

# Problem Set 1: International Trade

October 6, 2020

**Due:** Wednesday, October 21, at 4:50pm  
**Format:** Submit scan to canvas.ucsd.edu  
**Instructor:** Marc-Andreas Muendler (muendler@ucsd.edu)

## 1 Trade Patterns and Gains from Trade

The *Ricardian* and *Heckscher-Ohlin* theories of international trade stress different aspects of *comparative advantage*. [You may use numeric examples, graphs, or clear verbal arguments for any of your answers.]

1. Name a key differences between the *Ricardian* and the *Heckscher-Ohlin* theory of trade. State their main predictions for the pattern of trade.
2. *Ricardian trade*. Mexico and California grow avocados and produce motorcycles. Mexico's workers can produce 300,000 motorcycles and grow 15 million avocados, while California's workers can produce 1 million motorcycles and grow 20 million avocados. In your argument, start from a point of autarky and open markets to international trade. What are Mexico's and California's opportunity costs of motorcycle manufacturing in terms of avocado? What is the pattern of trade? If the world price is 1 motorcycle for 30 avocados, how many motorcycles will Mexico produce, and how many motorcycles will California produce? In your analysis, demonstrate that there are gains from trade for both California and Mexico.
3. *Heckscher-Ohlin trade*. What will happen to *relative wages* for low-skilled and high-skilled workers in Mexico and California under the assumption that avocado growing is low-skill intensive, motorcycle manufacturing is high-skill intensive, Mexico is low-skill labor-abundant and California is high-skill labor-abundant?

## 2 Growth and its Effects on Trade

Given differences in per-capita incomes, trade may not suffice to bridge the gap in consumption levels between unequal economies. Consider Mexico and California. Mexico has a lower per-capita income than California. [You may use numeric examples, graphs, or clear verbal arguments for any of your answers.]

1. Explain how Mexico could attempt to bridge the consumption gap that remains to California.
2. How do the terms of trade respond when Mexico increases its labor productivity in the export sector? Will it still reap gains from trade?
3. The possibility of "immiserizing growth" causes concern in Mexico. Explain how "immiserizing growth" may come about. Will Mexico still reap gains from trade under "immiserizing growth"?

### 3 Trade and Inequality

International trade affects the distribution of incomes within economies that trade. [You may use numeric examples, graphs, or clear verbal arguments for any of your answers.]

1. Explain the difference between measures of poverty and income inequality. Can poverty decline in the presence of increasing income inequality?
2. South America is the continent with arguably the most pronounced swings in inequality over the past two decades. By many measures, *income inequality* in Latin America has become more pronounced over the 1990s but less extreme over the 2000s. Discuss two potential explanations [of your choice] why international trade in final goods may have been a cause. Offer two alternative explanations [of your choice] why international trade may not have been the cause.
3. Offer an explanation why offshoring through the formation of global value chains or foreign direct investment may overturn the rationale from trade in final goods.