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Reconfiguring Supply Chains in an Era of US-China Conflict

Ari Van Assche



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

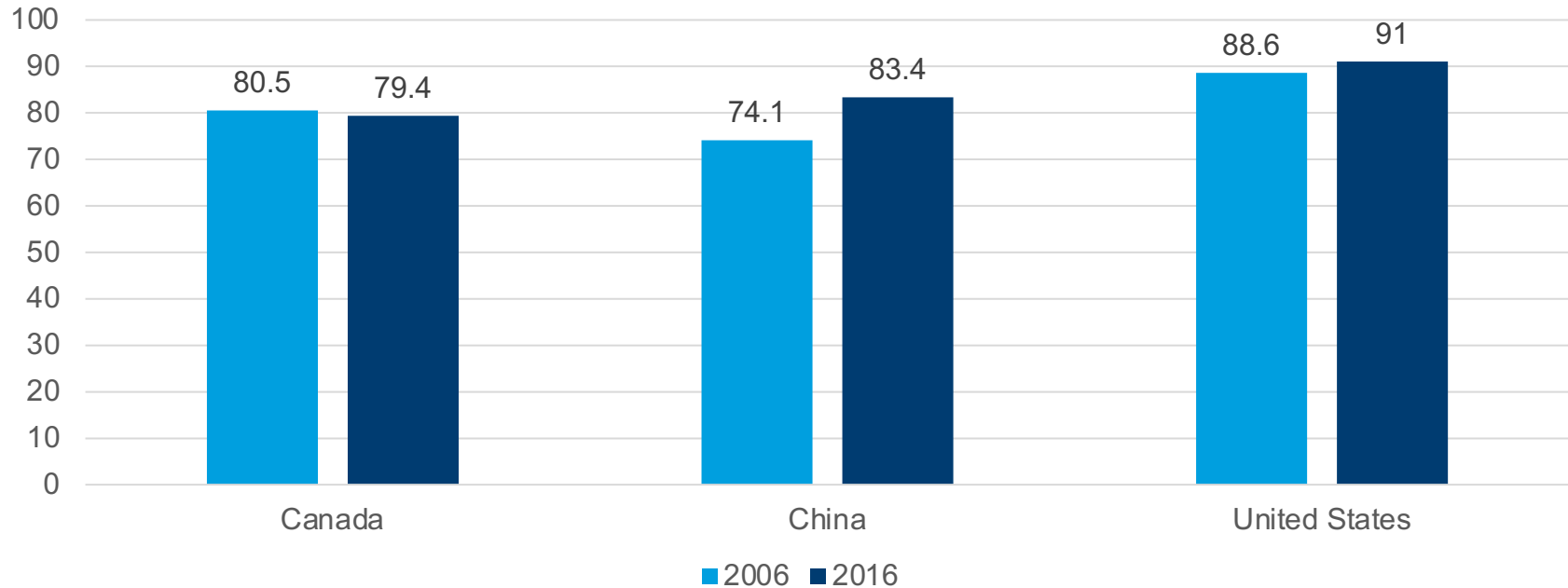
**VOICE-RECOGNITION
REQUIREMENTS:**
San Francisco
**VOICE-RECOGNITION
PROGRAMMING:** Taiwan

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.

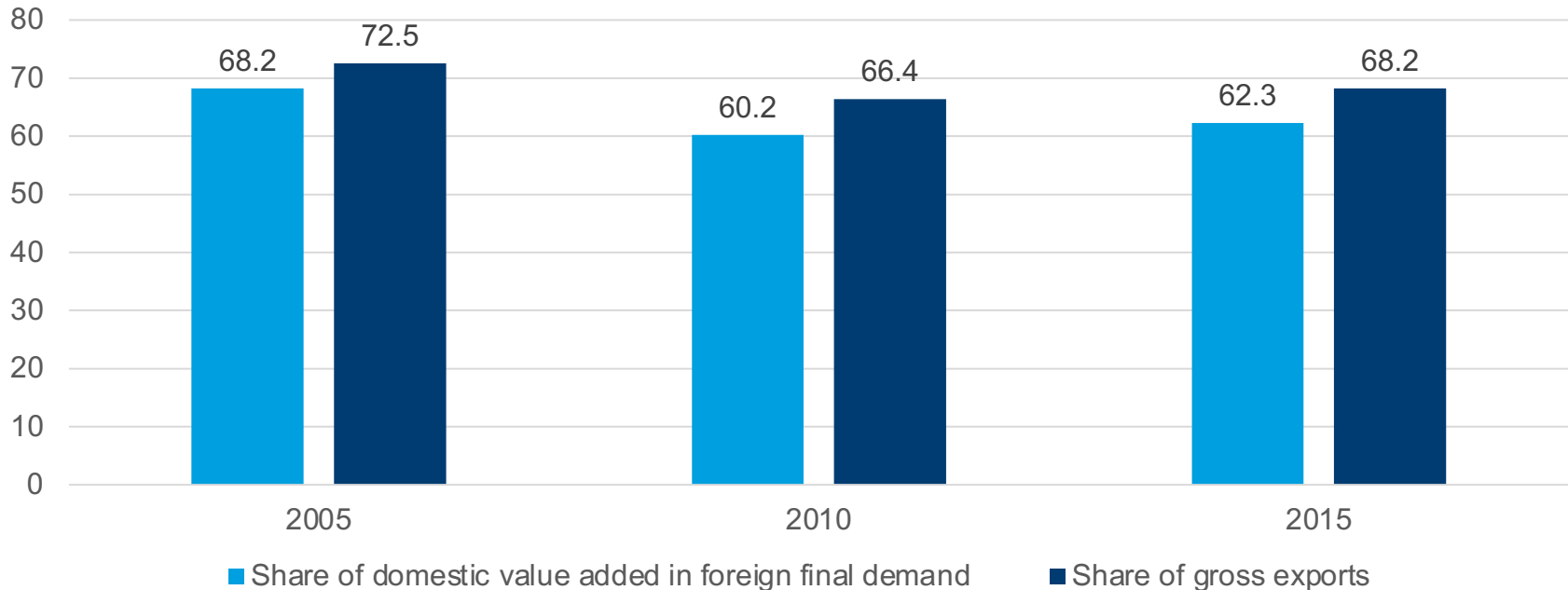
Share of domestic value added in gross exports (%)



Source: OECD TIVA

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Share of Canadian exports destined to the USA (%)



Source: OECD TIVA

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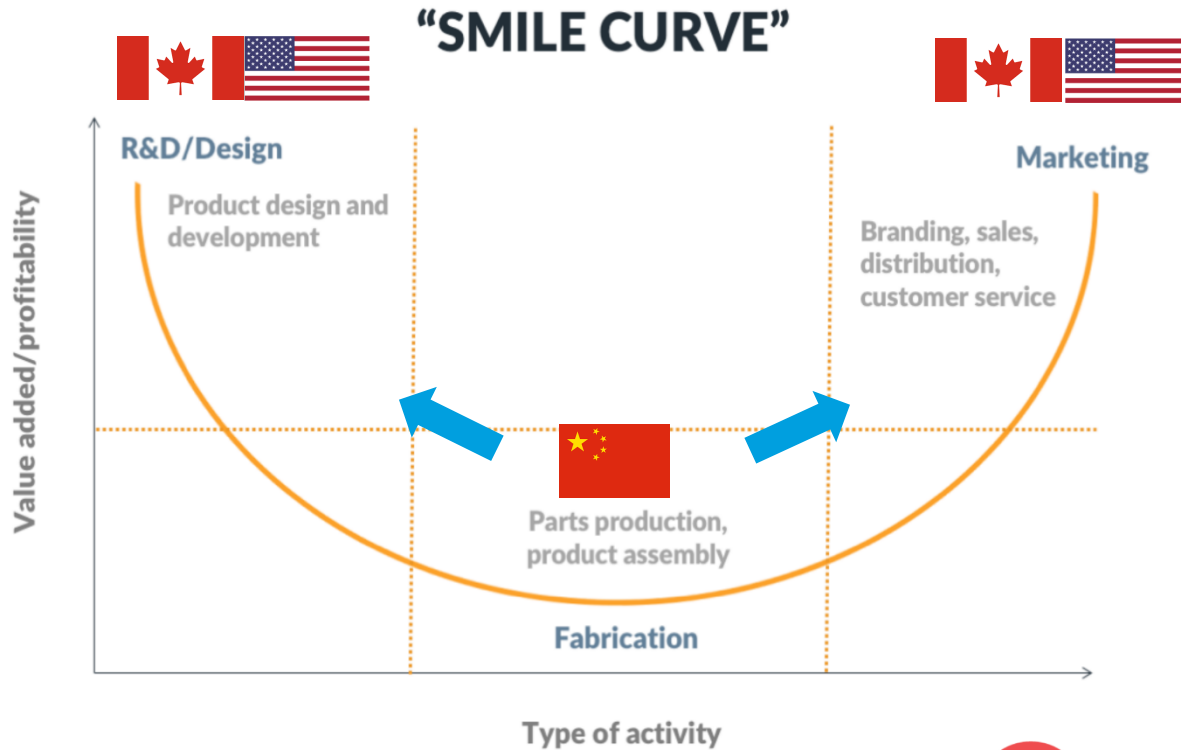
Porter's Value Chain

- Production process is a sequence of stages – tasks – that need to be combined to produce a final good.



Source: Porter (1985)

The Smile of Value Creation



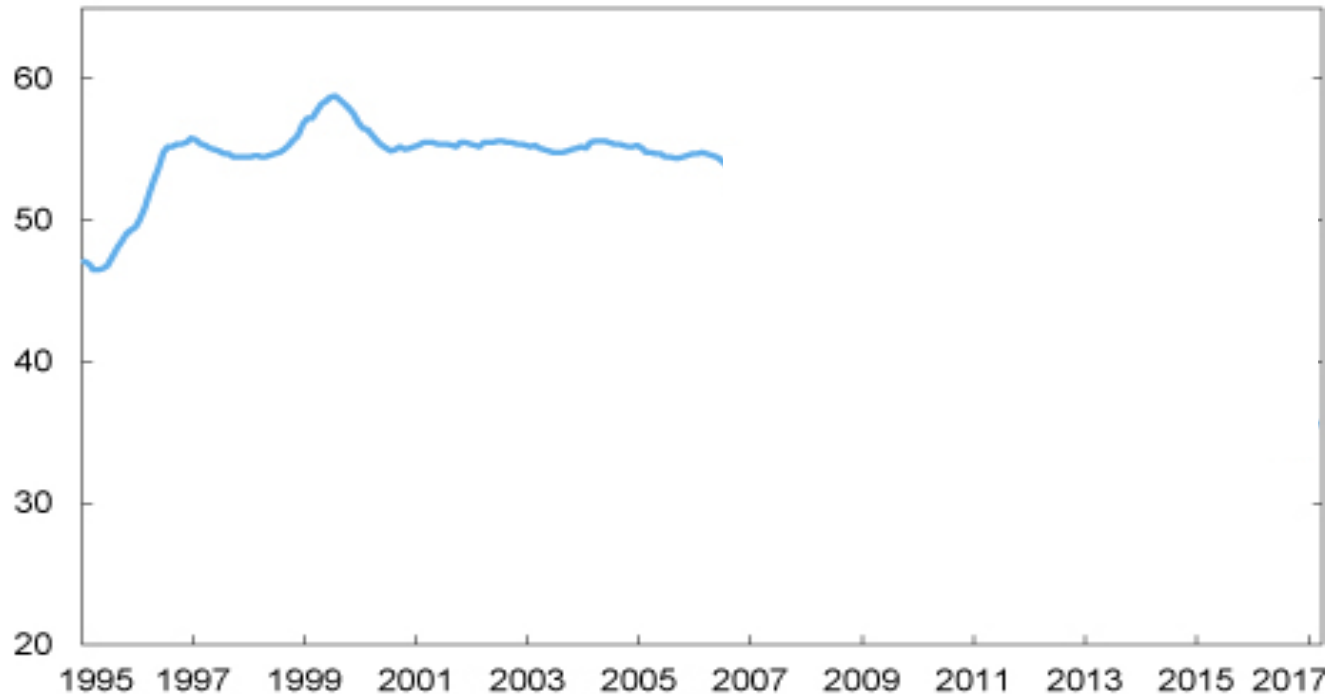
Source: Mudambi (2008)

China as the World's Assembly Line



- Starting in the 1980s, China has aggressively developed policies to attract labor-intensive assembly activities to China.
- The success of these policies has given China the nickname of “The World’s Factory”.

China's Processing Export as a Share of Total Exports



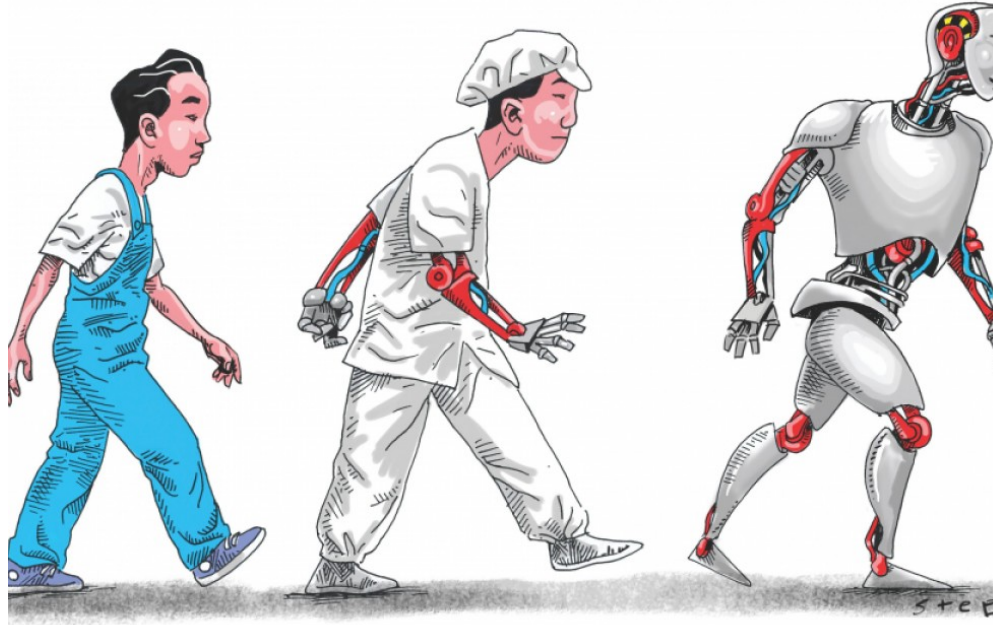
Source: CEIC.

Note: "Processing exports" consist of exported goods that use imported raw materials, parts, or components as inputs.

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Source: Klitgaard and Wheeler (2017)

Chinese Labor, Cheap No More



Product upgrading



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Functional upgrading

Toll manufacturer: manufactures a product using inputs provided by the foreign lead firm.



Contract manufacturer: responsible for searching, obtaining, performing quality control, and paying for the imported intermediates prior to conducting their manufacturing functions.

Move into input production

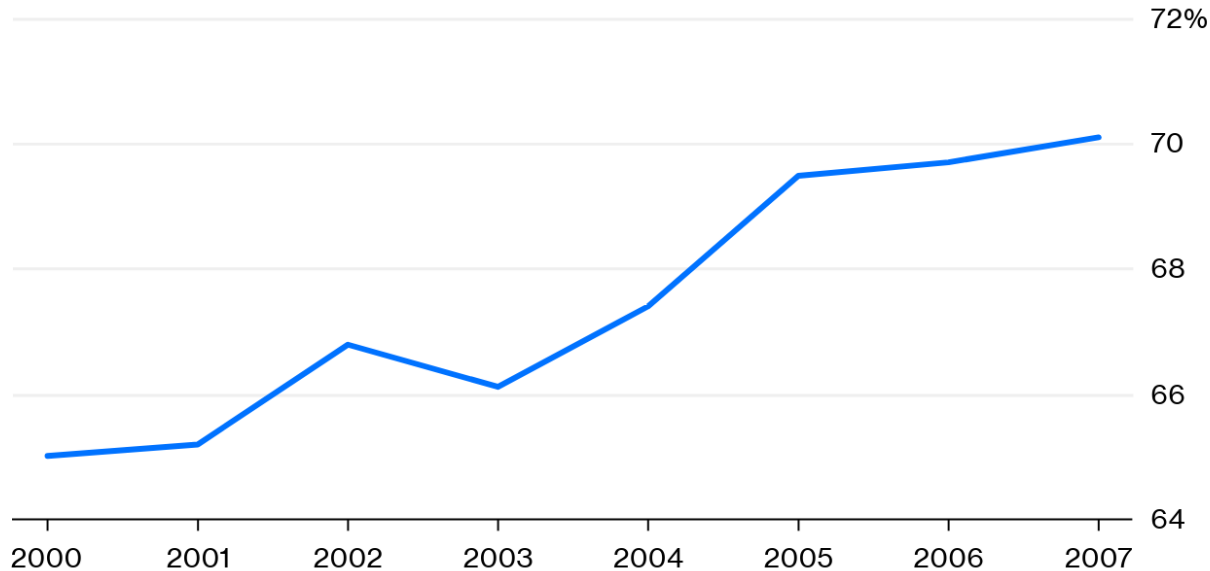
iPhone 3G (2009)	iPhone X (2018)
<ul style="list-style-type: none">• Assembly (Foxconn) <p>Total value added: \$6.5, 3.6% of the bill of materials.</p>	<ul style="list-style-type: none">• Assembly (Foxconn)• Functional parts for touchscreen module (Anjie Technology)• Filter for 3D sensing module (Crystal Optech)• Coil module for wireless charging (Lushare Precision)• Printed circuit board (M-Flex)• Speakers (Goertek)• RF antenna (Shenzhen Sunway)• Battery pack (Sunwada)• Glass cover (Lens Technology)• Stainless frame (Kersen Technology)• Camera module (O-Filem) <p>Total value added: \$104, 25.4% of the bill of materials.</p>

Source: Xing (2019)

Domestic value added in Chinese exports

More Made in China

Domestic value-added ratio of Chinese exports



Source: Hiau Looi Kee and Heiwai Tang, "Domestic Value Added in Exports: Theory and Firm Evidence from China," American Economic Review 2016 **BloombergOpinion**

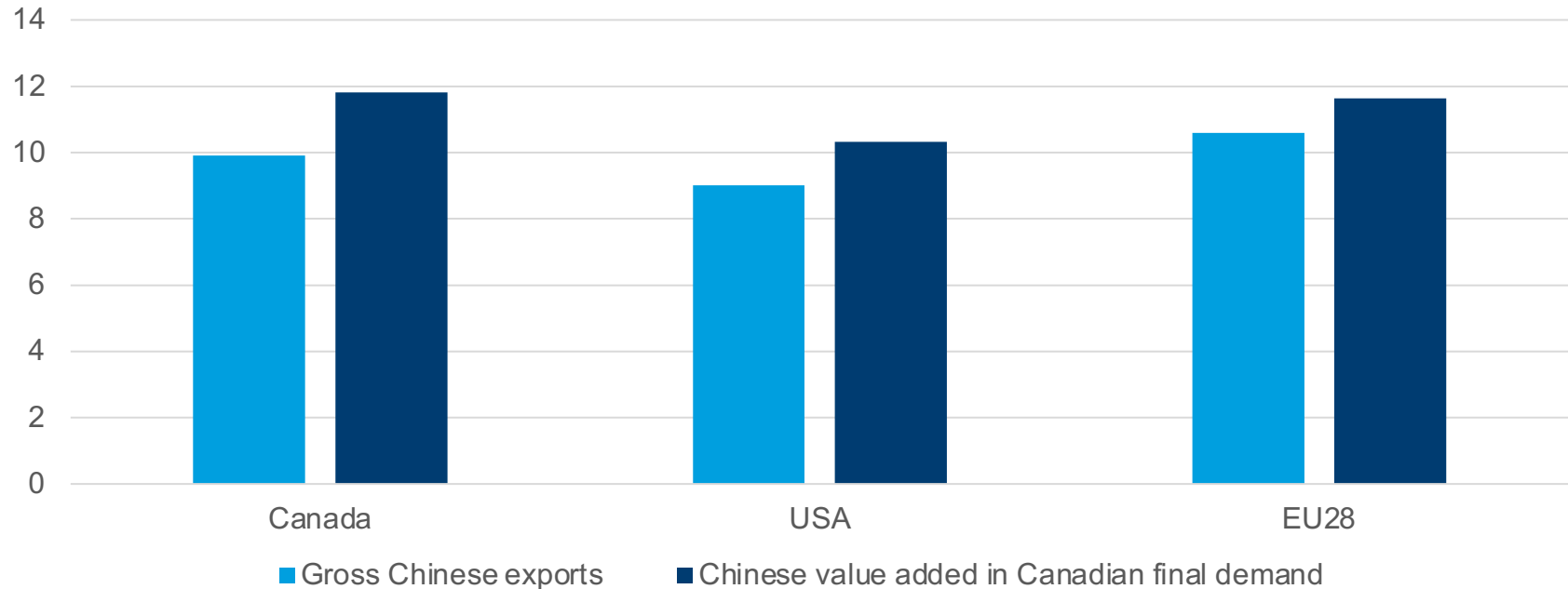
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Whither final assembly, but don't see it as weakness

- Labor-intensive final assembly relocated to Southeast Asia.
- Growing share of Chinese domestic value added reaches our shores through third countries.
- China's import share is a poor measure of our dependence on that country.



The West's consumption of Chinese value added is growing faster than its gross Chinese imports, CAGR, 2005-2015



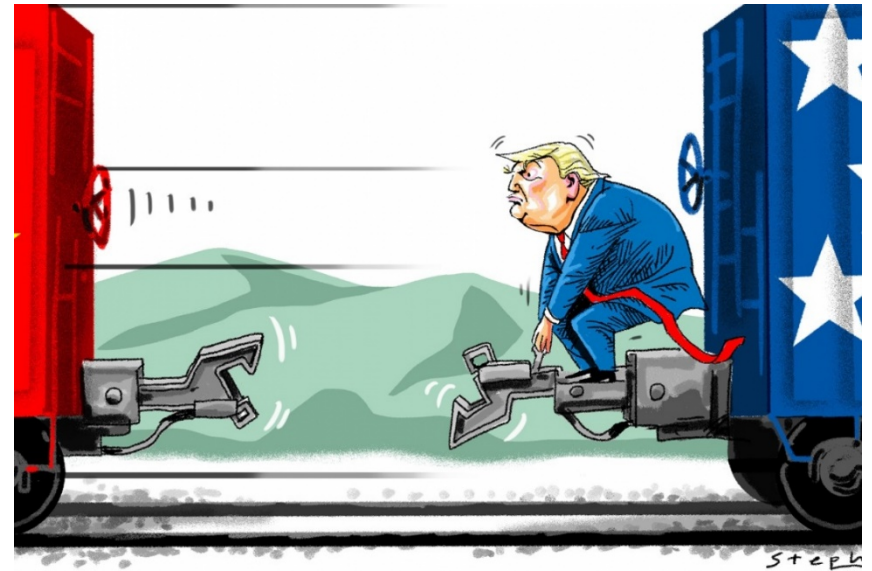
West's growing dependence on China

- A country's importance and value capture in global value chains depends on its specialization in **bottleneck activities**.
- China has gradually upgraded into bottleneck activities that are not easily moved elsewhere.
- It has left the more footloose – substitutable – activities for Southeast Asian nations.



Sino-US Trade War

- USA has tried to force domestic reform in China by hiking its tariffs on Chinese imports.
- The subsequent trade war has increased average tariffs to approximately 20 percent between China and USA.



Trade war has sped up existing trends

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There is no reason for the U.S. Consumer to pay the Tariffs, which take effect on China today. This has been proven recently when only 4 points were paid by the U.S., 21 points by China because China subsidizes product to such a large degree. Also, the Tariffs can be.....

1.8K 2.7K 10.2K

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...completely avoided if you buy from a non-Tariffed Country, or you buy the product inside the USA (the best idea). That's Zero Tariffs. Many Tariffed companies will be leaving China for Vietnam and other such countries in Asia. That's why China wants to make a deal so badly!...

552 2K 7.6K



Footwear Distributors and Retailers of America, May 20, 2019

- *“There have been suggestions that industries should quickly shift sourcing to countries other than China in the wake of these additional tariff threats. While our industry has been moving away from China for some time now, footwear is a very capital-intensive industry, with years of planning required to make sourcing decisions, and companies cannot simply move factories to adjust to these changes. Any action taken to increase duties on Chinese footwear will have an immediate and long-lasting effect on American individuals and families. It will also threaten the very economic viability of many companies in our industry.”*

China's Dual Circulation Strategy

- Strategy to cut China's dependence on overseas markets and technology in its long-term development.
- Primary focus is on strengthening **internal circulation**'s role in economic development by boosting innovation and upgrading.
- **External circulation** relegated to a supporting role in economic development.
- Towards a **bifurcated** world economy?

