

An Exploratory Framework for Measuring Services Global Value Chains

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Research question

- What determines how service firms organize and determine the global distribution of work (offshoring)?
 - Do they use different configurations of value chains?
 - What are the implications for how trade flows are controlled and where they go?

Operative questions to guide development of theory

- Whereas academia has been concerned with:
 - Stages of production (value chains)
 - Distribution of production (global value chains)
 - Boundaries of the firm (various theories)
 - Means of disassembly (modularization of production)
- Questions that can guide theory of locations are:
 - (1) How does the organization of work determine **firms' boundaries**, and hence, the external networks
 - (2) **How do lead firms exercise control** over the network
 - i.e. types of capability
 - (3) **What factors influence firms' offshoring** decisions, and locations they offshore to.

Starting points: value chain, global value chain (GVC)

- Value chains (Ghemawat (2002) on Porter)
 - *"...Porter's value chain...emphasized the importance of regrouping functions into the activities actually performed to produce, market, deliver, and support products, thinking about links between activities..."*
- Global value chains (Gereffi et al, 2005)
 - Value chains as they extend across countries, usually dominated by a lead firm
 - Breakpoints in production process assumed to be dictated by modularity of tasks
 - governance of the chain dictated by complexity of operations, codifiability of tasks, capability of suppliers

Add to this notions of

- **Nature of services** (Q1)
 - What does services mean to the firm
 - What ARE the breakpoints between stages of "production"
- **Governance** (Q2)
 - How do lead firms (and clients) control their value chains (across a network)
 - how do firms decide on offshoring
- **Topology** – networks as representation of a value chain in geographic space (Q3)
 - Implications for where trade flows go
 - Standard type: "hub and spokes" (i.e., "trees")

Q1. Nature of services: What do services mean to firms, and does that reshape GVC thinking?

- Nature of **primary services** (e.g. operations or R&D)
 - Services appear to be “**hierarchically defined**” by architecture (as with products); work is organized by such
 - **Control** also rests with the stages of highest value (generally not desirable to outsource)
- Nature of **supporting services** (e.g. back office functions)
 - Span the firm’s internal value chain
 - Often already centralized by the firm
 - Fully codified so wholly outsourceable or in parts (tasks)
 - Issue of economies of scale, “economies of task clusters”

Governance (Q2) and topology (Q3)

- **Governance**

- Lead firms shape value chains by **controlling**
 - the architecture
 - key components (highest technological change)
 - the network
- ... **and possess the capability to govern those**

- **Topology**

- The GVC framework suggests a range of governance forms, largely as a hub and spoke
- Consideration of services offshoring evidence suggests that **the hub and spoke (network) still persists**

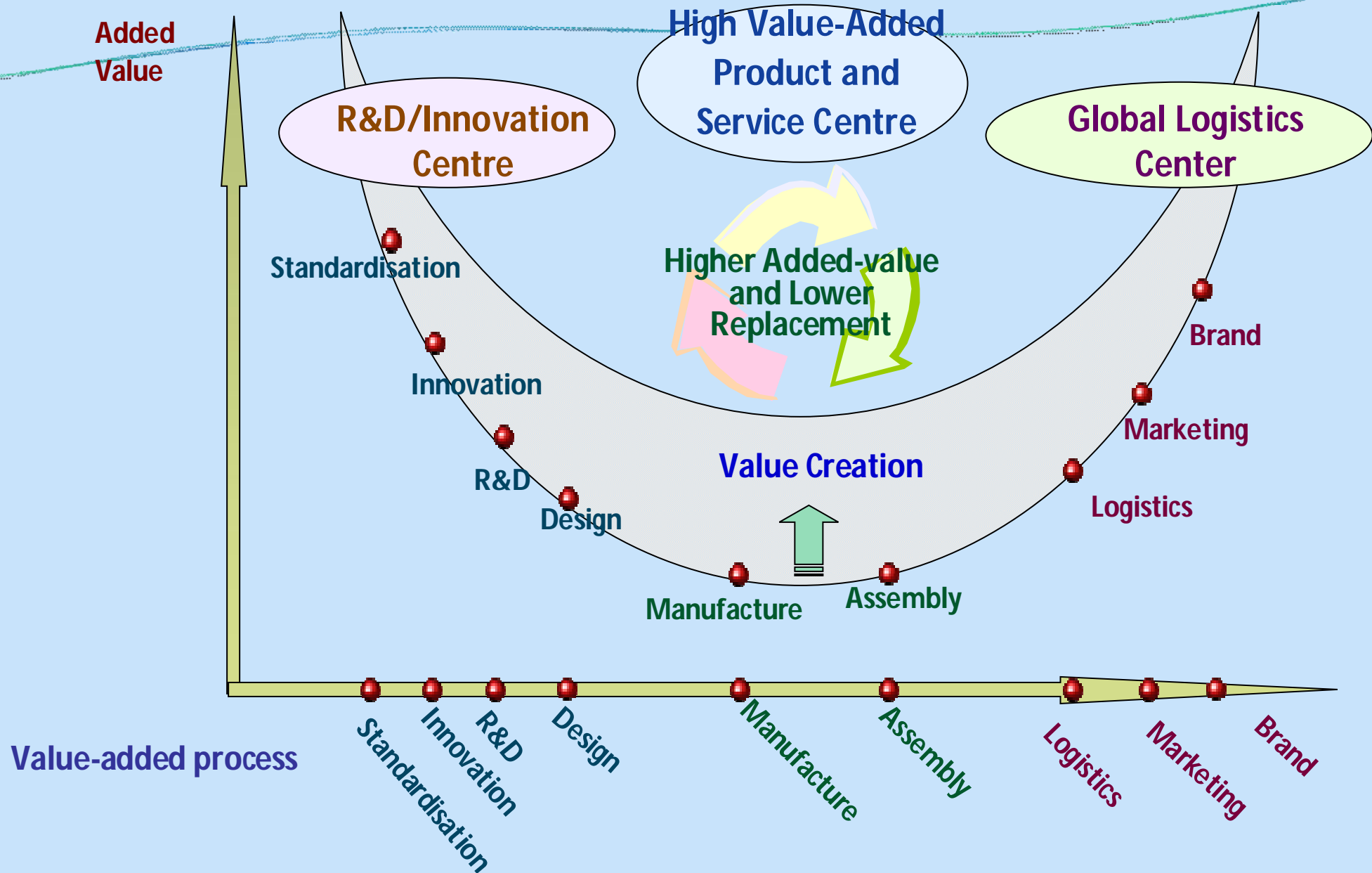
Trade in value added

Three approaches

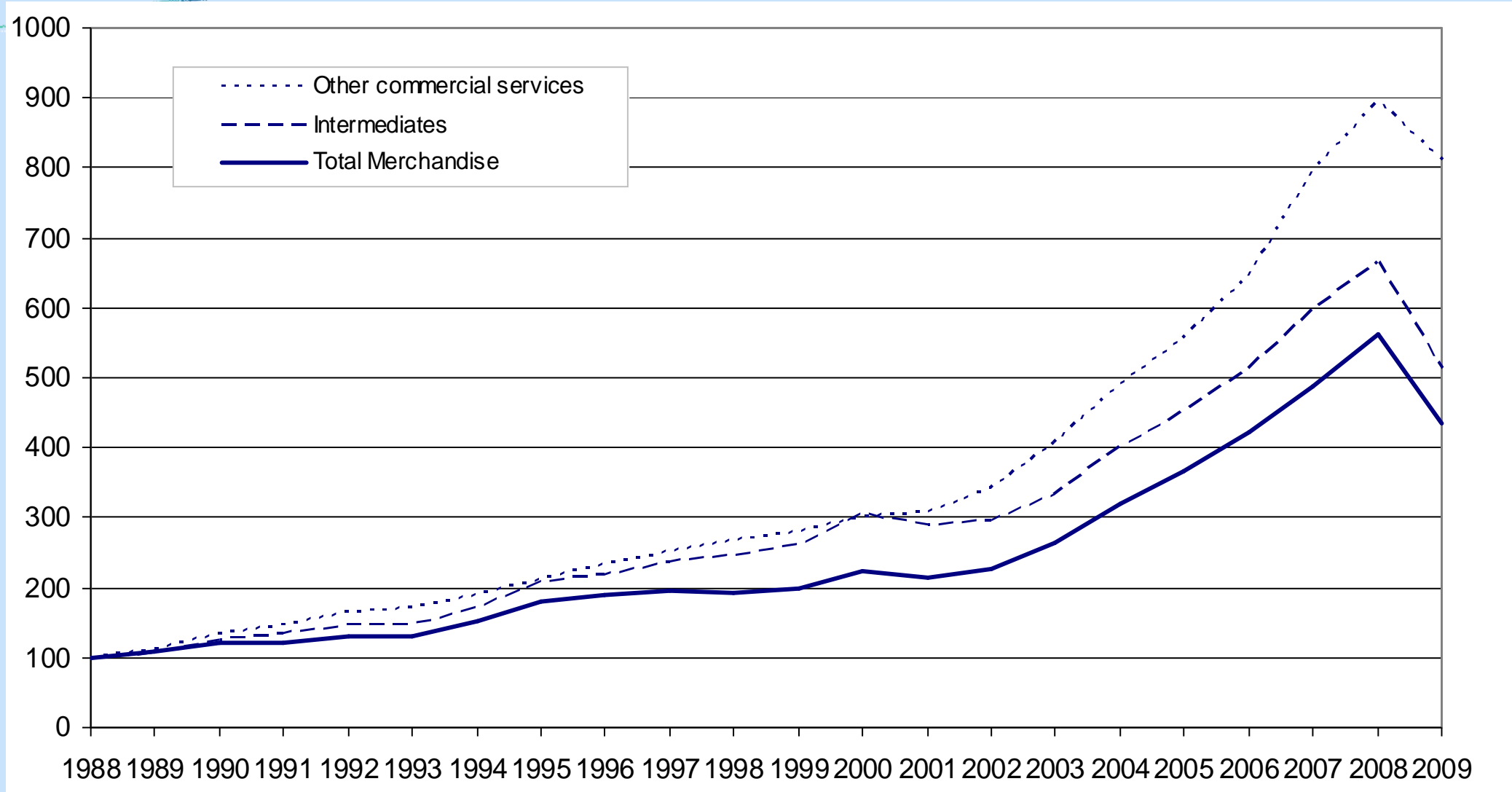
1. Case studies
 - Examples: iPod, Barbie doll, Porsche Cayenne
2. Direct measurement
 - Foreign trade statistics (share of parts in total trade)
 - Strengthening linkage between trade and business statistics
3. Indirect estimation
 - Estimates based on national accounts (input/output) and trade statistics

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)



Trends in world trade of total merchandise, intermediate goods and other commercial services, Index 1988 =100



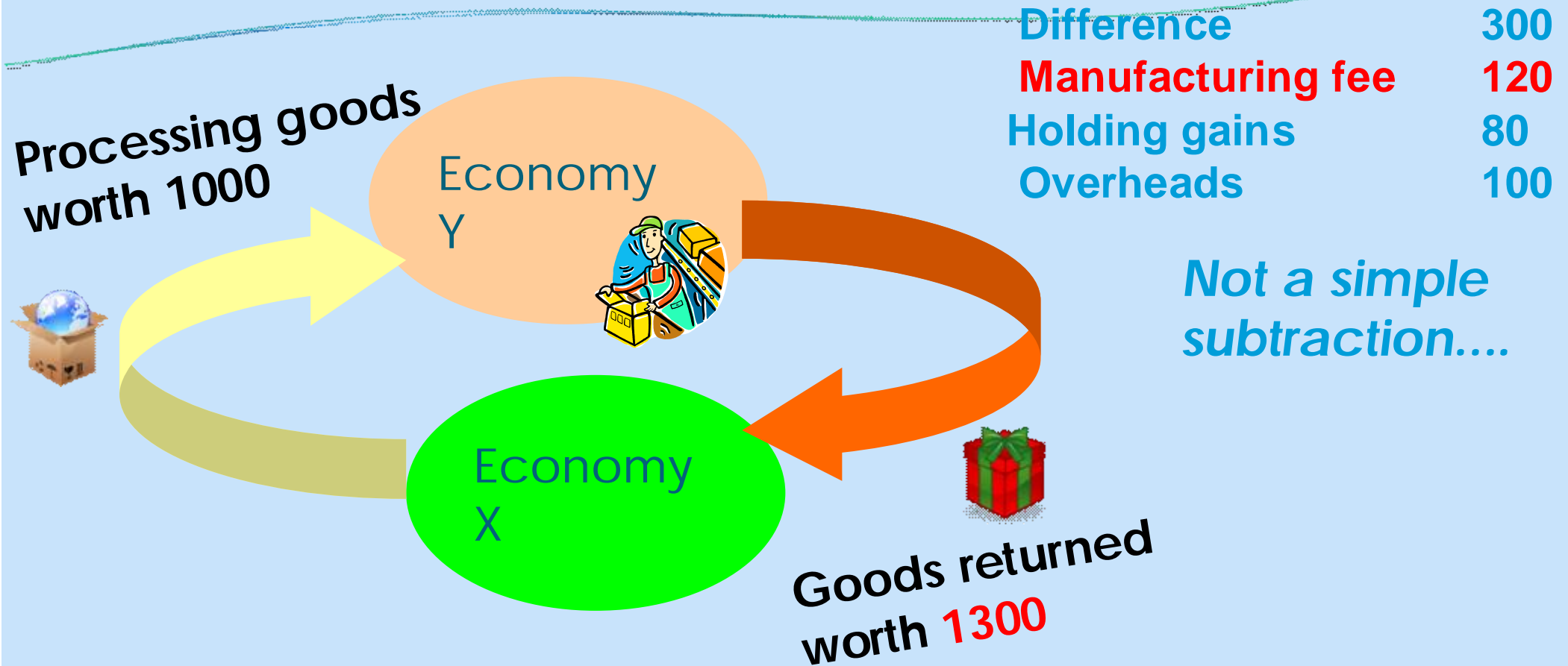
Share of enterprises carrying out international sourcing

	Manufacturing		Other sectors	
	Core Business functions	Support functions	Core Business functions	Support functions
Total*	17.4	12.8	5.2	7.6
CZ*	3.7	3.3	1.1	1.7
DK	23.9	23.3	4.1	15.8
DE	13.3	11.2	2.6	5.2
IE	49.2	41.9	20.8	22.5
IT	15.9	7.8	1.3	2.6
NL*	13.9	10.5	4.7	8.5
PT*	11.0	13.0	2.9	4.4
SI	17.4	20.1	3.6	7.9
FI	21.7	14.8	5.5	14.2
SE	9.3	4.7	1.0	2.1
UK	52.6	38.6	15.3	17.0
NO	13.5	17.7	2.4	11.2

* CZ, PT: provisional data; Total, NL: unreliable data.

Source: Eurostat (2011), Statistics Explained online, International sourcing statistics

How do we calculate the **manufacturing fee**?

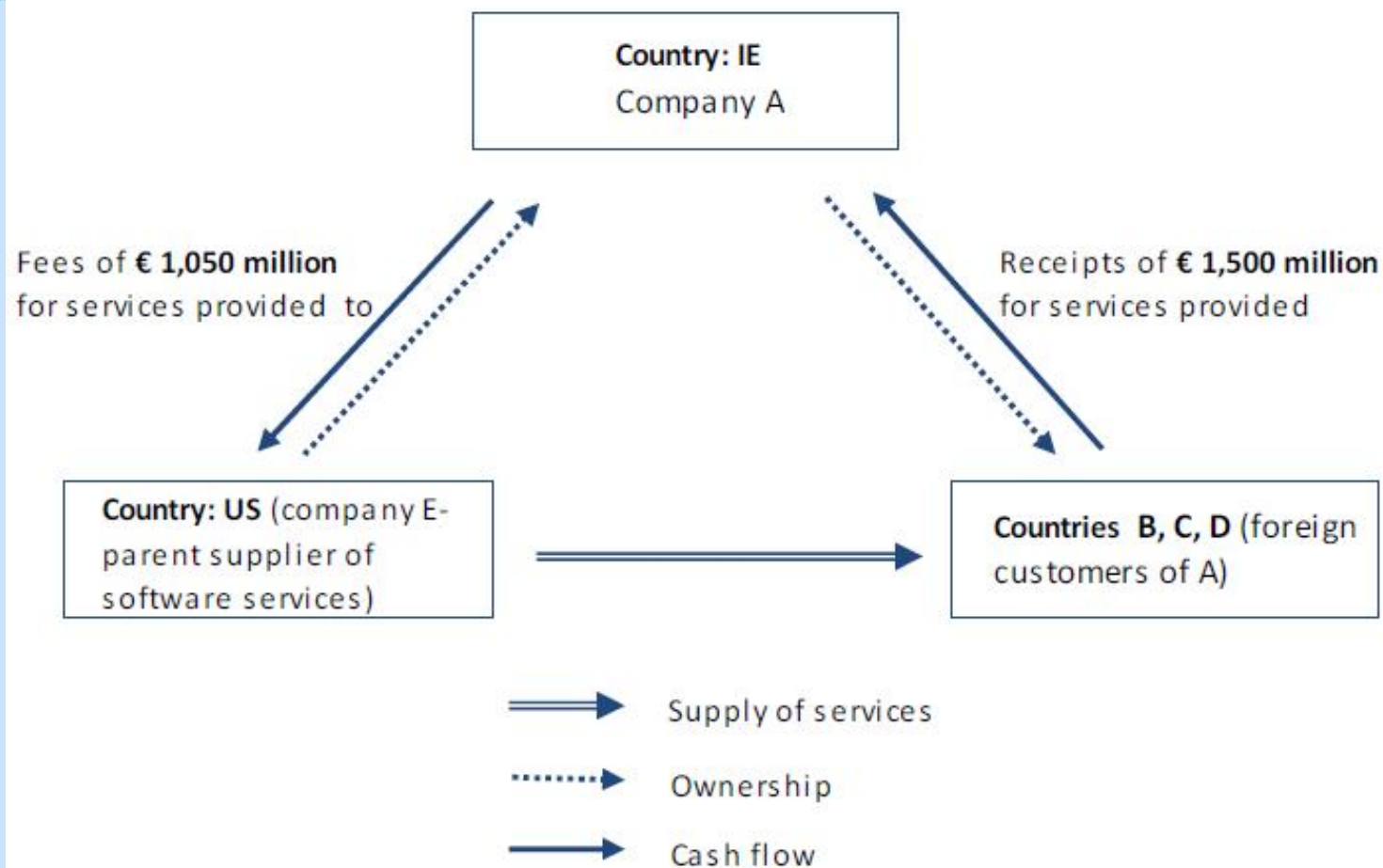


X imports manufacturing services for 120 from Y

Y exports manufacturing services for 120 to X

Services subcontracting

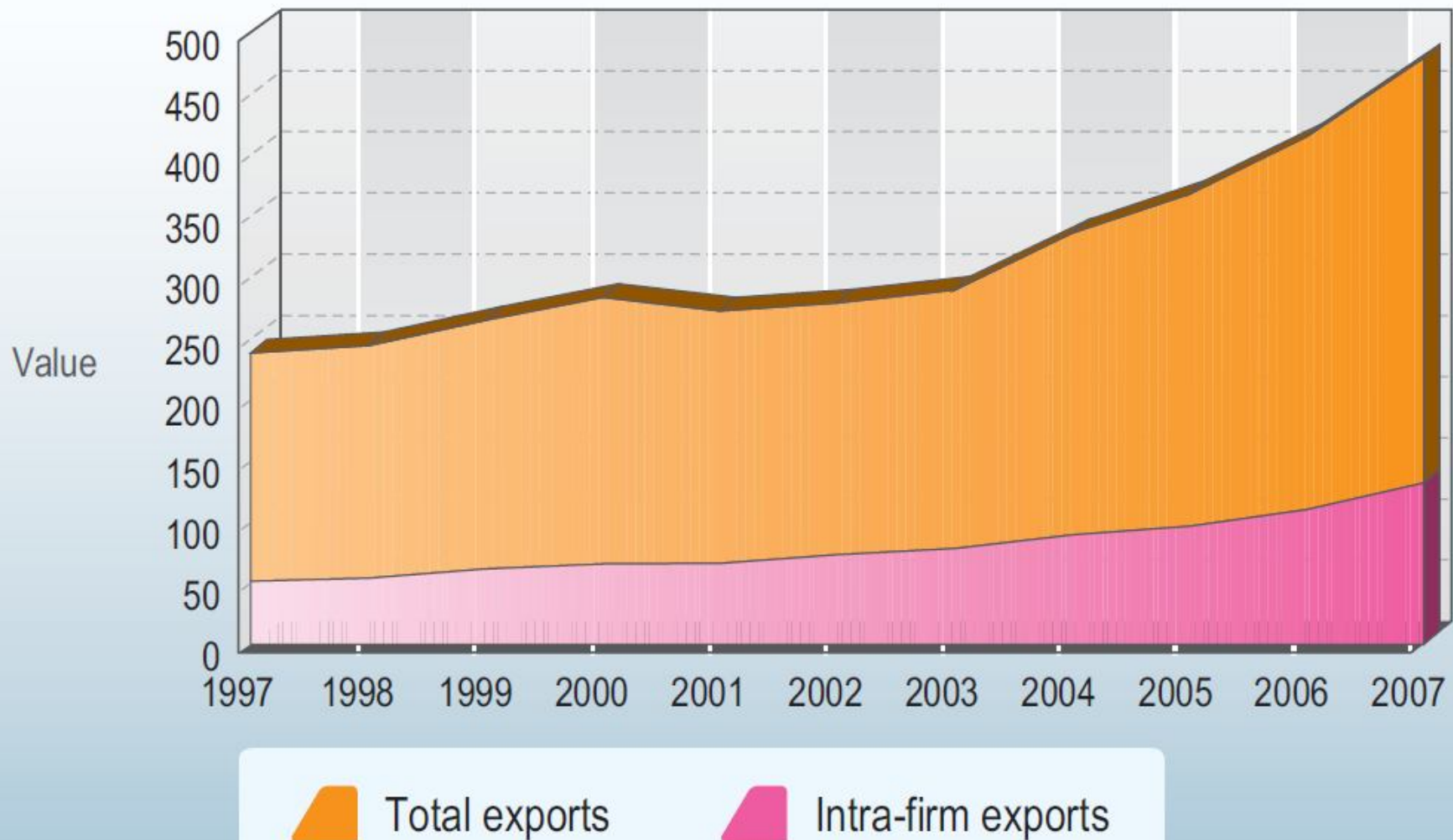
Chart 6.2.2 Treatment of receipts and expenditure of an Irish direct investment enterprise for services provided by foreign affiliates



Source: Guide on the Impact of Globalization on National Accounts, ECE, forthcoming

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

(Billion dollars)



Entries of intra-corporate transferees in selected OECD countries, 2000-2008

(Thousands)

	<i>Intra-corporate transferees</i>			
	2000	2007	2008	Average 2003-08
Austria	0.16	0.15	0.15	0.17
Canada	3.90	8.20	10.22	7.15
France	2.16	1.06	1.03	1.26
Germany	1.30	5.42	5.66	3.98
Japan	3.88	7.17	7.31	5.20
Norway	0.17	0.64
Spain	...	1.40	1.34	1.14
Switzerland	...	6.23	7.32	6.87
United States	54.96	84.53	84.08	71.10

Source: OECD