

# Discussion of Factoryless Production

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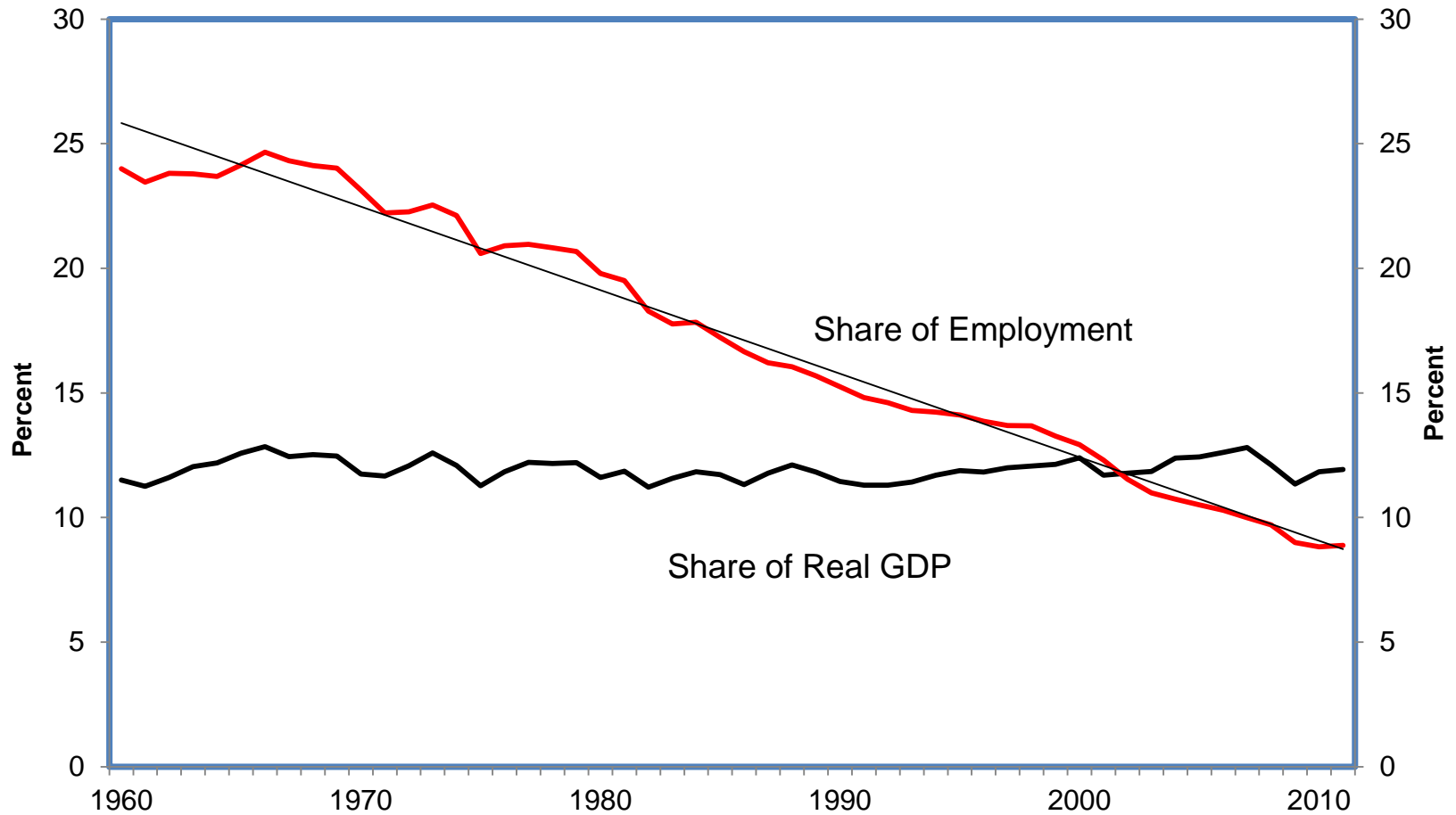
# Introduction

- Fragmentation of production into specialized establishments raises many interesting economic issues.
  - Both domestic and foreign aspects.
  - The development of networks of specialized establishments is an old phenomenon
  - Reflected in distinction between establishments and enterprises
  - New element seems to be emergence of global supply networks (chains)
  - Extreme version – factoryless manufacturing

# Doherty Paper

- Very useful survey and overview of issues
  - Companion paper by Jennifer Ribarsky with a focus on SNA
  - Current efforts to redefine the boundaries of manufacturing are reminiscent of the efforts to create an *ownership-based* framework for international transactions dating back to the early 1990s.
  - Potentially, a very extensive restructuring of statistics on national accounts, balance of payments, merchandise trade, and classification of domestic establishments.
- Not clear about the problems that all these changes are meant to resolve.
- Domestic value added is captured under current system, and distortion is largely due to tax issues.

# Manufacturing Value Added and Employment as a Share of GDP, 1960-2011



# Supply Chains

- Stages of process
  - Product Design
  - Manufacturing (transformation)
  - Marketing and Distribution
- Long history of movement away from integrated producers (example of multinational corporations).
- Factoryless manufacturer (Apple) often engages in product design, outsources transformational activities, and may or may not be engaged in marketing.

# Tax Implications

- Although not discussed, the issue of the boundaries of production is intimately tied in with tax concerns.
  - Transfer prices used to shift income among differing tax jurisdictions.
  - Statistical agencies will use revenues as reported by firms but the firms are strongly influenced by tax considerations.
  - Income shifting is particularly common for industries with large IP content – others are restricted by regulations on transfer pricing.

# Tax Issue

- Issue highlighted by Apple's decision to outsource all manufacturing.
  - Only products sold in the United States return
  - Foreign sales are undertaken by foreign affiliates with profits remaining abroad.
  - IP is transferred to affiliates at a nominal or cost basis.
  - There often is no comparable market price for the IP.
- Similar concerns in earlier years with pharmaceutical firms' shift of income to Puerto Rico, and
- Microsoft's sale of software out of Ireland.

# Impact on China Trade

- China is the assembly point for an East Asian supply chain as Asian exports to the EU and US have been rerouted through China.
- China has a large bilateral trade surplus with the United States and EU, but its value added in processing trade is much lower than for normal trade.
- All of China's trade surplus is in the processing sector.



# Proposed changes

- Changes are potentially very extensive affecting all major business statistics programs
- Attempt at international coordination
- Focus on redefinition of the role of establishments, not enterprises.
- Basic problems raised by outsourcing exist in both domestic and international context.

# Proposed Changes (2)

- Should there be a **netting** of processing transactions that do not involve a change of ownership with the **net recorded as a service**?
  - Parallels domestic treatment of outsourcing.
  - Shift away from focus on physical movement of goods toward ownership of processed goods
  - Merchandize trade statistics continue focus on cross-border movement of goods, but BOP incorporates a distinction between processing and other forms of trade.
  - SNA also relies on change of ownership and would not record trade in goods for processing ( only the service fee).

# Proposed Changes (3)

- U.S. response distinguishes among:
  - Integrated producer
  - Manufacturing service provider
  - Factoryless goods producer
- Most uncertainty surrounds classification of FGPs by economic ownership
  - Manufacturer, distributor, R&D, or management
  - Economic owner?
  - US objects to international criteria based on ownership of raw materials

# Proposed Changes (4)

- Potentially very disruptive
- Insufficient evaluation of temporal consistency of resulting statistics – not like NAICS
- Inconsistencies across countries and statistical programs.
- Feasibility of changes in data collection have not been fully evaluated.
- Treatment of FGPs compared to that for MNEs.