Multinationals and Wages

- Preliminary Evidence: Multinationals and wages
- Where do wages come from?
- Strategy vs. exploitation

Evidence: Multinationals and Wages

	High income	Middle income	Low income
Average wage paid by multinational affiliates	32,400	9,500	3,400
Average domestic manufacturing wage	22,600	5,400	1,700
Ratio	1.4	1.8	2.0

Source: Graham, *Fighting the Wrong Enemy*, 2000.

Evidence: Multinationals and Wages

- Brown et al (2003) provide survey
  - Glewwe (2000) finds that workers in foreign-owned apparel and footwear factories in Vietnam rank in the top 20 percent of the population by household expenditure
  - Lipsey and Sjoholm (2002) find that foreign-owned plants in Indonesia pay more for workers at each skill level
- More recent work
  - Lipsey and Sjoholm (2006) find that wages increase when a domestic firm in Indonesia is acquired by a foreign firm
  - Martins & Esteves (2008) track workers across firms in Brazil and find that when the *same worker* is employed in a foreign firm the wage is on average 22% higher than when employed in a domestic firm

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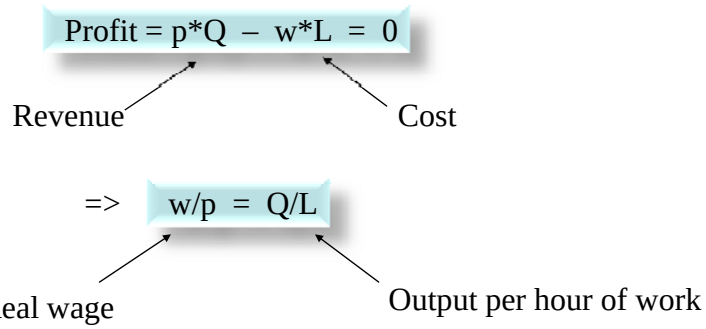
Where do Wages Come From?

- What are wages, really?
  - The *real wage* tells you how much you can *produce* per hour of work
  - Recall: competitive firms => zero profits



- Low wages signal *low productivity*

Where do Wages Come From?

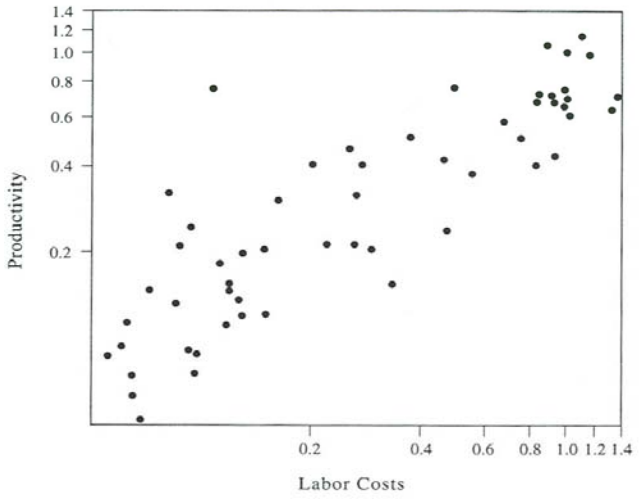
- Can competitive firms pay wages above worker's productivity?
  - If firm pays more than it earns per unit of output, then firm goes out of business

- Can competitive firms pay wages below productivity?
  - Then they would be making profits. But then competitive firms would either (i) undercut each other's prices or (ii) hire more workers, driving wages back to productivity

- Arguments assume competitive markets, which may or may not be reasonable

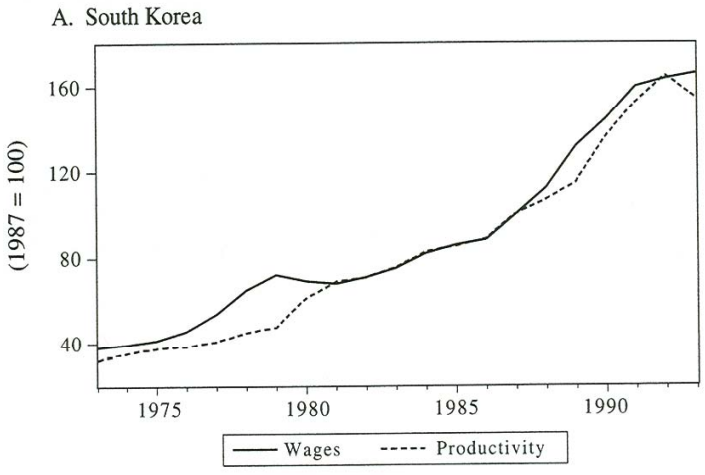
- What is the evidence?

Evidence: Wages reflect Productivity



World Bank data comparing average wage and average labor productivity in 67 countries (Irwin, 2002)

Evidence: Wages reflect Productivity



Wages and productivity over time in South Korea (Irwin, 2002)

The Location of Production: Understanding Wages & Productivity

• In competitive markets, the real wage is equal to the productivity of labor

• Therefore, the cost advantages of hiring "cheap labor" abroad are offset by lower productivity

• So why produce there?

• To understand why certain countries tend to produce certain goods, we need to understand why they are *relatively* better at producing these goods than other goods.

• Remember: the location of production is determined by *comparative advantage*

The Location of Production: Understanding Wages & Productivity

• *Profits* → *0* in goods actually produced, where there is comparative advantage (wages = productivity)

• *Profits will be negative* if you produce the wrong good
  • wages > productivity for such goods!

• Textile/Computer example
  • International prices are, say, $P_c/P_t = 1.5$
  • Then Country A should focus on *textiles*
  • Could *computer* firm be profitable in Country A?
    • Recall $Q_c = L_c$ and $w = 2P_t$ in Country A

$$\begin{aligned} \text{Profit}_c &= P_c Q_c - wL_c \\ &= (P_c - w) L_c \\ &= (1.5P_t - 2P_t) L_c < 0 \text{ !!!} \end{aligned}$$

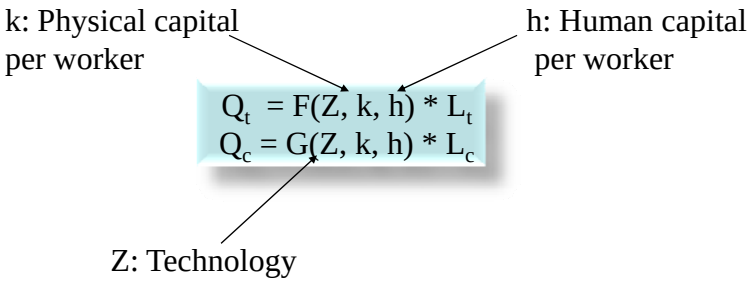
What determines Productivity?

• Recall Country A

$Q_t = 2L_t$ Productivity is "2" in textile production
$Q_c = L_c$ Productivity is "1" in computer production

• Where do "2" and "1" come from?

• General production functions



What determines Productivity?

• With multiple inputs to production function, there are many ways to produce the good – use lots of capital and a little bit of labor, or maybe a lot of labor and a little bit of capital

• Choose optimal mix of physical capital, human capital, and technology. Optimal mix will depend on (i) the production methods available, and (ii) how much each input costs

• For example, for textile production in Country A, we have

$$Q_t = F(Z_A, k_A, h_A) * L_t$$
$$= 2L_t$$

Scarce vs. Abundant Factors

• If Country A is poor, then physical capital, human capital, and technology will be *scarce* compared to raw labor. Country A will therefore choose mixes of inputs that are more *labor-intensive*

• If capital and technology are more important in computer production than textile production, then Country A will find computer production more difficult than textile production

• For example, Country A's labor productivity in textile production (2) is higher than it is in computer production (1)

$$Q_t = 2L_t$$
$$Q_c = L_c$$

Scarce vs. Abundant Factors

• If Country B is rich, then physical capital, human capital, and technology will be *abundant* compared to raw labor. Country B will therefore choose mixes of inputs which are more *capital and technology intensive*

• Country B will be more productive in both goods

$$Q_t = 5L_t$$
$$Q_c = 5L_c$$

• But Country B's absolute advantage over Country A in textiles will be smaller than in computers, because technology and capital are less important in textile production

• *Comparative advantage is determined by the* **relative abundance** *of a country's resources*

Comparative Advantage Revisited

• Why are some resources relatively abundant or scarce in some countries? What are *underlying causes*?

• Reason #1: Geography (oil, diamonds, bauxite, farmland)
  • Important for understanding trade in some goods
  • Doesn't explain why some countries have advanced technologies or abundant capital, while others don't

• Reason #2: Non-market factors (Institutions)
  • Weak institutions (contracts, property rights, corruption, political instability) all result in scarce physical capital, scarce human capital, and outdated technology

• Similar question and similar answers to why countries are rich and poor in the first place (Session #2)

Multinationals and Wages

• Evidence: Multinationals and wages

• Where do wages come from?

• **Strategy vs. exploitation**

Strategy

- Strategy #1: Basic *market* strategy is to locate production according to comparative advantage
  - Tasks that favor raw labor over capital should be produced in countries with relatively abundant low-skilled labor
  - Alignment of profit and social welfare

- Strategy #2: Basic *non-market* strategy is to treat workers in chosen location better than other firms do
  - *Local* political strategy: align local political incentives with incentives of your firm
  - *International* political strategy: guard "rear flank" in home jurisdiction and in international agreements
  - *Industry* non-market competition: outrun competitors
    - e.g. Reebok vs. Nike

Exploitation

- What does exploitation mean?

- Comparison #1: Wages across workers within a country
  - Evidence suggests that multinationals pay better wages and may provide better labor conditions (on average) than local firms

- Comparison #2: Wages across countries
  - Clearly, wages paid in emerging markets are less than those paid in advanced economies
  - Is it immoral to pay lower wages in some countries?
  - Who gains and who loses if you raise wages?
  - What is the most effective way to help people out of poverty?

Revealed Preference vs. Exploitation

• Revealed preference through *worker's choices* suggests strongly that multinationals are improving the lives of their workers

• It is *poor* countries that have blocked attempts to put core labor standards under the authority of the WTO

• But two important caveats
  • Caveat #1: Are workers making free choices?
    • e.g. Child labor
    • e.g. Daxu Cosmetics (NY Times article)

  • Caveat #2: Weak non-market regulations at national level
    • e.g. health & safety regulations

Last Word: Races to the Bottom

• Prisoner's dilemma for competitive firms
  • Stay in country with good regulations, or leave for country with few regulations (where costs are lower)?

		Firm A: Leave	Firm A: Stay
Firm B	Leave	0,0	1,-1
	Stay	-1,1	0,0

• Examples
  • Can Daxu Cosmetics survive if it treats its workers better?
  • Will the Fair Labor Association (Nike case) work?

• Role for treaties, international law (Intl Labor Organization)