
FDI Inflows to [1]	United States %	European Union %	Japan %	NIEs %	ASEAN 9 %	Total %	Total $ million
NIEs	16.8	15.8	8.1	5.2	3.9	100	437,999
Hong Kong	5.1	7.4	5.7	5.3	1.8	100	215,999
Korea, Rep of	22.4	40.1	13.3	4.1	7.4	100	55,975
Singapore	31.7	19.3	8.5	4	5.8	100	142,748
Taipei	19.9	13.1	15.5	14.2	2.5	100	23,277
ASEAN 9 [2]	18.4	29.1	19.1	29.2	4.2	100	116,413
Indonesia	5.7	50.9	3.3	15	9.3	100	11,839
Malaysia	27.4	23.4	13.6	22	2.1	100	44,651
Philippines	23.4	10.3	23.1	16.9	1.1	100	13,709
Thailand	10.5	10.5	25.1	27.6	0.9	100	37,428
Vietnam	4.8	19.1	14.4	39.2	6.6	100	18,225
China	8.1	8.1	8.6	54	1.6	100	537,163
Total	13.9	14.7	10.5	34.9	3.1	100	992,516

Sources: Masahiro and Wignaraja (2008)

Table 3: Intra-regional shares of Manufacturing Trade: Total, Parts and Components, and Final Trade (%), 1994/5 and 2006/07[1]

	East Asia[2]	Developing East Asia[2]	ASEAN+3[2]	ASEAN	NAFTA	EU15
Total manufacturing[3]						
a: Total Exports						
1994-95	47.15	38.15	15.25	20.7	44.35	61.15
2006-07	43.85	33.35	21.85	18.4	48.1	56.85
Imports						
1994-95	58.15	34.85	42.95	15.5	36.3	64.1
2006-07	64.4	46.7	49.25	20.75	31.95	57.85
Trade (exports + imports)						
1994-95	52	36.5	27	17.75	39.9	62.6
2006-07	52.1	40	30.4	20.05	38.4	57.35
b: Parts and components						
Exports						
1994-95	50.2	42.55	33.65	30.3	43.5	62.25
2006-07	61.1	53.9	35.3	25.4	46.85	55.9
Imports						
1994-95	65.85	35.3	39.55	20.15	39.45	58
2006-07	66.9	50.85	47.8	22.85	39.9	55.15
Trade						
1994-95						
2006-07	57	38.7	35.4	24.2	41.35	60.1
c: Final goods[4]						
Exports						
1994-95	46	36.75	11.4	16.1	44.7	60.9
2006-07	36.85	28.3	16.95	15.9	48.65	57
Imports						
1994-95	55.4	34.65	43.4	12.85	35.25	65.55
2006-07	62.95	42.75	50.15	20.55	30.15	58.45
Trade						
1994-95	50.25	35.7	25.4	14.3	39.4	63.15

Notes

1 See Notes to Table 1 for details on country classification. SITC classification numbers are given in brackets

2 Intra-regional trade shares have been calculated excluding bilateral flows between China and Hong Kong

3 SITC 5 to 8 less 68

4 Total (reported) – parts and components

Source: Compiled from UN Comtrade database , and Trade Data CD-ROM, Council for Economic Planning and Development, Taipei (for data on Taiwan)

Share of Network Products in Manufacturing Trade, 2009/10 (%)

	Parts and components	Final assembly	Total network trade
(a) EXPORTS			
Developing East Asia	**35.2**	**27.3**	**62.5**
China (PRC)	25.7	32.5	58.2
Taiwan	44.2	25.6	69.8
Korea, RP	43.2	28.4	71.6
ASEAN	44.7	24.8	69.5
Indonesia	21.54	17.7	39.1
Malaysia	54.6	22.2	78.8
Philippines	73.3	14.5	87.8
Singapore	49.5	17.2	66.7
Thailand	30.1	34.3	64.4
Viet Nam	11.2	7.6	18.8
India	12.3	4.2	16.5
Developed countries	25.2	23.6	48.8
Developing countries	47.3	44.5	55.6
World	29.2	23.6	52.8
(b) IMPORTS			
Developing East Asia	42.2	17.1	61.3
China (PRC)	44	19.8	63.7
Hong Kong, China	48.5	13.5	62.1
Taiwan	38.9	16.8	55.7
Korea, RP	31.9	17.4	49.3
ASEAN	47.9	16.2	64.1
Indonesia	21.8	15.8	37.7
Malaysia	50	22	72
Philippines	61.3	17.4	78.6
Singapore	60.4	17.3	77.7
Thailand	36.1	12.4	48.5
Viet Nam	19.1	9.7	28.5
India	22.9	17	39.9
Developed countries	23.4	25.5	48.9
Developing countries	33.6	19.9	53.5
World	27.3	23.3	50.7

Source: Athukorala (2011)

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

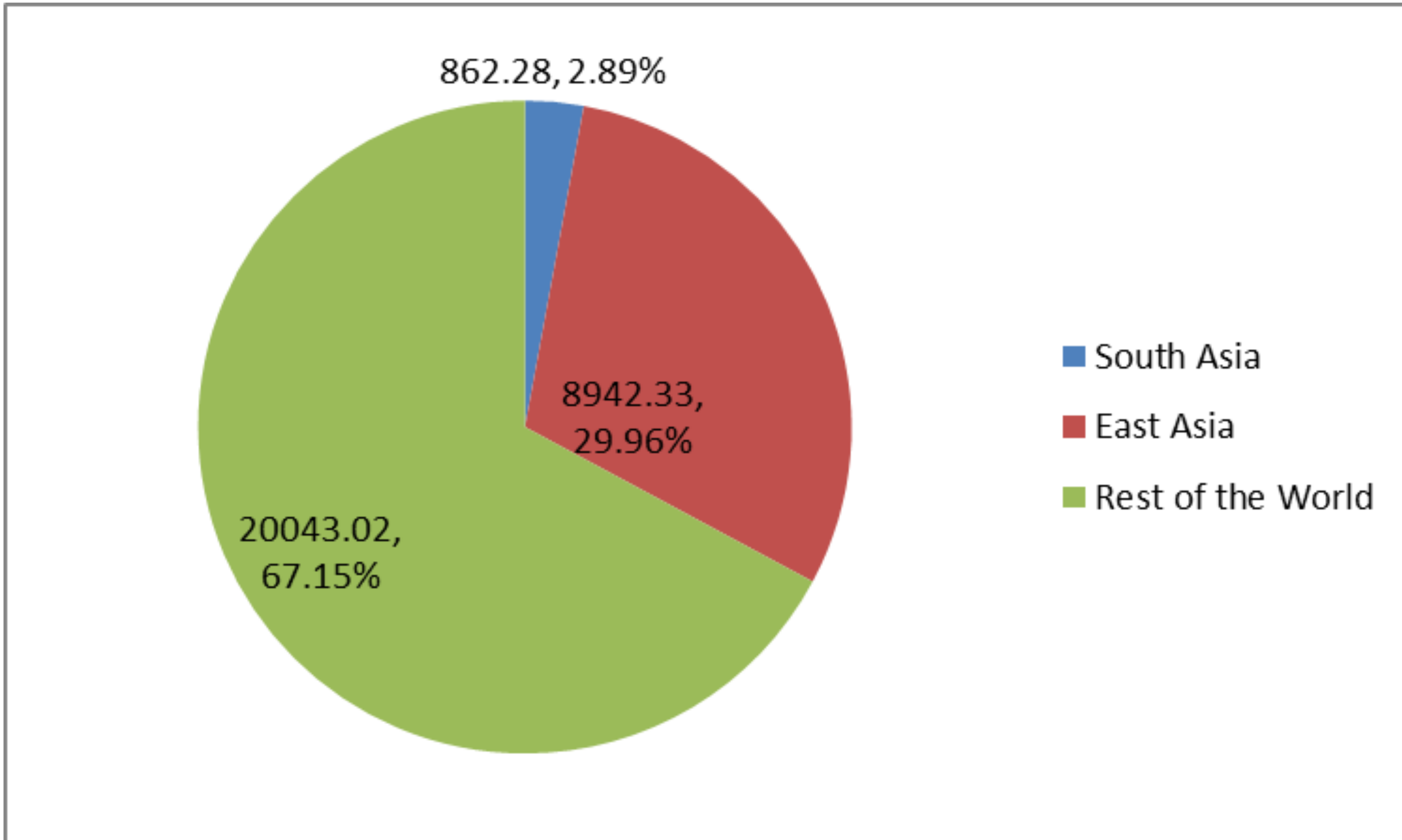
- GVCs, Asia and regional integration (cont.)

- South Asia

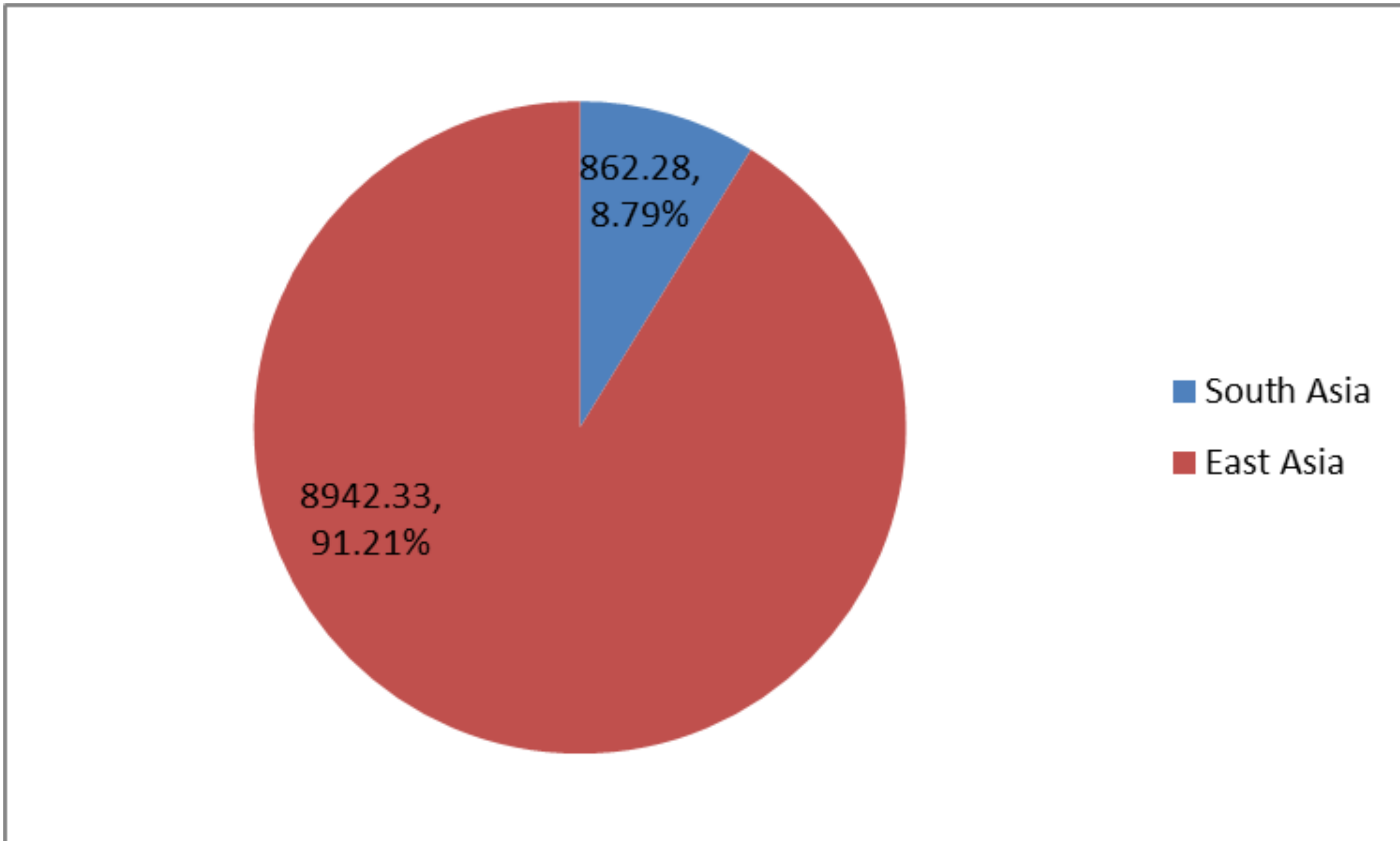
  - Tiny shares of Asian and world trade; hardly inserted into global supply chains

  - Most malintegrated region in the world: intra-regional trade approx. 4% of total trade; 2% of regional GDP

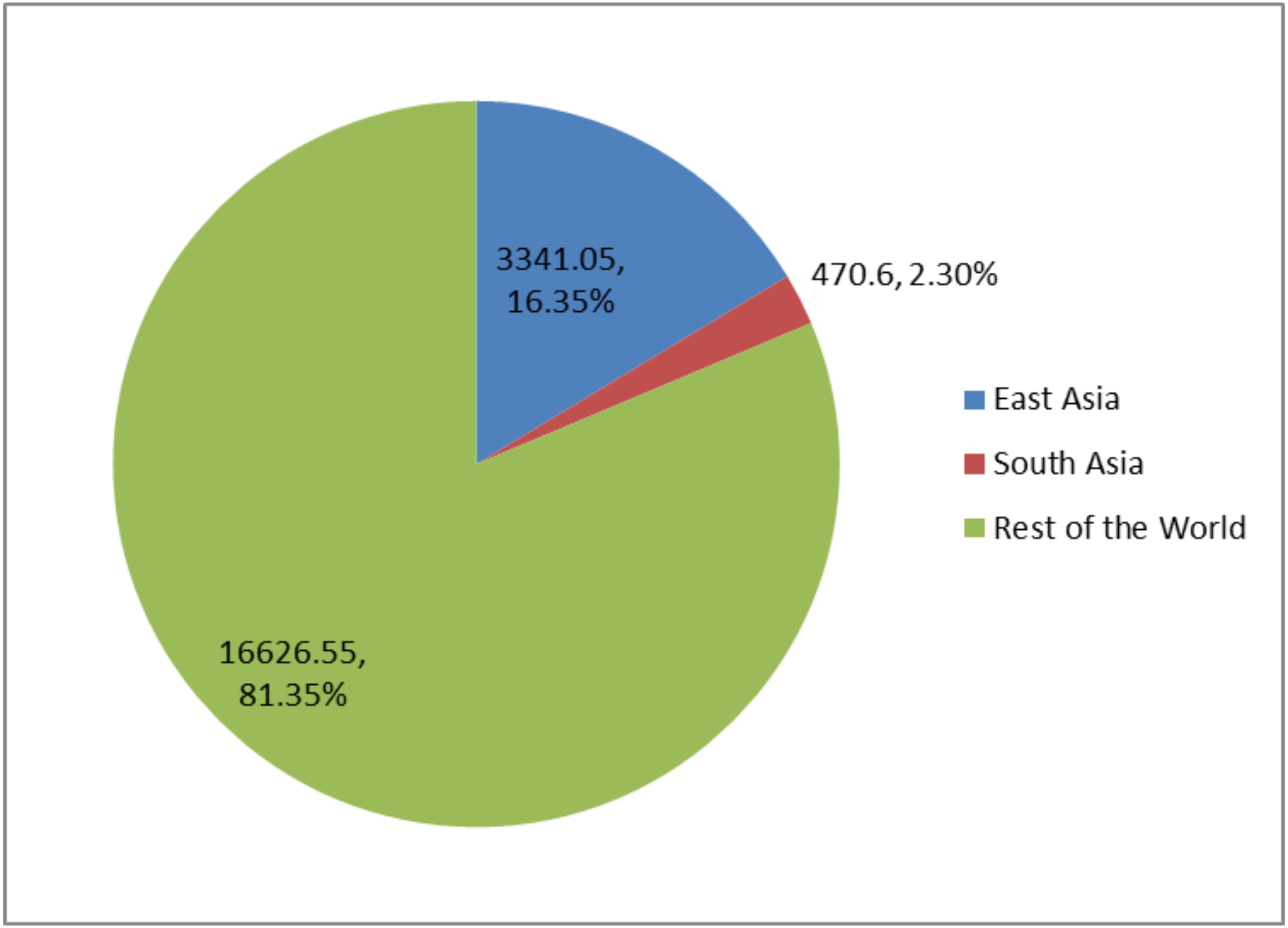
Share of World Trade (US$ Bn)



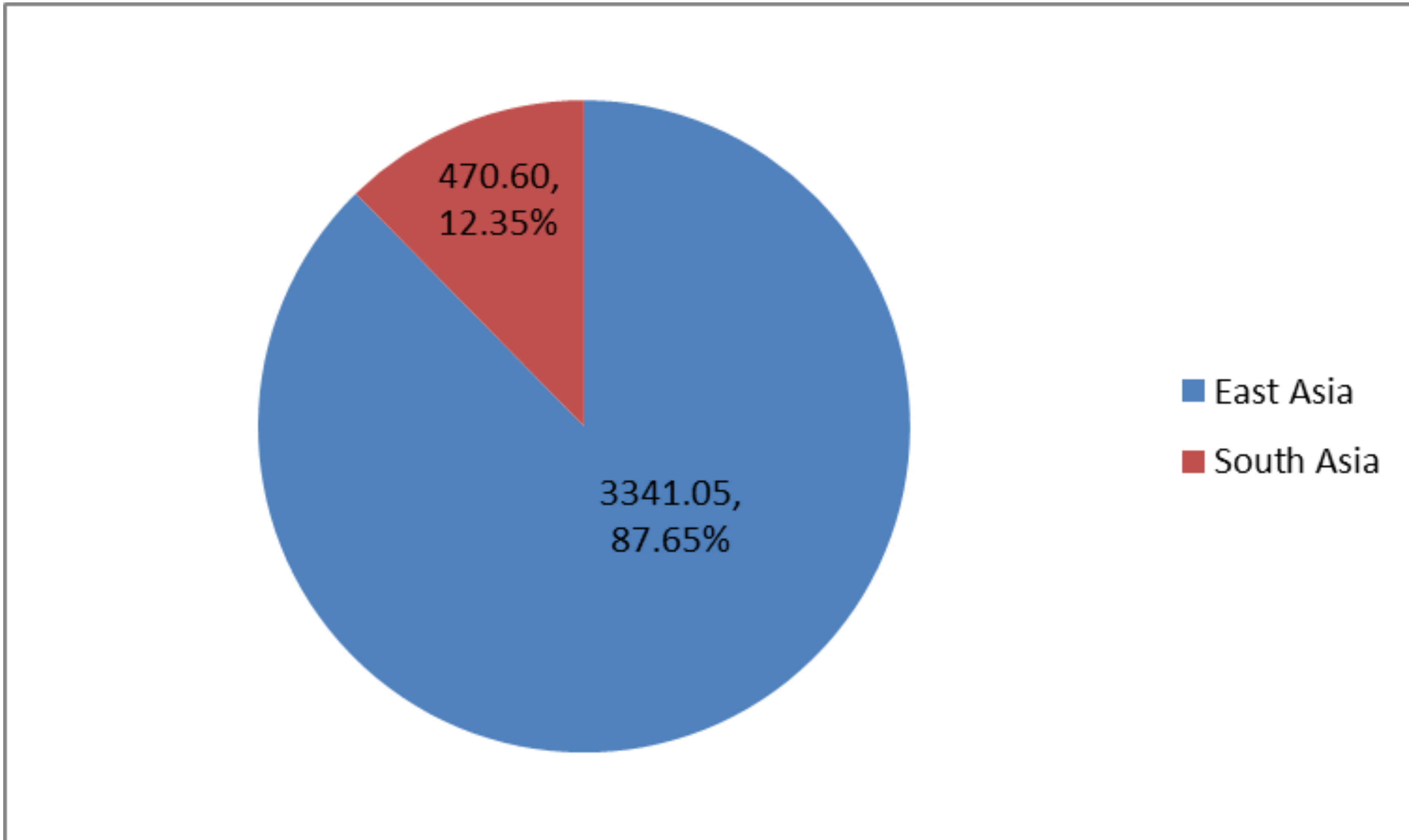
Share of World Trade (US$ Bn)

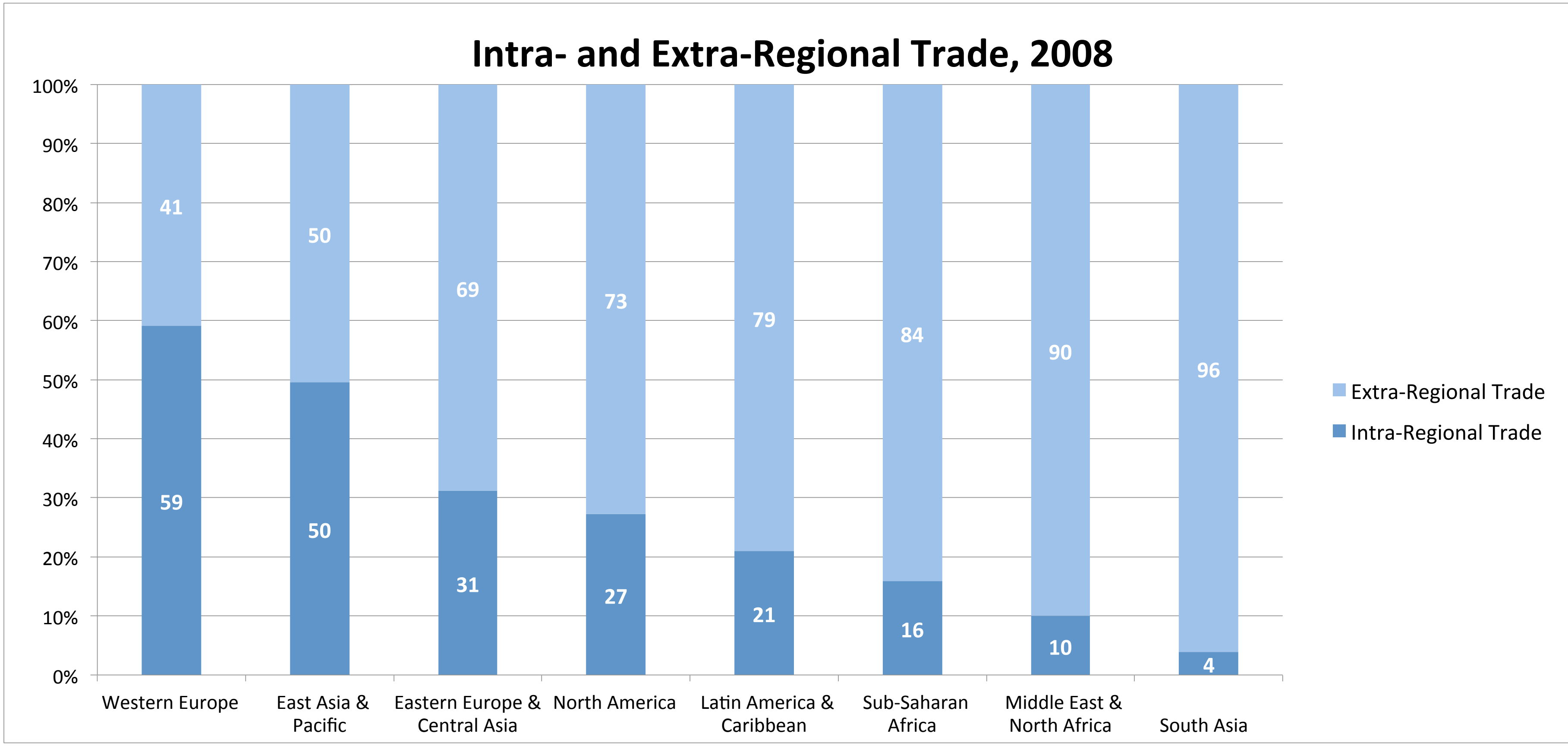


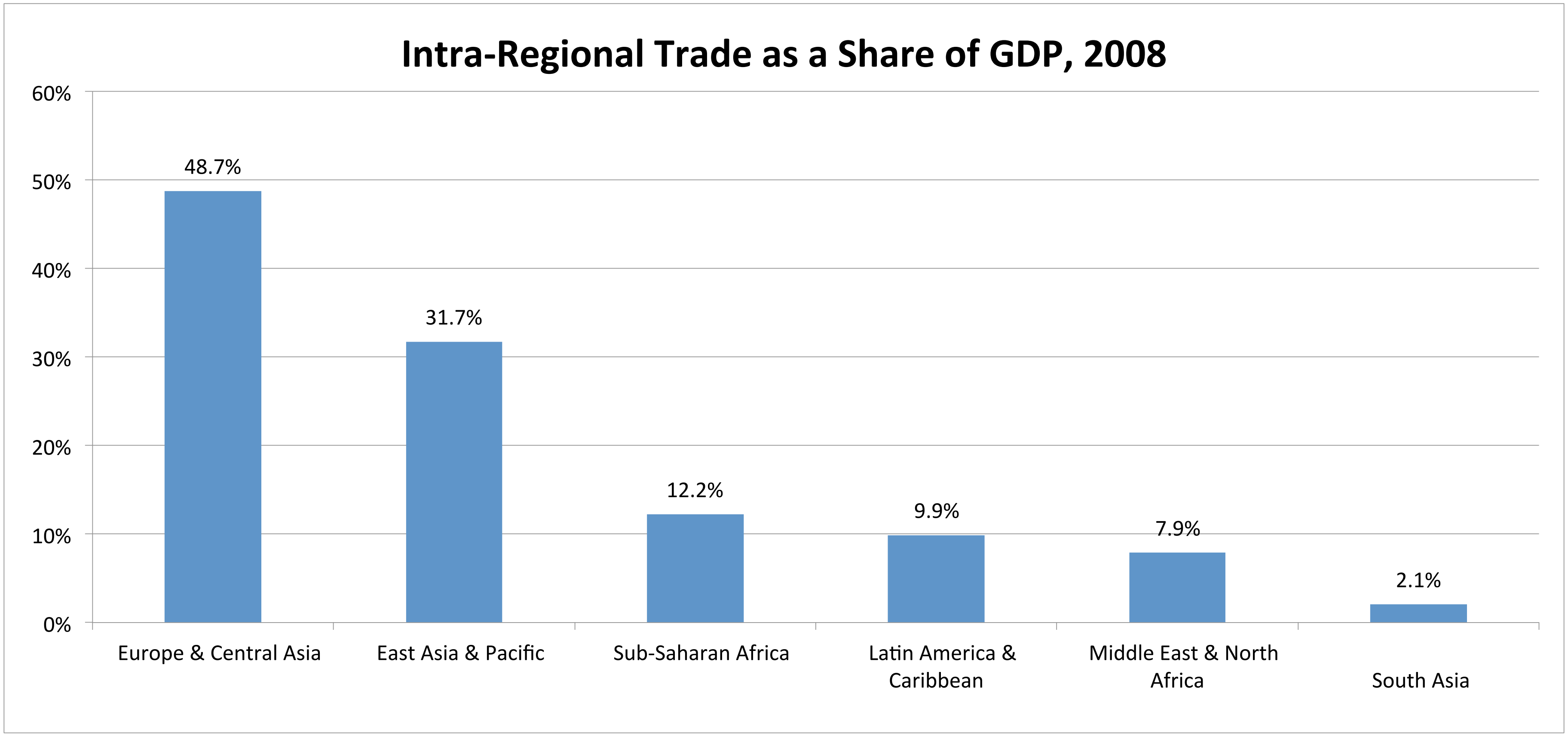
Inward FDI Stock (US$ Bn)



Inward FDI Stock (US$ Bn)




Intra- and Extra-Regional Trade, 2008
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
41
59
50
50
69
31
73
27
79
21
84
16
90
10
96
4
Western Europe
East Asia & Pacific
Eastern Europe & Central Asia
North America
Latin America & Caribbean
Sub-Saharan Africa
Middle East & North Africa
South Asia
Extra-Regional Trade
Intra-Regional Trade


Intra-Regional Trade as a Share of GDP, 2008
60%
50%
40%
30%
20%
10%
0%
48.7%
31.7%
12.2%
9.9%
7.9%
2.1%
Europe & Central Asia
East Asia & Pacific
Sub-Saharan Africa
Latin America & Caribbean
Middle East & North Africa
South Asia

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- What policy implications?

- Logic of GVCs: open borders, non-discrimination, secure property rights and ease of doing business
- Makes a nonsense of mercantilist trade policy; "beggar thy neighbour" means "beggaring thyself"
- Transforms political economy of trade policy
- Increasing costs of discriminatory industrial policy

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- Policy barriers to GVCs

- Tariffs
- Customs procedures/delays at the border
- Standard-setting
- Services
- FDI

Figure 3 Trade politics changed: Protectionism became destructionism

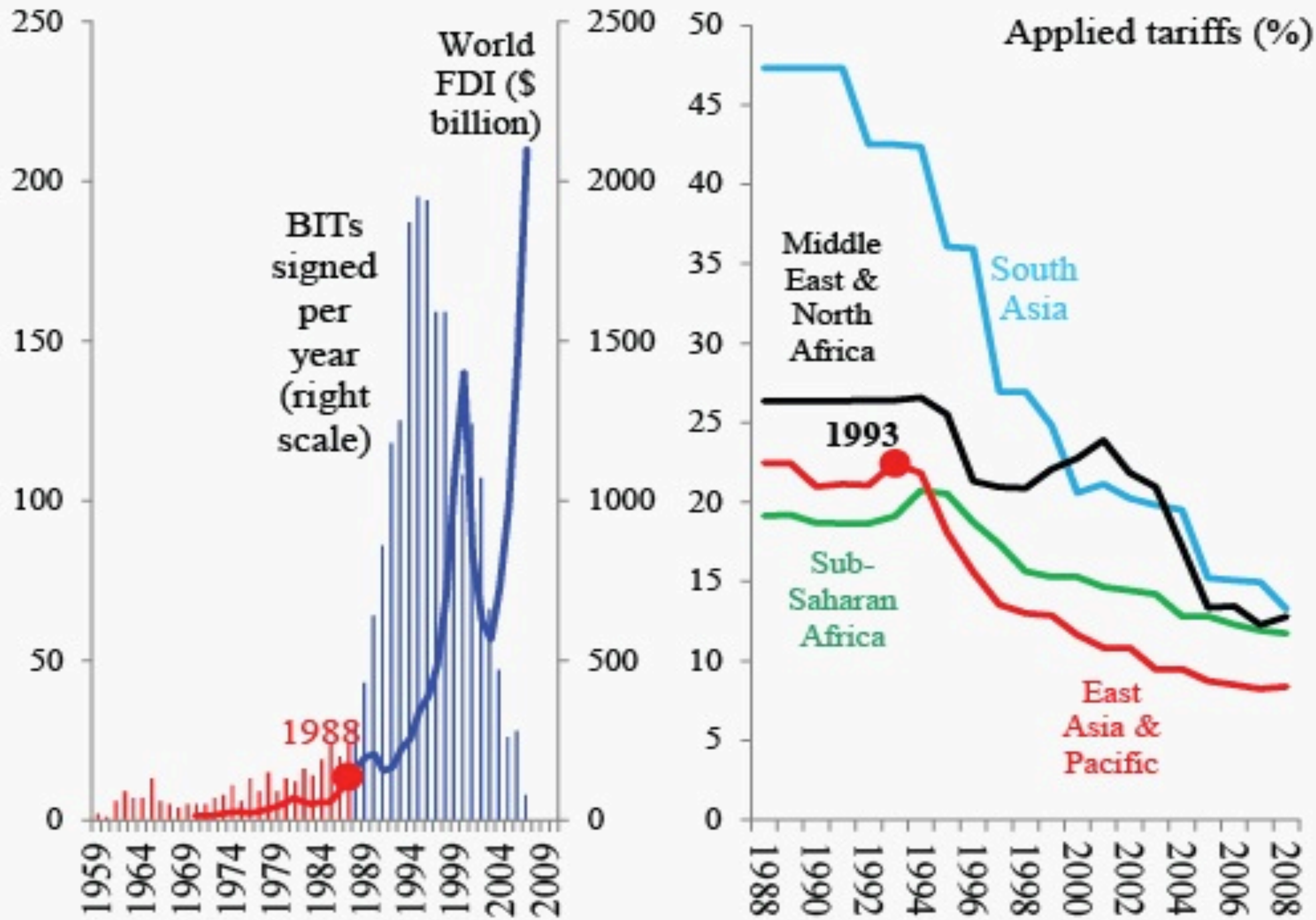
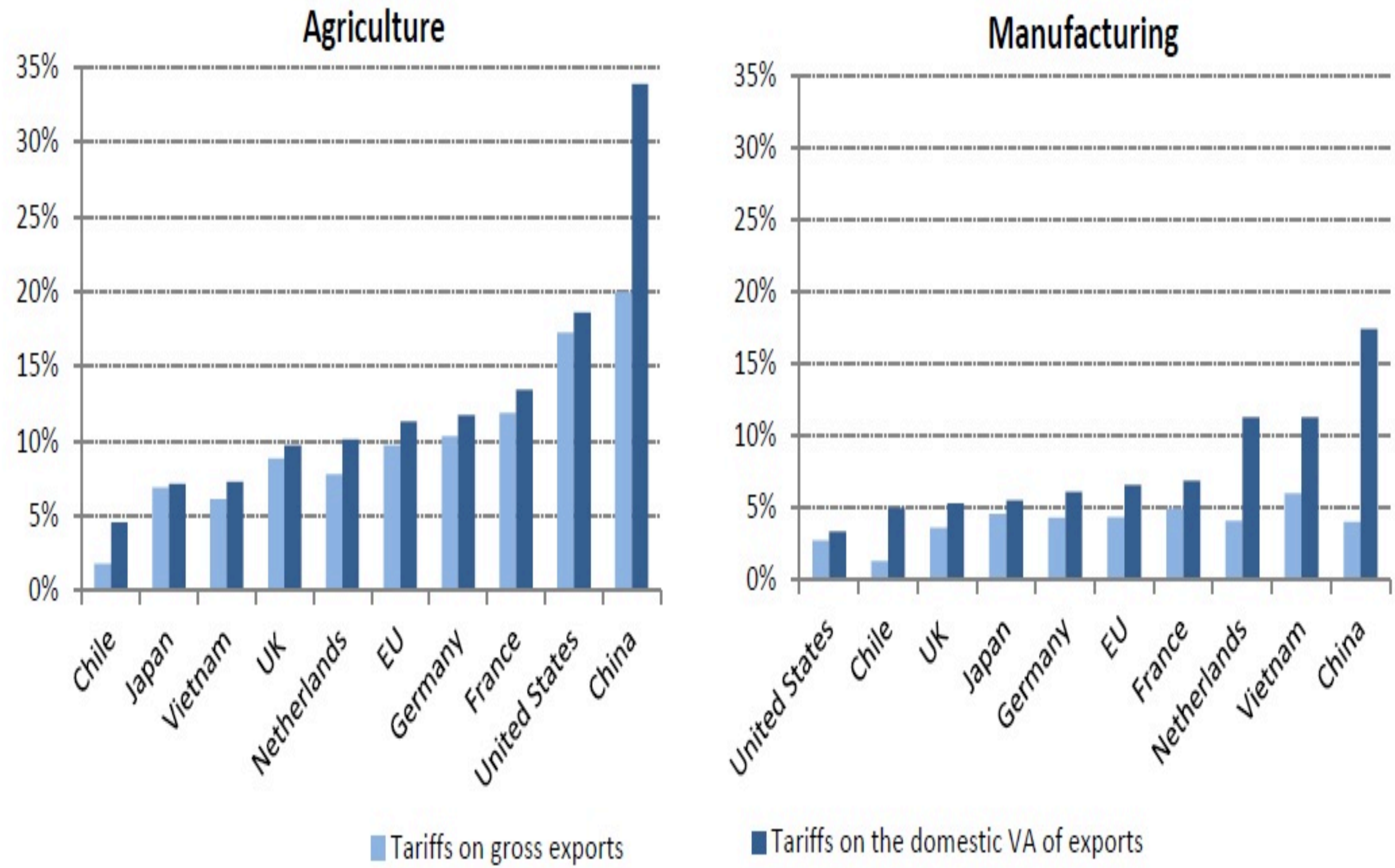


Figure 1: Tariffs on the gross value and the domestic value-added of exports, 2009*



* *Applied AVE tariffs, weighted by the share of each sector and destination market in the country's agricultural or manufacturing exports. For EU countries tariffs are calculated on extra-EU exports.*

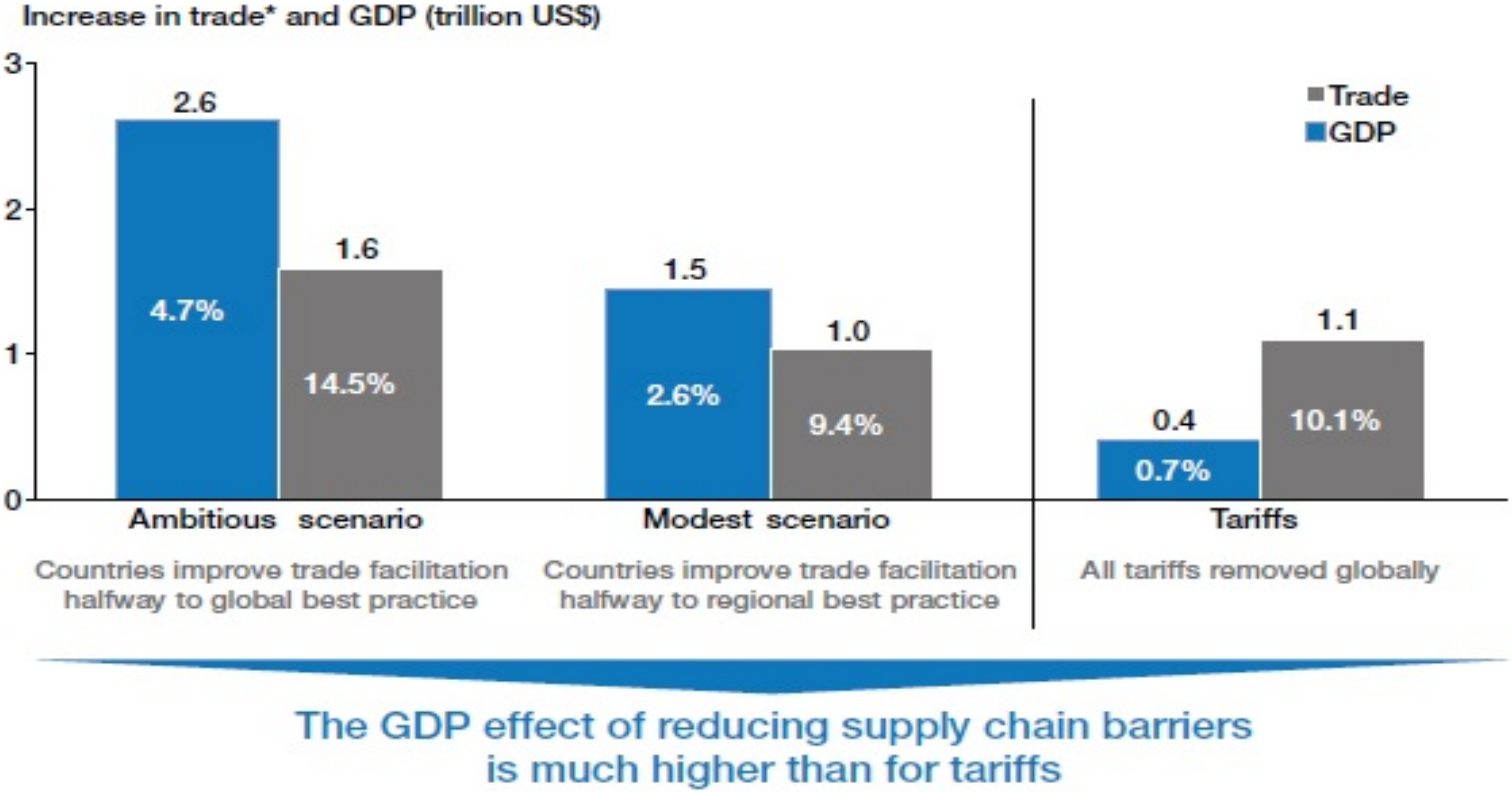
	Ease of Trading Across Borders (World Ranking – DB 2013)	Documents for export (number)	Time for export (days)	Cost to export (US$ per container)	Documents for import (number)	Time for import (days)	Cost to import (US$ per container)
Singapore	1	4	5	456	4	4	439
Hong Kong SAR, China	2	4	5	575	4	5	565
Japan	19	3	10	880	5	11	970
South Korea	3	3	7	665	3	7	695
Taiwan	23	6	10	655	6	10	720
Malaysia	11	5	11	435	6	8	420
Thailand	20	5	14	585	5	13	750
Brunei	40	6	19	680	6	15	745
Vietnam	74	6	21	610	8	21	600
Indonesia	37	4	17	644	7	23	660

CONTINUED……	Ease of Trading Across Borders (World Ranking – DB 2013)	Documents for export (number)	Time for export (days)	Cost to export (US$ per container)	Documents for import (number)	Time for import (days)	Cost to import (US$ per container)
Philippines	**53**	**7**	**15**	**585**	**8**	**14**	**660**
Cambodia	118	9	22	755	10	26	900
Laos	160	10	26	2140	10	26	2125
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A
China	68	8	21	580	5	24	615
Sri Lanka	56	6	20	720	6	19	775
Pakistan	85	8	21	660	8	18	705
Nepal	171	11	41	1975	11	38	2095
Bangladesh	119	6	25	1025	8	34	1430
India	127	9	16	1120	11	20	1200

The Enabling Trade Index (2012) – Top 10 Countries

Country	Overall Rank		Market Access		Border Administration		Transport and Communications Infrastructure		Business Environment	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Singapore	1	6.14	1	6.20	1	6.53	1	6.06	5	5.75
Hong Kong SAR, China	2	5.67	10	5.08	4	6.02	3	5.85	7	5.75
Denmark	3	5.41	67	3.90	3	6.22	8	5.75	4	5.77
Sweden	4	5.39	67	3.90	2	6.35	17	5.42	2	5.88
New Zealand	5	5.34	25	4.74	6	5.99	25	5.00	10	5.63
Finland	6	5.34	67	3.90	7	5.88	9	5.60	1	5.96
Netherlands	7	5.32	67	3.90	5	6.00	2	5.92	14	5.47
Switzerland	8	5.29	56	4.08	12	5.69	10	5.56	3	5.82
Canada	9	5.22	27	4.68	15	5.62	21	5.21	15	5.38
Luxembourg	10	5.20	67	3.90	21	5.37	6	5.78	6	5.75

Figure 5: Reducing supply chain barriers has a larger effect than removing tariffs



*Based on export value; includes only the effect of "Border Administration" and ""Telecommunication and Transport Infrastructure".

Source: Ferrantino, Geiger and Tsigas, The Benefits of Trade Facilitation - A Modelling Exercise. Based on 2007 baseline.

Figure 6: Impact per region varies under the ambitious scenario

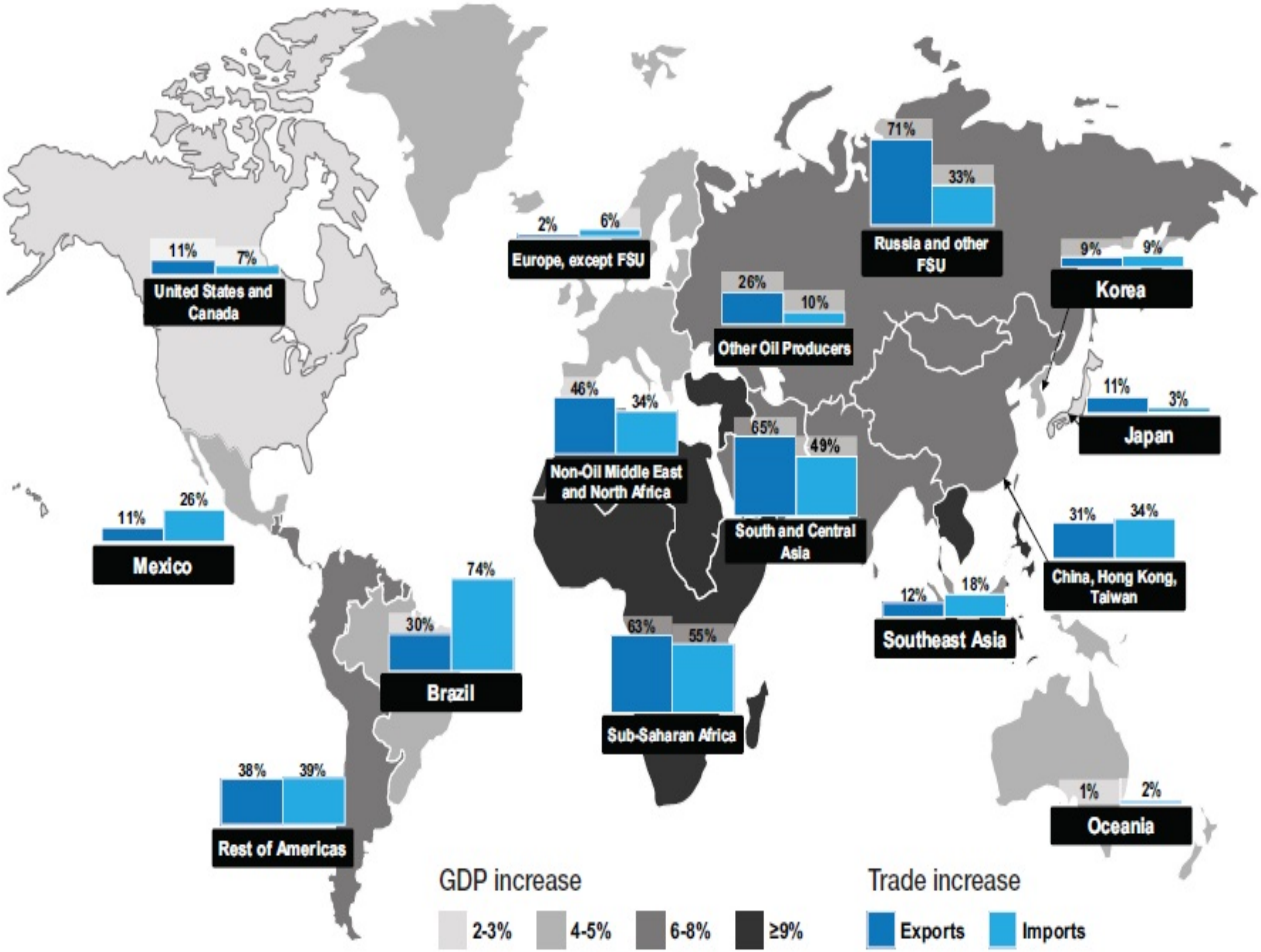


Table 1: Ambitious scenario

	Ambitious scenario *(Countries raising their performance halfway to global best practice)*		
	Increase in GDP (%)	**Increase in exports (%)**	**Increase in imports (%)**
Total	**4.7**	**14.5**	**14.9**
Oceania	4.3	0.5	2.2
China, Hong Kong SAR, Taiwan	7.6	30.6	33.8
Japan	2	10.9	2.9
Korea	4.9	8.8	8.9
South-East Asia	9.3	12.1	18.4
South and Central Asia	8	65.2	49.3
US and Canada	2.8	11.3	6.7
Mexico	4.4	11.2	26.3
Brazil	3.6	29.7	73.9
Rest of Americas	7.5	37.9	39.1
Europe, except FSU*	4.5	1.7	6.1
Russia, other FSU	7.4	71	33
Non-oil Middle East and North Africa	8.5	45.9	33.8
Sub-Saharan Africa	12	63.1	55.3
Other oil producers	6.8	25.9	9.9

*FSU = Former Soviet Union

Source: Ferrantino, Geiger and Tsigas, *The Benefits of Trade Facilitations – A modelling Exercise*. Based on 2007 baseline. See text and online Appendix for details.

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- Multi-track trade policy

- Disconnect between 21st-century trade and 20th-century trade governance
- Unilateral measures
- WTO
- RTAs

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- Unilateral measures

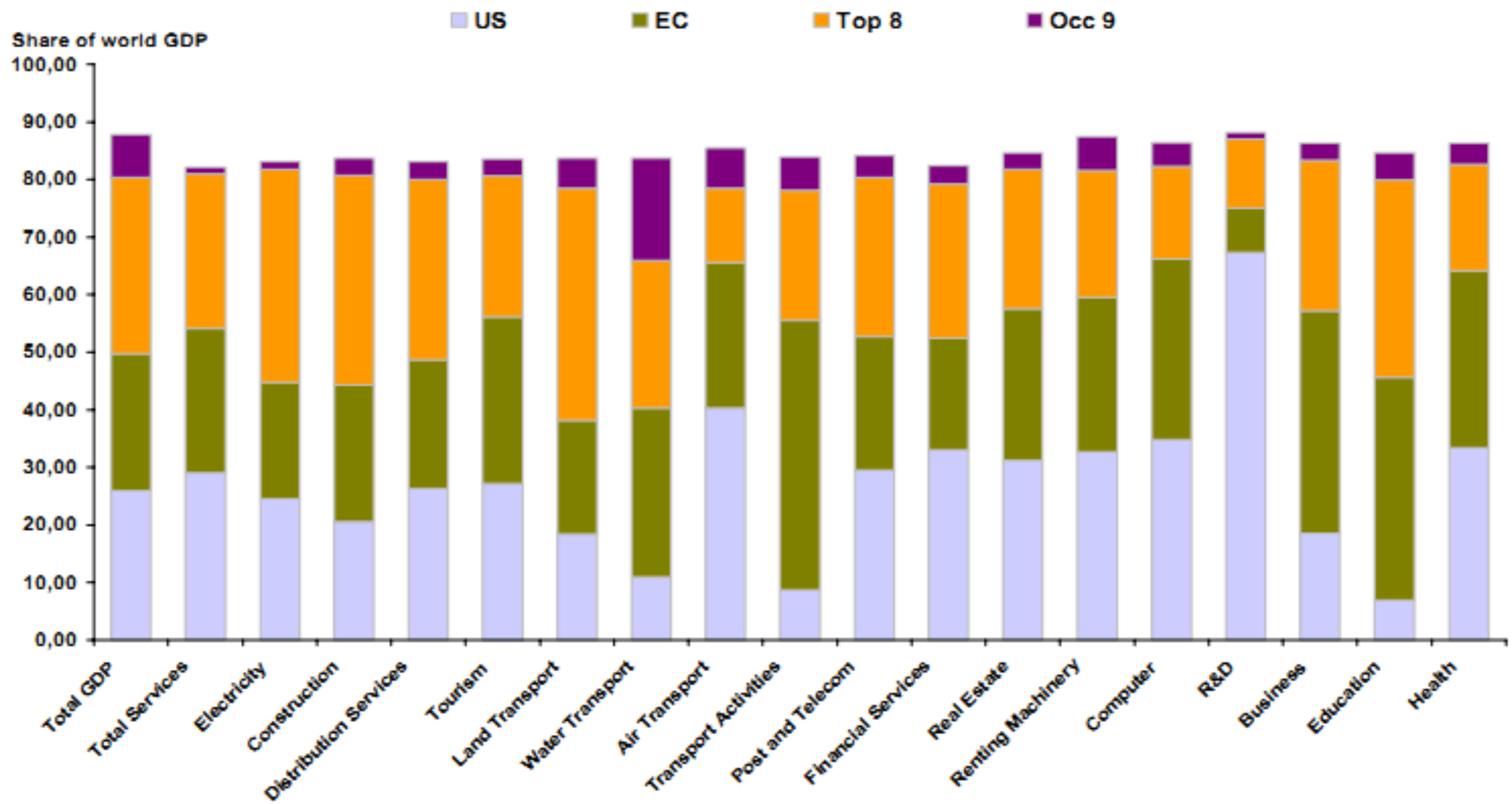
- Main driver of 1st-generation trade and FDI liberalisation; enabled GVCs in East Asia; but slowed down
- Also main driver of 2nd-generation reforms
- Even stronger economic *and* political case for unilateral liberalisation in GVC context

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- WTO

- Mini-Doha: trade facilitation
- Doha-plus: ITA II and digital economy cluster; services; FDI
- Need for plurilateral (critical-mass) negotiations/agreements
- Inside WTO or WTO 2.0?
- Asia, esp. East Asia, in post-Doha WTO

Figure 3: Shifting to plurilaterals: how many additional countries?



Source: OECD (2006)

Notes: Total services includes public administration and defence, health and social services, private households services which are not shown separately in Figure 3.

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- RTAs in Asia

- Proliferation of FTAs – from non-discriminatory liberalisation to discrimination; catch-up with other regions
- WTO-plus in scope, but little depth
- *Not* deep-integration FTAs; rather “trade-lite”
- Conclusion: probably not diverted much trade, but not created much either

Box 3: Strength of ASEAN+1 FTAs, AFTA, ASEAN countries' bilateral FTAs, and US and EU FTAs in Asia

FTA indicators Countries and regions	Tariff elimination	NTBs in goods	Services	Investment	Govt. Procurement
AFTA/AEC	Comprehensive	Strong general commitment, weak implementation	Strong general commitment, weak specific commitments	Strong general commitment, weak specific commitments	Absent
Singapore FTAs	Comprehensive (less so for some FTA partners)	Strong in some FTAs	Generally GATS+, esp. with USA	Generally strong, esp. with USA	Generally GPA +
ASEAN countries' bilateral FTAs	Mixed. 90%+ elimination in some FTAs, big agriculture exemptions, long transition periods	Weak	Weak (barely GATS+)	Weak	Absent
ASEAN-China FTA	Middling. 90% elimination By 2012/15. 10% of tariffs 0-5% by 2018/20	Weak	Weak (not GATS+)	Weak	Absent
ASEAN- Japan FTA	Mixed. 93% elimination by 2018/26, big agriculture exemptions, long transition periods, complex bilateral schedules	Weak	Not concluded	Not concluded	Absent
ASEAN-Korea FTA	Fairly strong. 95% elimination by 2012/2020. Agriculture exemptions	Weak	Weak (GATS compatible)	Weak	Absent
ASEAN-India FTA	Weak. <90% tariff elimination (80%for India) by 2016/2021.Big exclusion list, particularly in agriculture. Long transition periods. Complex bilateral schedules	Weak	Not covered yet	Not covered yet	Absent
ASEAN-Australia-NZ FTA	Fairly strong. 96% elimination by 2020. Complex bilateral schedules	Weak	Weak. Slightly GATS+, positive list	Weak-to-middling. Post-establishment disciplines, investor-state DSM, but no liberalisation	Absent

Box 3: Strength of ASEAN+1 FTAs, AFTA, ASEAN countries' bilateral FTAs, and US and EU FTAs in Asia

FTA indicators/ Countries and regions	Tariff elimination	NTBs in goods	Services	Investment	Govt. Procurement
US FTAs (with Singapore and Korea)	Comprehensive. Short transition periods, some agriculture products exempted (with Korea)	Strong	Strong (GATS++). Negative list	Strong. Negative list, pre/post establishment disciplines	GPA+ . Lower bid thresholds, negative list in services
EU-Korea FTA	Comprehensive. Short transition periods, some agriculture products exempted	Strong sector-specific disciplines	Middling .GATS+ , positive list	Basic framework, No investor-state DSM	Slightly GPA+

Box 3: Strength of ASEAN+1 FTAs, AFTA, ASEAN countries' bilateral FTAs, and US and EU FTAs in Asia

FTA indicators/ Countries and regions	Intellectual Property	Trade Facilitation	Standards (MRAs, SPS, TBT)	Rules of Origin	Dispute settlement
AFTA/AEC	Not TRIPS+	Strong commitments, weak implementation	Some MRAs, weak implementation	Simple .40%RVC	Quite strong commitments but weak in practice
Singapore FTAs	TRIPS+ , esp. with USA	Strong	Strong	Varied. Differs between FTAs	Strong. Investor-state DSM
ASEAN countries' bilateral FTAs	Not TRIPS+	Weak	Weak	Varied. Differs between FTAs	Weak-to-middling
ASEAN-China FTA	Not TRIPS+	Weak	Weak	Simple. 40% RVC	Similar to WTO in theory
ASEAN-Japan FTA	Not TRIPS+	Weak	Weak	Quite restrictive. 40%RVC plus product-specific rules	Similar to WTO in theory
ASEAN-Korea FTA	Not TRIPS+	Weak	Weak	40%RVC plus product-specific rules	Similar to WTO in theory
ASEAN-India FTA	Not TRIPS+	Weak	Weak	Restrictive. 35% RVC, CTSH, product-specific rules	Similar to WTO in theory
ASEAN-Australia-NZ FTA	Slightly TRIPS+ (copyrights and transparency)	Weak	Weak	40%RVC plus product-specific rules	Similar to WTO plus investor-state DSM
US FTAs (with Singapore and Korea)	TRIPS+	Strong	Quite strong	Product-specific, restrictive	Strong. Investor-state DSM
EU-Korea FTA	Slightly TRIPS+. Strong on copyright and GIs	Strong	Strong	Product-specific, restrictive	Strong

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- **Regional economic integration (cont.)**

  -Wider regional integration initiatives: Northeast Asian FTA; ASEAN plus 3; ASEAN plus 6 (RCEP); TPP; EU-US; EU-Japan

  -The case for a region-wide FTA

  -But it could compromise GVCs

  - Intra-Asian regionals unlikely to be deep-integration oriented; rather follow trade-light pattern

  - What about TPP?

  -How to multilateralise regionalism?

INTERNATIONAL PRODUCTION NETWORKS AND REGIONAL INTEGRATION

- Conclusion

- GVCs reinforce case for free trade – not forgetting geopolitics
- They link regional and global integration – not either/or
- Potential geographical and sectoral expansion
- But will centripetal forces (onshoring) be greater?
- Scope for international policy cooperation, but has to rely mainly on unilateral liberalisation