<table>
<thead>
<tr>
<th>Midterm No. 1:</th>
<th>Monday, February 20 8:30-9:50 AM 1120 Weill Hall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm No. 2:</td>
<td>Monday, March 27 8:30-9:50 AM 1120 Weill Hall</td>
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<tr>
<td>Final Exam:</td>
<td>Tuesday, April 25 8:00-10:00 AM 1120 Weill Hall</td>
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Office Hours for the Final Exam

Prof Alan Deardorff

Thursday 4/20, 2-3 PM
Friday 4/21, 9-10 AM

GSI Morris Hamiton

OH: Sunday 4/23, 11 AM - 1 PM, Angell Hall G115
Review session: Sunday 4/23, 1-2:30 PM, Angell Hall G115
OH: Monday 4/24, 11-12 PM, Lorch 351A
NOTE: You will get two points for correctly recording:
  ○ your name and UMID number, both on the exam booklet and on the scantron sheet so that the computer can read it,
  ○ AND your FORM NUMBER on the scantron so that the computer can read it.
(In other words, you will lose two points if you don't do all of this.)

The final exam is cumulative covering all of the material since the start of the course through the end. I intend to give roughly equal treatment to each lecture topic, including the outside readings and assigned news items. Thus, the exam covers:

  ○ All assigned portions of Gerber (see syllabus on line),
  ○ All of the readings assigned from Jan 9 through Apr 17, (including the pieces marked as "Other Views" but not those marked as "Optional"),
  ○ You should also be familiar with the news that we will have discussed in class, including those items identified on the Major News Items page for weeks: Jan 9 through Apr 16.

--> Regarding the emphasis that will be placed on lectures versus readings and on other particular parts of the material, you are responsible for lectures plus all of the reading. I intend to make studying all of that worth your while by including on the exam at least a few questions on material that was not covered in lecture, both from the text and from the readings.
## What to Bring to the Exams:

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do bring something to write</td>
<td>with, including #2 pencils for answering the multiple choice on</td>
</tr>
<tr>
<td>with</td>
<td>computer-graded &quot;scantron&quot; sheets.</td>
</tr>
<tr>
<td>Do Not bring books or notes.</td>
<td></td>
</tr>
<tr>
<td>Do Not bring blue books.</td>
<td></td>
</tr>
<tr>
<td>You probably should bring a</td>
<td>calculator, but DO NOT bring a graphing calculator. Graphing calculators</td>
</tr>
<tr>
<td>calculator</td>
<td>will be confiscated.</td>
</tr>
<tr>
<td>You should also NOT bring</td>
<td>any kind of computer (including palm computer) and you should NOT bring a</td>
</tr>
<tr>
<td>any kind of computer</td>
<td>cell phone, even if you only plan to use it as a clock. Those too will</td>
</tr>
<tr>
<td>(including palm computer)</td>
<td>be confiscated. Do bring your U of M ID number, as it appears on your</td>
</tr>
<tr>
<td>and you should NOT bring</td>
<td>M-Card. You don't need the card itself, if you know the number.</td>
</tr>
</tbody>
</table>
Format of Exams:

Part multiple choice and part short answer, similar to Study Questions.

- Multiple choice
  - Answer on the scantron sheet that will be provided
  - Five answers per question
  - No penalty for guessing
- Short Answer
  - Answer on exam sheets
Outline:
Outsourcing and Offshoring

- Definitions of OS
- Causes of OS
- Effects of OS
- Facts about OS
- Policies
Definitions

- **Outsourcing** = Movement of an activity to outside of firm (Not necessarily outside country)

- **Offshoring** = Movement of an activity to outside of country (Not necessarily outside firm)
  - Could be
    - Subsidiary abroad (FDI if outside country)
    - Subcontracting with another firm
    - Arm’s-length trade
  - Often refers to services
  - Sometimes called “trade in tasks”
Definitions

- Both could be called:

  \[ \text{OS} = \text{OutSourcing} / \text{OffShoring} \]

- I’ll use “OS” to refer to OffShoring, since that’s the one that is clearly international
Outline:
Outsourcing and Offshoring

• Definitions of OS
• Causes of OS
• Effects of OS
• Facts about OS
• Policies
Causes of OS

• Blinder identifies two causes of the increase in OS over recent decades:
  – New technologies
    • Information
    • Communication
  – Entry of new populations into world economy
    • China
    • India
    • Former Soviet states
  – These make OS possible for jobs that can be done at a distance
Causes of OS

• Otherwise, causes of OS are same as causes of other trade
  – Activities are offshored if they can be done more cheaply elsewhere
  – Thus OS occurs due to
    • Comparative Advantage
      – Due to technology differences
      – Due to factor-endowment differences
    • Economies of Scale
Outline:
Outsourcing and Offshoring

• Definitions of OS
• Causes of OS
• Effects of OS
• Facts about OS
• Policies
Effects of OS

• Disagreements
  – Bivens (not assigned), like other trade skeptics,
    • is largely negative
    • He defines offshoring as “substituting foreign for domestic labor”
  – Many mainstream trade economists
    • see offshoring as ordinary trade
    • are largely positive
  – Blinder (a very well-respected macro economist)
    • sees OS as beneficial overall
    • but worries about effects on US labor
Effects of OS

• Effects that are **Like** trade:
  – All of the effects of trade that we have studied, are valid for this. OS *is* trade.
  – Thus
    • Countries as a whole gain, due to comparative advantage, economies of scale, etc.
    • Some people within the countries lose – especially those whose jobs are lost
    • Theory says that “scarce factors” are hurt by trade, and thus also by outsourcing.
Effects of OS

• Effects that are Unlike trade
  • i.e., effects that don’t occur with other trade, or at least weren’t mentioned
    – Increased insecurity: workers feel more threatened
      • New groups (white collar, in high-income countries) are seeing the threat
    – Employers can “move jobs”; workers can’t
      • Thus employers gain in bargaining over wages
Effects of OS

• Effects that are *Unlike* trade
  – (Possible) loss of technological advantage
    • Poor countries acquire the knowledge that rich countries previously had exclusively.
  • Thus
    – Poor countries become more productive
    – Their incomes rise
    – Therefore OS helps economic development
Effects of OS

• Effects that are **Unlike** trade
  – (Possible) loss of technological advantage
    • Terms of trade of rich countries worsen, costing them some of their gains from trade
      – Thus rich countries *may* lose from the loss of exclusive technologies due to OS
      – But what they are losing are the gains from trade. Refusing to trade would only make things worse.
Effects of OS

• OS from US may create jobs in US
  – OS can make a firm or industry viable that would not have been viable without OS
  – Example: US software company, IMC.
    (IMC = Information Management Consultants. Makes software to exploit human genome research.)
  • Became viable only with coding done in India.
  • Now it employs six engineers in the US for every one in India.
Effects of OS

• OS raises productivity (see Amiti and Wei)
  – They estimated the causes of US productivity growth over 1992-2000
  – 11% of it was due to “service offshoring”
  – Only 3-6% was due to imported material inputs
  – Why the gain? Because firms choose to offshore the less efficient parts of what they do.
Effects of OS

- OS threatens some occupations more than others (see Blinder’s examples)

<table>
<thead>
<tr>
<th>Offshorable</th>
<th>Not offshorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>electronic service</td>
<td>personal service jobs</td>
</tr>
<tr>
<td>tax accounting</td>
<td>onsite auditing</td>
</tr>
<tr>
<td>computer programming</td>
<td>computer repair</td>
</tr>
<tr>
<td>architects</td>
<td>builders</td>
</tr>
<tr>
<td>radiology</td>
<td>pediatrics and geriatrics</td>
</tr>
<tr>
<td>lawyers who write contracts</td>
<td>litigators who argue cases in court</td>
</tr>
</tbody>
</table>
Outline:
Outsourcing and Offshoring

• Definitions of OS
• Causes of OS
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• Facts about OS
• Policies
Facts about OS

• Blinder estimates that 30-40 million US jobs are potentially offshorable.
  – Compare to civilian employment in Jun 2008: 145.9 million
  – So Blinder is estimating that up to a quarter of US employment is potentially threatened by offshoring
  – Thus it “rattles” him
Facts about OS

• But the actual amount is still relatively small
  – Brainard and Litan say OS accounts for only 2% of those who involuntarily lose their jobs. (It would be a much smaller share of all job turnover)
  – But they were writing in 2004
  – One more recent source, though critical of OS, seems to give an even smaller estimate.
Facts about OS

• OS is moving into services
• There are flows in both directions
• Flows out of US are mostly low value jobs
  – So far. But Blinder worries & sees threats to higher value jobs
Facts about OS

• Brainard and Litan say OS is not shifting the proportion of incomes more towards profits
  – See graph below
Figure 2:

U.S. Corporate Income Relative to Worker Income 1960-2003

Source: The Economic Report of the President, 2004
Facts about OS

- Brainard and Litan say OS is not shifting the proportion of incomes more towards profits
  - See graph below
  - Other data (below) show that labor’s share
    - Has declined in recent decades
    - Increased in the crisis, as profits fell
    - Then fell in recession
Adjusted labour income share in developed G20 countries, 1991–2013

Econ 340, Deardorff, Lecture 22: Outsourcing & Offshoring
Facts about OS

• Wages and employment have recently stagnated, according to Bivens at Economic Policy Institute (not assigned)
Figure 1: Employment rates of college graduate, 1979-2004

- Young grads, 25-35
- All grads, 25+

Figure 2: Real hourly wages of young college graduates
ages 25-35, 1979-2004

Facts about OS

• Wages and employment have recently stagnated, according to Bivens at Economic Policy Institute
  – This may not be due to OS
  – But people naturally think that it is
Facts about OS

• One explanation (see Mandel): Phantom GDP
  – Puzzle: Why has US productivity risen, but wages have not?
  – Possible Answer: OS
    • Raises measured GDP more than actual output or
    • Lowers measured GDP less than actual output
Facts about OS

• Examples of Phantom GDP
  – Switch from expensive imported inputs to cheaper imported inputs:
    • M falls, so \( Y = C + I + G + X - M \) rises
    • But our actual output didn’t change
  – Switch from expensive domestic inputs to cheaper imported inputs
    • M rises, and \( Y \) falls, but by less than actual output fell
Facts about OS

• Implication of Phantom GDP
  – GDP
    • Overstates actual output
    • Thus overstates productivity

• Does this mean that OS is hurting us?
  – No!
    – It means that gains from trade are being misinterpreted as increased productivity
Tom Friedman’s View of OS

• Tom Friedman (author of *The World Is Flat*)

• CEOs no longer think of outsourcing (or offshoring) at all, because
  – They don’t think of “in” or “out”
  – Things are “Made in the World”
  – They produce “anywhere through global supply chains”
Tom Friedman’s View of OS

• Friedman thinks the US has advantages that will let us prosper in this new world:
  – protection for intellectual property
  – secure capital markets
  – government funding for science
  – strength in logistics (FedEx, UPS)
Facts about OS

• Recently, some offshoring has been reversing (see Economist):
  – Some companies are bringing operations back to the US
  – Called “reshoring”
Facts about OS

• Examples of reshoring
  – General Electric has “returned production of fridges, washing machines and heaters from China back to Kentucky.”
  – Lenovo is starting to make PCs in North Carolina
  – GM is shifting its IT back to Detroit
  – Apple is making some Macs in the US
Facts about OS

• Reasons for reshoring
  – China’s cost advantage is shrinking due to
    • Rising wages
    • Appreciating currency (until recently)
  – Increased use of automation (robots) has reduced reliance on labor
  – Production abroad is increasingly to serve foreign markets, not to export back to US
Facts about OS

• Most recently – see Schuman NYT 2016
  – While US did lose jobs to China before 2011, now China itself is losing jobs:
    • To its slowing economy
    • To its neighbors
    • Back to the US
Facts about OS

• Most recently – see Schuman NYT 2016
  – While US did lose jobs to China before 2011, now China itself is losing jobs
  – Why?
    • Wages in China are 29% higher than 3 years ago
    • Wages are lower in
      – Vietnam (1/2)
      – Bangladesh (1/4)
    • Costs in China are now about the same as in US
Facts about OS

• Most recently – see Schuman NYT 2016
  – While US did lose jobs to China before 2011, now China itself is losing jobs
  – Why?

  – Where are jobs from China going?
    • To neighboring low-wage countries
    • Back to US: Survey found 24% of US manufacturers “reshoring” or planning to
    • Apple’s manufacturer, Foxconn, is building 12 new factories in India
Outline:
Outsourcing and Offshoring

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• Policies
Policies Suggested for OS

- Get more data
- Expand adjustment assistance
- Invest more in education
- Require transparency by publicly owned firms.
- Remove artificial (i.e., tax) incentives that encourage OS.
Policies Suggested for OS

• Trump:
  – Provide tax incentives to keep production here (as done last fall for Carrier)
  – Threaten a tax on exports back to US from OS factories

  – Good ideas? NO!
A final note on Outsourcing

• http://www.youtube.com/watch?v=rYaZ57Bn4pQ
Next Time (Last Class)

• Environment, Labor Standards, and Trade
  – The Issues
  – Environment
    • Examples
    • Policies
    • International Problems
    • Role of the WTO
  – Labor Standards
    • Fundamental ILO Conventions
    • United States Role
    • Issues