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The Roles of Services in Global Value Chains

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Outline

- Roles of services in GVCs
- Tracking servicification
- Servicification in exports by Asia and the Pacific
- Policy implications

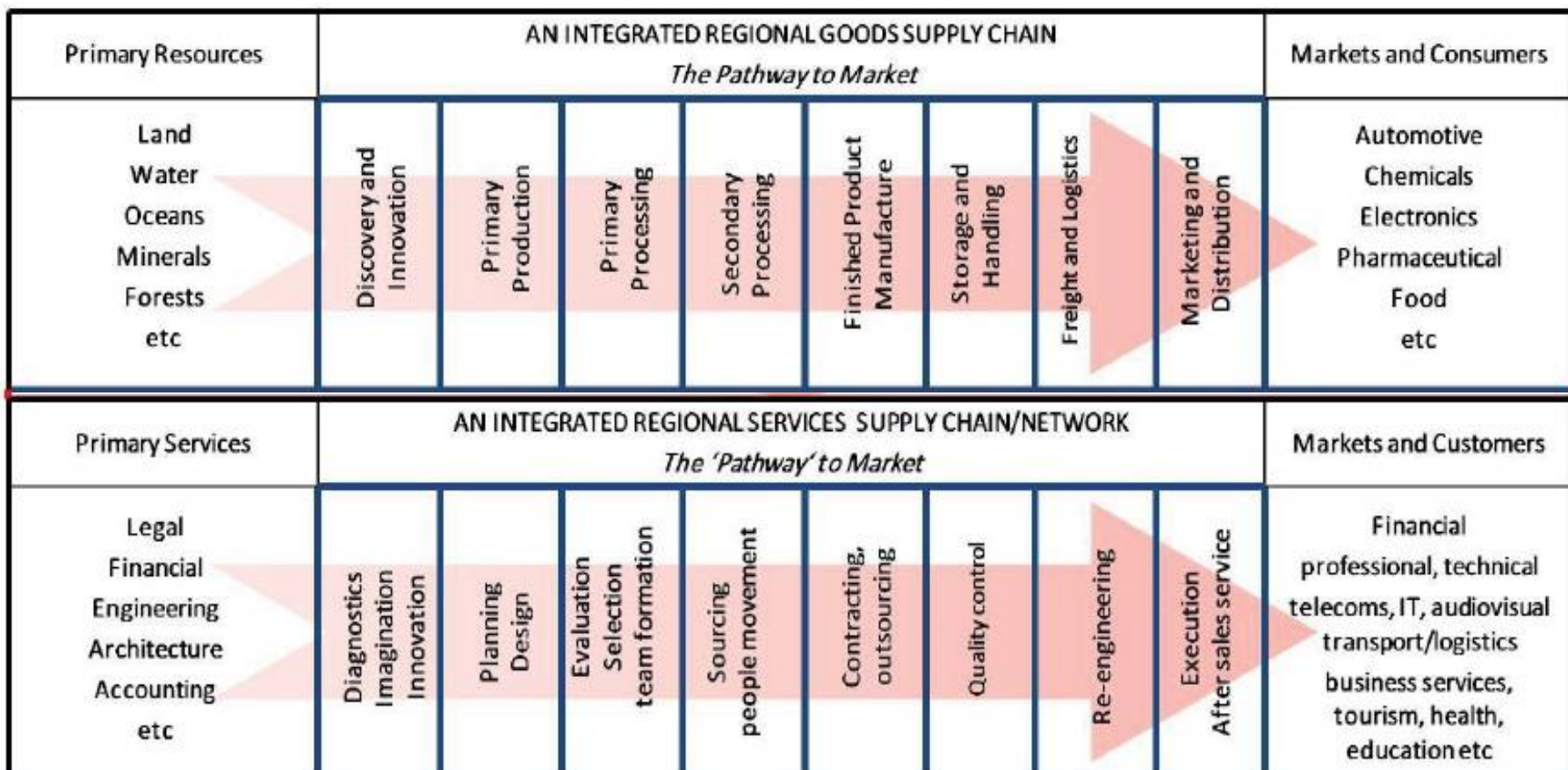


Roles of services in GVCs



Dual roles of services in GVCs

“Embodied” and “embedded” services



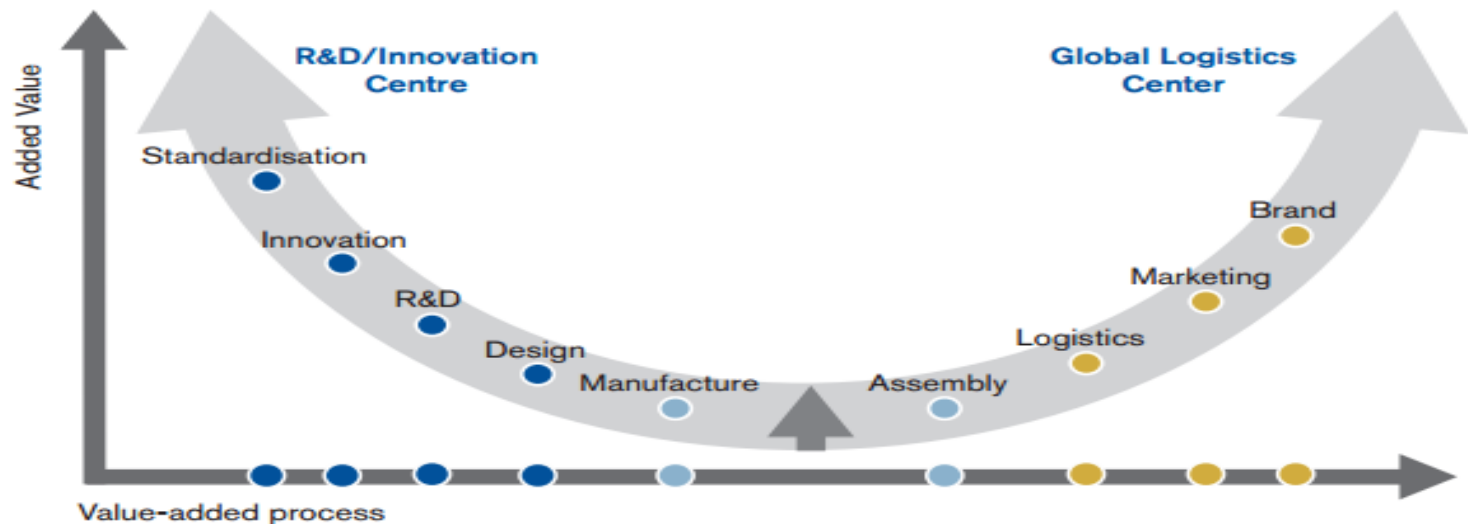
Source: Adapted from ABAC (2011)



Why do services matter for development?

- Efficiency and availability of services is an important factor for competitiveness and the opportunity to enter to GVCs
 - Communications, insurance, finance, logistics, etc.
 - GVCs increase the demand for “coordination services”
- Services tasks are often the links in GVCs that create high value-added.
 - A path for upgrading GVC participation

Figure 5: “Smiley Face”: Conceptual model of a value chain



Source: World Economic Forum (2012)



Servicification

- “Servicification” is most simply defined as a rapidly increased use of services in manufacturing process.
 - Manufacturing firms *always* need services as integrated or accompanying parts of their goods.
 - Their importance appears to have grown due to GVCs (specialization, outsourcing and off-shoring, global market integration) and more sophisticated customer demand.



Hidden service exports

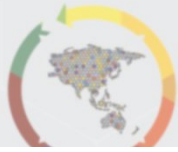
- Service exports can be invisible since many services are sold in a package with a good – thereby regarded as a good in trade statistics

Ex1. Automotive GVCs

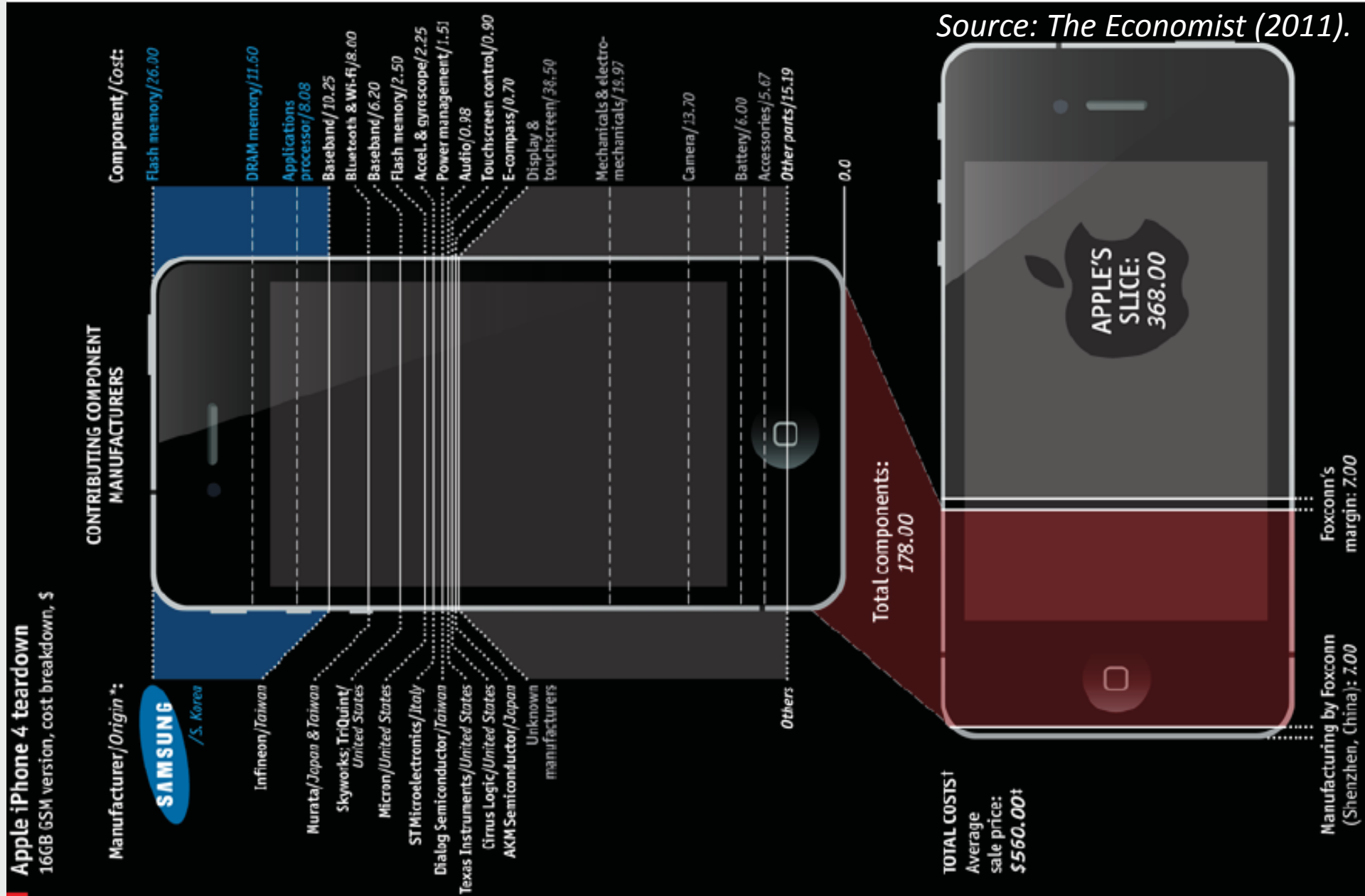
Value added of a typical US car (services are highlighted)

1. R&D (Japan)	17.5%
2. Design (US)	about 3%
3. Assembly (ROK)	30%
4. Assembly (US)	37%
5. Supply of minor parts (TW)	4%
6. Advertising & marketing (UK)	2.5%
7. Data processing (Ireland & Barbados)	2%
8. Transport and insurance (US)	about 4%

Contribution
of services =
30%



i-phone 4 cost breakdown



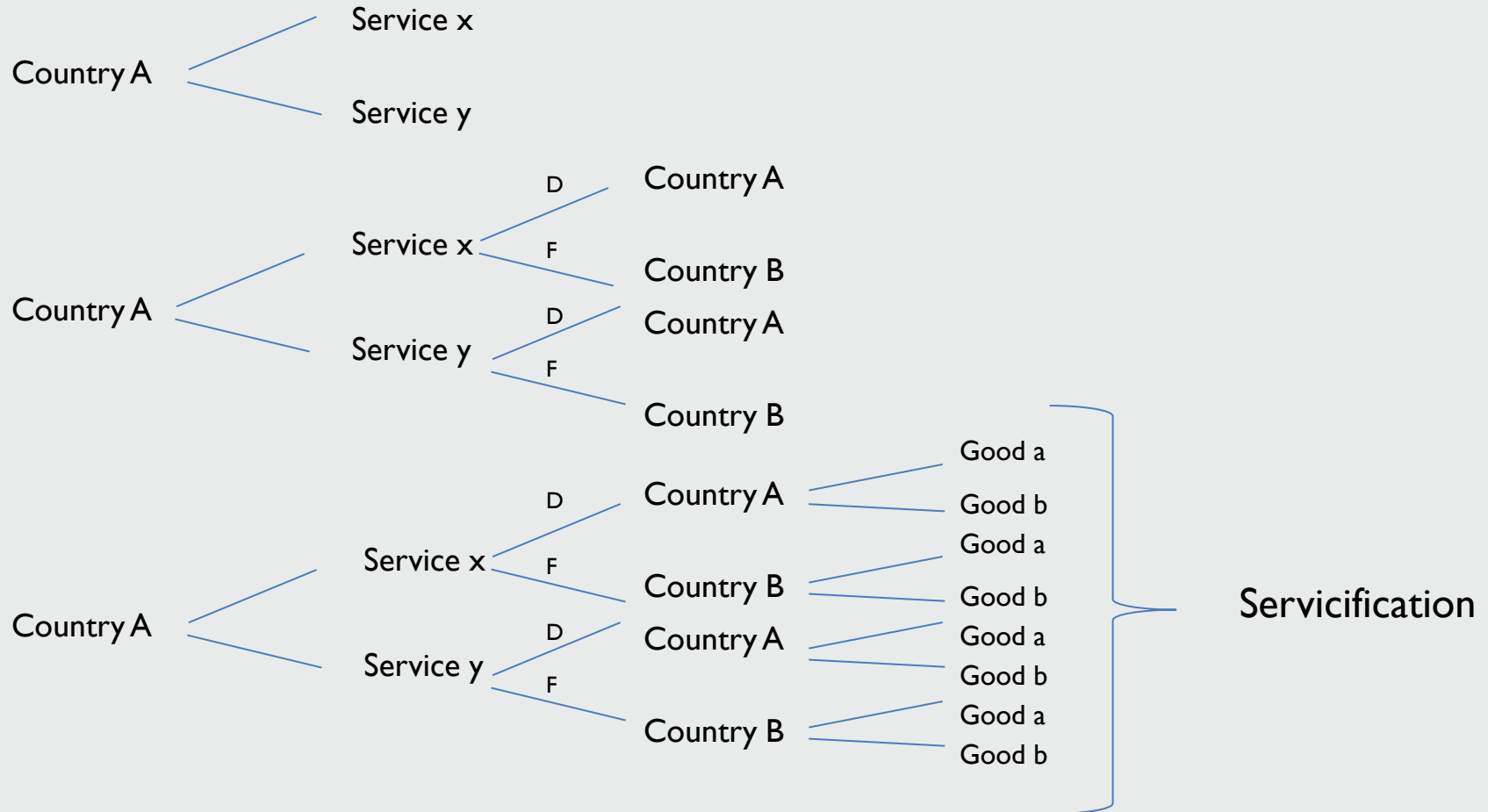
Source: The Economist (2011).



Tracking servicification



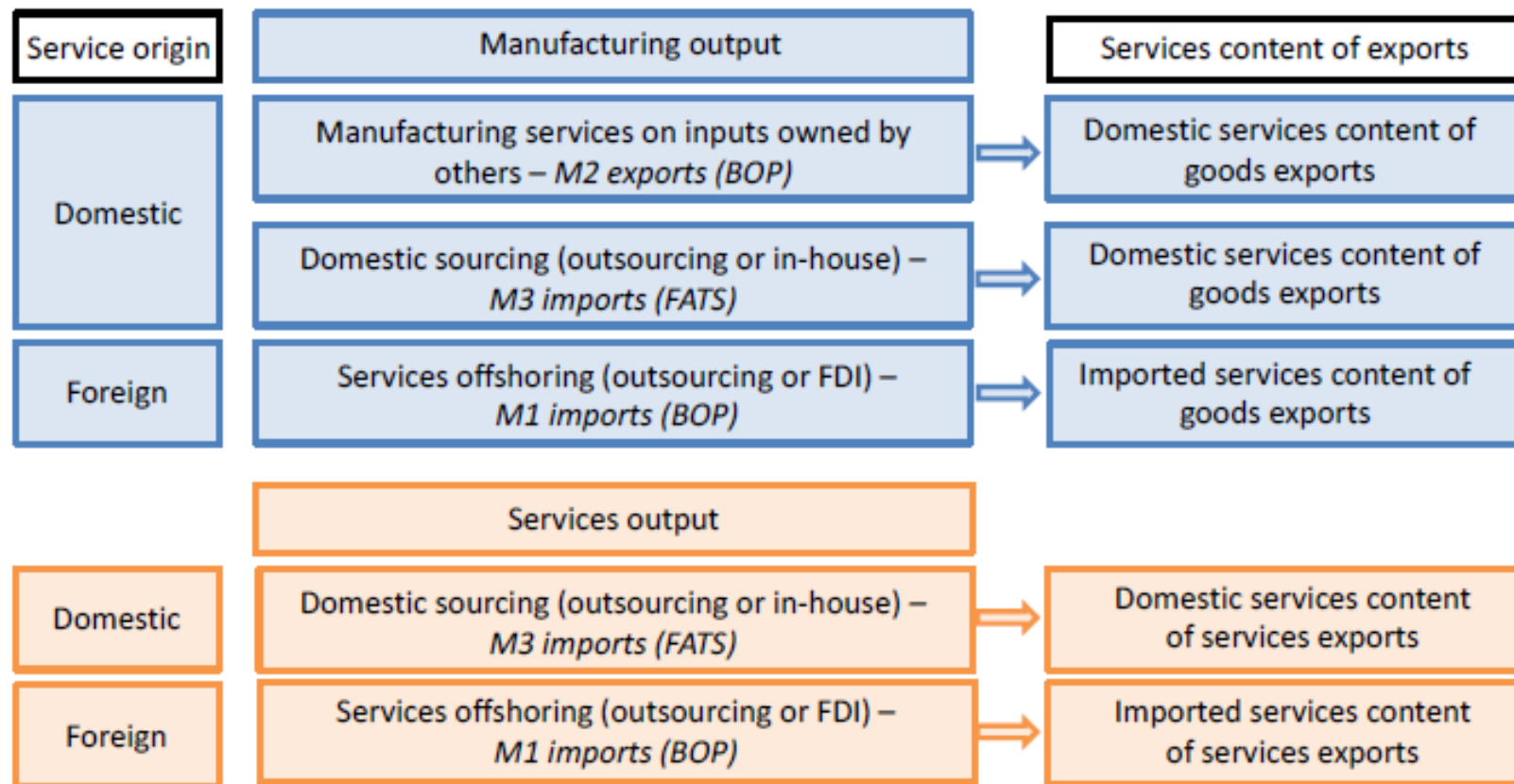
Measuring servicifciation from trade in value-added





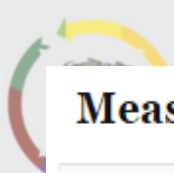
Trade in services: decomposition

Figure 4. The role of services in GVCs and services trade patterns



Notes: The diagram shows whether a services input is of domestic or foreign origin, what the respective sourcing strategies in manufacturing and services production are, and how the services input is exported. The sourcing strategies are furthermore associated with modes of supply of services imports and respective statistical frameworks (in italics).





Measuring Trade in Value Added: An OECD-WTO joint initiative

Introduction to Trade in Value Added (TiVA)

The goods and services we buy are composed of inputs from various countries around the world. However, the flows of goods and services within these global production chains are not always reflected in conventional measures of international trade.

The joint OECD – WTO Trade in Value-Added (TiVA) initiative addresses this issue by considering the value added by each country in the production of goods and services that are consumed worldwide. [TiVA indicators](#) are designed to better inform policy makers by providing new insights into the commercial relations between nations.

[» Learn more about Trade in Value Added](#)

- TiVA database was first released in May 2013 and it has been updated in June 2015.
- Now it includes:
 - 61 economies covering OECD, EU28, G20,...
 - 34 industrial sectors including 16 manufacturing and 14 services sectors
 - Years: 1995, 2000, 2005, and 2008 to 2011.



I-O tables allow to measure value added by source industry and exporting industry

Source industry

		Source industry	C40T41: Electricity, gas and water supply							C45: Construction							C50T74: Total Business Sector Ser				
		Time	1995	2000	2005	2008	2009	2010	2011	1995	2000	2005	2008	2009	2010	2011	1995	2000	2005	2008	2009
Exporting country	Exporting industry	Source country																			
AUS: Australia	C01T05: Agriculture, hunting, forestry and fishing	AUS: Australia	39.961	47.537	66.646	128.01	93.53	114.541	202.144	15.818	20.607	43.619	135.63	93.956	127.013	194.94	648.366	844.908	1 179.798	2 135.313	1 782.182
		AUT: Austria	0.032	0.034	0.054	0.089	0.069	0.073	0.114	0.022	0.028	0.039	0.082	0.06	0.066	0.096	0.759	1.088	1.091	1.716	1.256
		BEL: Belgium	0.071	0.061	0.08	0.145	0.109	0.14	0.276	0.036	0.035	0.063	0.132	0.087	0.09	0.153	1.475	1.273	2.433	4.251	2.693
		CAN: Canada	0.195	0.172	0.17	0.343	0.204	0.338	0.545	0.07	0.051	0.053	0.11	0.082	0.136	0.228	3.362	4.769	4.999	8.149	5.307
		CHL: Chile	0.015	0.019	0.022	0.08	0.064	0.107	0.187	0.002	0.003	0.004	0.015	0.011	0.022	0.038	0.211	0.57	0.588	1.077	0.694
		CZE: Czech Republic	0.011	0.009	0.02	0.063	0.044	0.053	0.09	0.008	0.007	0.011	0.027	0.023	0.028	0.044	0.159	0.226	0.279	0.608	0.381
		DNK: Denmark	0.031	0.049	0.067	0.116	0.057	0.123	0.163	0.02	0.029	0.046	0.147	0.081	0.041	0.066	1.469	2.154	2.72	5.985	3.014
		EST: Estonia	0.001	0.001	0.003	0.004	0.004	0.006	0.008	0	0.001	0.001	0.002	0.001	0.002	0.003	0.008	0.026	0.06	0.092	0.062
		FIN: Finland	0.074	0.044	0.048	0.115	0.078	0.102	0.141	0.011	0.011	0.015	0.051	0.032	0.034	0.05	0.645	0.672	0.757	2.83	1.452
		FRA: France	0.166	0.145	0.303	0.386	0.307	0.398	0.592	0.071	0.058	0.123	0.211	0.156	0.221	0.388	5.66	5.506	10.77	15.884	11.718
		DEU: Germany	0.409	0.317	0.677	1.106	0.811	1.089	1.466	0.232	0.171	0.254	0.559	0.409	0.562	0.89	8.402	8.602	15.624	26.165	18.513
		GRC: Greece	0.01	0.01	0.01	0.01	0.053	0.067	0.115	0.002	0.005	0.007	0.008	0.004	0.004	0.004	0.189	0.315	0.785	1.785	0.92
		HUN: Hungary	0.008	0.007	0.013	0.026	0.021	0.028	0.041	0.003	0.002	0.007	0.009	0.004	0.004	0.007	0.1	0.136	0.23	0.508	0.355
		ISL: Iceland	0.001	0.002	0.003	0.01	0.005	0.007	0.01	0	0	0.001	0.001	0	0.001	0.002	0.012	0.026	0.046	0.083	0.041

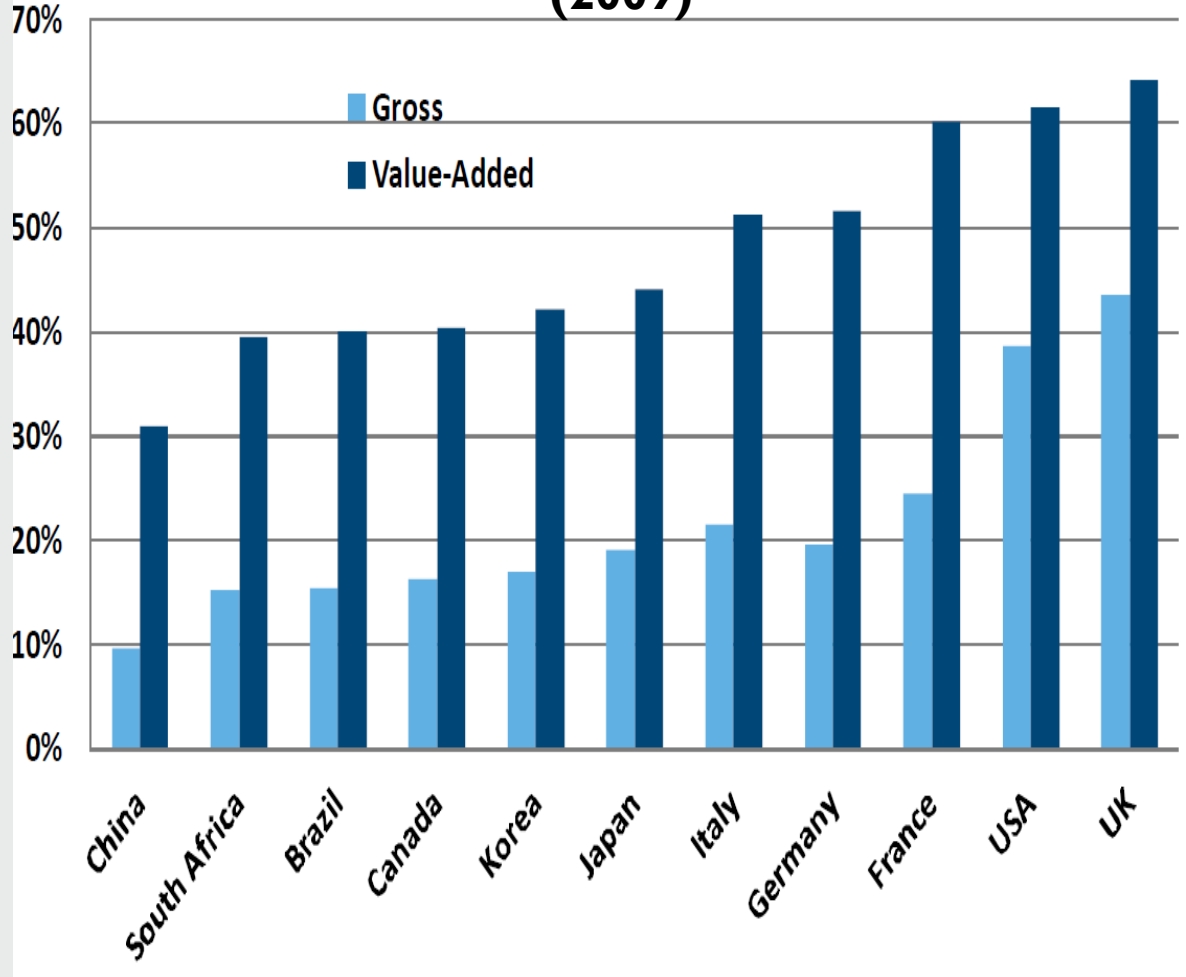
Exporting industry



Services content in gross vs value-added

- Based on gross terms, services seem to play a minor role on exports of developing countries in general.
- However, the value added by services provides as an input to the production of goods are actually substantial.

**Services shares in gross and value added exports
(2009)**



Source: WTO-OECD TIVA database



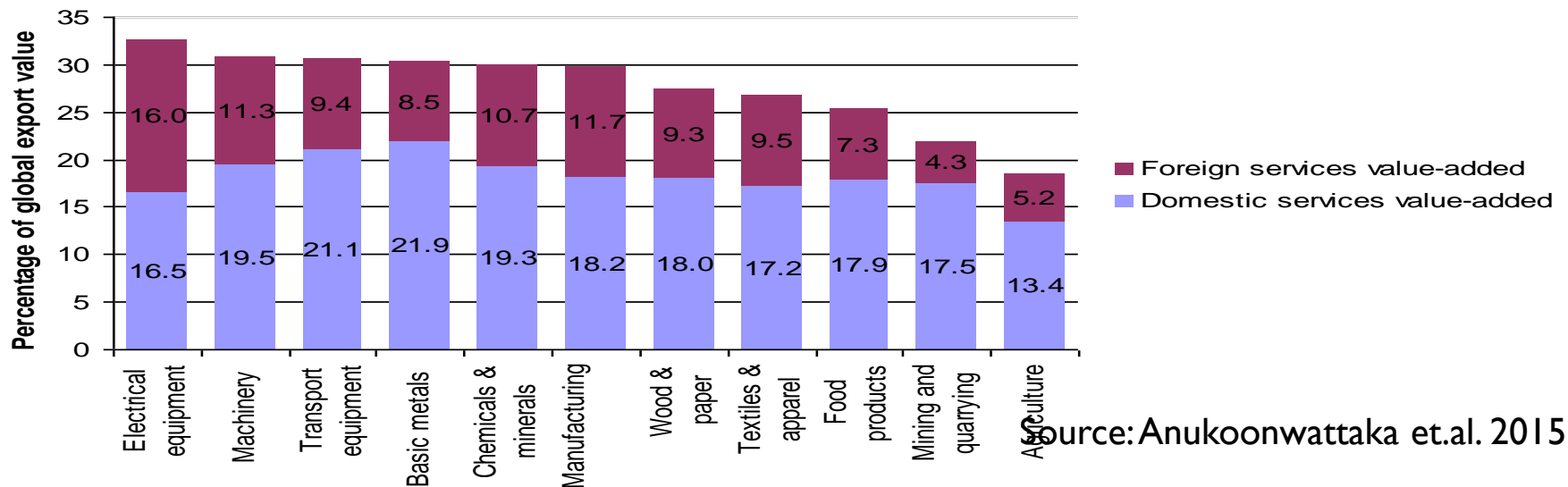
Servicification in exports by Asia and the Pacific



Service content in industrial exports by the region

- Value created by services amounts to 33% of the gross industrial exports of Asia-Pacific economies
 - The share of service content is considerably predominant in high-technology sectors
- Services inputs to the production of goods are provided by both domestic and foreign service providers.

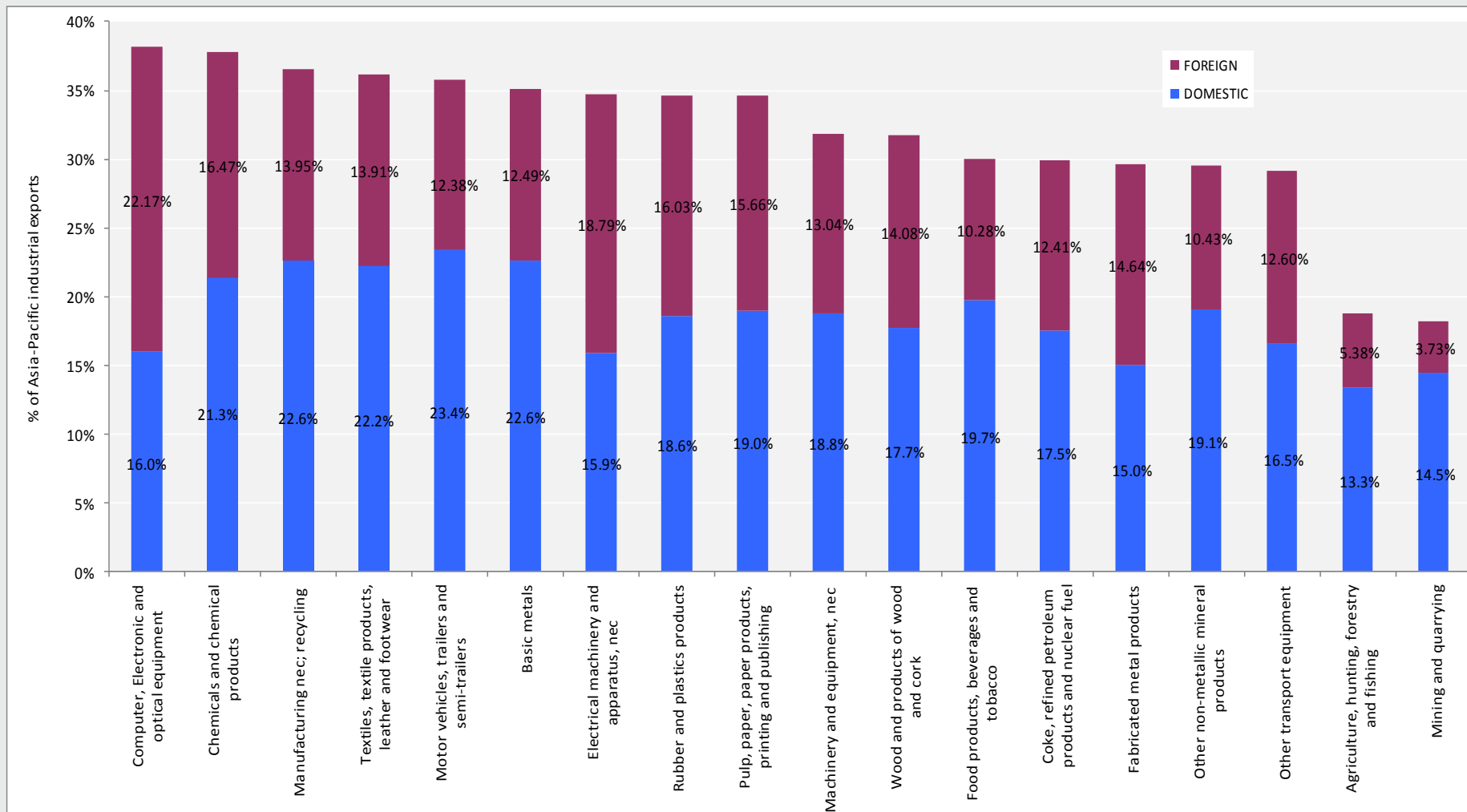
Services content in gross industrial exports of Asia-Pacific economies, 2009



Source: Anukoonwattaka et.al. 2015

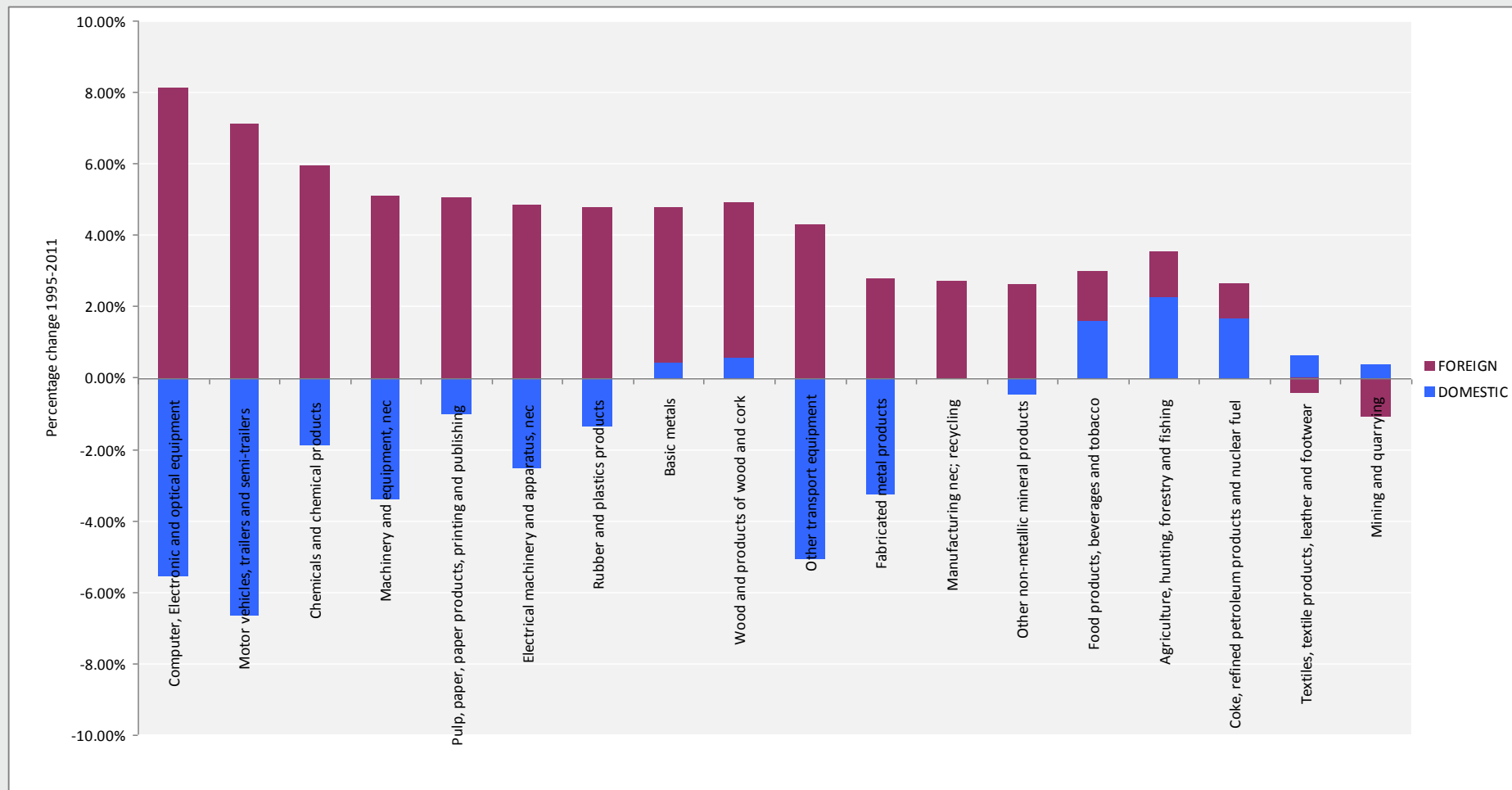


Services content in exports, 2011



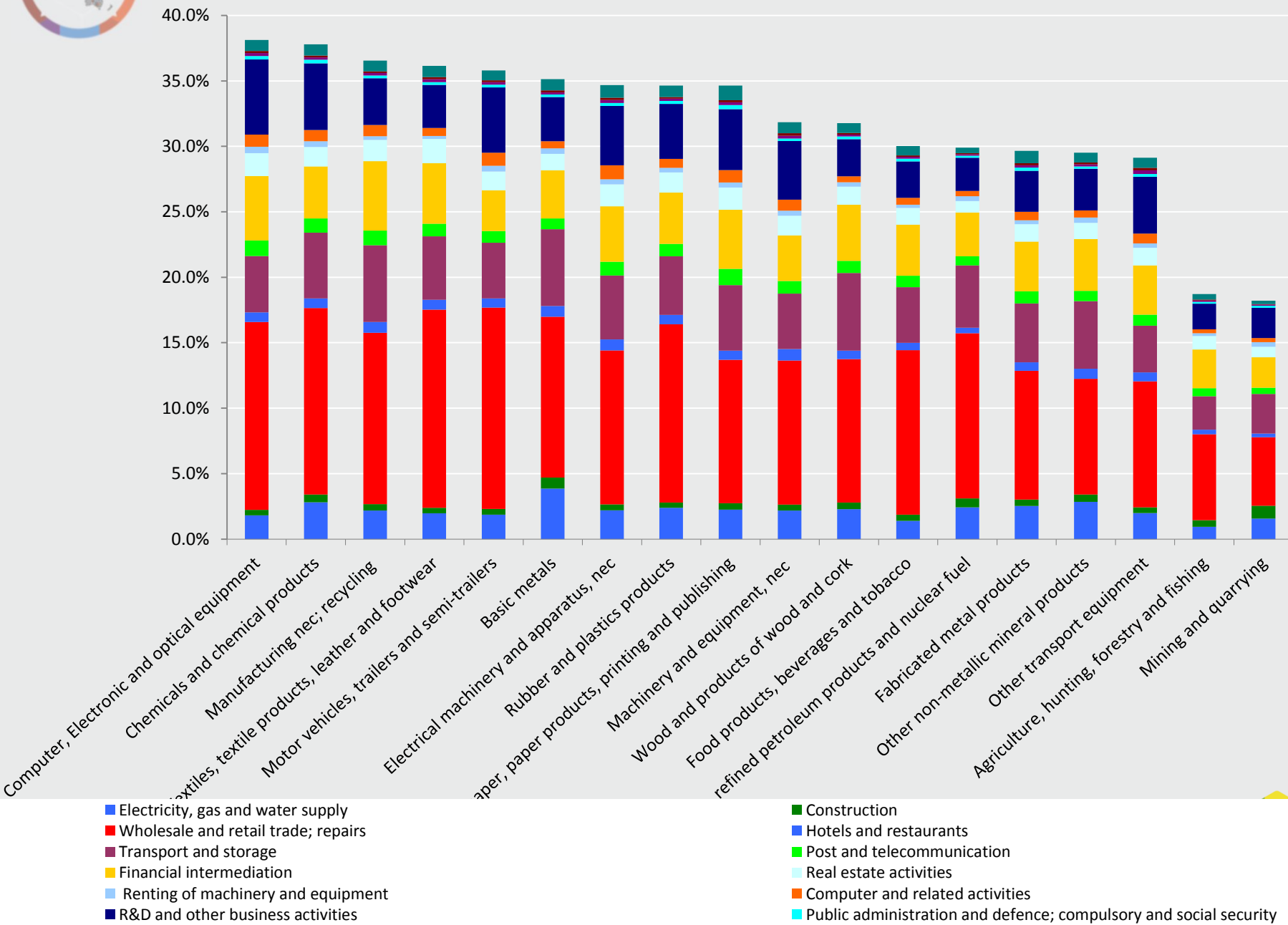


Changes in sources of services content in exports by Asia-Pacific economies, 1995-2011





Key services inputs to industrial exports of Asia-Pacific economies, by industrial sector, 2011

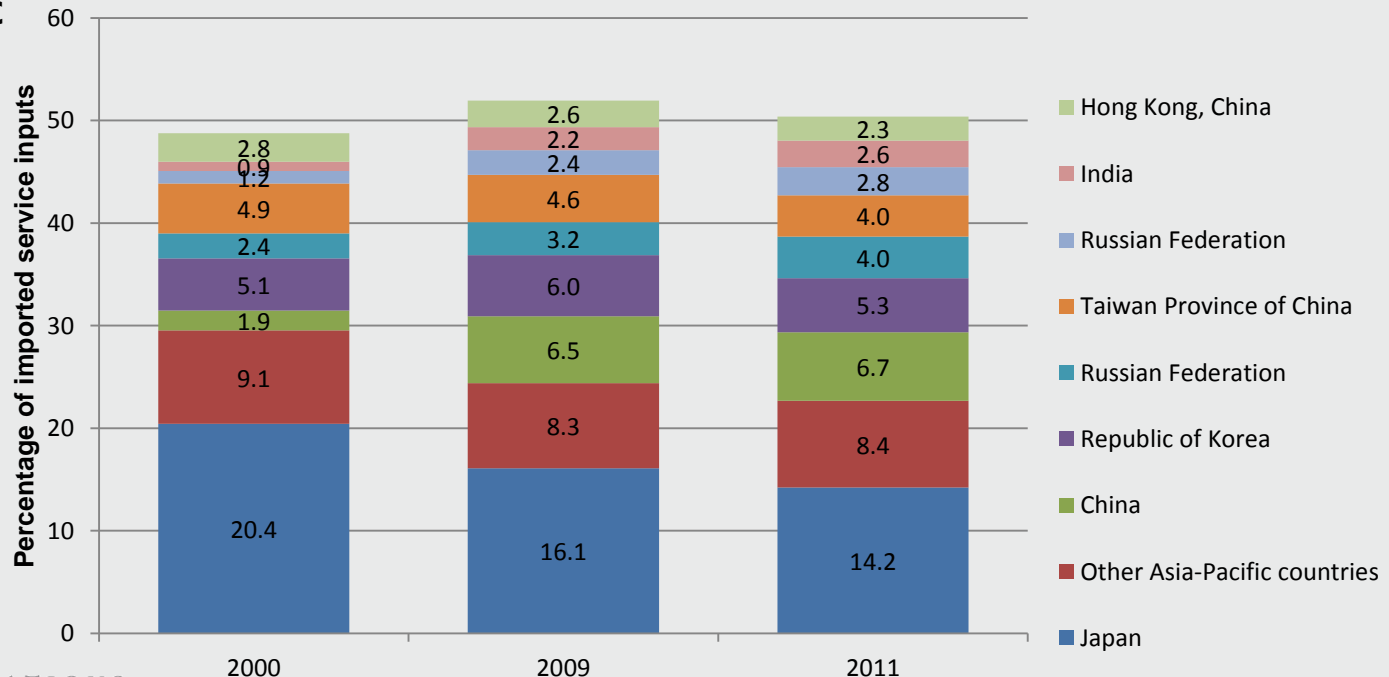




Rising of intraregional imports of services

- The rising demand for imported services has been increasingly met by services (exports) from (developing) Asia-Pacific economies.
- Rise of China and decline of Japan

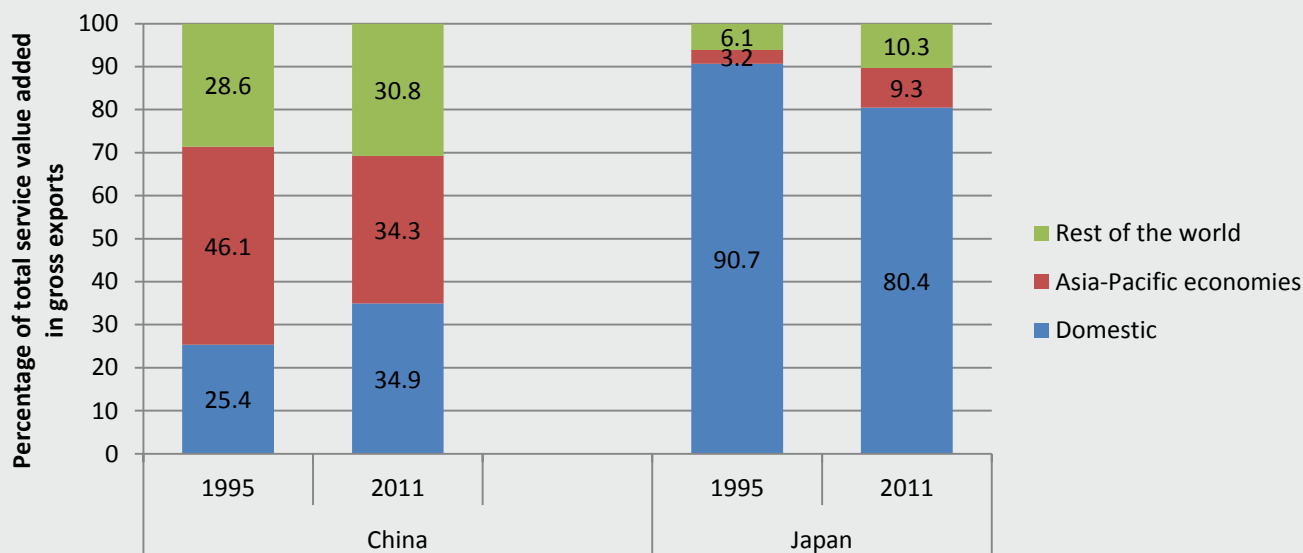
Sources of intraregional imports of services inputs in Asia and the Pacific





Path of servicification: China vs Japan

Service value added in gross exports, by source region, 1995-2011

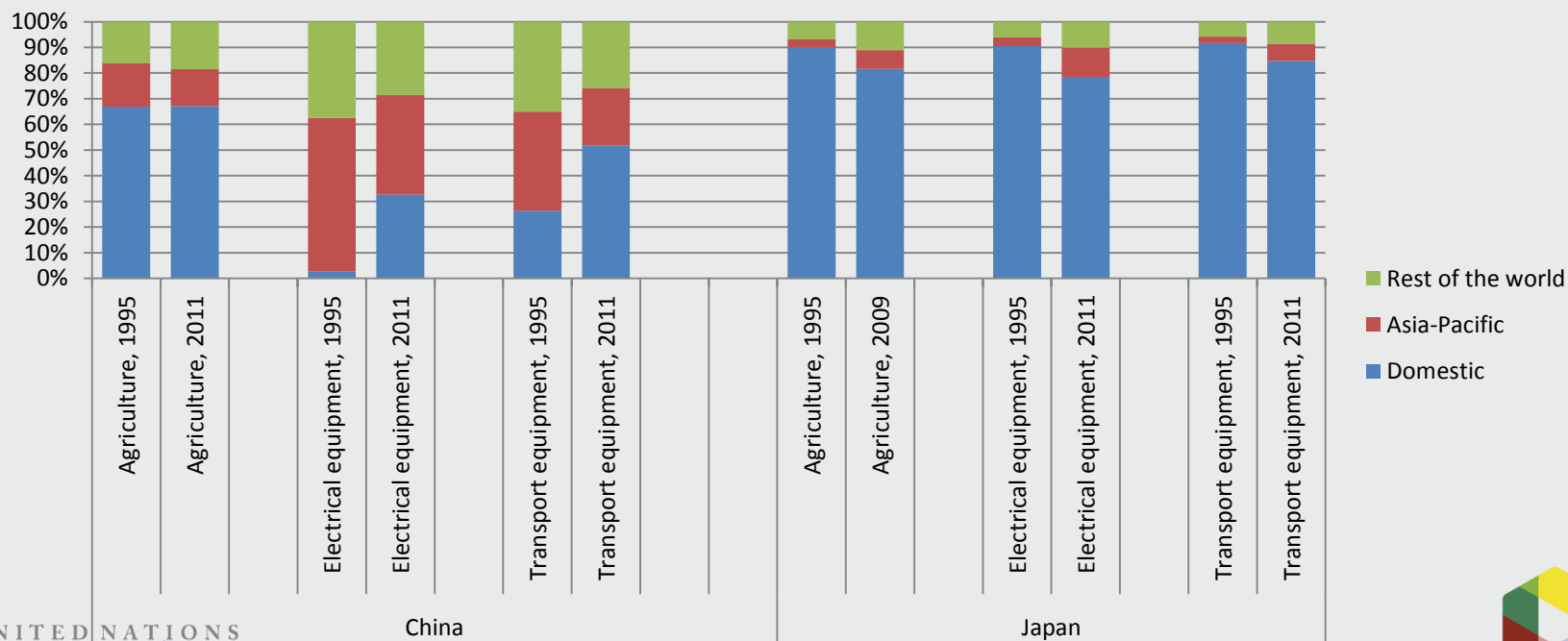




A decrease of domestic services: is it bad?

- Japan has increasingly off-shored, China has increased the share of value added created domestically. This is particularly true for high tech sectors.

Change of source in selected industrial sectors, by source region, 1995 -2011





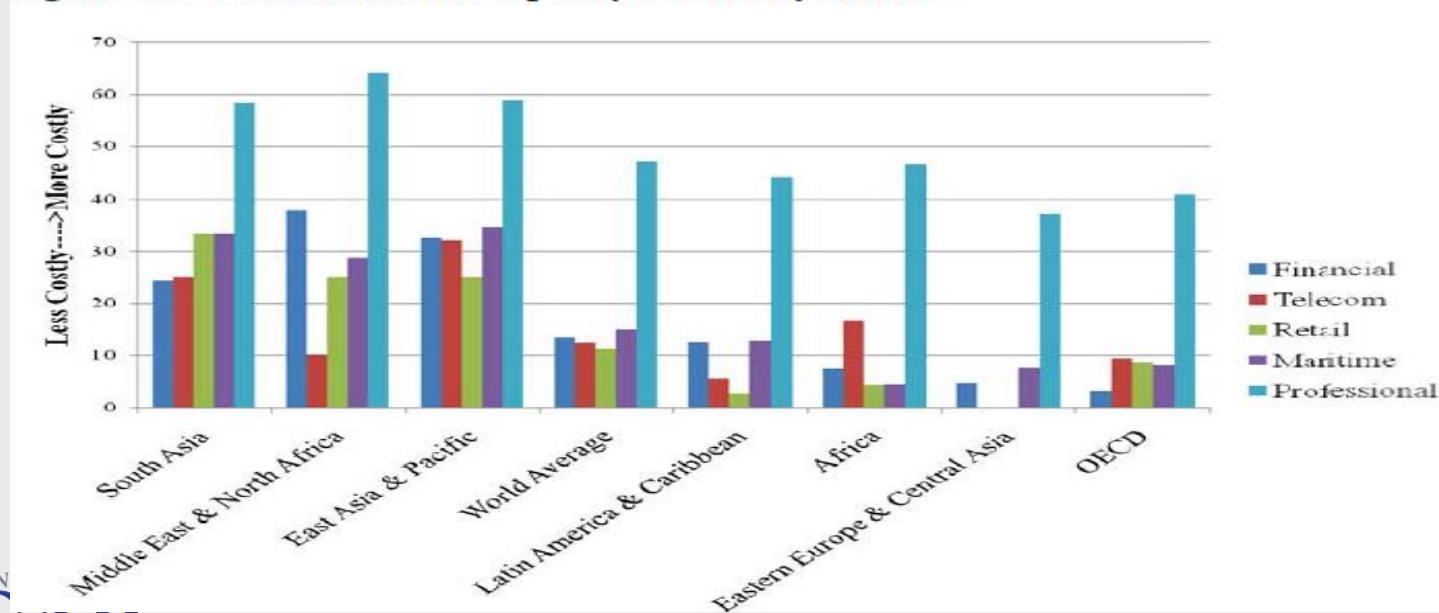
Policy implication



Barriers to trade in services are difficult to quantify

- “At the border”: restrictions on commercial presence or FDI (mode 3), visa restrictions on inwards movement of natural persons (mode 4)
- Much of the barriers occur “behind the border” in the form of regulatory:
 - Overregulation
 - Absence of (transparent) regulation
 - Discretionary authority.
 - Major departure from the commonly accepted international practice

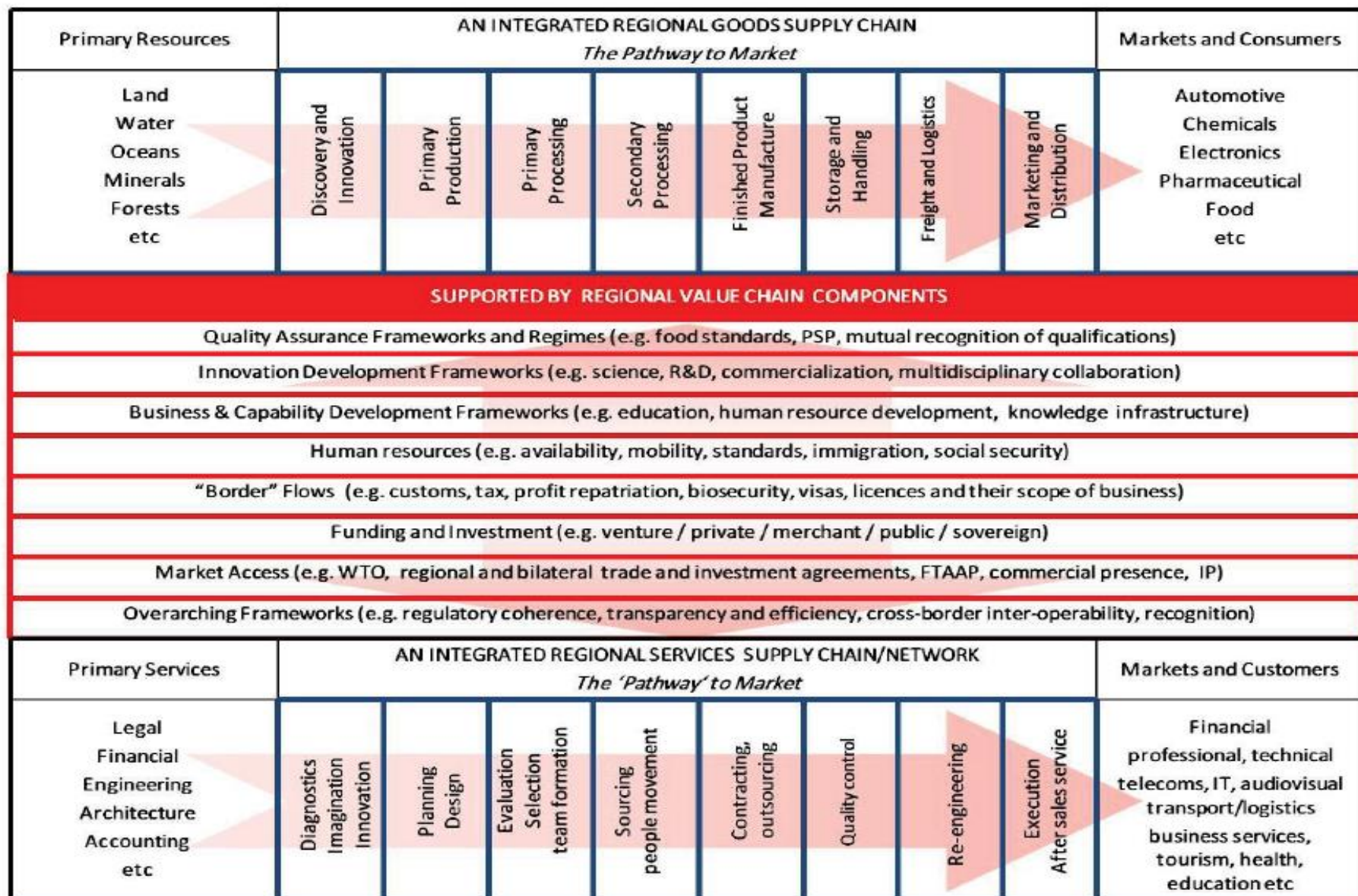
Figure 23: World Bank trade policy indices by sector.



Source: Gootiiz and Mattoo (2009)



Integrated policy framework



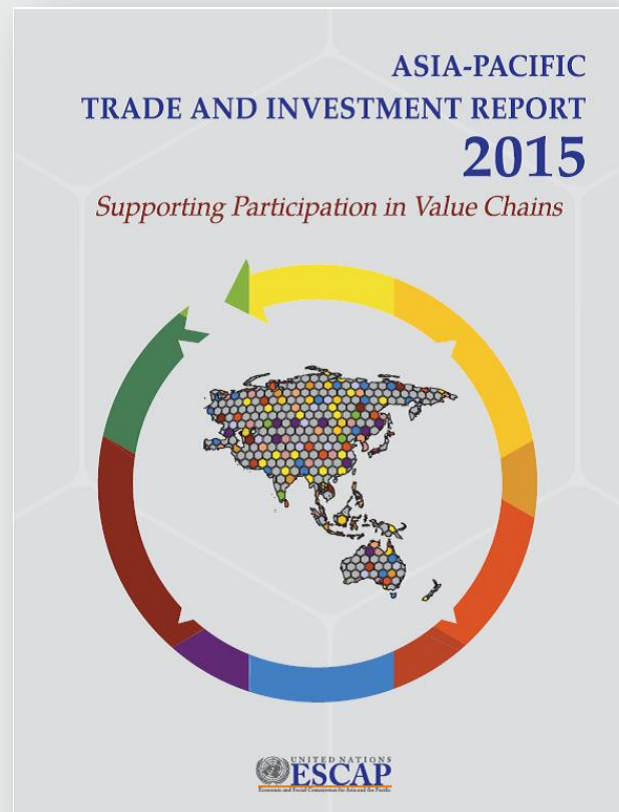


A holistic approach in trade policy is required.

- Efficient access to services is critical for the improvement of productivity, growth, and jobs. , especially in hi-tech industries.
- Policy formulation needs to treat goods and services together, and not separately.
 - Removing obstacles for both goods and services.
 - Defensive positions on certain goods or services sectors could have greater consequences than expected.
- Manufacturing companies are key stakeholders in services negotiations both as users and producers.
 - Need to be consulted on the formulation of services trade policy.
- Servicification strengthens the case for unilateral, comprehensive liberalisation of services.
 - Modes of supply often complementary – trade in one mode stimulates trade in others.
 - Liberalisation across sectors and modes.



Thank you



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