Multinational Corporations and International Trade Theory

Szuyin (Jennifer) Wu
Fall 2016
Lecture 1 Outline

A. What’s Special about International Finance?
B. Catalysts for Globalization
C. Globalization of the World Economy
D. Multinational Corporations
E. The Theory of International Trade
   ❖ Comparative Advantage
Importance of Studying Intl’ Finance

- Take a look around you. Name “anything” made/assembled/developed/… oversea.

- Think a little bit bigger.
  - Name any “U.S. company” does business/trade/build a plant/import/export/… with(in/from/to) foreign companies.
  - Name any “foreign company” does business/trade/build a plant/import/export/… with(in/from/to) U.S. companies.

- Are you convinced that we’re now living in a world where all major economic functions—consumption, production, and investment—are highly globalized?
What’s Special about International Finance?

- How is “International” financial management different from purely “domestic” management?
Exchange Rate Risk

- This is risk that foreign currency profits may evaporate in dollar terms due to unanticipated unfavorable exchange rate movements.

![Graph showing exchange rate fluctuations over time](image-url)
Political Risk

- Sovereign governments have the right to regulate the movement of goods, capital, and people across their borders and can change the “rule of the game”. These laws sometimes change in unexpected ways.

Enron Dabhol Power Project

August 1995

Maharashtra, India
Political Risk

- Footnote of Enron case:
  - The potential problem that MNCs encounter when doing business with a developing countries or in the countries without a tradition of the rule of law.
  - It’s somehow difficult to predict and understand local political condition, and to deal with the treat of project cancellation.
Political Risk

Another case: In 1992...
The World Bank publishes an index of regulatory systems, called the “Doing Business” survey.

- http://www.doingbusiness.org/rankings

- Economies are ranked on their ease of doing business, from 1 – 185. A high ranking on the ease of doing business index means the regulatory environment is more conducive to the starting and operation of a local firm.

- This index averages the country's percentile rankings on 10 topics, made up of a variety of indicators, giving equal weight to each topic.
## Political Risk

### Top 15 countries

<table>
<thead>
<tr>
<th>Economy</th>
<th>Ease of Doing Business Rank</th>
<th>Starting a Business</th>
<th>Dealing with Construction Permits</th>
<th>Getting Electricity</th>
<th>Registering Property</th>
<th>Getting Credit</th>
<th>Protecting Minority Investors</th>
<th>Paying Taxes</th>
<th>Trading Across Borders</th>
<th>Enforcing Contracts</th>
<th>Resolving Insolvency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>6</td>
<td>17</td>
<td>19</td>
<td>1</td>
<td>5</td>
<td>41</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>31</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>22</td>
<td>55</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>Denmark</td>
<td>3</td>
<td>29</td>
<td>5</td>
<td>12</td>
<td>9</td>
<td>28</td>
<td>20</td>
<td>12</td>
<td>1</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>Korea, Rep.</td>
<td>4</td>
<td>23</td>
<td>28</td>
<td>1</td>
<td>40</td>
<td>42</td>
<td>8</td>
<td>29</td>
<td>31</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Hong Kong SAR, China</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>59</td>
<td>19</td>
<td>1</td>
<td>4</td>
<td>47</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6</td>
<td>17</td>
<td>23</td>
<td>15</td>
<td>45</td>
<td>19</td>
<td>4</td>
<td>15</td>
<td>38</td>
<td>33</td>
<td>13</td>
</tr>
<tr>
<td>United States *</td>
<td>7</td>
<td>49</td>
<td>33</td>
<td>44</td>
<td>34</td>
<td>2</td>
<td>35</td>
<td>53</td>
<td>34</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Sweden</td>
<td>8</td>
<td>16</td>
<td>19</td>
<td>7</td>
<td>11</td>
<td>70</td>
<td>14</td>
<td>37</td>
<td>17</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>Norway</td>
<td>9</td>
<td>24</td>
<td>26</td>
<td>18</td>
<td>13</td>
<td>70</td>
<td>14</td>
<td>14</td>
<td>45</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Finland</td>
<td>10</td>
<td>33</td>
<td>27</td>
<td>16</td>
<td>20</td>
<td>42</td>
<td>66</td>
<td>17</td>
<td>32</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>Taiwan, China</td>
<td>11</td>
<td>22</td>
<td>6</td>
<td>2</td>
<td>18</td>
<td>59</td>
<td>25</td>
<td>39</td>
<td>65</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Macedonia, FYR</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>45</td>
<td>50</td>
<td>42</td>
<td>14</td>
<td>7</td>
<td>25</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td>Australia</td>
<td>13</td>
<td>11</td>
<td>4</td>
<td>39</td>
<td>47</td>
<td>5</td>
<td>66</td>
<td>42</td>
<td>89</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Canada</td>
<td>14</td>
<td>3</td>
<td>53</td>
<td>105</td>
<td>42</td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>44</td>
<td>49</td>
<td>16</td>
</tr>
<tr>
<td>Germany</td>
<td>15</td>
<td>107</td>
<td>13</td>
<td>3</td>
<td>62</td>
<td>28</td>
<td>49</td>
<td>72</td>
<td>35</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>

Lecture 1: Multinational Corporations and International Trade Theory
## Political Risk

### Bottom 15 countries

<table>
<thead>
<tr>
<th>Economy</th>
<th>Ease of Doing Business Rank</th>
<th>Starting a Business</th>
<th>Dealing with Construction Permits</th>
<th>Getting Electricity</th>
<th>Registering Property</th>
<th>Getting Credit</th>
<th>Protecting Minority Investors</th>
<th>Paying Taxes</th>
<th>Trading Across Borders</th>
<th>Enforcing Contracts</th>
<th>Resolving Insolvency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eritrea</td>
<td>189</td>
<td>184</td>
<td>189</td>
<td>142</td>
<td>177</td>
<td>185</td>
<td>122</td>
<td>174</td>
<td>189</td>
<td>121</td>
<td>189</td>
</tr>
<tr>
<td>Libya</td>
<td>188</td>
<td>158</td>
<td>189</td>
<td>126</td>
<td>189</td>
<td>185</td>
<td>188</td>
<td>160</td>
<td>107</td>
<td>131</td>
<td>189</td>
</tr>
<tr>
<td>South Sudan</td>
<td>187</td>
<td>181</td>
<td>177</td>
<td>187</td>
<td>180</td>
<td>174</td>
<td>181</td>
<td>104</td>
<td>179</td>
<td>76</td>
<td>189</td>
</tr>
<tr>
<td>Venezuela, RB</td>
<td>186</td>
<td>186</td>
<td>125</td>
<td>171</td>
<td>129</td>
<td>109</td>
<td>178</td>
<td>188</td>
<td>186</td>
<td>141</td>
<td>165</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>185</td>
<td>189</td>
<td>155</td>
<td>186</td>
<td>167</td>
<td>133</td>
<td>150</td>
<td>185</td>
<td>144</td>
<td>177</td>
<td>149</td>
</tr>
<tr>
<td>Chad</td>
<td>183</td>
<td>185</td>
<td>133</td>
<td>181</td>
<td>155</td>
<td>133</td>
<td>155</td>
<td>186</td>
<td>168</td>
<td>156</td>
<td>149</td>
</tr>
<tr>
<td>Haiti</td>
<td>182</td>
<td>188</td>
<td>167</td>
<td>136</td>
<td>179</td>
<td>174</td>
<td>187</td>
<td>143</td>
<td>76</td>
<td>123</td>
<td>189</td>
</tr>
<tr>
<td>Angola</td>
<td>181</td>
<td>141</td>
<td>108</td>
<td>166</td>
<td>169</td>
<td>181</td>
<td>66</td>
<td>141</td>
<td>181</td>
<td>185</td>
<td>189</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>180</td>
<td>187</td>
<td>157</td>
<td>135</td>
<td>156</td>
<td>109</td>
<td>144</td>
<td>175</td>
<td>175</td>
<td>108</td>
<td>189</td>
</tr>
<tr>
<td>Liberia</td>
<td>179</td>
<td>37</td>
<td>174</td>
<td>180</td>
<td>178</td>
<td>109</td>
<td>182</td>
<td>118</td>
<td>183</td>
<td>176</td>
<td>168</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>178</td>
<td>179</td>
<td>163</td>
<td>184</td>
<td>150</td>
<td>133</td>
<td>155</td>
<td>152</td>
<td>148</td>
<td>162</td>
<td>189</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>177</td>
<td>34</td>
<td>185</td>
<td>156</td>
<td>184</td>
<td>97</td>
<td>189</td>
<td>89</td>
<td>174</td>
<td>172</td>
<td>160</td>
</tr>
<tr>
<td>Congo, Rep.</td>
<td>176</td>
<td>177</td>
<td>120</td>
<td>176</td>
<td>166</td>
<td>109</td>
<td>150</td>
<td>182</td>
<td>177</td>
<td>158</td>
<td>115</td>
</tr>
<tr>
<td>Syrian Arab Republic</td>
<td>175</td>
<td>127</td>
<td>189</td>
<td>120</td>
<td>136</td>
<td>167</td>
<td>88</td>
<td>119</td>
<td>173</td>
<td>157</td>
<td>157</td>
</tr>
</tbody>
</table>
Expansion of Opportunity Set

For firms: minimize cost in terms of financial and operational decisions.

- International financial market
  - International bond market
  - International equity market

For investors: international investment can reach a portfolio with a lower risk and a higher return comparatively to domestic investment.

- International portfolio investment
Catalysts for Globalization

- **Deregulation**
  - Admit foreign firms/brokers (Tokyo Stock Exchange 1985; London Stock Exchange 1986);
  - Elimination of fixed broker commissions (USA, 1975; LSE, “Big Bang” 1986);
  - Allow foreign direct investment (i.e. FDI) (Chile, Mexico, Korea)

- **Technologies advancements**
  - have greatly reduced information and transaction costs, which has led to financial innovations, such as,
    - Currency futures and options
    - Multi-currency bonds
    - Cross-border stock listings
Catalysts for Globalization

- **Privatizations** A country divests itself of the ownership and operation of a business venture by turning it over to the free market system. Also known as “denationalization”. It’s generally viewed as an increase in efficiency of the enterprise.

  - 1980s: Margaret Thacher (UK) and Ronald Reagan(USA)
  - 1990s: Eastern and Central Europe and Latin American
  - 2000s: Indian and China

  - During the privatizations in China in 1995-2001, the number of SOEs fell from 1.2M to 468,000, and the proportion of urban workers employed in the state sector fell by half.

  - The share-issue privatizations of the ‘Big Four’ in China were the largest IPOs at the time but the Chinese government still retains the majority stakes in most public firms.
Implications of Globalization for Businesses

- How should global manager think globally in their operations?

- How their productions are made?
- How their value change?
- Where the funds come from?
- Alternative supply chain?
Integration of the World Economy

- **General Agreement on Tariffs and Trade (GATT)** (1947-1994): multilateral agreement among countries aimed to dismantle barriers to international trade. GATT was replaced by WTO.

- **World Trade Organization (WTO)** (1995~) has power to enforce the rule of international trade.

- **European Union (EU)** (late 1970s) was established to foster economic integration among the Western Europe.

Multinational Corporations (MNCs)

- **Multinational corporations (MNCs)** is a business firm incorporated in one country that has production and sales in several other countries. Their primary objective is to maximize shareholder wealth.

```
MNC
  Home Country
   Foreign Subsidiary 1
   Foreign Subsidiary 2
   Foreign Subsidiary 3
   Foreign Subsidiary 4
   Foreign Subsidiary 5
```

- Many MNCs obtain raw materials from one country, financial capital from another, produce goods with labor and capital in a third country, and sell their output in various other national markets.
# The World’s Biggest 10 Public Companies

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Country</th>
<th>Sales</th>
<th>Profits</th>
<th>Assets</th>
<th>Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICBC</td>
<td>China</td>
<td>$171.1 B</td>
<td>$44.2 B</td>
<td>$3,420.3 B</td>
<td>$198 B</td>
</tr>
<tr>
<td>2</td>
<td>China Construction Bank</td>
<td>China</td>
<td>$146.8 B</td>
<td>$36.4 B</td>
<td>$2,826 B</td>
<td>$162.8 B</td>
</tr>
<tr>
<td>3</td>
<td>Agricultural Bank of China</td>
<td>China</td>
<td>$131.9 B</td>
<td>$28.8 B</td>
<td>$2,739.8 B</td>
<td>$152.7 B</td>
</tr>
<tr>
<td>4</td>
<td>Berkshire Hathaway</td>
<td>United States</td>
<td>$210.8 B</td>
<td>$24.1 B</td>
<td>$561.1 B</td>
<td>$360.1 B</td>
</tr>
<tr>
<td>5</td>
<td>JPMorgan Chase</td>
<td>United States</td>
<td>$99.9 B</td>
<td>$23.5 B</td>
<td>$2,423.8 B</td>
<td>$234.2 B</td>
</tr>
<tr>
<td>6</td>
<td>Bank of China</td>
<td>China</td>
<td>$122 B</td>
<td>$27.2 B</td>
<td>$2,589.6 B</td>
<td>$143 B</td>
</tr>
<tr>
<td>7</td>
<td>Wells Fargo</td>
<td>United States</td>
<td>$91.4 B</td>
<td>$22.7 B</td>
<td>$1,849.2 B</td>
<td>$256 B</td>
</tr>
<tr>
<td>8</td>
<td>Apple</td>
<td>United States</td>
<td>$233.3 B</td>
<td>$53.7 B</td>
<td>$293.3 B</td>
<td>$586 B</td>
</tr>
<tr>
<td>9</td>
<td>ExxonMobil</td>
<td>United States</td>
<td>$236.8 B</td>
<td>$16.2 B</td>
<td>$336.8 B</td>
<td>$363.3 B</td>
</tr>
<tr>
<td>10</td>
<td>Toyota Motor</td>
<td>Japan</td>
<td>$235.8 B</td>
<td>$19.3 B</td>
<td>$406.7 B</td>
<td>$177 B</td>
</tr>
</tbody>
</table>

### The World’s Most Valuable Brands

<table>
<thead>
<tr>
<th>Rank</th>
<th>Brand</th>
<th>Brand Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Apple</td>
<td>$154.1 B</td>
</tr>
<tr>
<td>#2</td>
<td>Google</td>
<td>$82.5 B</td>
</tr>
<tr>
<td>#3</td>
<td>Microsoft</td>
<td>$75.2 B</td>
</tr>
<tr>
<td>#4</td>
<td>Coca-Cola</td>
<td>$58.5 B</td>
</tr>
<tr>
<td>#5</td>
<td>Facebook</td>
<td>$52.6 B</td>
</tr>
<tr>
<td>#6</td>
<td>Toyota</td>
<td>$42.1 B</td>
</tr>
<tr>
<td>#7</td>
<td>IBM</td>
<td>$41.4 B</td>
</tr>
<tr>
<td>#8</td>
<td>Disney</td>
<td>$39.5 B</td>
</tr>
<tr>
<td>#9</td>
<td>McDonald's</td>
<td>$39.1 B</td>
</tr>
<tr>
<td>#10</td>
<td>GE</td>
<td>$36.7 B</td>
</tr>
</tbody>
</table>
International Trade Theory

[Map showing average annual GDP growth rate per capita, in percentage]

Source: World Bank
The Theory of International Trade

- David Ricardo, *Principles of Political Economy* (1817): It is mutually beneficial for countries to specialize in the production of goods they can produce most efficiently – and then trade with each other.

- The classical theory of international trade is based on *comparative advantages*. It states that each national should specialize in producing and exporting goods it can produce with *comparative advantage* and import those goods that other nations can produce with *comparative advantage*.
A *comparative advantage* exists when one party can produce a good or service at a lower *opportunity cost*.

**Opportunity Cost**

– In this context, the opportunity cost of making one additional of goods can be defined as the value of some other goods that you have to give up in order to produce this goods.

– What is your opportunity cost to attend MGF403 for 3 hours a week?
The Theory of Comparative Advantage

Assumptions of Comparative advantage

1. Market is perfectly competitive.
   - No transportation cost, no tariff, no quotas, no trade barriers.
2. Only two economies produce two commodities.
3. Full employment in both countries.
4. Factors of productions are immobile between countries.
5. Factors of productions are fully mobile within country.
6. Costs are constant and no economies of scale.
The Theory of Comparative Advantage

- **Comparative advantage**
  - A country has a comparative advantage in producing the commodity that it has less of an absolute disadvantage in producing.

  ![](table.png)

  - **Productivity of labor:**
    - In the US, one labor can produce 0.5 tons of wheat or 1 ton of coal; in the UK, one can produce 1/3 ton of wheat and 0.25 ton of coal.
The Theory of Comparative Advantage

- Comparative Advantage

Opportunity cost of one labor to make a ton of coal is
0.5 units of wheat for the US and 1.33 units of wheat for the UK.

Opportunity cost of one labor to make a ton of wheat is
2 units of coal for the US and 0.75 units of coal for the UK.

If US specifies in growing coal and UK specifies in producing wheat and trade with each other, both of them will gain from trading.
We assume both US and UK have 12 units of endowments inputs. If US use all inputs to grow wheat, it can produce 6 tons of wheat. If US use all inputs to make coal, it can produce 12 tons of coal.

US can produce any combination of wheat and coal on the production possibility line that links the two points. (A production possibility line shows the quantities of wheat or coal each country can produce.)

Slope = $-1/2$ means that US has an opportunity cost of 1 ton of coal per 0.5 tons of wheat. In other words, in order to produce 1 more unit of coal, US needs to give up producing 0.5 tons of wheat.
If UK use all inputs to produce wheat, it can produce 4 tons of wheat. If UK use all inputs to make coal, it can produce 3 tons of coal.

UK can produce any combination of wheat and coal on the production possibility line that links the two points.

Slope = \(-\frac{4}{3}\) means that UK has an opportunity cost of 1 ton of coal per 1.33 tons of wheat.

In other words, in order to produce 1 more unit of coal, UK needs to give up producing 1.33 tons of wheat.
If both US and UK make only coal, the combined production would be 15 units = 3 + 12. Similarly, if they both make only wheat, the combined production would be 10 units = 4 + 6.

The combined *production possibilities curve* of US and UK without trade is shown in the green line.
US has comparative advantage in producing coal. So let US produce the first 12 units of coal.

UK has comparative advantage in producing wheat. So let UK produce the first 4 units of wheat.

The combined *production possibility curve* with trading will increase the consumption for US and UK (the shaded area)—*gain from the trade.*
This graph shows the production possibility line for country A (red) and B (blue) in producing wine and apple.

1) Who has absolute advantage in both commodities, and why?
2) What does the slope mean, A= -2/3 and B= -1?
3) Who has comparative advantage in producing wine and apple, respectively? (briefly explain your answer numerically)
4) Criticize one of the listed assumptions and make your point.