

# **Economics of Outsourcing\***

**\* Based on presentation to John Glenn Institute for Public Policy  
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# Outsourcing – will your job move to Bangalore?

- **Hot-button issue in 2004 Presidential election**
- **Very different views of outsourcing:**
  - “...it’s something that we should realize is probably a plus for the economy in the long run” (Gregory Mankiw, Chair of CEA)
  - “Outsourcing is a critical issue for my district...Gov. Taft needs to step up to the plate and help prevent the job losses Ohio is experiencing everyday” (Robert Hagan, D Youngstown)



# What is outsourcing?

- **Some confusion over concept**
- **Procuring of *service* or *material* inputs by a firm from a foreign source – *offshoring***
- **Origin - contracting out of design work in UK auto industry to Germany in 1970s**
- **Focus now on service outsourcing to low-wage countries such as India**

# **Outsourcing: by whom, where to and what jobs?**

- **Mainly US and UK-based firms to English-speaking countries – in absolute terms**
- **Back-office services (accounting), telephone call centers, and computer programming**
- **Examples in Ohio:**
  - **LexisNexis (Dayton) IT jobs**
  - **Chiquita (Cincinnati) IT jobs**
  - **Procter & Gamble (Cincinnati) IT/back-office jobs**
  - **MCI (Niles) telephone call center**

# **What causes outsourcing?**

- **Lower labor costs overseas**
- **Increase in educated workers overseas**
- **Technological advances in computers and telecommunications**
- **Deregulation and trade liberalization in services sector**

# **“The Great Unbundling” (Baldwin, 2006)**

- **Advances in transport/communication have weakened link between geographic concentration and specialization**
- **Possible to separate tasks in time and space**
- **Blinder (2006, *Foreign Affairs*) denotes this as third “third industrial revolution”**
- **Friedman (2005) describes it in terms of forces he believes have “flattened” world**

## **Is the earth really flat?**

- **Leamer (2007, *Journal of Economic Literature*) suggests three key forces:**
  - **more unskilled workers (China, India)**
  - **new equipment for knowledge workers**
  - **communications innovations**
- **First two not “flattening”, third a force to reducing rents based on location**
- **Over time, information technology will turn more and more services from “personal” to “impersonal” (Blinder)**

# How many US service jobs?

- **Increased from 103,000 in 2000 to 315,000 in 2003 (Forrester Research, 2004)**
- **3.4 million service jobs expected to be lost by 2015, with wage loss of \$151 billion**
- **More US jobs *in-sourced* than *outsourced* (Amiti and Wei, 2005, *Economic Policy*)**
- **Expected annual job losses accounts for 1% of 30 million jobs “churned”/year**

# Why the concern?

- **Employment in services sector has outgrown that in manufacturing**
- **Service sector previously impervious to international competition**
- **Pace of outsourcing will be swift given modern communication technology**
- **Concerns about a “jobless” recovery**

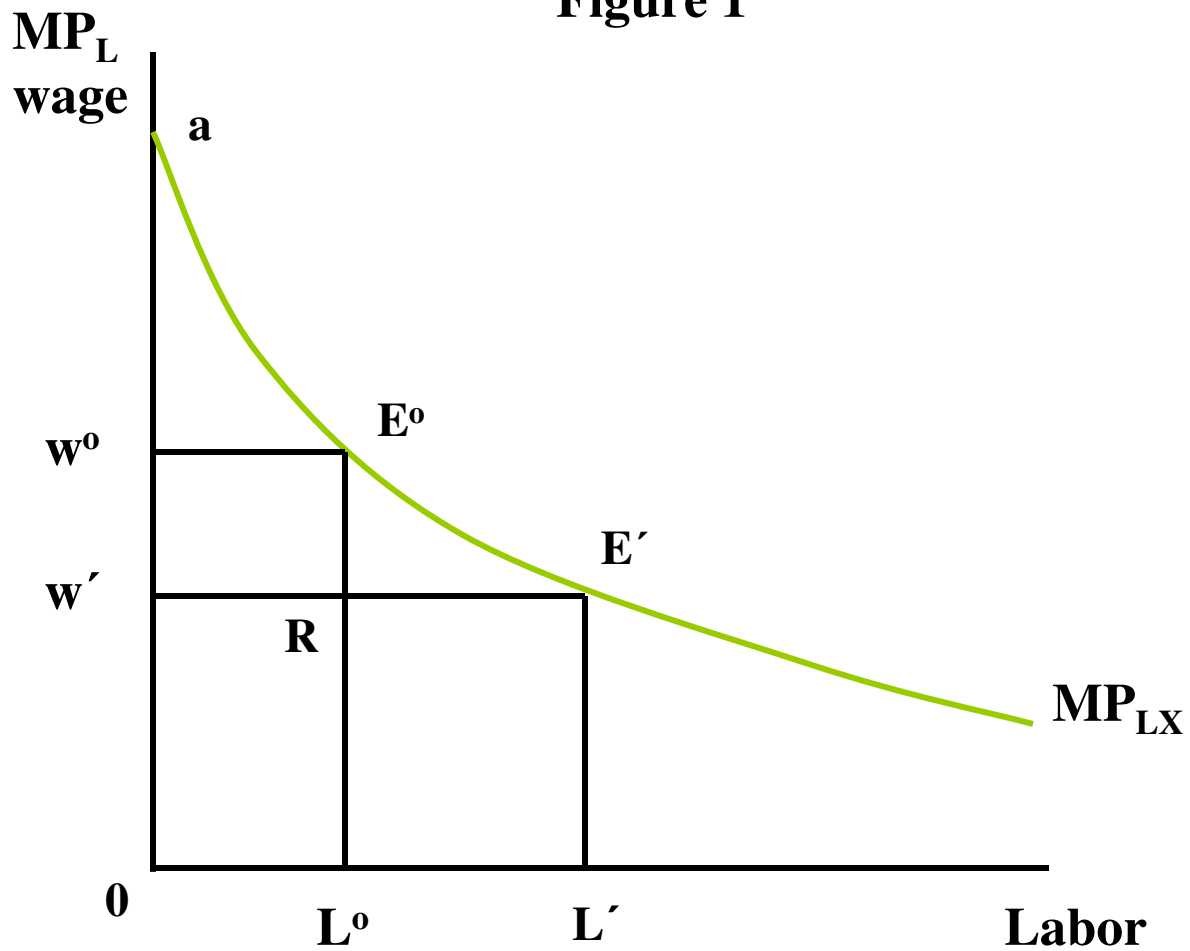
# **Economic impact of outsourcing**

- **Trade not expected to reduce output or employment in long-run**
- **Short-run effects on employment due to job losses and/or dislocation**
- **Amiti and Wei (2005) show that at a relatively aggregate level, no correlation between job growth and outsourcing**
- **Workers who lose jobs, do suffer income loss**
- **Outsourcing expected to raise average real income in US (Bhagwati *et al.*, 2004, *Journal of Economic Perspectives*)**

# Economic analysis of outsourcing

- Assume one good, produced with labor and capital, with diminishing returns to each factor, no trade (Figure 1) – Bhagwati *et al.*
- If  $L^0$  is the labor endowment, the wage is  $w^0$ , the wage bill is  $0w^0E^0 L^0$ , and the return to capital is  $aw^0E^0$
- Suppose innovation allows labor to be purchased at  $w'$  from overseas, and domestic labor is paid the lower wage
- Domestic labor now gets  $0w'R L^0$ , and capital gets  $aw'E'$ , net gain being  $E^0R E'$
- Captures key reason for concern about outsourcing – domestic labor loses, while capital gains

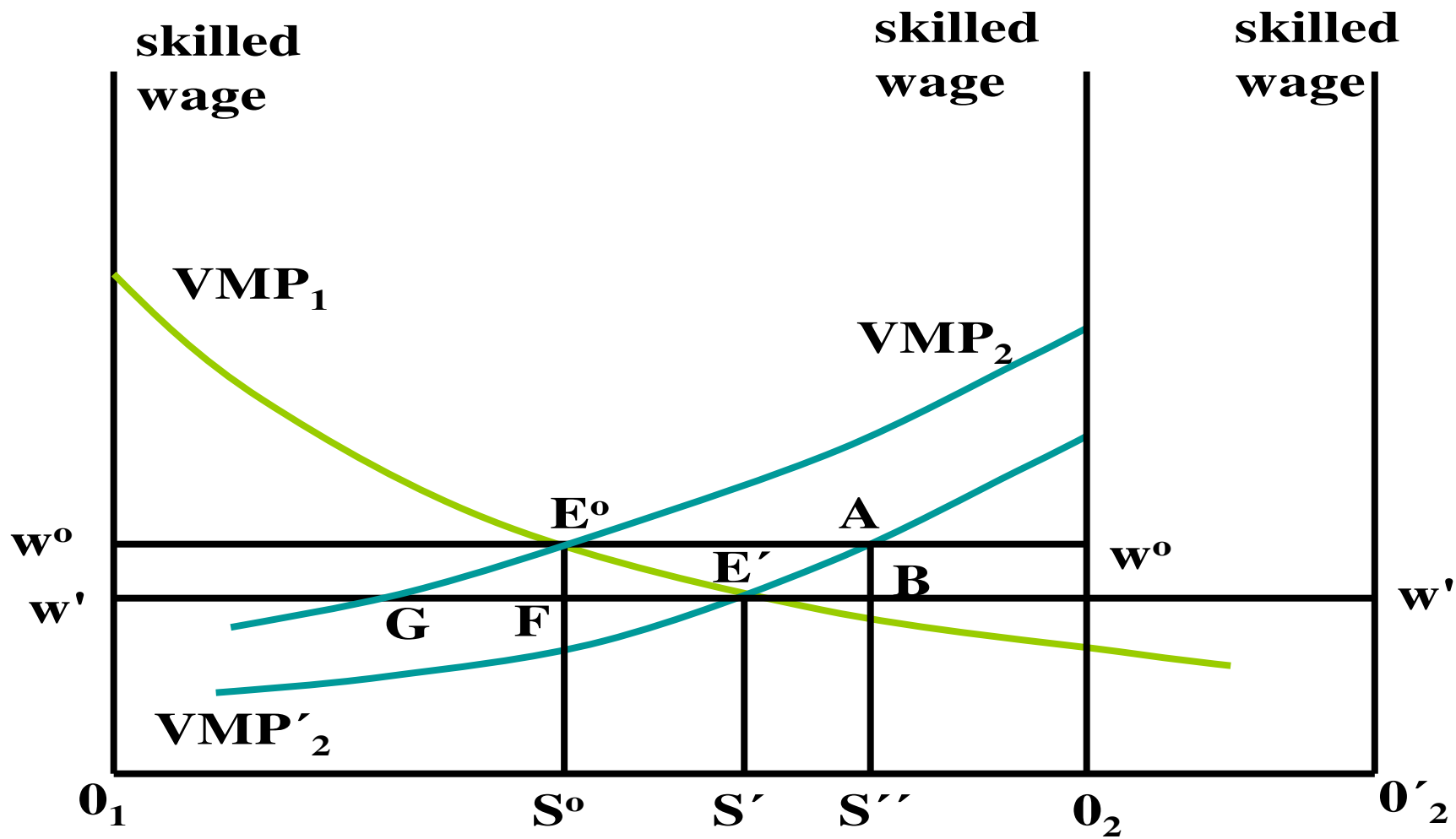
Figure 1



# Economic analysis of outsourcing

- **2-good/3-factor model, each good using a specific factor and a common factor – skilled labor (S), where import-competing sector (1) uses unskilled labor, export sector uses capital (2)**
- **Prior to outsourcing, equilibrium is at  $E^0$ ,  $S^0$  being allocation of skilled workers between sectors, the wage being  $w^0$  (Figure 2)**
- **Suppose innovation allows outsourcing of skilled labor at a wage  $w'$ , creating excess demand of  $O_2O'_2$  or  $GE'$**
- **Excess demand met through outsourcing – expands S by  $O_2O'_2$ , shifting value marginal product to  $VMP'_2$**

**Figure 2**



# Economic analysis of outsourcing

- As  $GE' = E^oA$  by construction, sector 1 employs  $S^oS'$  and sector 2 employs  $S'S''$
- Outsourcing increases national income – net gain in sector 1 is  $E^oFE'$ , and in sector 2 is  $ABE'$
- Given diminishing returns to all factors, outsourcing of skilled labor, and a decline in the skilled wage, results in unskilled wage and return to capital increasing
- If country is large, terms of trade effects may either reinforce or outweigh the gains from outsourcing:
  - if import-competing sector expands, import price falls, and terms of trade improve
  - if export sector expands, price may fall, terms of trade worsen

# Economic analysis of outsourcing

- Grossman and Rossi-Hansberg (2006) offer different analysis
- Assume production involves low-skill and high-skill tasks, former can be outsourced due to lower wages
- Allow for export (skill-intensive) and import sector (low-skill intensive), where outsourcing possibilities are similar, and costs of outsourcing low-skill tasks falls
- Three components to impact of outsourcing on low-skill wages:
  - a *labor-supply* effect drives down low-skill wages
  - a *relative-price* effect lowers low-skill wages
  - a *productivity* effect boosts demand for low-skill labor, raising their wages

# **Policy options and outsourcing**

- **Proper macroeconomic policies**
- **Protection a costly way to preserve US jobs**
- **Rethink inadequate Trade Adjustment Assistance Program (Blinder)**
- **Education and research to maintain US comparative advantage in services**
- **A “New Deal” for globalization (Scheve and Slaughter, 2007, *Foreign Affairs*)**

# Doonesbury's view.....

