**ECO 2306 – Principles of Microeconomics**

Week 9

**Hello and Welcome to the weekly resources for ECO 2306 – Principles of Microeconomics!**

**This week is Week 9 of class, and typically in this week of the semester, your professors are covering these topics below.**  If you do not see the topics your particular section of class is learning this week, please take a look at other weekly resources listed on our website for additional topics throughout of the semester.

We also invite you to **look at the group tutoring chart on our website to see if this course has a group tutoring session offered this semester**.

If you have any questions about these study guides, group tutoring sessions, private 30 minute tutoring appointments, the Baylor Tutoring YouTube channel or any tutoring services we offer, please visit our website [www.baylor.edu/tutoring](http://www.baylor.edu/tutoring) or call our drop in center during open business hours. M-Th 9am-8pm on class days 254-710-4135.

Our main resource is going to be Principles of Microeconomics by N. Gregory Mankiw.

**Topic of the week**

**Application: International Trade**

**Keywords:** world price, tariff.

**Concepts:**

You are probably wearing clothes made in some foreign country. You have these clothes as a result of international trade with a foreign country, and the US is probably selling computers and aircraft to that country. We’ve already talked about trade with regards to the concept of comparative advantage. In this chapter, we go a little deeper.

**The Determinants of Trade**

Imagine and isolated country with a textile market and no imports or exports. As we expect, this market will achieve a stable equilibrium between supply and demand. A new government decides to ask economists about three major issues: what will the effect of import and export of textiles be on the price and quantity of textiles sold in the domestic market? Who will gain or lose from the free trade of textiles, and will the gains be more than the losses? Should imports be taxed?

First we have to determine whether the country becomes and importer or an exporter of textiles. To do this we need to compare the price of textiles in this country to other countries. We call the price prevailing in world markets the **world price**. If the world price of textiles is higher than it is in a country, that country would happily become an exporter of textiles. Conversely, if the world price of textiles is lower than it is in the country, then it will become an importer of textiles. Basically, just like we saw in chapter 3, the country with a **comparative advantage** in producing a good will become an exporter of that good.

**The Winners and Losers from Trade**

If the country becomes an exporter, the domestic equilibrium price will rise to the world price. As a result, domestic quantity supplied will exceed the domestic quantity demanded. The difference will be exported. With international trade, the exporting country will have a higher producer surplus, a lower consumer surplus, and a higher total surplus.

As you can see, domestic producers are the winners and domestic consumers are the losers of free trade in an exporting country. As trade increases the total economic well-being of a nation, the gains of the winners will exceed the losses of the losers.



Figure 1 The effect of exports (source: Mankiw)

If the country becomes an exporter, the domestic equilibrium price will drop down to the world price. As a result, domestic quantity supplied will be less than the domestic quantity demanded. The difference will be imported. With international trade, the importing country will have a higher consumer surplus, a lower producer surplus, and a higher total surplus.

Similar to what we saw earlier, domestic producers are the losers and domestic consumers are the winners of free trade in an importing country. As trade increases the total economic well-being of a nation, the gains of the winners will exceed the losses of the losers. **Trade can make everyone better off.**

**Arguments For Restricting Trade**

Other benefits of international trade include increased **variety** of goods, lower **costs** through economies of scale, increased **competition**, increased **productivity**, and enhanced **flow of ideas**. There are also some arguments against free trade.

The **jobs argument** states that trade with other countries destroys domestic jobs. However, economists argue that free trade creates new jobs at the same time and this will lead to a reallocation of labor to more productive uses. The **national security** argument states that some industries are vital to national security and should be preserved on domestic soil. This argument is valid when there are legitimate concerns about national security.

The **infant industry** argument state that new industries need temporary trade restrictions to help them get started. This kind of restriction is difficult to implement in practice and temporary measures are difficult to remove. Also, many industries in real life grew under free trade. A good example is the growth of Latin American economies under free trade.



Figure 2 The effects of imports (source: Mankiw)

The **unfair competition** argument states that free trade us desirable only if all countries play by the same rules. For example, the other country may have a lower minimum wage. However, the argument for free trade is the same as before: trade makes domestic consumers better off.

The **protection as a bargaining chip** argument states that trade restrictions can be useful when we bargain with our trading partners. The problem with this argument is the threat of restriction may not work, and in that case domestic economy will be worse off without any results in foreign policy.

There is also an **ethical** argument against free trade. Some foreign companies do not treat people or the environment ethically. This argument has good intentions, but does not necessarily lead to good results. For example, child labor exists because in most cases children have no access to education and they have to add to their family’s income. Also, environmental protection is a luxury good, and until countries get rich enough through trade, they will not care about the environment.

A **tariff** is a tax on goods produced abroad and sold domestically. We learned that under free trade, domestic price will equal world price. A tariff on imports will raise the domestic price above the world price by the amount of the tariff.

As a result of a tariff, domestic quantity demanded decreases and domestic quantity supplied increases. The quantity of imports is down and the domestic market moves closer to its equilibrium without trade. Under this tariff regime, domestic sellers are better off and domestic buyers are worse off.

Another result of tariffs is, just like any other tax, consumer surplus is smaller and the government is raising some revenue. However, producer surplus is bigger under tariffs. Tariffs also lead to trade wars, like the US and China over the past few years. In a trade war, the two sides keep raising their tariffs on each other, and this leads to price increases in both countries. Consumers in both countries end up being worse off.



Figure 3 effects of a tariff (source: Mankiw)

**What you might struggle with**

A common mistake in thinking about trade is to consider its effects on one individual or company instead of the whole economy. Such a view will make you miss the overall benefits of free trade. In analyzing any kind of trade, make sure to consider its effects on your community, state, country, and the world as a whole.

**Check your learning**

1. The world price of wine is below the price that would prevail in Canada in the absence of trade.

a. Assuming that Canadian imports of wine are a small share of total world wine production, draw a graph for the Canadian market for wine under free trade. Identify consumer surplus, producer surplus, and total surplus in an appropriate table.

b. Now suppose that an unusual shift of the Gulf Stream leads to an unseasonably cold summer in Europe, destroying much of the grape harvest there. What effect does this shock have on the world price of wine? Using your graph and table from part (a), show the effect on consumer surplus, producer surplus, and total surplus in Canada. Who are the winners and losers? Is Canada as a whole better or worse off? (source: Mankiw)

2. Consider a country that imports a good from abroad. For each of following statements, state whether it is true or false. Explain your answer.

a. “The greater the elasticity of demand, the greater the gains from trade.”

b. “If demand is perfectly inelastic, there are no gains from trade.”

c. “If demand is perfectly inelastic, consumers do not benefit from trade.” (source: Mankiw)

3. Consider a small country that exports steel. Suppose that a “pro-trade” government decides to subsidize the export of steel by paying a certain amount for each ton sold abroad. How does this export subsidy affect the domestic price of steel, the quantity of steel produced, the quantity of steel consumed, and the quantity of steel exported? How does it affect consumer surplus, producer surplus, government revenue, and total surplus? Is it a good policy from the standpoint of economic efficiency? (source: Mankiw

4. Consider the arguments for restricting trade.

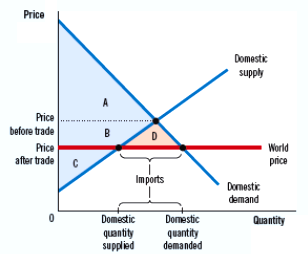
a. Imagine that you are a lobbyist for timber, an established industry suffering from low-priced foreign competition, and you are trying to get Congress to pass trade restrictions. Which two or three of the five arguments discussed in the chapter do you think would be most persuasive to the average member of Congress? Explain your reasoning.

b. Now assume you are an astute student of economics (not a hard assumption, we hope). Although all the arguments for restricting trade have their shortcomings, name the two or three arguments that seem to make the most economic sense to you. For each, describe the economic rationale for and against these arguments for trade restrictions. (Source: Mankiw)

**Answers**

These are my answers. You should be able to come up with your own arguments that may or may not differ from mine.

1. a. price of wine in Canada falls thanks to imports. Domestic supply will go down, domestic demand will go up, consumer surplus increases by B+D, producer surplus decreases by B.



b. this even will increase the world price of wine. If this increase is large enough to push the price up to Canada’s pre-trade equilibrium, there would be no trade and Canada will go back to normal. If the increase is large enough to push the price beyond Canada’s equilibrium price, Canada will become an exporter of wine. In both cases Canadian producers are the winners and Canadian consumers are the losers. Total surplus in Canada is down and it’s worse off as a whole.

2. a. True. Elastic demand quickly responds to price changes, so the decrease in price will lead to a big increase in quantity demanded and consumer surplus. (triangle D in the picture above will be larger). However,

b. False. Quantity demanded will not change, but consumers pay a lower price for the same quantity and consumer surplus will be higher. Producer surplus will fall, but overall, the gains from trade are still positive.

c. False. Consumers always benefit from lower prices.

3. since only exports are subsidized, the price of steel in world market drops and producers will export more of it. The domestic supply of steel will decrease, the domestic price will go up, and the domestic demand will go down. Consumer surplus is down, producer surplus is up, government revenue is down (a subsidy is a reverse tax), total surplus is down. This is a bad policy since it has reduced total surplus and propped up a (presumably) inefficient steel industry.

4. a. unfair competition: environmental and labor laws in other countries are too lax for us to compete freely. Ethical issues: other countries use child labor to produce timber.

b. Jobs: in many timber producing regions of the country, it is very difficult to establish any other industry. Therefore, timber jobs that are lost in this trade have no replacement. Environmental protection: domestically, timber production can be regulated to make sure the quality of soil and the total wooded area would not decrease (this is true in the US), while we have no such control over other countries.

Thanks for checking out these weekly resources!

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