

U.S. Trade and Industry: A Glimpse Under the Hood

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Dallas, TX

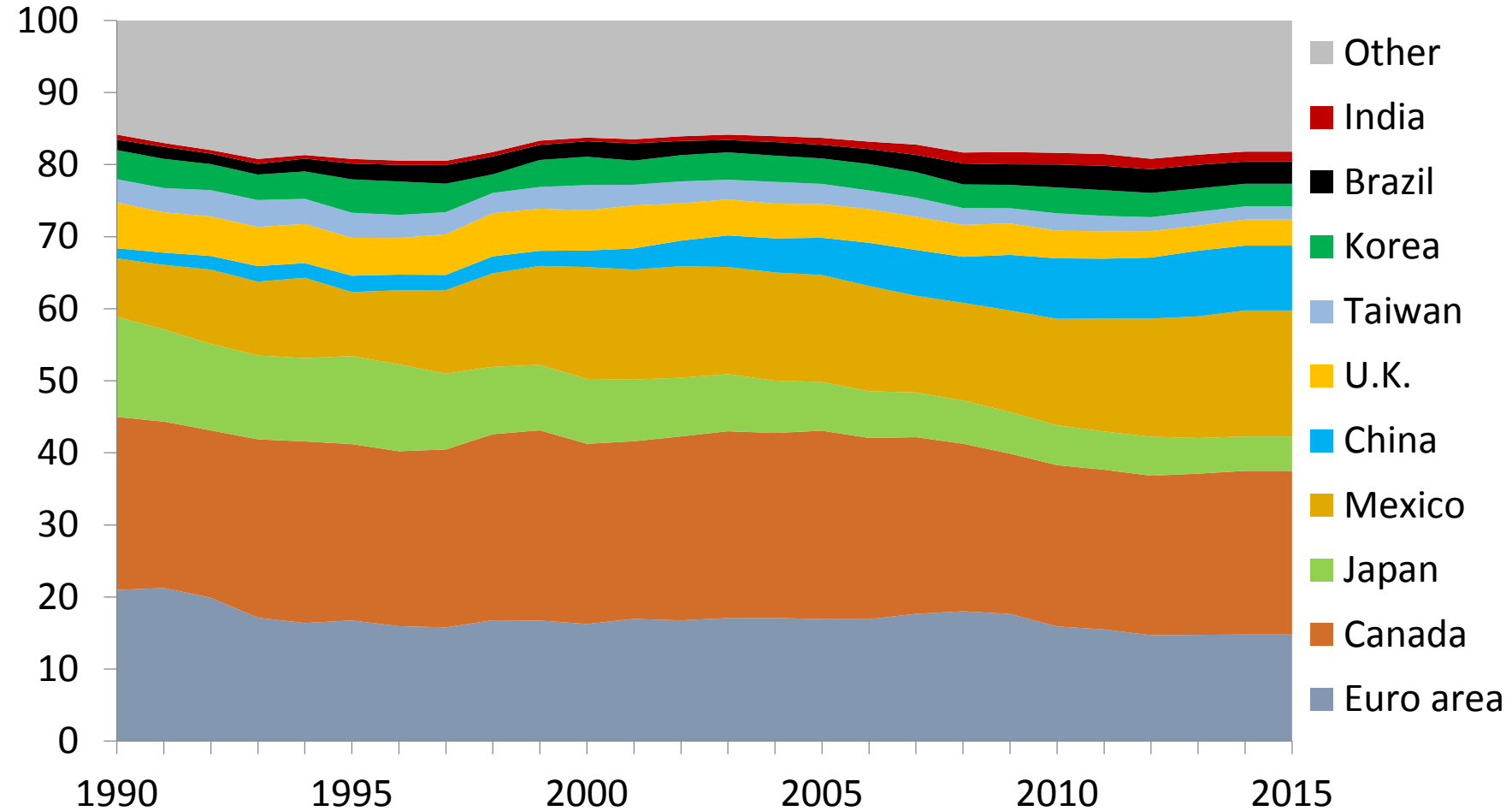
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Outline

- Breaking down U.S. trade
 - By partner
 - By types of goods
- Value-added measures of trade
 - Re-examine the trade linkages
- A historical perspective of industry in the U.S.
 - Composition of U.S. employment
 - Driving forces

Top U.S. Export Partners and Patterns

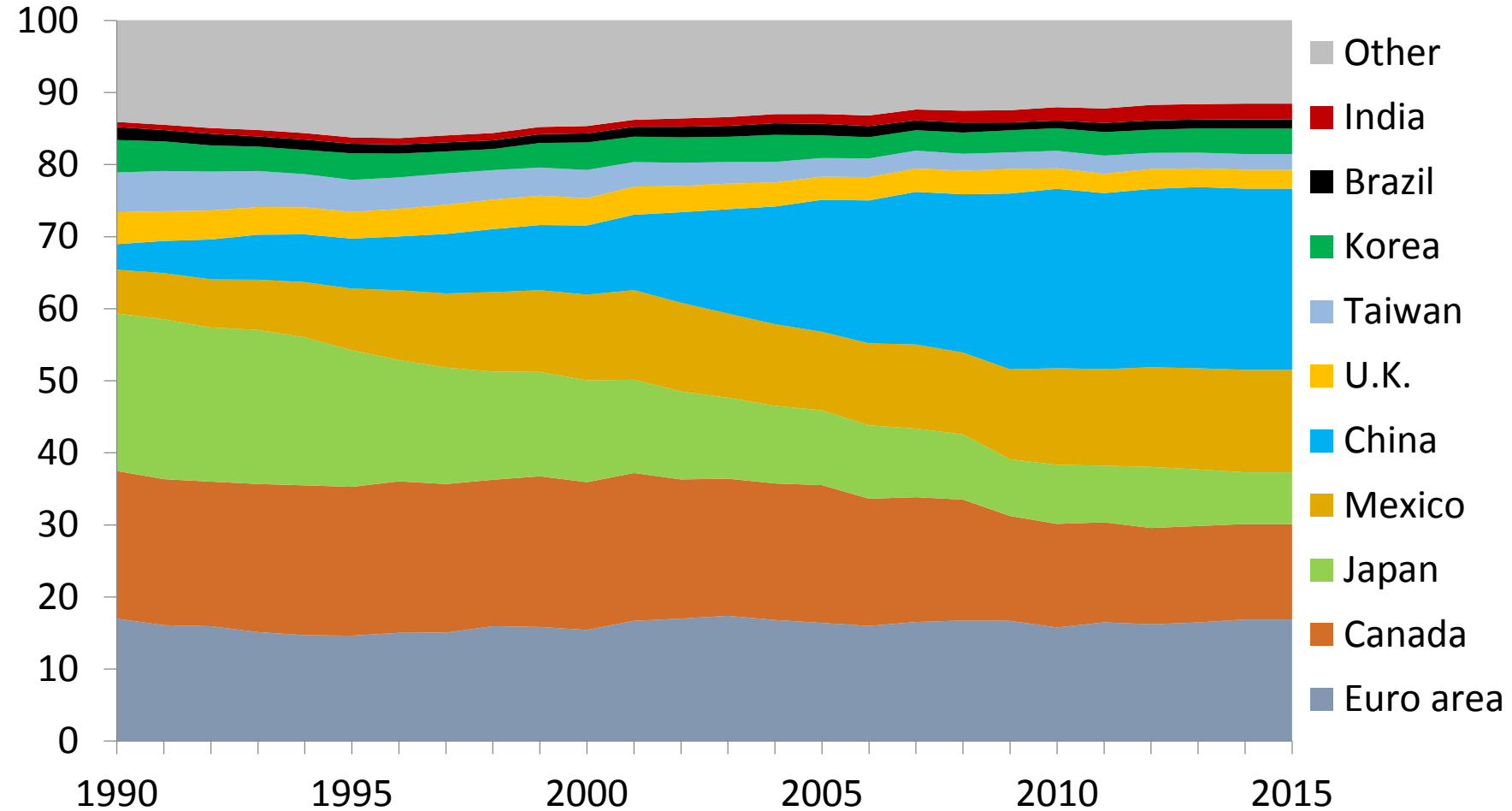
Shares, percent



Source: Haver Analytics

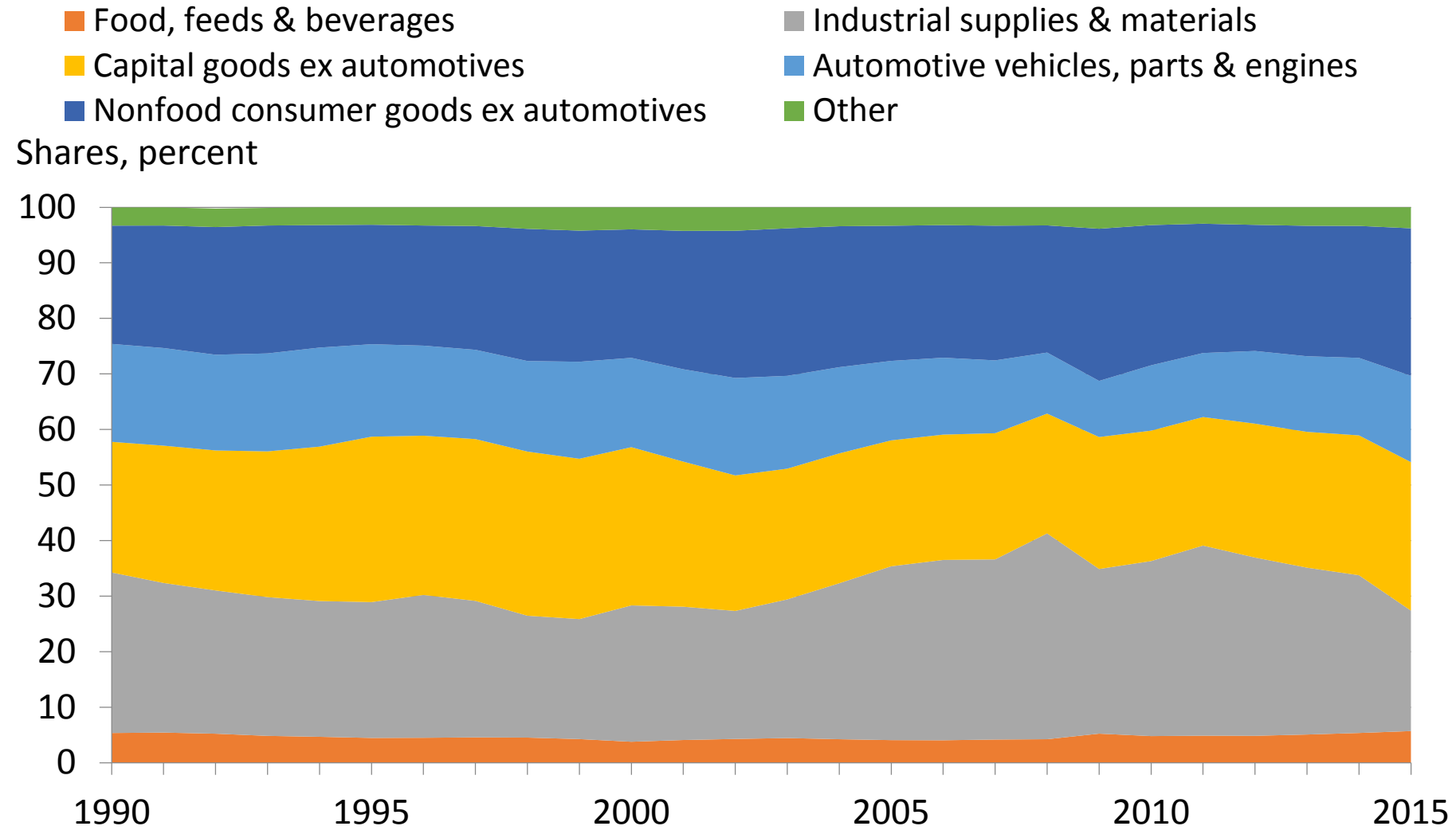
Top U.S. Import Partners and Patterns

Shares, percent



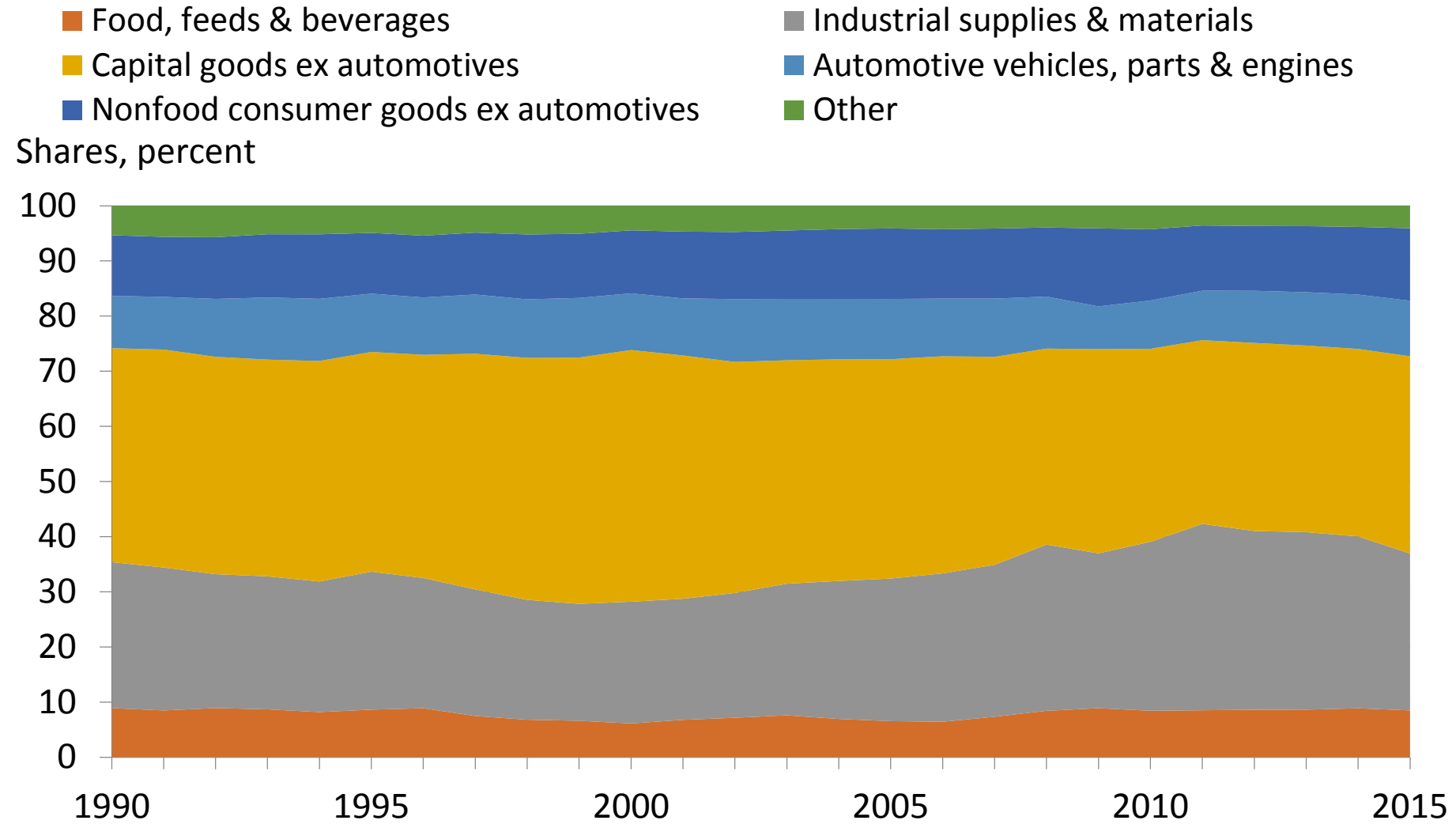
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Composition of U.S. Goods Imports



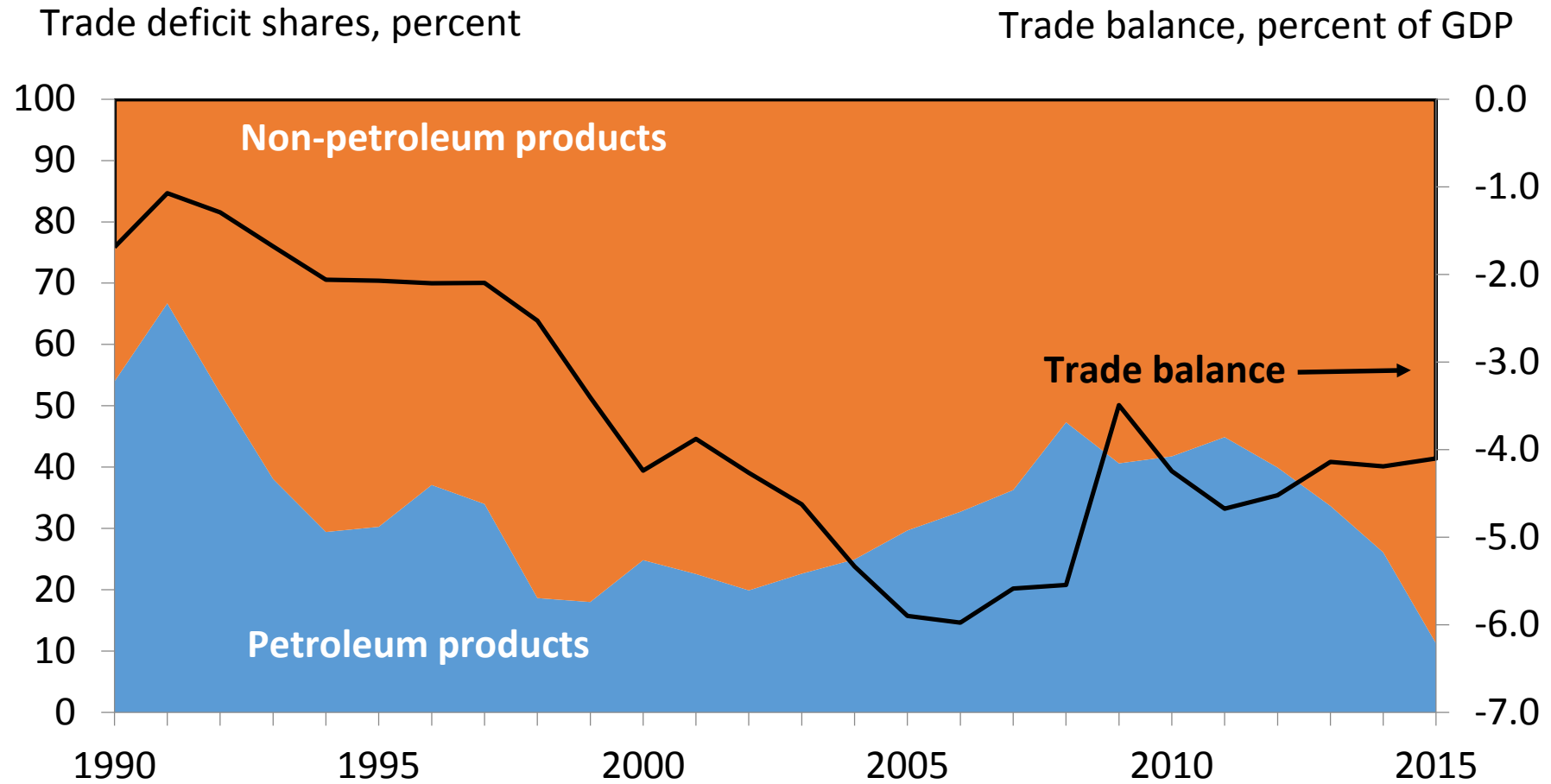
Source: Haver Analytics

Composition of U.S. Goods Exports



Source: Haver Analytics

Composition of U.S. Trade Deficit



Source: Haver Analytics

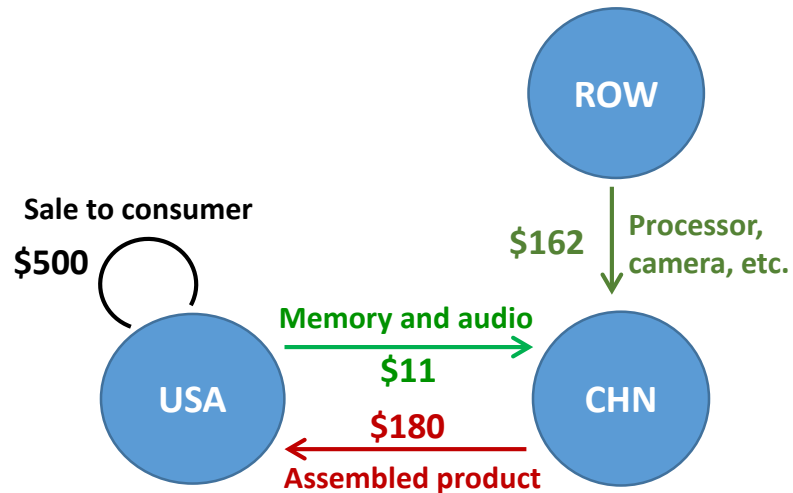
What is “value-added” trade?

- Classic example: the iPhone.
- China assembles iPhones and exports them to the U.S.
 - China imports components from various sources: Japan, Korea, Germany, the U.S., etc.
- Gross value of export is accredited to China.
 - But China does not create all of the value.
- Repatriate the contribution of each source in the global supply chain to the final value.
- Similar for much of the trade between the U.S. and Mexico, specifically in autos and parts.

Measuring trade flows in global supply chains: value-added approach

A U.S. consumer purchases an iPhone for \$500: How is the value-added distributed?

Recording the transaction in gross terms.



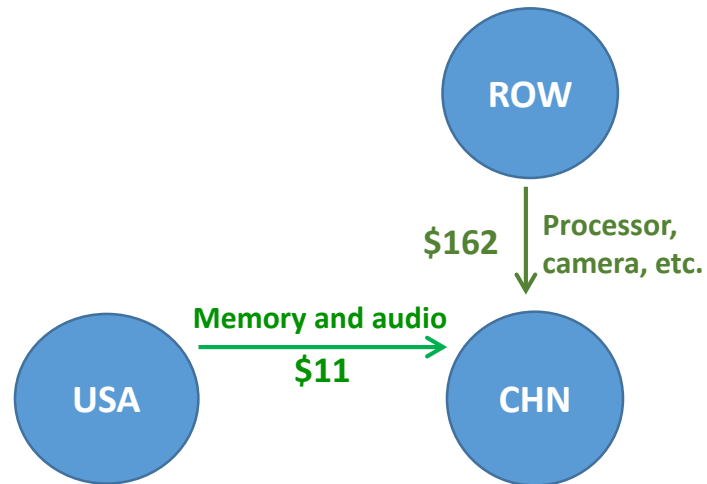
Implied **gross** trade deficit b/w U.S. and China: \$169.

Implied **gross** trade deficit b/w U.S. and ROW: \$0.

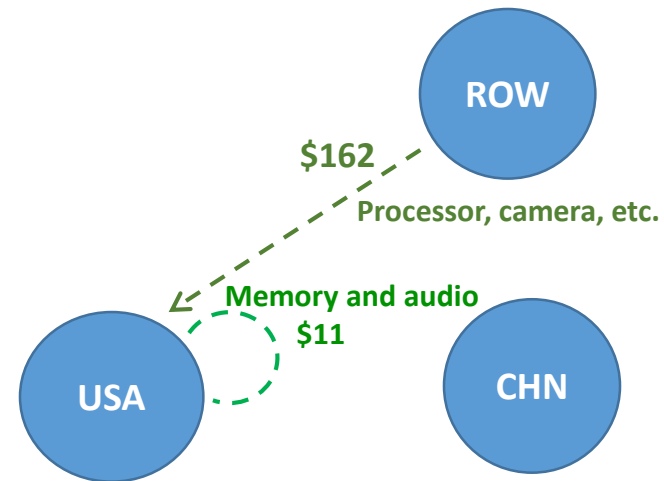
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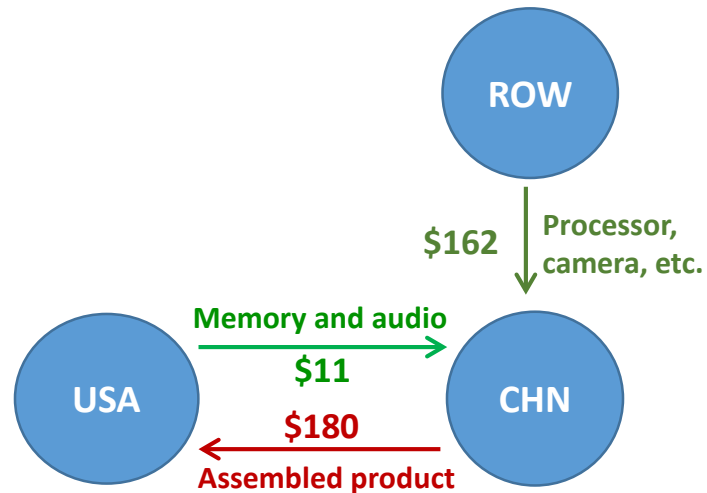
Trade in intermediate goods gets repatriated to original source.



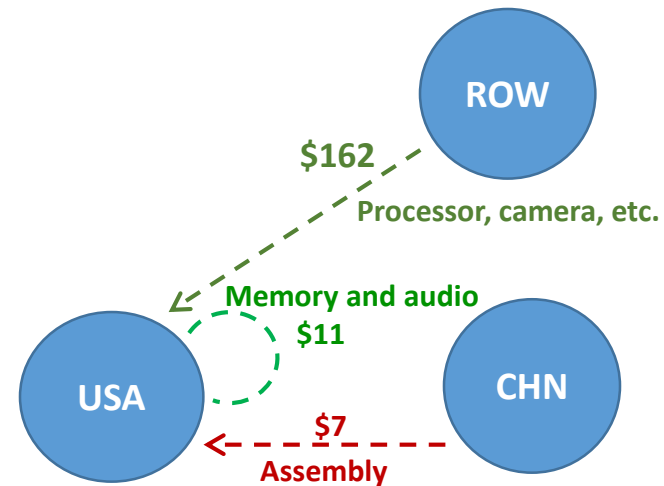
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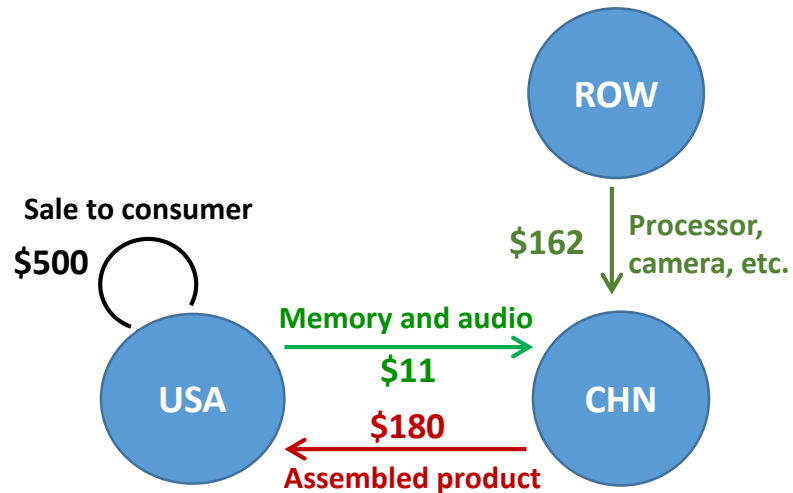
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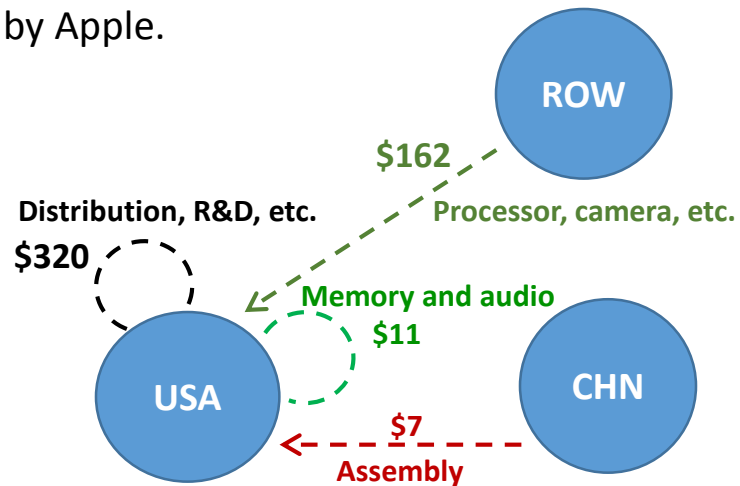
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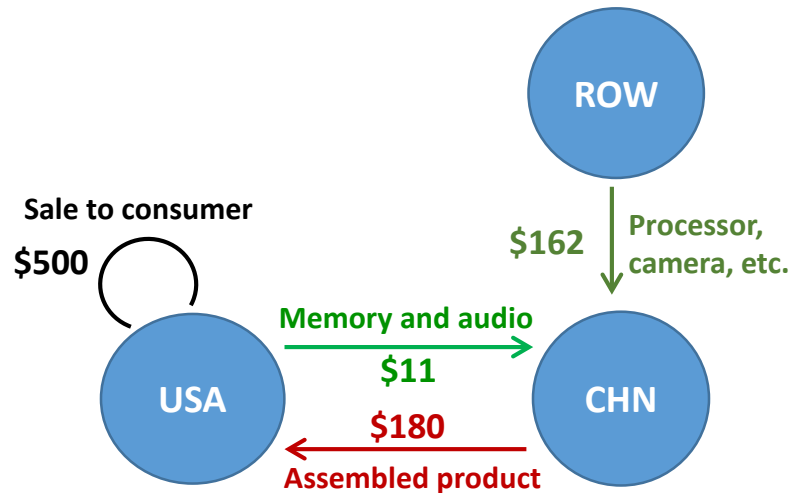
Remaining value of the iPhone sale covers distribution, R&D, and other value-added by Apple.



Measuring trade flows in global supply chains: value-added approach

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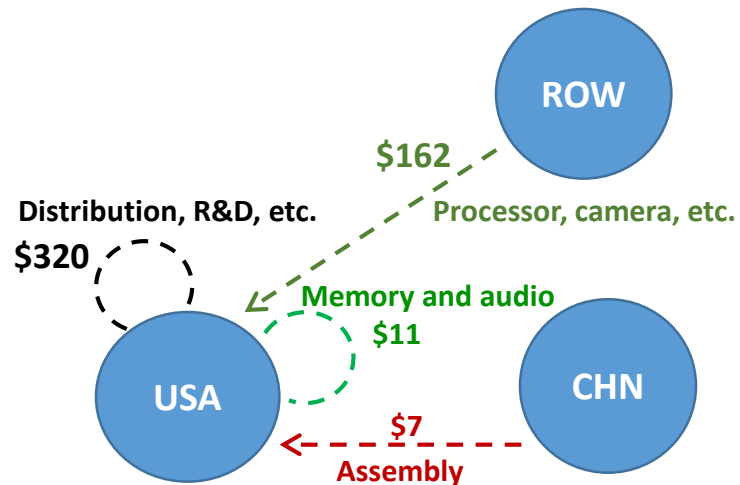
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Recording the transaction in value-added terms.



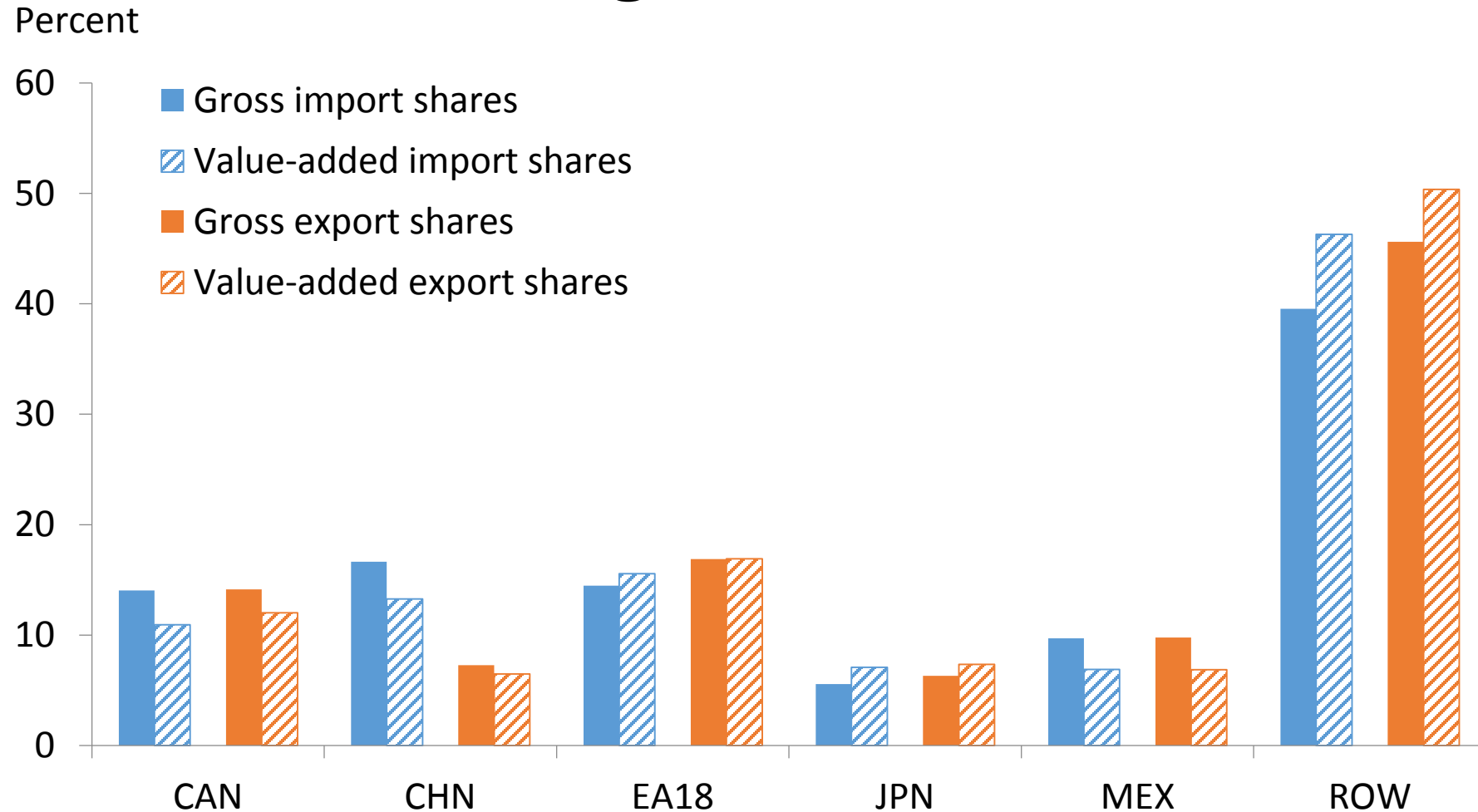
Implied **value-added** trade deficit b/w U.S. and China: \$7

Implied **value-added** trade deficit b/w U.S. and ROW: \$162.

Value-added trade figures restate U.S. bilateral trade linkages

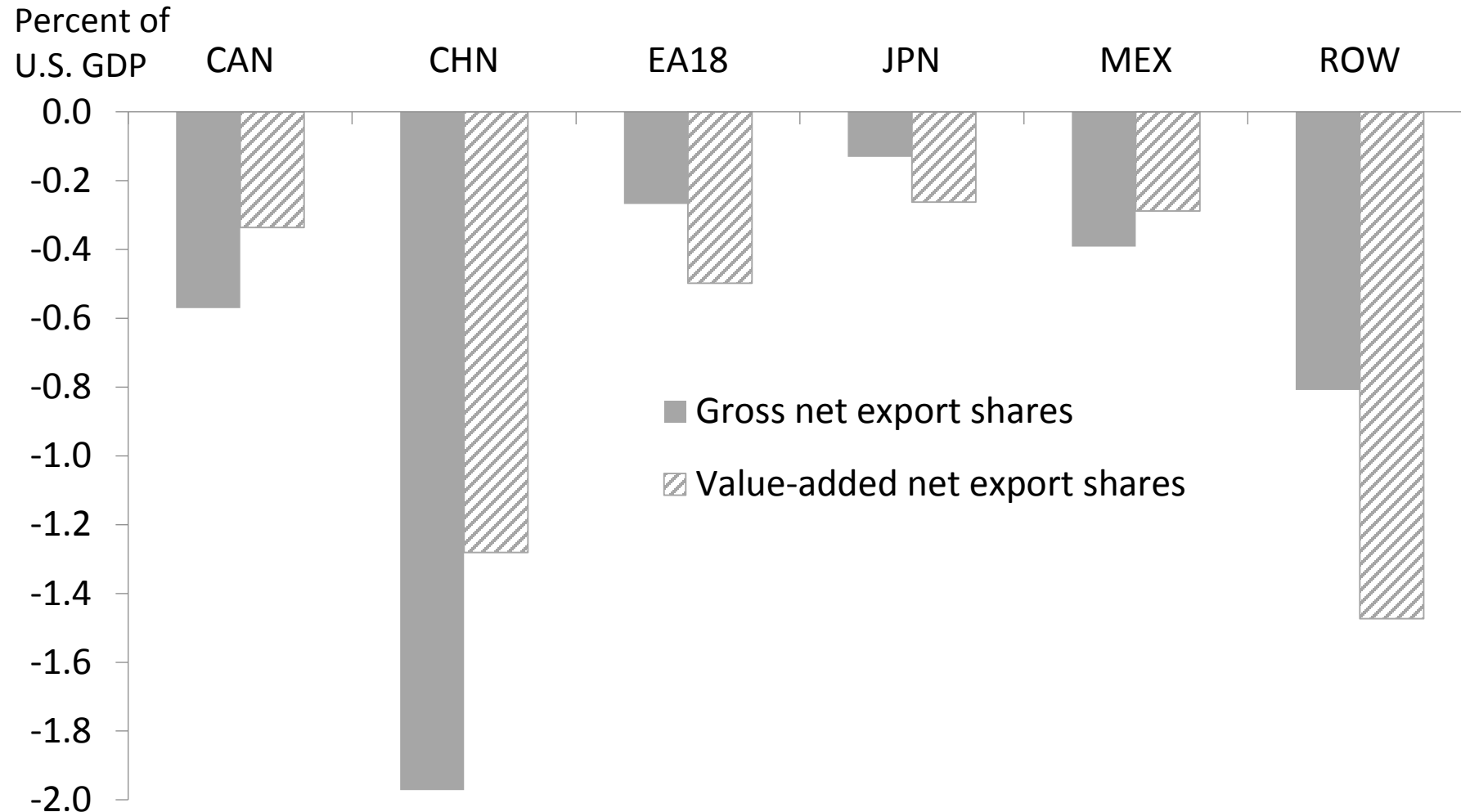
- U.S. tends to concentrate more on upstream production in the global supply chain.
- China and Mexico specialize more on downstream production.
- The U.S. bilateral trade deficits with China and Mexico are smaller when measured in terms of value added.
- Paints a new picture when thinking about currency wars.
 - A devaluation makes imports more expensive.
 - A country with small value added will gain very little from devaluing.

Value-added trade shares restate U.S. bilateral trade linkages



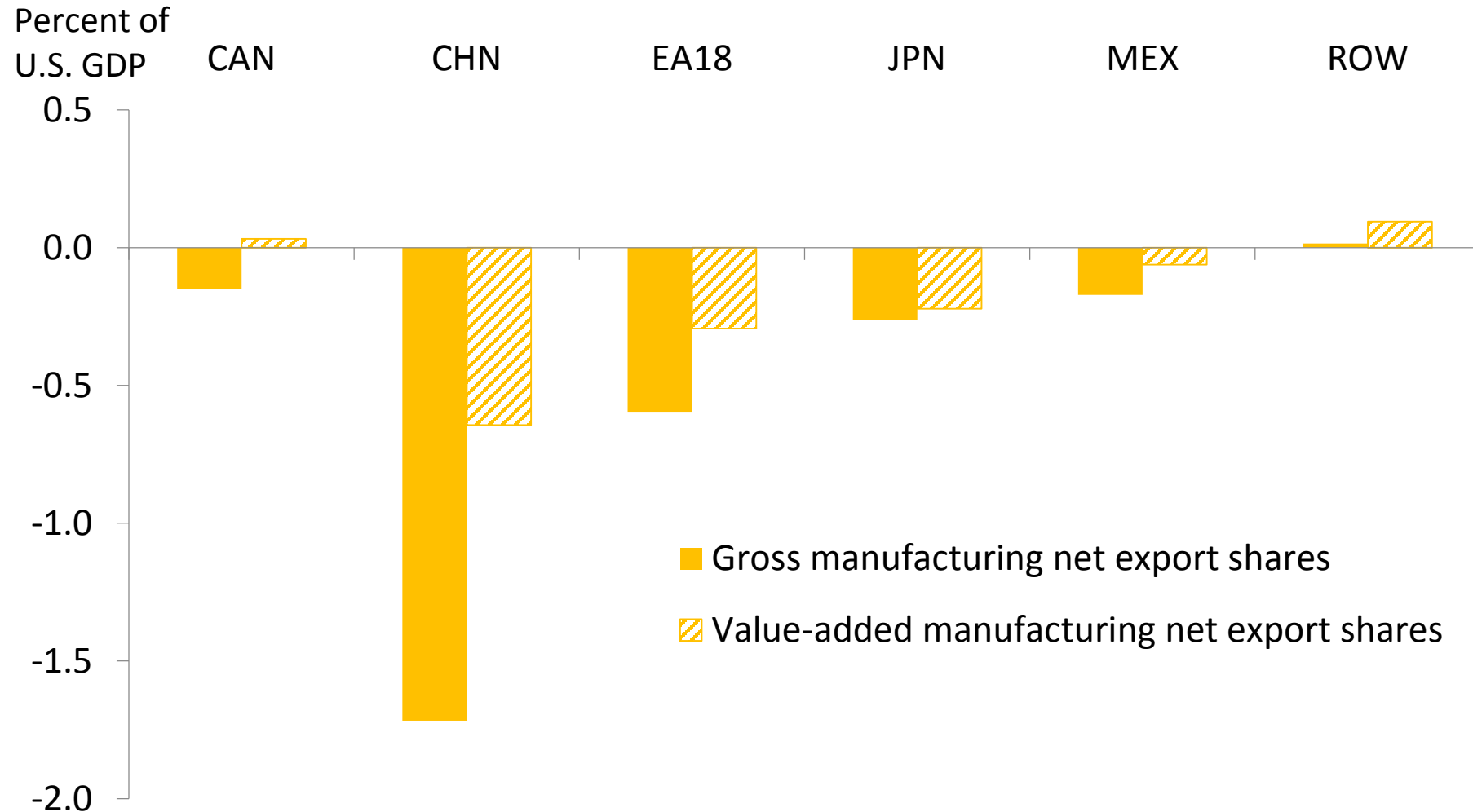
Source: OECD Trade in Value Added database

Value-added trade figures restate U.S. bilateral trade deficits



Source: OECD Trade in Value Added database

Value-added trade figures restate U.S. bilateral manufacturing trade deficits

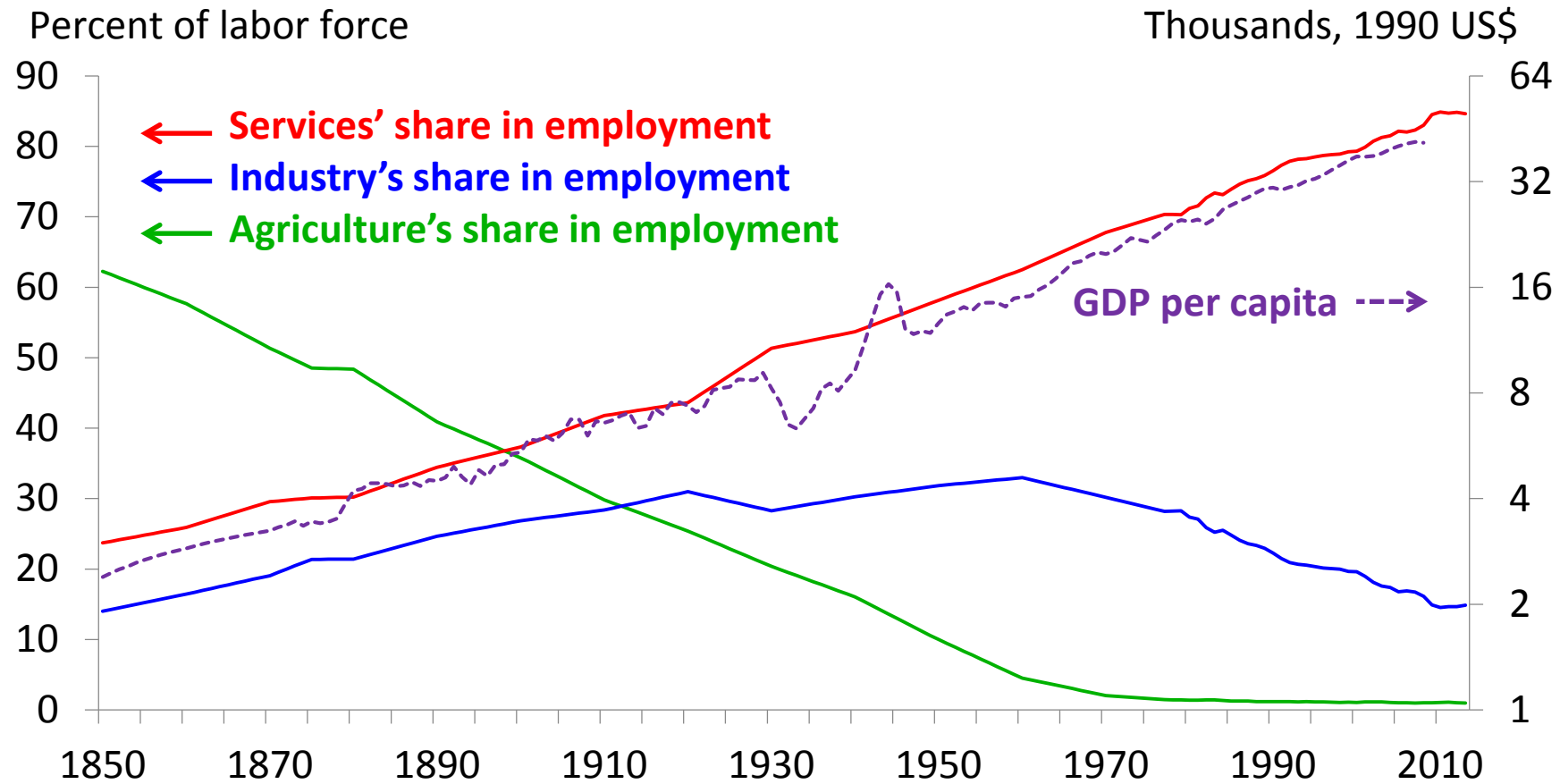


Source: OECD Trade in Value Added database

De-industrialization: A historical perspective

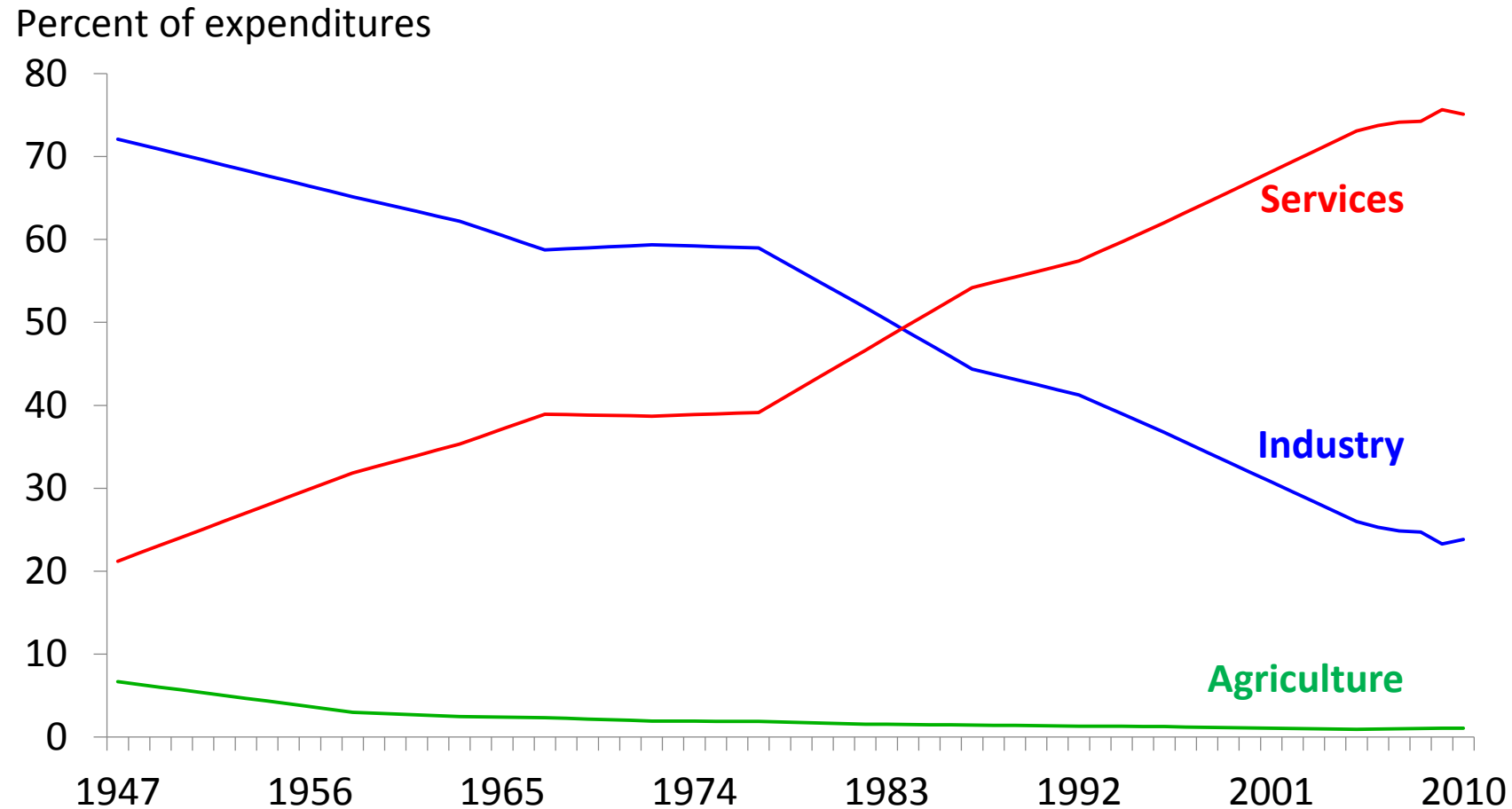
- The decline in manufacturing, or industrial production, is part of a process known as “structural transformation.”
- The share of employment in industrial sectors has been declining since the 1960s: Why?
 - Technology: advanced in productivity in manufacturing processes.
 - Demand: Increased demand for services (health care, education, etc.)
 - Trade: Increased specialization in global supply chains.

Historical growth and structural transformation in the U.S.



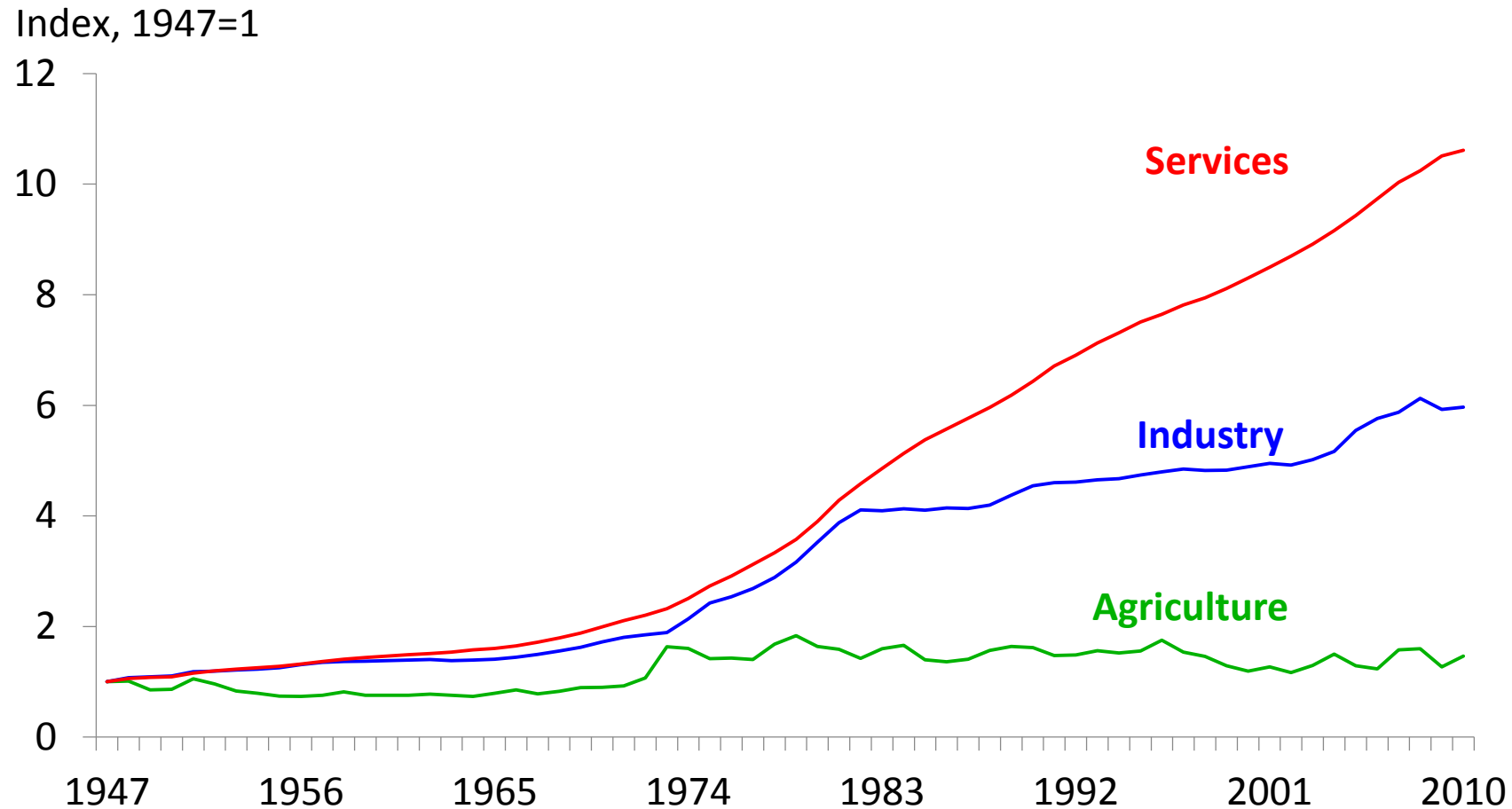
Sources: Penn World Tables. International Handbook of Statistics, North America. Groningen Growth & Development Centre.

Changes in private consumption expenditures in the U.S.



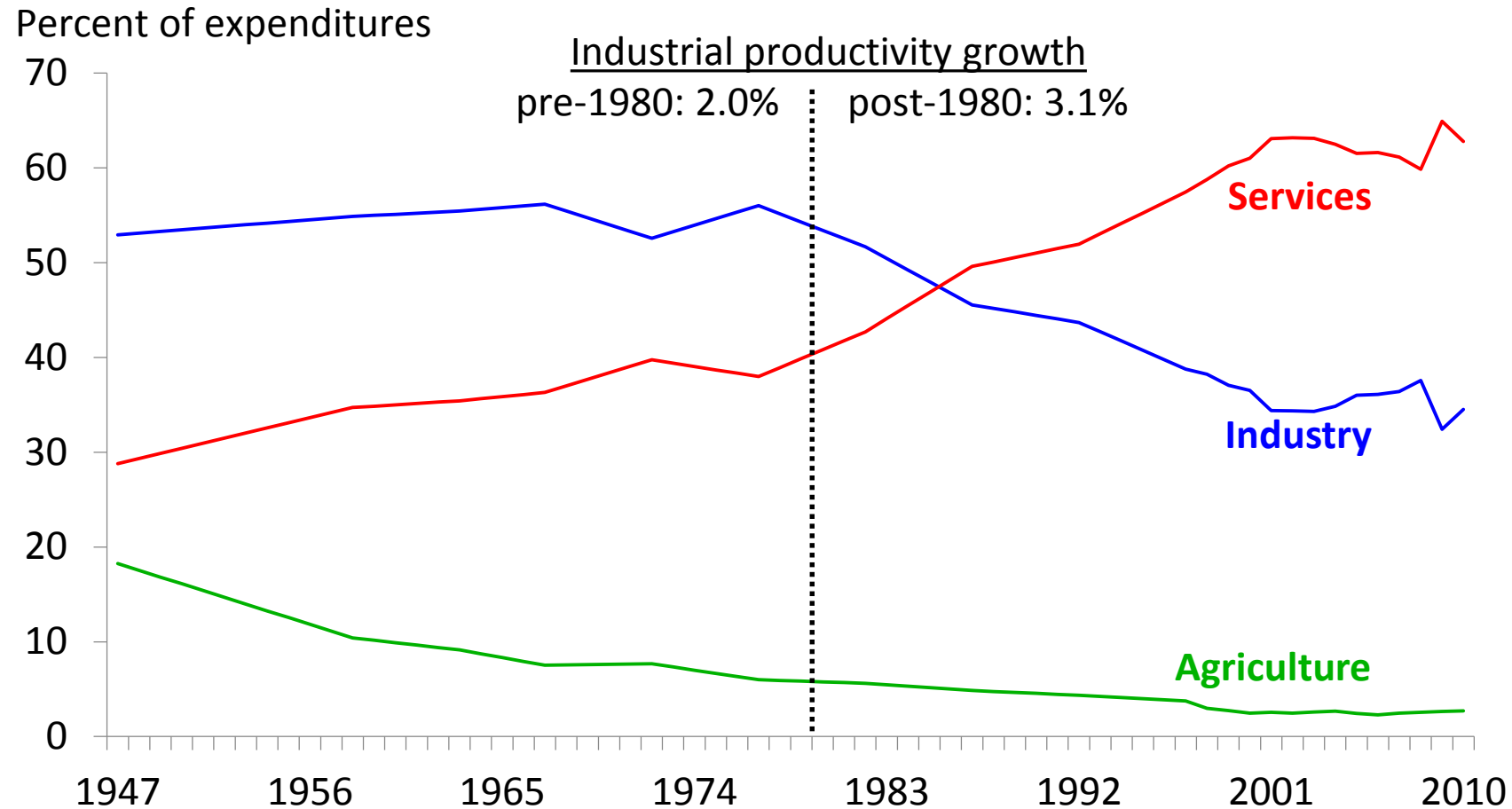
Source: Bureau of Economic Analysis

Prices of services in the U.S. grew faster than both agricultural and industrial prices



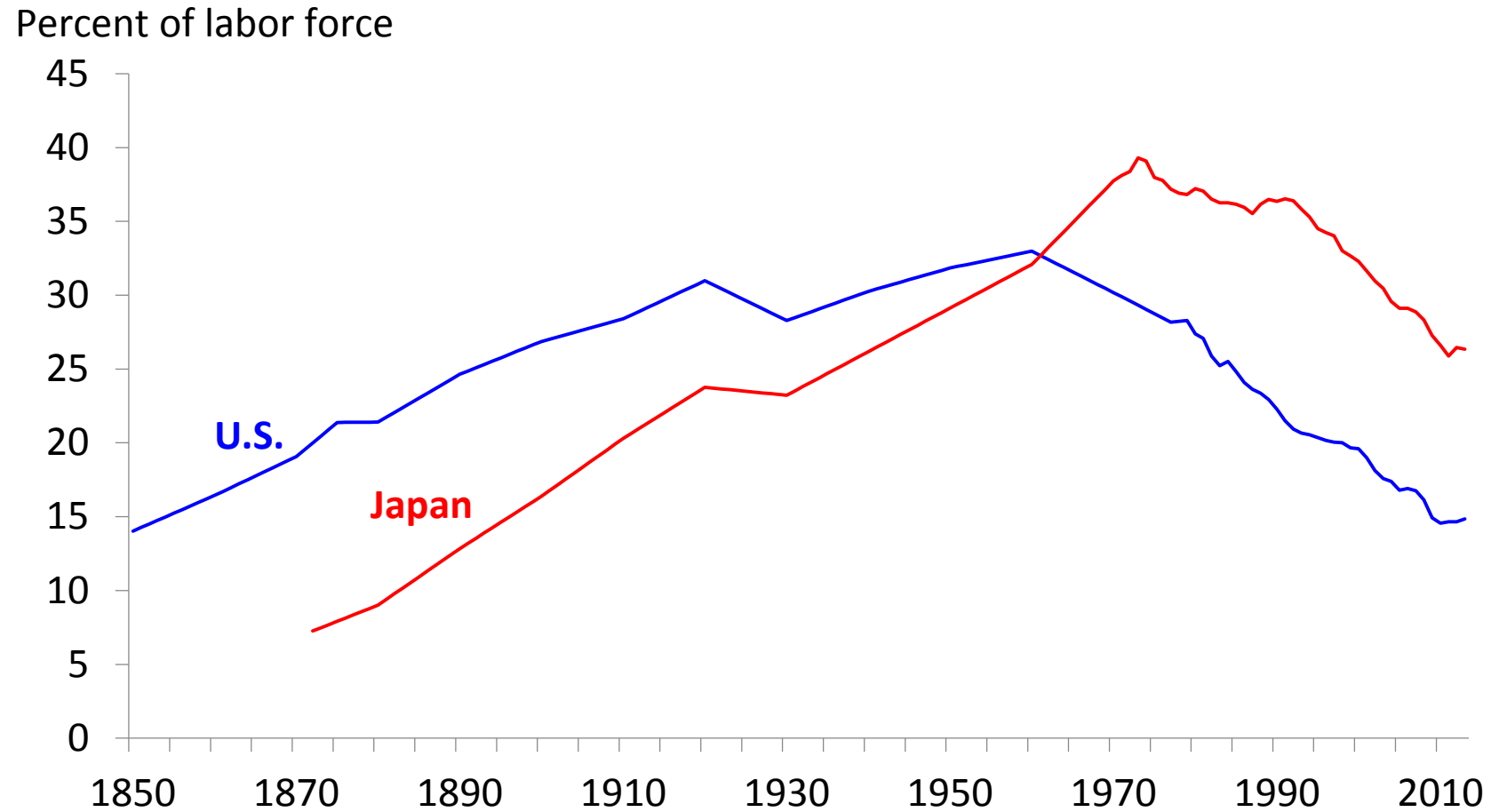
Source: Bureau of Economic Analysis

Sectoral linkages: Changes in U.S. firms' intermediate expenditures



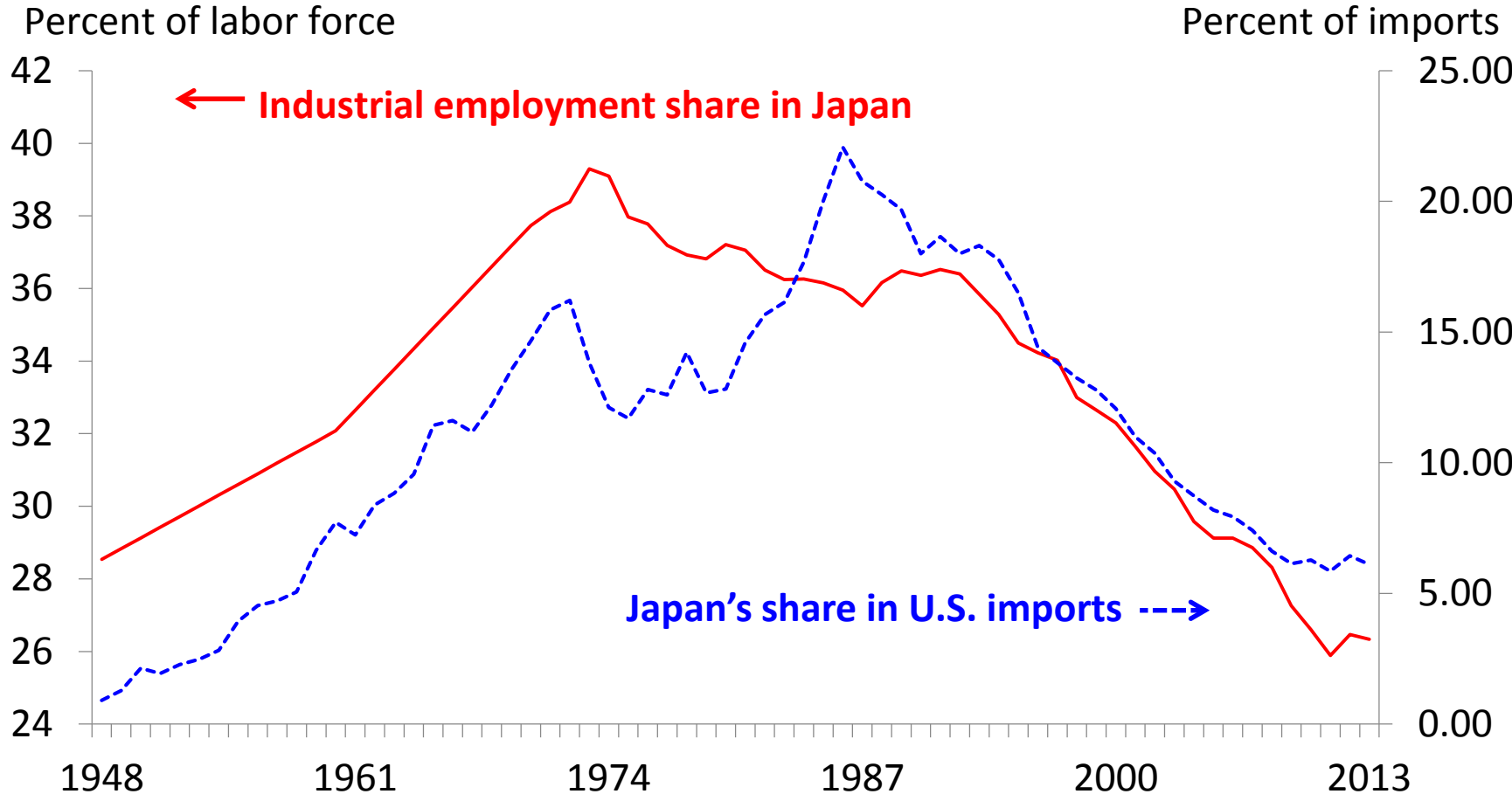
Source: Bureau of Economic Analysis

De-industrialization: the U.S. is not alone



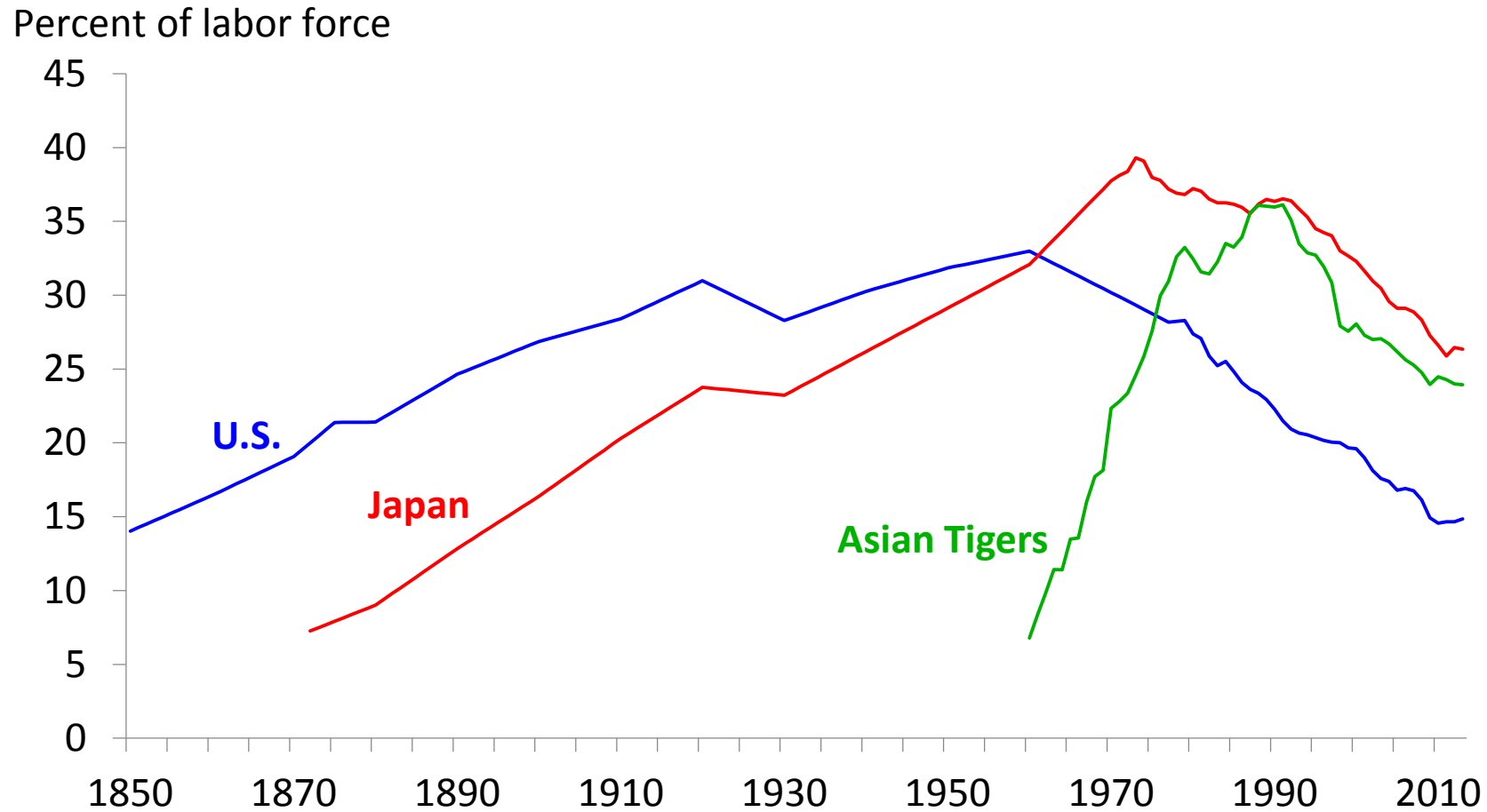
Source: International Historical Statistics: North America, Asia.

Japan's industrialization process linked to trade



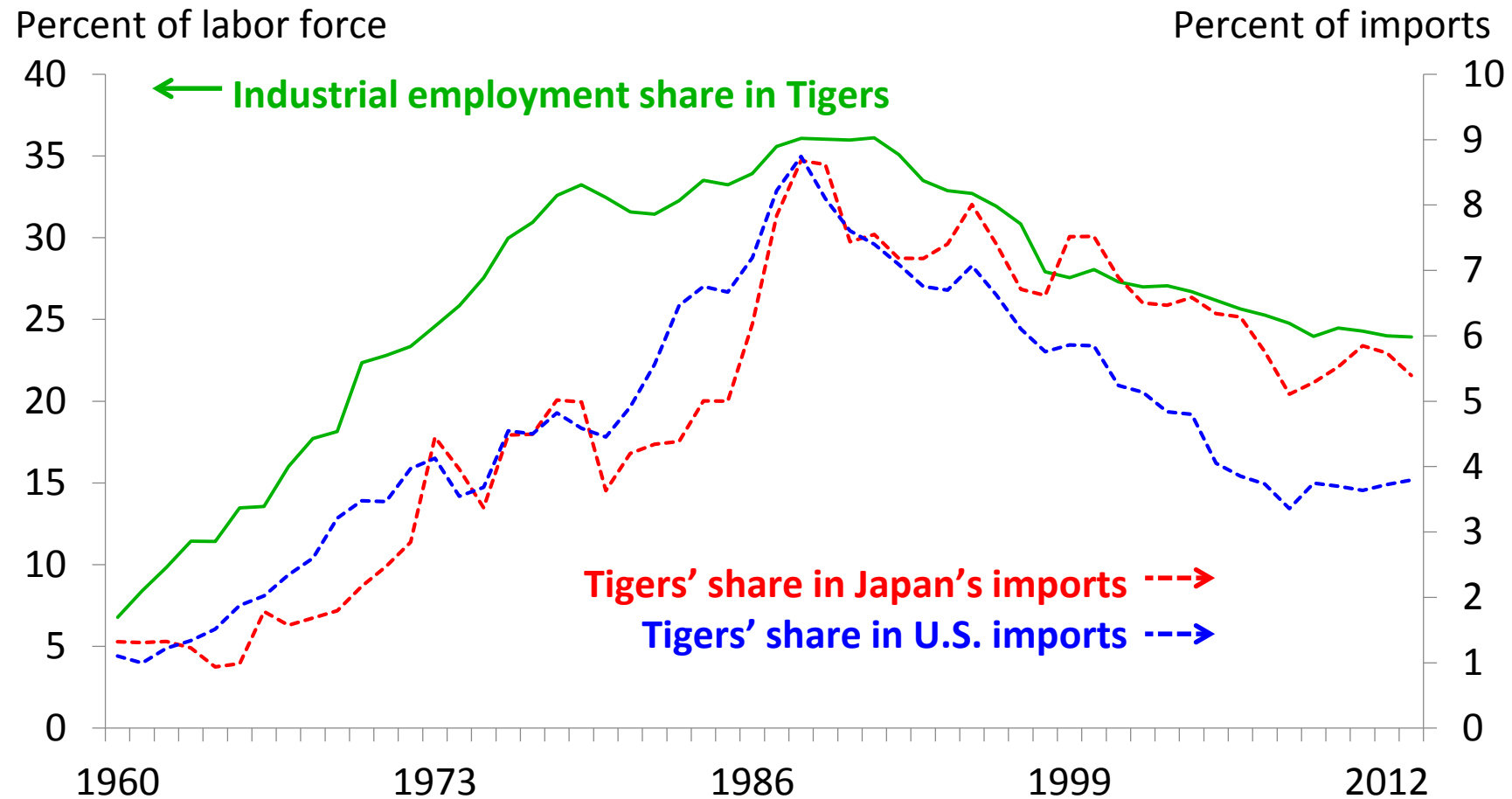
Source: International Historical Statistics: North America, Asia.

Industrial employment percentages



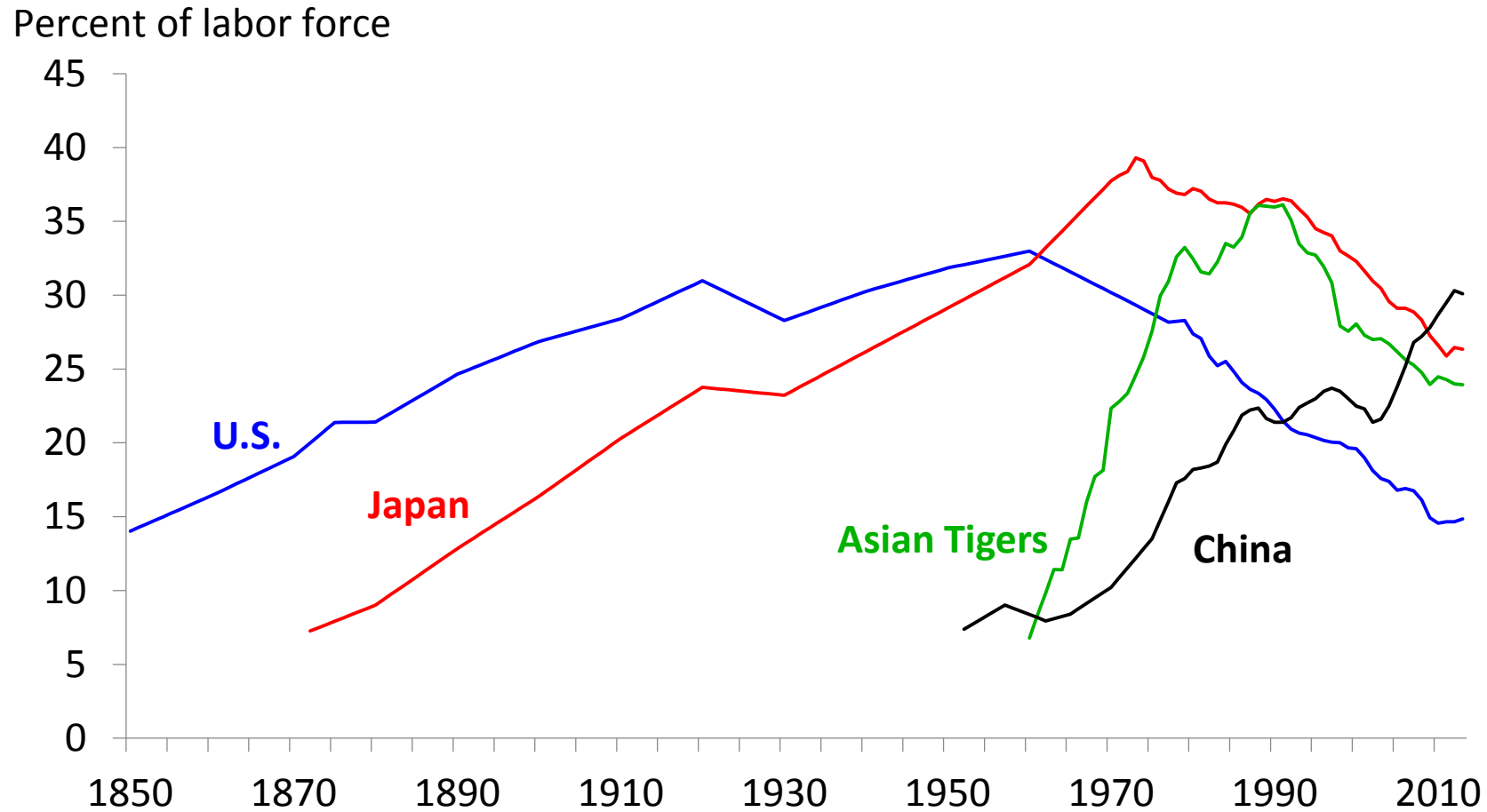
Source: International Historical Statistics: North America, Asia.

Asian Tigers' industrialization and de-industrialization



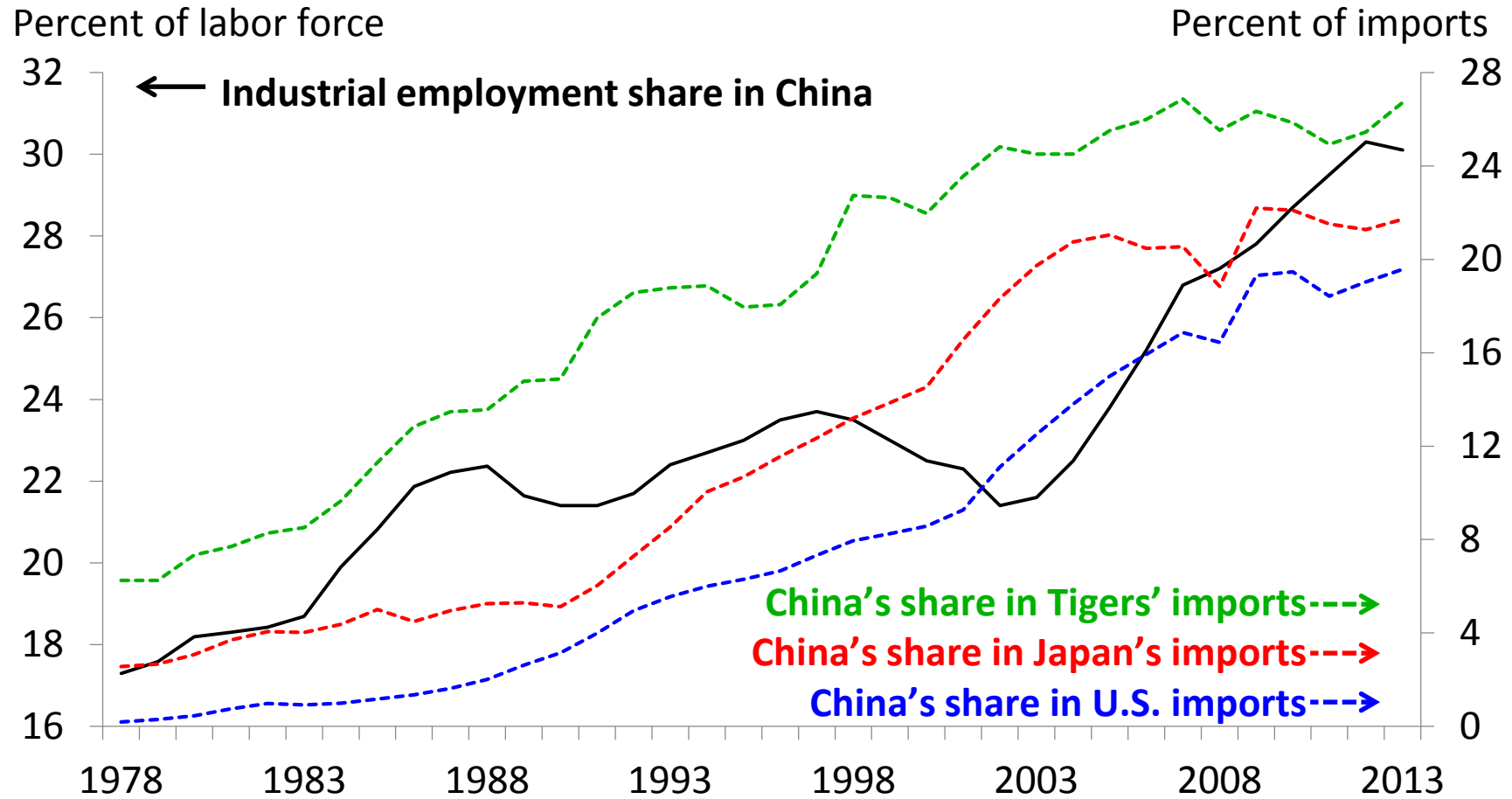
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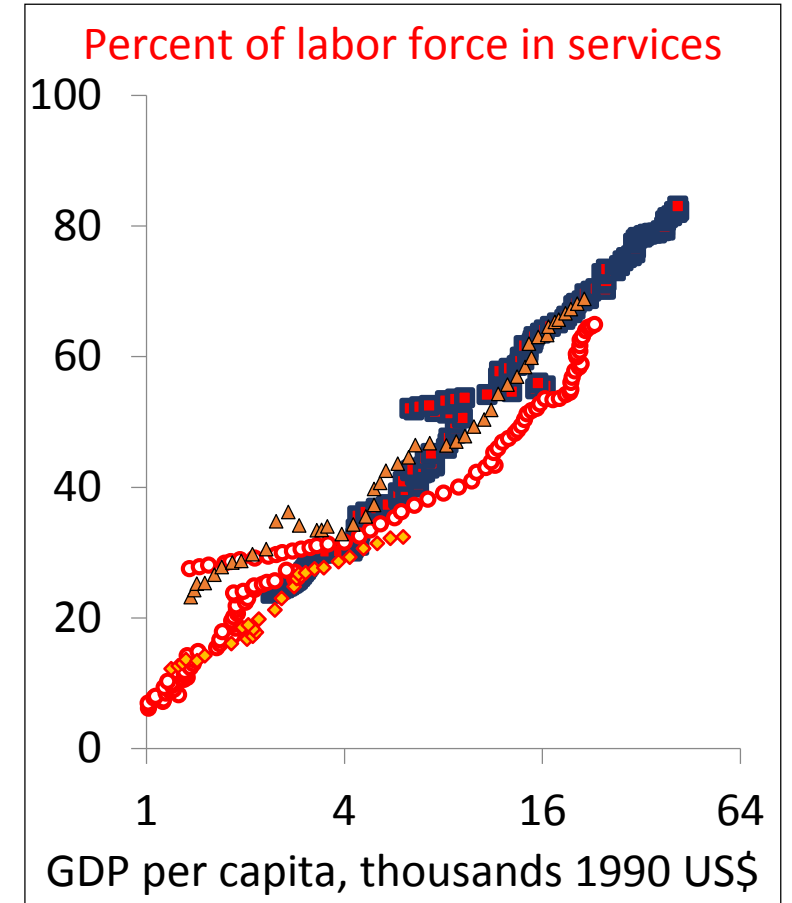
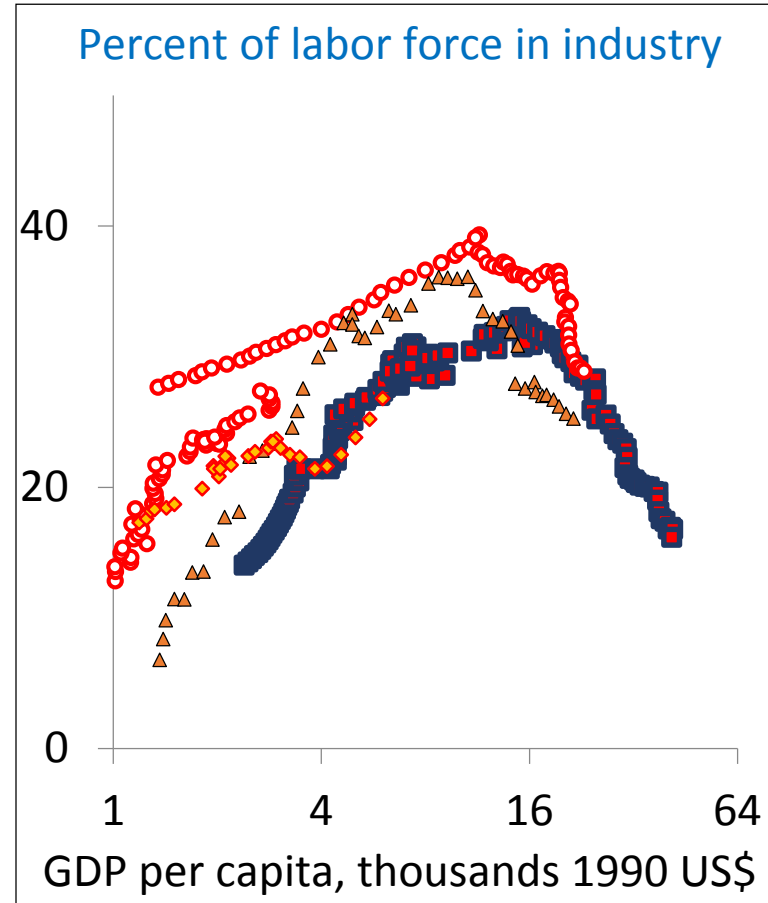
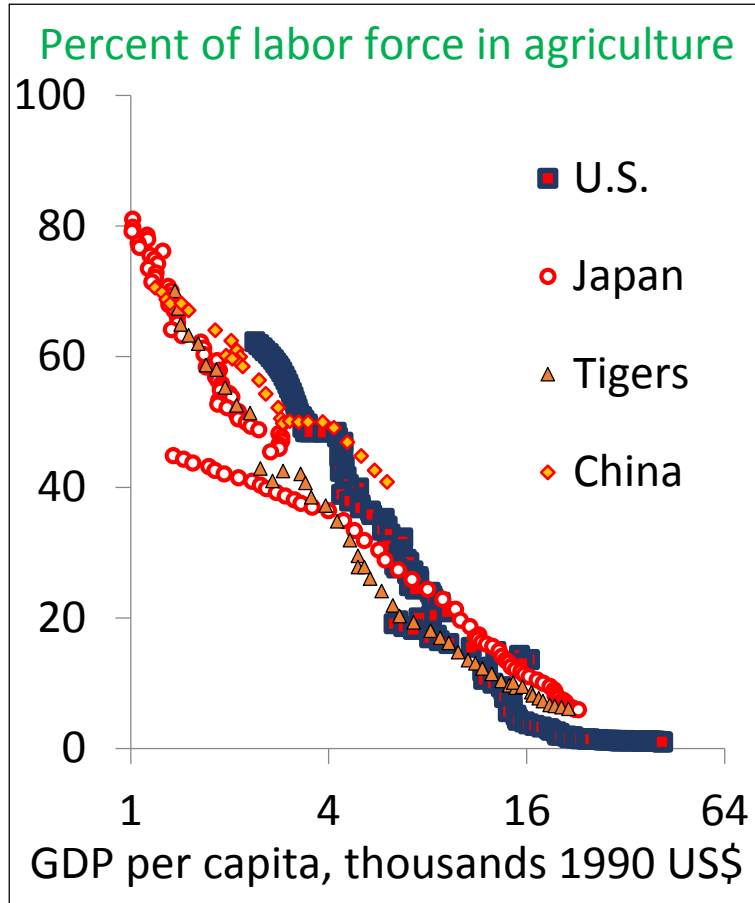
Source: International Historical Statistics: North America, Asia.

China's industrialization



Source: International Historical Statistics: North America, Asia.

Employment composition tied to GDP per capita



Sources: Penn World Tables. International Handbook of Statistics, North America and Asia. Groningen Growth & Development Centre.

The decline in industrial activity

- Part of the economic growth process.
- Improved technology reduces the resources needed for production.
- Higher income and longer life-expectancy increases the demand for services.
- Globalization allows for specialization in the global supply chain.
 - The U.S. specializes more in service-intensive, upstream activities.