

SERVICES AND GLOBAL
VALUE CHAINS
POLICY IMPLICATIONS FROM AN APEC PERSPECTIVE

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Scenario

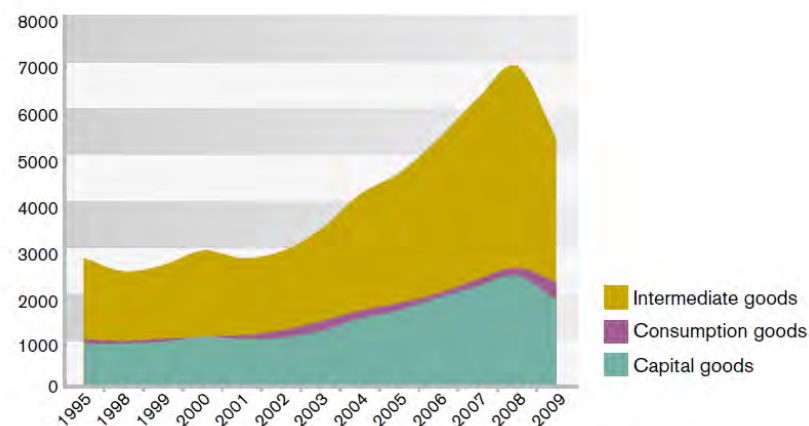
- Considerable literature is available on the importance of **supply chains in goods, but insufficient attention has been paid to the role** of supply chains in services.
- Telecommunications reforms and the application of digital technology to a widening range of business services has been driving a rapid **emergence of regional and global supply chains in services as well as goods.**
- Indeed, **services intermediates (generally known as knowledge-intensive business services)** are now **the fastest growing component of world trade.**
- Very little literature is available to help understand the workings of supply chains in services and how firms in developing economies can best access them.

GVCs have Global Implications

- Because of value chains, trade has become more volatile and a larger source of potential shocks to the world economy and individual economies.
- Trade in intermediates and services “tasks” means that the cost of protectionism is higher than is generally understood, and is rising. It is therefore more important than ever to be vigilant that trade flows remain open.
- Reducing supply chain barriers to trade could increase GDP up to six times more than removing tariffs (WEF Report 2013)
- Among those supply chain barriers, services and logistics play a key role.

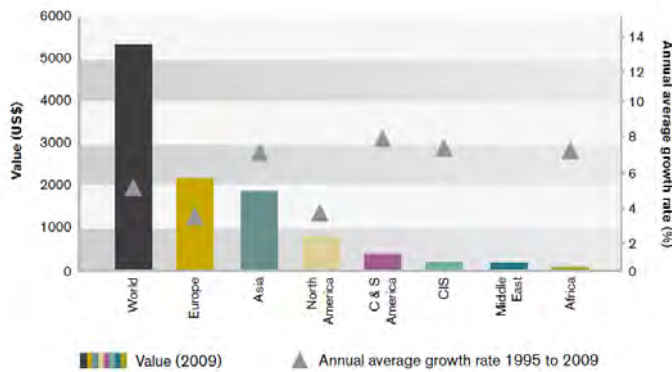
The growing prominence of Intermediates along with the development of GVC

Growth of World Trade in Intermediate Goods, 1995-2009 (billions of USD)



Sources: UN Comtrade Database and WTO estimates

Growth of Exports of Intermediate Goods by Region 1995-2009



□ Asia has the second value after Europe (2009) while has one of the highest growth rates

Sources: UN Comtrade Database and WTO estimates

Services also act as intermediates, while the concept is moving from "trade in goods" to "trade in tasks"

Services Intermediates Growth

Composition of US service exports



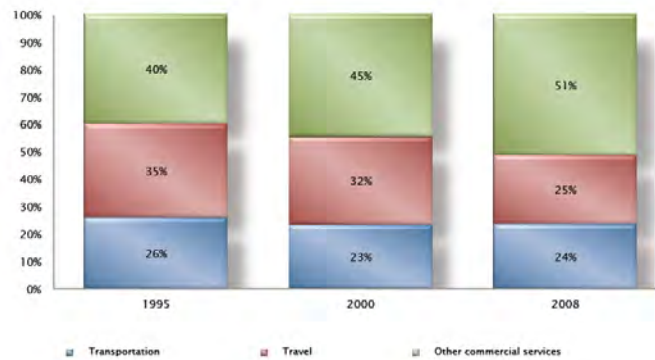
□ **Business and ICT services: the fastest growing component of world trade today**

□ Business and ICT Services form part of Other Commercial Services in trade statistics

Source: US BEA from Francois 2011

Changing Composition of World Services Trade

- “Other Commercial Services” are becoming more important than “travel” and “transport”



Source: Saez (2011)

Asian Region is most Dynamic Exporter of Commercial Services

World exports of commercial services by region 2009-2010



Source: World Trade Developments (2010). WTO

- Asia’s commercial services exports growth in 2010 was 22%
- Commercial services exports in Asia are led by India and China

Embodied and Embedded Services in Goods Supply Chains

- Services play a double role in the globalized economy, and thus in GVCs:

EMBODIED SERVICES

Services are “embodied” during the production process into agricultural and manufacturing products (e.g. energy, transport, communications, insurance, accountancy, design, software, and other technical expertise) - delivered **within the product**.

EMBEDDED SERVICES

Services are “embedded” at the point of merchandise sale, for example financing, training, maintenance, repair, product insurance, product leasing, and other after-sales service - delivered **alongside the product**.

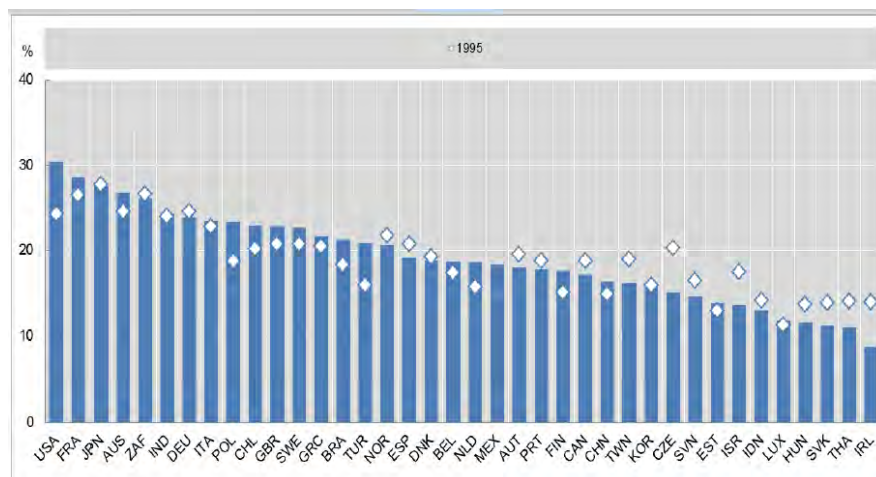
Embodied Services

- All traded Goods embody Services, on average around 25%
- Embodied services represent a higher share (50% +) of value-add of high tech goods
- Embodied services are measured through estimates of trade in “intermediates”
- When high tariff penalties are applied to a good, the producer may be motivated to reduce the services component in order to reduce the tariff. In the end this results in a reduction of the consumer value. (ABAC 2012)

Measuring Embodied Services

- Taking embodied services into account would reduce manufacturing sector's share in world trade from 74% to 47% and increase the share of services from 17% to 39%. (Daudin et al (2011), based on GTAP data for 2004)
- Based on 2007 data, while cross-border services exports are variously estimated at around 20-27% of world trade, the share of services would rise to almost 50% if merchandise trade flows are measured in terms of direct and indirect value-added content rather than on the basis of the gross value of goods crossing the border. (Cristen, Francois and Hoekman - 2011)

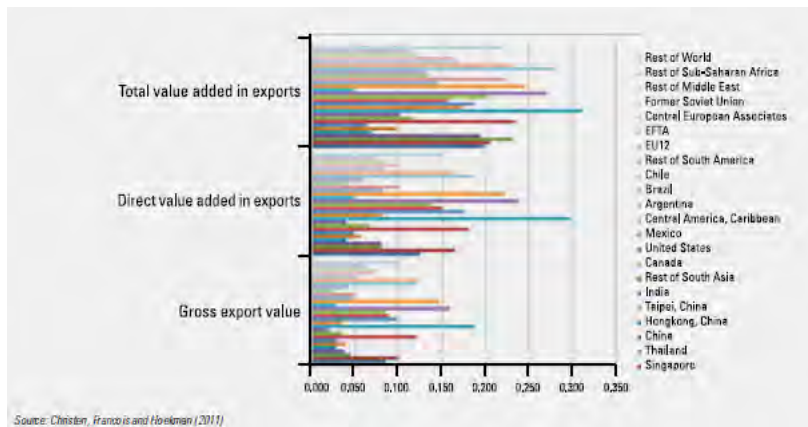
Services value-added embodied in manufacturing output, 1995 & 2005



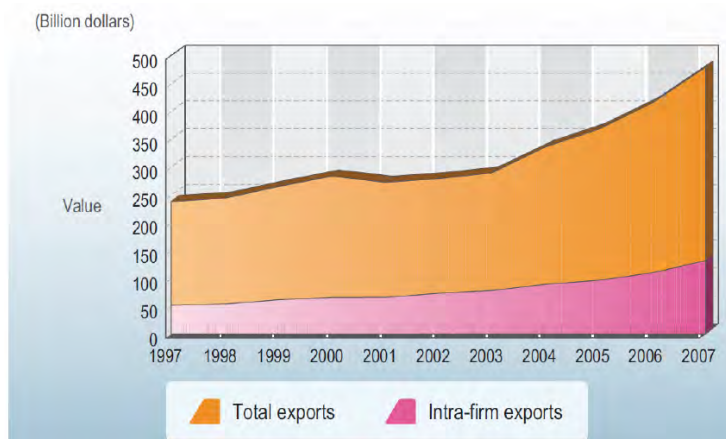
Source: OECD Input-Output Database, May 2011

Adding Indirect Production and Trade in Services

Share of Services in Exports (2007)



Intra-firm trade in US total private services exports (1997-2007)



Source: Mauer and Tschang 2011

- This “intermediate” or “intra-firm” trade is now being described as “trade in tasks”

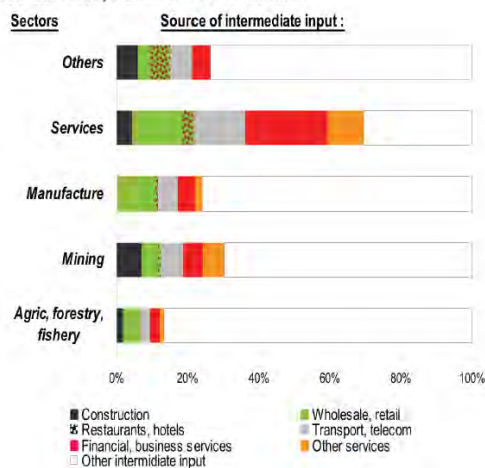
Intermediate Services in Australia's Exports, 2005-6

	Share of embodied services %
Agriculture, forestry & fishing	4.2
Mining	31.1
Manufacturing	26.4
Services	38.3

Source: ITS Global Estimates, ABS Cat. 5909.0.55.001, November 2010

Intermediate Services in Indonesia's exports

Embodied Services; Estimates for Indonesia



Source: Atje, Rahardja and Mair, 2010

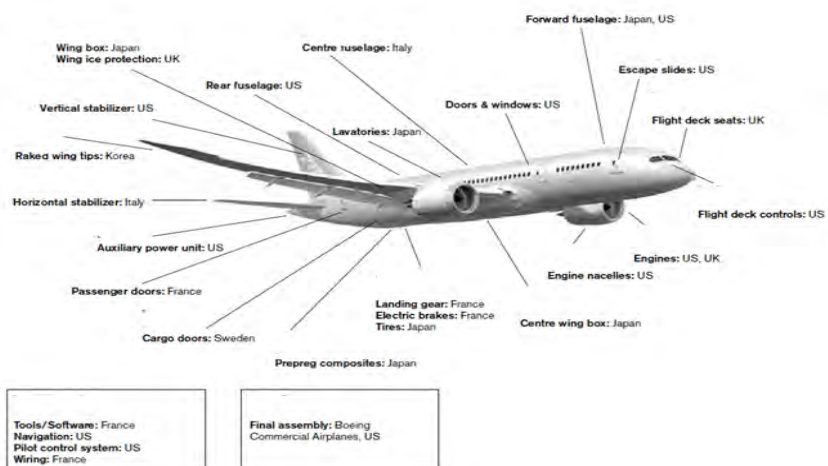
Case: Embodied Services in the Nokia N95



Integrated Circuits: 6%
Camera: 3%
Other parts: 11%
Licences: 4%
Value Added in Nokia's internal support functions: 31%
Nokia Operating Profit: 16%
Final Assembly: 2%
Distribution: 4%
Retailing: 11%

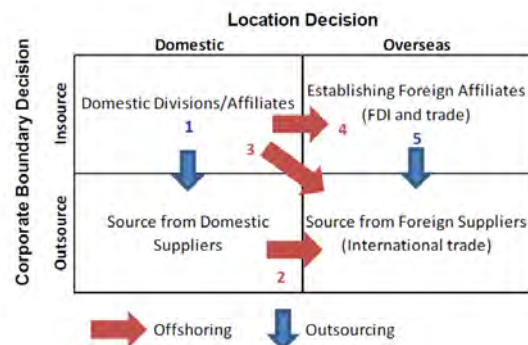
Source: Al- Yrkkö, J et al (2011)

Case: The Boeing 787 Dreamliner is made in the world



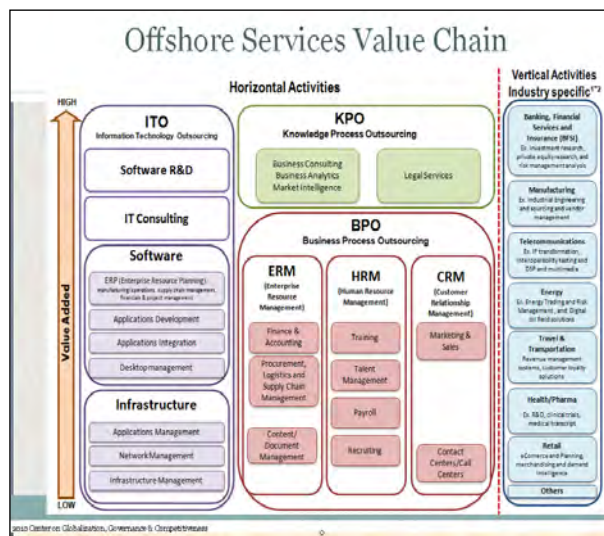
Source: Meng and Miroudot from WTO and IDE/JETRO (2011)

Outsourcing and Off-shoring



Source: Sako, Mari. (2005). Outsourcing and Offshoring: Key Trends and Issues. Paper presented at the Emerging Markets Forum.

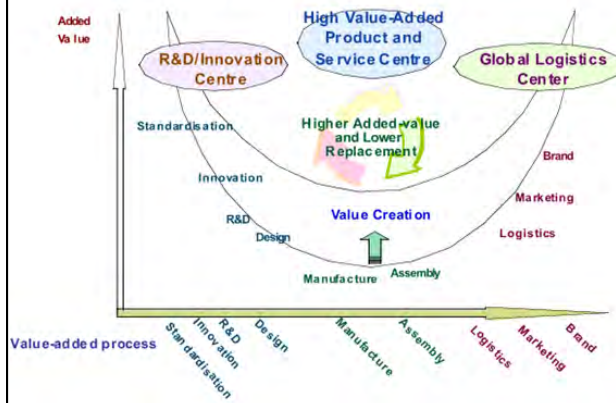
Services Value Chain



Source: Gary Gereffi (2010). "The Offshore Services Global Value Chains".

Upgrading in Global Value Chains

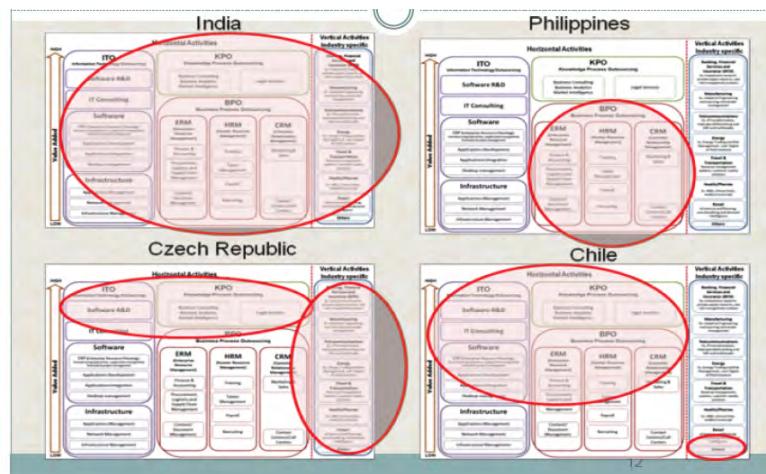
"Smiley Face": conceptual model of the shift to a high value added, globally integrated, services economy



The challenge is to move up the value chain into higher value-added tasks while deciding which activity to outsource / offshore

Source: Business Week Online. May 16, 2005.

Mapping Selected Economies in the Offshore Services Value Chain



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Upgrading to ITO and KPO Activities in Services Offshoring

- Educational Requirements, revenue per employee and salary per employee increase while upgrading

Segment	Activities	Most populous position within segment	Average education level for employees	Average revenue per employee ^a (US\$)	Median salary per employee ^a
BPO	Call Centers	Call center agents & technicians	High School / Bachelors degree	\$19,720	\$17,280
ITO	IT Infrastructure	Computer technician	High School/technical institute	\$20,704	\$16,932
	Software Development	Programmers	Bachelors / Masters Degree	\$36,788	\$28,065
	IT Consulting	Systems analysts	Bachelors / Masters Degree	\$55,956	\$45,455
KPO	Business and Financial Services	Financial analyst	Bachelors Degree in Business Administration	\$127,081	\$47,150
Vertical Activities	Engineering Services	Engineer	Bachelors Degree	\$103,844	\$53,514

Note: ^a This information is drawn from a confidential study published by Mercer 2008 for a certain country in Latin America.

Sources: Fernandez-Stark et al., 2010b; IDC Latin America, 2009; Meller & Brunner, 2009; Mercer, 2008; Wadhwa et al., 2008.

Source: Gary Gereffi (2010). "The Offshore Services Global Value Chains".

Competitiveness in Services

- While there is some commonality in the generic business functions involved in any supply chain, the factors affecting competitiveness in value chains for goods and for services are significantly different.
- This means that the relevant policies and measurement issues for value chains for goods and services are also different.

Factors affecting competitiveness in Services

1. Endowments, especially Human Capital (talent, education, skills, ideas, culture of customer focus)

- Business stakeholder interviews refer to the importance of vocational training
- Firms refer to the importance of multi- and cross-disciplinary education, including languages
- World Bank work shows tertiary enrolment is significant in affecting services exports

2. Investment in Intangible Assets (corporate IP e.g. copyright, business methodologies, brands)

- Analysis in the UK provides evidence of intangible capital deepening contributing the bulk of growth in labour productivity
- Firms refer to the importance of a supportive environment for innovation, including business process innovation

3. Enabling Digital Infrastructure

- World Bank confirms the importance of the quality of the telecommunications network
- Extent of internet penetration facilitates

Factors affecting competitiveness in Services

4. Quality of Institutions

- World Bank work identifies transparency/degree of corruption/rule of law as being relevant
- World Bank identifies the economic freedom index
- Firms refer to the role played by institutions which undertake independent analysis of the costs and benefits of regulatory regimes

5. Efficiency of Domestic Regulation

- Firms refer to constraints imposed by the complexity of the business environment
- Rigidity or other inefficiencies in employment laws; for services companies, human capital costs are often 70-80 % of total cost, so all laws and requirements to do with recruiting, training and deploying people are critical
- Firms refer overwhelmingly to the burdensomeness of regulatory compliance costs
- Firms refer to the need for an environment which gives them flexibility to adjust to rapid change

Factors affecting competitiveness in Services

6. Connectedness with the International Market

- Openness in two-way trade and investment are cited as key
- Firms refer to the quality of services export promotion efforts and development of appropriate promotional tool kits and opportunities to connect with supply chains
- Firms refer to the need for mutual recognition and interoperability of standards
- Firms are increasingly concerned about seamlessness of regulation across markets

7. Services Business Stakeholder Consultation

- World Bank work suggests that services business groups (such as NASSCOM in India and BPAP in the Philippines) play a positive role
- Firms stress the importance of stakeholder consultation mechanisms, for example, the developing Indonesian Services Forum

8. Policy Focus

- Firms refer to the need for better services statistics
- Firms refer to the need for inter-agency coordination
- A vision and roadmap for services is recommended
- World Bank work is inconclusive about the role, if any, of specific sub-sectoral targeting

Global Supply and Demand Centers for Offshore Services

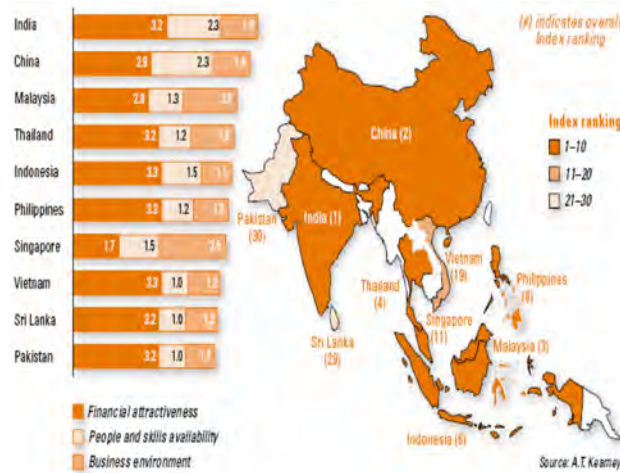


Source: CGGC, Duke University based on data from Everest and Datamonitor.

Source: Gereffi, G; Fernandez-Stark, K. "The Offshore Services Value Chain: Developing Countries and the Crisis". Center of Globalization, Governance & Competitiveness. Duke University. The World Bank Development Research Group, Trade and Integration Team. 2010.

The US is the top customer market for outsourcing services. In 2010, the US accounted for 63% of global IT offshore outsource spending, a bit down from the pre-crisis level which was 67%.

Attractiveness: Asian Destinations for Services Outsourcing / Off-shoring



Source: Chanda and Pasadilla, 2011

The AT Kearney Global Services Location Index 2011

Rank	Country	Financial attractiveness	People skills and availability	Business environment	Total score
1	India	3.11	2.76	1.14	7.01
2	China	2.62	2.55	1.31	6.48
3	Malaysia	2.78	1.38	1.83	5.99
4	Egypt	3.10	1.36	1.35	5.81
5	Indonesia	3.24	1.53	1.01	5.78
6	Mexico	2.68	1.60	1.44	5.72
7	Thailand	3.05	1.38	1.29	5.72
8	Vietnam	3.27	1.19	1.24	5.69
9	Philippines	3.18	1.31	1.16	5.65
10	Chile	2.44	1.27	1.82	5.52
11	Estonia	2.31	0.95	2.24	5.51
12	Brazil	2.02	2.07	1.38	5.48
13	Latvia	2.56	0.93	1.96	5.46
14	Lithuania	2.48	0.93	2.02	5.43
15	United Arab Emirates	2.41	0.94	2.05	5.41
16	United Kingdom	0.91	2.26	2.23	5.41
17	Bulgaria	2.82	0.88	1.67	5.37
18	United States	0.45	2.88	2.01	5.35
19	Costa Rica	2.64	0.94	1.56	5.34
20	Russia	2.48	1.79	1.07	5.34
21	Sri Lanka	3.20	0.95	1.11	5.26
22	Jordan	2.97	0.77	1.48	5.23
23	Tunisia	3.05	0.81	1.37	5.23
24	Poland	2.14	1.27	1.81	5.23
25	Romania	2.54	1.03	1.65	5.21
26	Germany	0.76	2.17	2.27	5.20
27	Ghana	3.21	0.69	1.28	5.18
28	Pakistan	3.23	1.16	0.76	5.15
29	Senegal	3.23	0.78	1.11	5.12
30	Argentina	2.45	1.58	1.09	5.12

Source: The AT Kearney Global Services Location Index 2011

Industry Activity in the top 10 economies



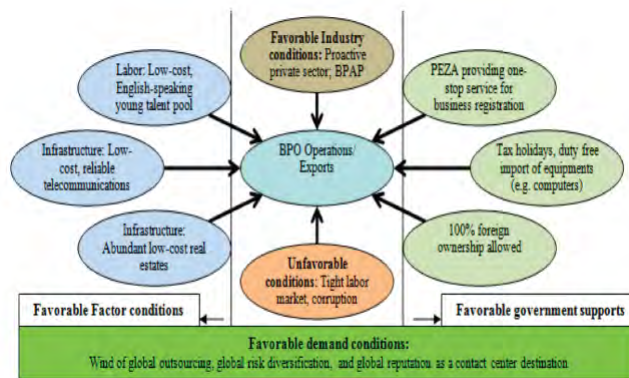
Source: The AT Kearney Global Services Location Index 2011

Case: India - Attracting Global Services Supply Chain Tasks



Source: Chanda and Pasadilla, 2011

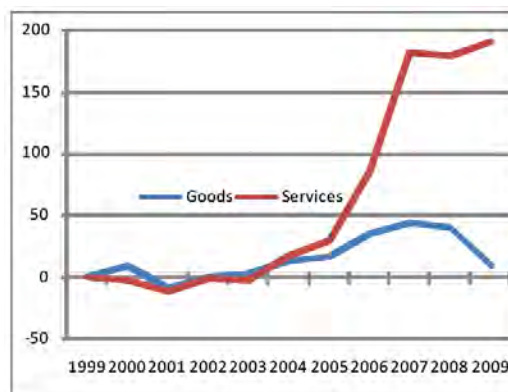
Case: Factors accounting for Philippines' success



Source: Yi (2011)

Evolution of Services Exports in Philippines

% Growth compared to 1999, 1999=0



Source: Yi 2011

The potential of Thailand and Indonesia

- The potential of these economies (among the top 10 at the AT Kearney ranking) as offshoring services locations is huge.
- However, Infosys announced in 2010 that it was closing its BPO center in Bangkok.
- What is holding back these economies?
 - ▣ Language
 - ▣ Business Environment
 - ▣ Government Support

Source: AT Kearney (2011)

SMEs in Services GVCs

- Increasingly **SMEs in Services are the most engaged in GVCs**
 - ▣ OECD work shows evidence that since 1997, more services SMEs have been involved in international alliances than manufacturing
 - ▣ In the year 2000, there were nearly 4 times as many Services SMEs engaged in global networks than manufacturing SMEs.
- Why SMEs take part easily in services businesses?
 - ▣ SMEs produce in less capital intensive activities and require less physical infrastructure than manufacturing activities
 - ▣ SMEs are more flexible
 - ▣ SMEs are able to develop expertise in one specific task of GVC
 - ▣ SMEs can possess qualified workforce without a huge capital base or infrastructure

Patterns of Supply Chain Growth

- In East Asia, e.g. Hong Kong or Singapore, the services economy has been focused on enabling trade in Goods
 - ▣ In Hong Kong for example, Services such as finance, logistics, maritime services, and trade related services of all kinds have developed largely in response to the need to enhance the efficiency of the dynamic manufacturing base in the Pearl River delta
 - ▣ These services are firmly embedded in goods exports from the region
- In South Asia, we are seeing an explosion of services, independent of manufacturing.

Supply Chains: Development Implications

- A new phenomenon
 - ▣ Services are driving GDP growth, employment growth, export growth, productivity growth and poverty reduction.
- Developing Services Sectors may be seen as an alternative to industrialization in the **new development model**
 - ▣ Possibility of a “leapfrog” into services?

Supply Chains: Trade Policy Implications

□ Creating **MODAL NEUTRALITY**

The key role that services play as “links” in global value chains and in creating services value chains of their own means that **MODAL NEUTRALITY should** be enshrined in the services chapters of regional trade agreements - .

□ How:

- Commitments to open cross-border trade (Mode 1)
- Commitments to maintain open entry for foreign direct investment flows as much as possible (Mode 3)

Supply Chains: Trade Policy Implications

□ Creating **COMPETITIVE NEUTRALITY**

Including strong chapters on competition policy and regulatory coherence in 21st century trade agreements in order to ensure competitive neutrality.

- To avoid abuse of dominant position in markets by large suppliers
- To put State Trading Enterprises on same footing as other firms in the economy
- To ensure “contestable markets” and competitive entry along all points of the supply chain

What APEC can do to facilitate Services Supply Chain Operation

- Improve regional services efficiency, productivity and competitiveness by according higher priority to Services work
- More rapid progress with Services Trade and Investment Liberalization and Facilitation
- Focus on Domestic Institution Building for Structural and Regulatory Reform
- Greater progress with provision of Digital Economy Infrastructure and Inter-operability of Digital Economy Standards

What APEC can do to facilitate Services Supply Chain Operation

- Undertake a new “Services Initiative”, bringing work together and demonstrating to the business community that APEC economies are open to greater Services connectedness
- This initiative could include focus on
 - Services Innovation policy, including to assist SMEs adopt innovative business processes; and
 - Services export promotion tools, including to assist SMEs enter services supply chains more readily

Thank You

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