The theory of comparative advantages

• Suppose country A can produce oil and corn. A bushel of corn and a barrel of oil both take one hour of labor to produce. Country A has 200 labor hours available.
The theory of comparative advantages

- What is Country A’s PPF?

Slope = -1
The theory of comparative advantages

• Now suppose Country B may also produce corn and oil, and has the same 200 hours of labor.

• However, Country B takes 4 hours to produce a bushel of corn and 2 hours to produce a barrel of oil.
The theory of comparative advantages

- What is Country B’s PPF?
The theory of comparative advantages

• Suppose that instead of 2 hours, it took Country B 20 minutes to produce a barrel of oil.

• Then, Country A would be better at producing corn (1 hour vs. 4 hours), and Country B would be better at producing oil (1 hour vs. 20 minutes).
The theory of comparative advantages

• In this case, that Country A is better off by specializing in corn and trading it for oil.

• Country B, on the other hand, is better off by specializing in oil and trading it for corn.
The theory of comparative advantages

• But in the example, Country A is better at producing both corn and oil.

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<tr>
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<th>Corn (bushels)</th>
<th>Oil (barrels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country A</td>
<td>1 hour</td>
<td>1 hour</td>
</tr>
<tr>
<td>Country B</td>
<td>4 hours</td>
<td>2 hours</td>
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</table>

• Can the two countries still be better off specializing their production and trading? Yes.
The theory of comparative advantages

• The main conclusion of the theory of comparative advantages is that countries can gain always from trade because what matters are comparative advantages and not absolute advantages.

• **Absolute advantage**: a country’s ability to produce a good using fewer resources than the other.
  – Country A has an absolute advantage in producing both corn and oil.
The theory of comparative advantages

- **Comparative advantage**: a country’s ability to produce a good at a lower opportunity cost than the other.

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<tbody>
<tr>
<td>Country A</td>
<td>1 hour</td>
<td>1 hour</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Country B</td>
<td>4 hours</td>
<td>2 hours</td>
<td>2</td>
<td>1/2</td>
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</table>

- Country A has a comparative advantage at producing corn and Country B has a comparative advantage at producing oil.
The theory of comparative advantages

• Notice that Country A has a comparative advantage at producing corn (1 vs. 2) and Country B at producing oil (1 vs. 1/2).

• Moreover, suppose that countries can trade at the international market 1 bushel of corn for 1.25 barrels of oil (or 0.8 bushel of corn for 1 barrel of oil).
The theory of comparative advantages

- Country A will be better off specializing in the production of corn.

![Graph showing comparative advantages](image-url)
The theory of comparative advantages

- Country B will be better off specializing in the production of oil.
The theory of comparative advantages

• Therefore, if each country specializes in producing the good in which it has a comparative advantage, all countries are better off trading.

• However, for this to happen, the international terms of trade between both goods must fall between the opportunity costs of both countries.
  – In our example, $1/2 < 0.8 < 1$. 
The theory of comparative advantages

- We know that both countries gain from trading, but does one country gain more than the other?

- Usually yes.

- Suppose now that countries can trade 1 bushel of corn for 1.11 barrel of oil (or 1 barrel of oil for 0.9 bushel of corn).
The theory of comparative advantages

- Then, Country A is worse off while Country B is better off.
The theory of comparative advantages

• Therefore, the further away the international rate of trade is from a Country’s domestic rate of trade (i.e., opportunity cost) the better off the country is.

• In the limit, if both rates are the same the country is indifferent between trading specializing or producing both goods.
  – It can trade oil for corn internationally at the same rate it does domestically.
Barriers to trade

• Even though the theory of comparative advantages is true, many countries still do not support free trade.

• The main argument against free trade is that countries need to protect their own industries: protecting jobs, “infant industries”.
Barriers to trade

• But what are the main instruments of protectionist policies?
  – **Tariffs**: taxes on imported goods (for a long time were the main source of revenue for governments).
  – **Quotas**: a limit on the quantity of imported goods.
  – **Regulations**: health requirements, etc.
  – **Other**: bureaucracy, embargos, local content requirements, import licenses.