

What is Behind **Made in China?**

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Heightened trade frictions



China Daily, October 2011

Donald Trump:

“My son should have fewer toys (made in China)”

Huffington Post:

“The hidden cost of “Made in China”:
Tomorrow’s American jobs”

China's stellar export performance



Economist (2010)

HEC MONTRÉAL



Table 5: China's Exports, by technology level

	Export share (%)		Growth rate (%)	RCA index	
	1992	2007	1992-2007	1992	2007
High technology	10.4	31.3	21.2	0.6	1.6
Aircraft	0.5	0.2	5.8	0.2	0.1
Pharmaceuticals	1.2	0.7	9.6	0.8	0.2
Office and computing machinery	1.3	12.1	29.8	0.3	3.7
Radio, TV and comm., Equipment	4.7	14.9	21.6	0.8	1.8
Medical, precision and optical instr.	2.7	3.4	14.7	0.9	1.0
Medium-high technology	10.2	21.0	18.3	0.4	0.8
Electrical machinery	3.5	5.9	16.8	1.0	1.5
Motor vehicles	0.7	2.7	22.5	0.1	0.3
Chemicals	1.3	1.3	13.3	0.5	0.5
Other transport equipment	0.7	0.8	14.2	1.6	2.0
Machinery and equipment	3.9	10.3	20.1	0.4	1.1
Medium-low technology	10.2	15.1	15.9	0.8	1.1
Shipbuilding and repairing	0.6	1.0	17.2	1.6	3.1
Rubber and plastic products	2.0	2.5	14.7	0.9	1.1
Petroleum products	0.4	0.3	12.1	0.3	0.6
Non-metallic mineral products	1.9	1.7	12.1	1.4	1.5
Metal products	5.3	9.6	17.4	0.7	1.0
Low technology	53.3	26.5	8.3	2.5	1.7
Manufacturing	7.3	5.6	11.2	2.3	2.1
Paper and paper products	1.8	1.4	11.8	0.5	0.6
Printing and publishing	0.2	0.3	14.8	0.3	0.8
Food, beverages and tobacco	6.4	1.9	4.9	1.1	0.4
Textiles, apparel and leather	37.5	17.2	7.7	4.5	3.2
Other	16.0	6.1	6.5	0.7	0.2
Total	100.0	100.0	13.1	1.0	1.0

Source: Authors' calculations, using WITS data.

Today's Globalized Toy

Topper the Trick Terrier is a robotic dog that can talk and stand on its head. But the real trick is where its parts come from. This year 75,000 copies of the dog were made by Qualiman Industrial Co. in Nanhai, China for a Li & Fung American customer, the Original San Francisco Toymakers. It sells for \$29.99 in the U.S.

PLASTIC EYES:
Shenzhen, China

PLASTIC BODY:
Malaysia

**MICROFIBER FABRIC
FOR COAT:**
Korea

MOTOR FOR LEGS:
Shaoguan, China

PLASTIC LEGS:
Taiwan

**VOICE-RECOGNITION
REQUIREMENTS:**
San Francisco
**VOICE-RECOGNITION
PROGRAMMING:** Taiwan

SPEAKER FOR TOY'S VOICE:
Dongguan, China

TRANSISTORS: Shenzhen, China
IC CHIPS: Taiwan
WIRING: Dongguan, China
PACKAGING: Hong Kong



Sources: Qualiman Industrial Co. Ltd.; Li & Fung.

Importance of global value chains

- **Lamy (2011):** “The statistical bias created by attributing the full commercial value to the last country of origin can pervert the political debate on the origin of the imbalances and lead to misguided, and hence counter-productive, decisions.”
- **Ma and Van Assche (2011):** the rise of global value chains makes standard measures of international competitiveness less reliable.

Processing Trade

- A large contributor to China's export success has been its **processing trade regime**.
- Under this regime, firms are allowed to import inputs duty-free provided they are used to produce further processed goods destined solely for exports.

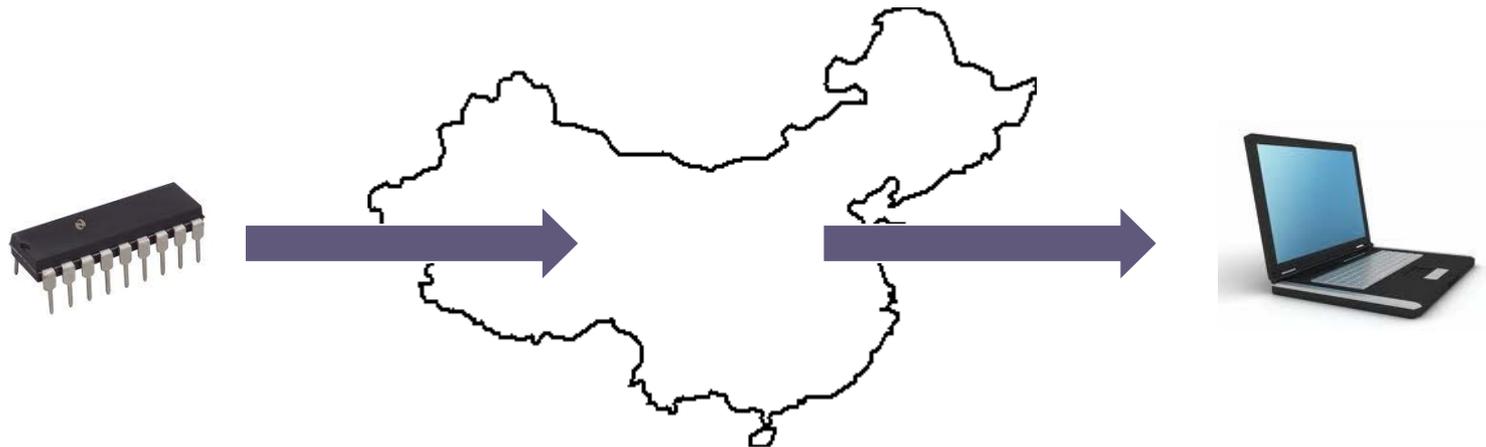
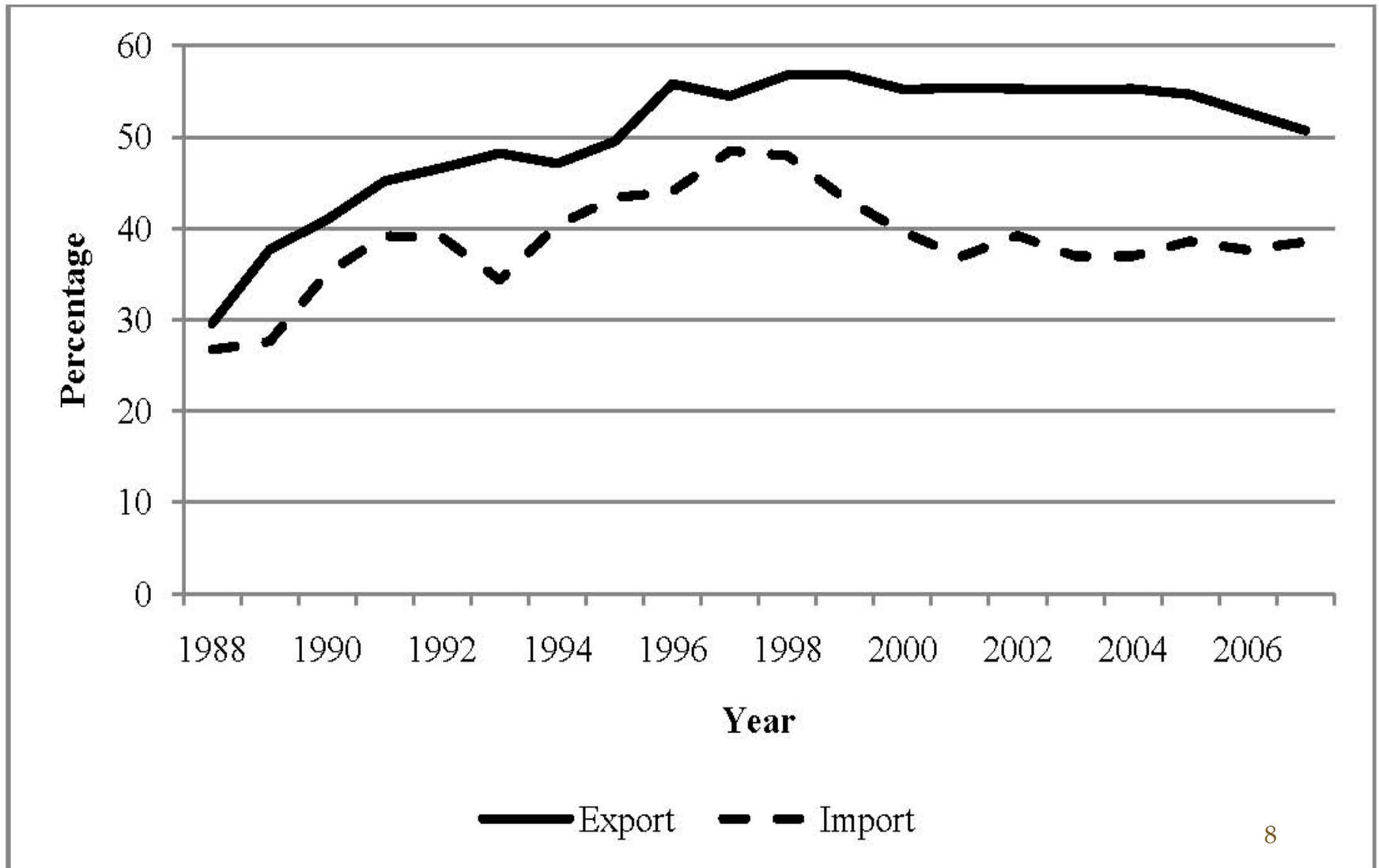
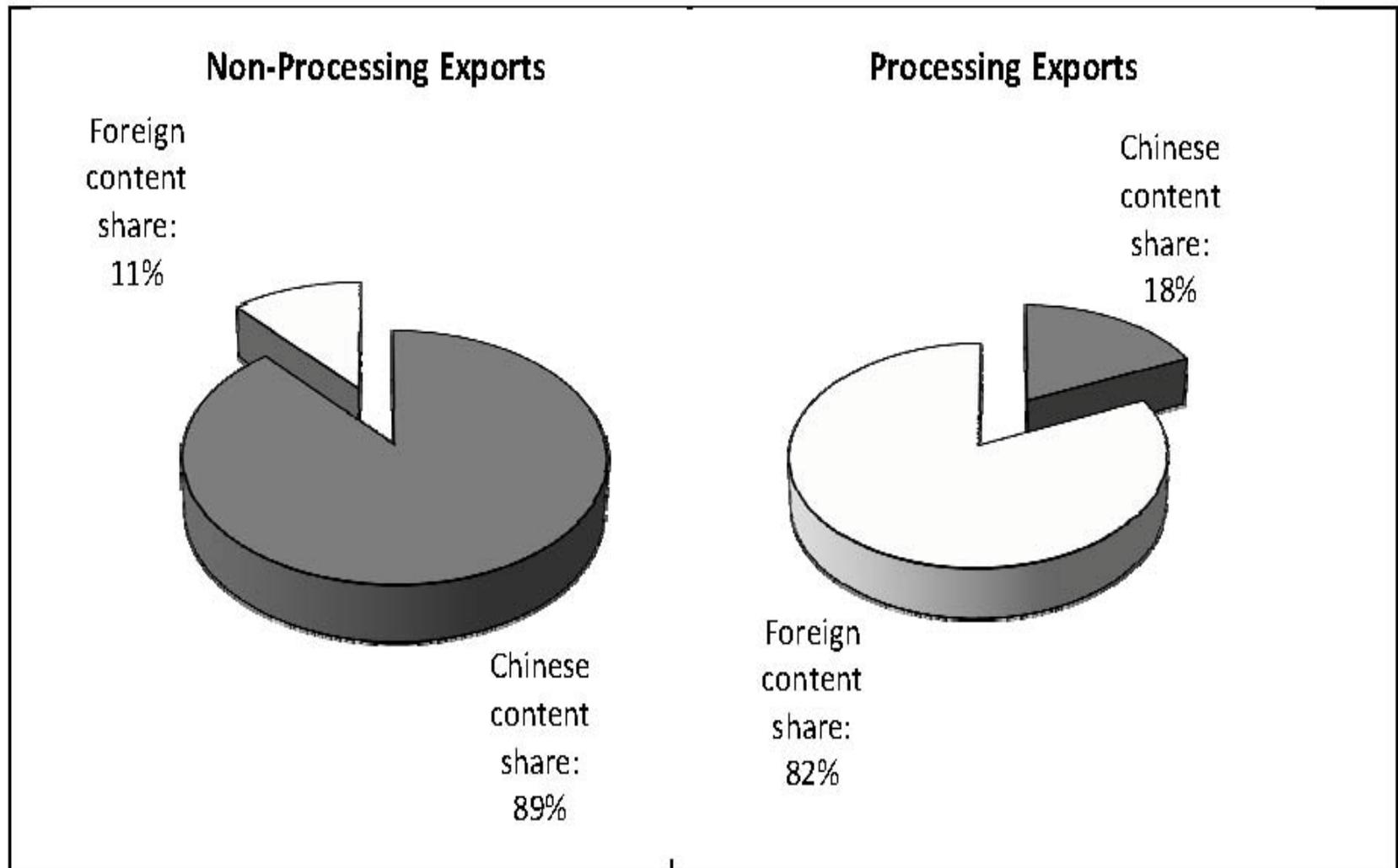


Figure 1: Proportion of processing trade in China's total trade, 1988-2008



Source: Authors' calculations using China's Customs Statistics.

Figure 2: Domestic and foreign content share of China's processing and non-processing exports

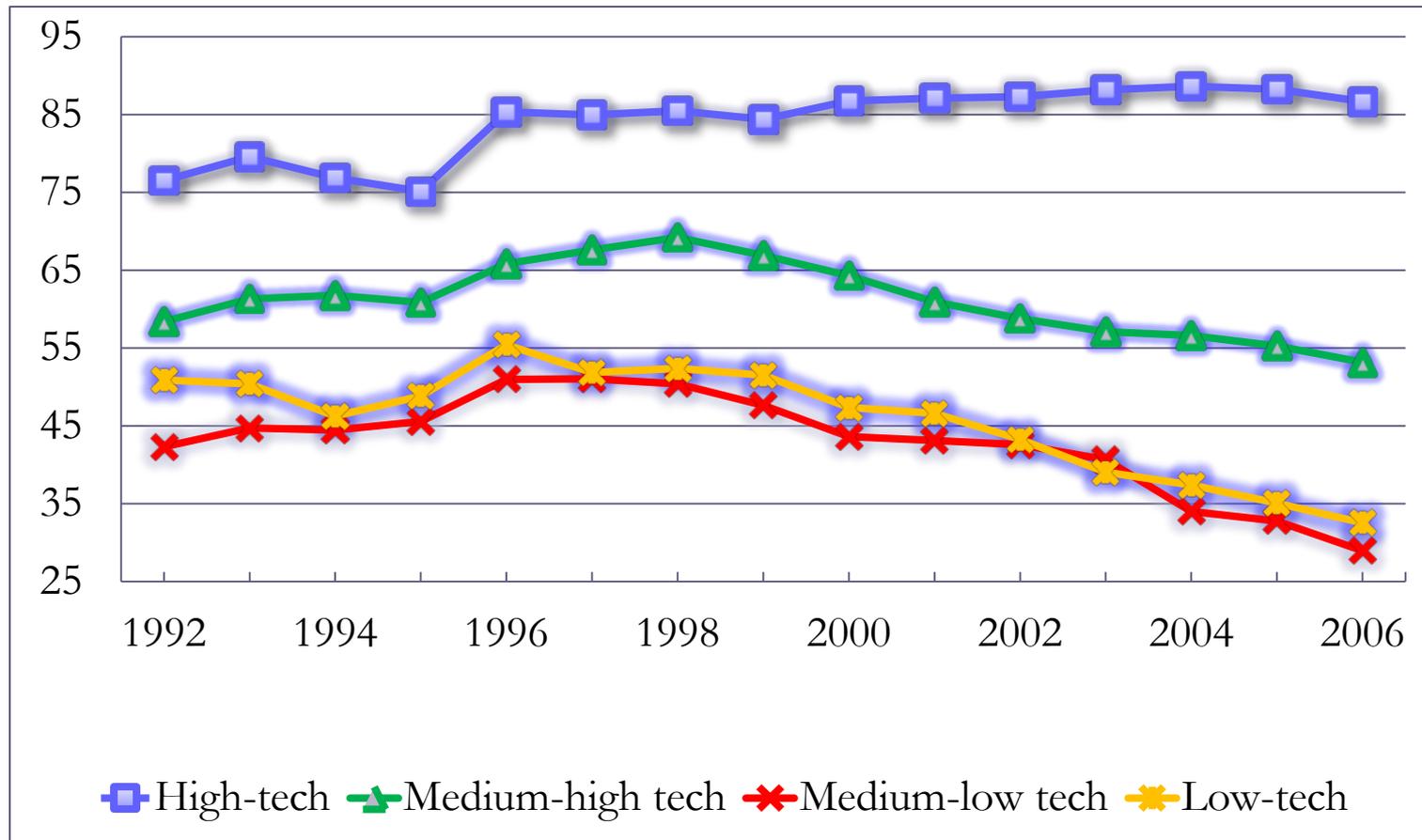


Source: Koopman, Wang and Wei (2008).

Exported by China \neq Made in China

- Only half of China's total export value is Made in China, while the other portion is the value of imported components (Koopman et al., 2008).
- China is not the world's factory, but rather the world's assembler.

Processing export share, by technology level



Source: Ma and Van Assche (2011).

Table 6: China's non-processing exports, by technology level

	Export share (%)		Growth rate (%)	RCA index	
	1992	2007	1992-2007	1997	2007
High-tech	3.9	8.2	22.5	0.23	0.42
Aircraft	0.7	0.0	-2.8	0.30	0.02
Pharmaceuticals	1.8	1.3	14.6	1.28	0.42
Office and computing machinery	0.1	0.4	31.6	0.01	0.14
Radio, TV and comm. Equipment	0.6	5.0	33.8	0.11	0.60
Medical, precision and optical instr.	0.7	1.4	22.2	0.23	0.41
Medium-high-tech	8.0	21.4	24.4	0.31	0.84
Electrical machinery	2.3	5.3	23.3	0.62	1.34
Motor vehicles	0.4	3.3	33.2	0.04	0.35
Chemicals	1.1	1.3	18.2	0.45	0.52
Other transport equipment	0.5	1.3	24.2	1.11	3.13
Machinery and equipment	3.7	10.2	24.6	0.39	1.10
Medium-low-tech	12.0	23.1	21.9	0.91	1.69
Shipbuilding and repairing	0.1	0.2	20.5	0.37	0.65
Rubber and plastic products	0.6	1.9	25.3	0.28	0.85
Petroleum products	2.0	0.7	9.3	1.41	1.15
Non-metallic mineral products	3.1	3.1	16.9	2.22	2.75
Metal products	6.1	17.2	24.8	0.78	1.84
Low-tech	48.5	38.2	15.3	2.24	2.51
Manufacturing	2.8	5.7	22.3	0.88	2.08
Paper and paper products	2.7	2.2	15.7	0.78	0.94
Printing and publishing	0.2	0.2	17.1	0.27	0.63
Food, beverages and tobacco	9.7	3.1	8.9	1.62	0.68
Textiles, apparel and leather	33.2	27.0	15.5	3.98	5.06
Other	27.5	9.2	9.3	1.23	0.35
Total	100.0	100.0	84.0	1.00	1.00

Source: Authors' calculations, using China's Customs Statistics data.

Implication

- Once global value chains are taken into account, the evidence is less strong that China is rapidly moving up the technology ladder and becoming competitive in technology-intensive areas where advanced economies should have a comparative advantage.
- Rather, China's production activities have remained consistent with its comparative advantage in labor-intensive tasks.
- Traditional measures of international competitiveness unreliable in a global value chains world!!!

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Table 1. The origin and destination of China's processing import and export, 2008

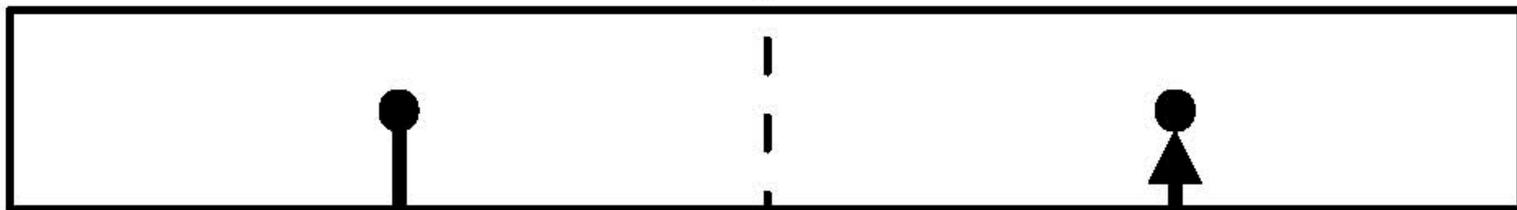
	Share of processing imports originating from	Share of processing export
East Asia	72.8	28.2
Japan	20.4	11.6
South Korea	17.3	6.0
Singapore	4.6	3.3
Taiwan	15.8	2.2
Malaysia	6.0	1.9
Thailand	4.5	1.0
Philippines	2.8	0.7
Vietnam	0.2	0.5
Indonesia	0.9	0.8
Macau	0.4	0.3
Non-Asian OECD	19.4	59.6
EU-19	9.1	27.5
US	7.4	25.7
Canada	0.7	1.8
Australia	0.7	1.7
Other	1.6	2.8
ROW	7.8	12.2

Authors' calculations using China's Customs Statistics Data. The data are adjusted for Hong Kong re-exports.

Supplier Access Firm

Market Access Firm

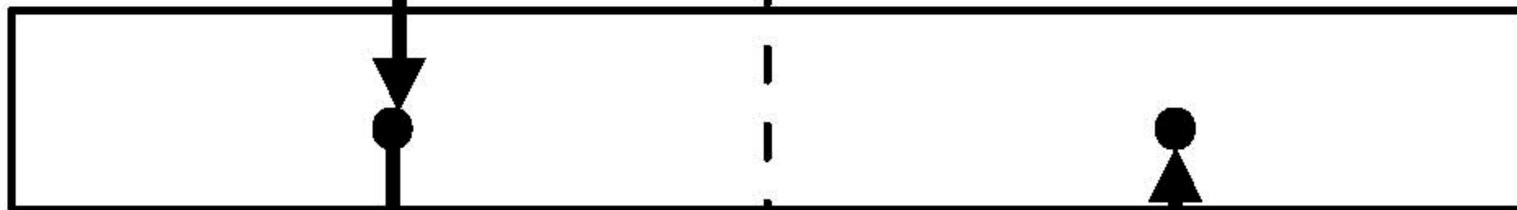
East Asia



Processing imports

Processing exports

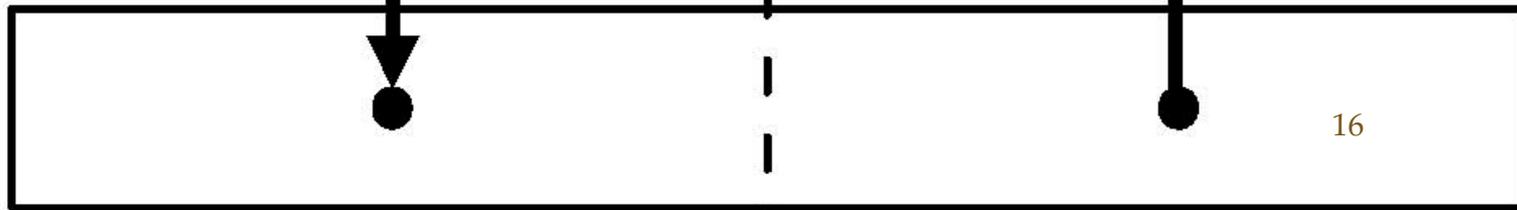
China



Processing exports

Processing imports

Rest of the World

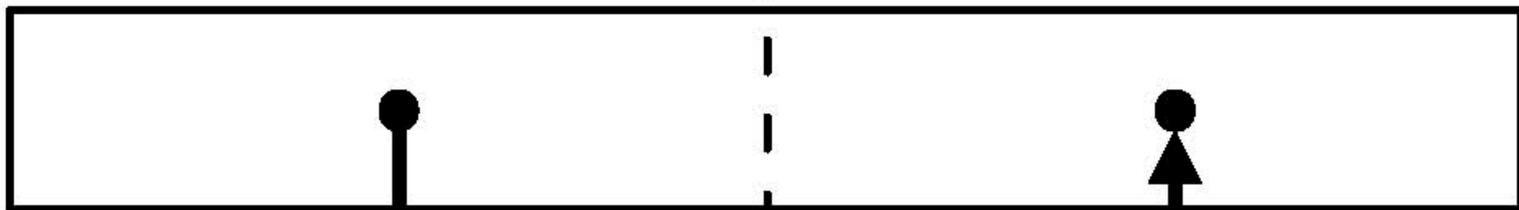




Supplier Access Firm

Market Access Firm

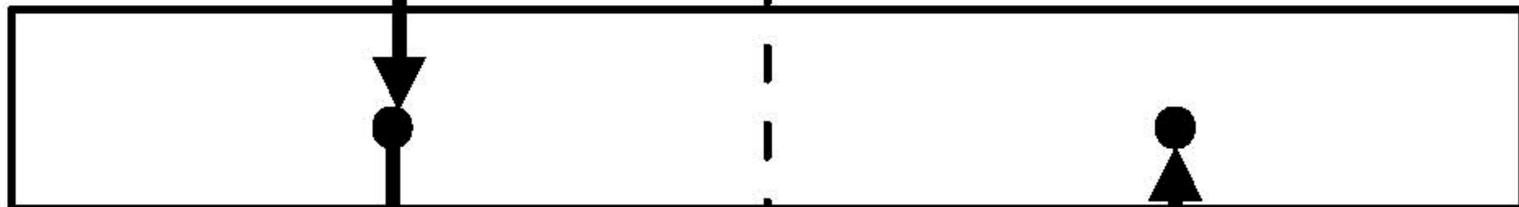
East Asia



Processing imports

Processing exports

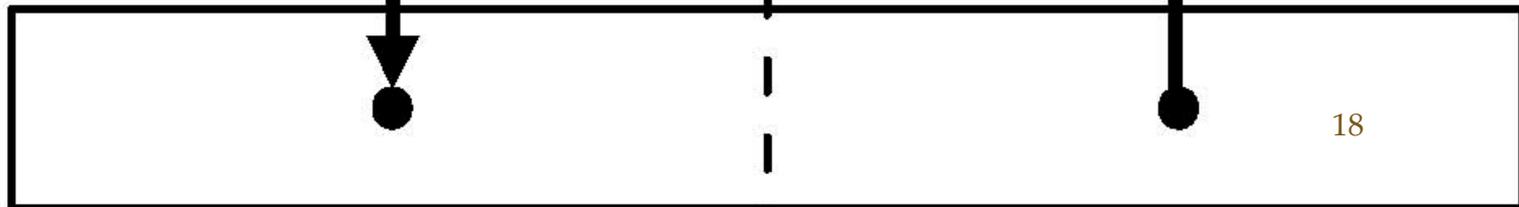
China



Processing exports

Processing imports

Rest of the World



Implication

- China's attractiveness as an offshoring location is not only driven by low labor costs, political stability and export promotion policies.
- Its geographic proximity to its East Asian neighbors also provides it with privileged access to the region's upstream suppliers and downstream markets.
 - Eastern firms choose China as a processing location for its exports to West
 - Western firms choose China as a processing location for its exports to East
 - Only a small portion of offshoring to China is conducted by Western firms that merely want to reduce their production costs.

Conclusion

- Once China's role in global value chains is taken into account, a different picture of China emerges than is portrayed by the popular press.
- China's exports do not reflect a rising dragon that single-handedly challenges Western manufacturing firms in both low-tech and high-tech industries.
- They rather represent the façade of increasingly competitive East Asian production networks that sell to Western markets.