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Why Tariffs are a Tax on American Consumers

When the Biden administration decided to maintain Trump-era tariffs on China, I was dismayed. I knew this protectionist stance would continue to fuel inflation, and as a middle-class Nebraskan, my real income would continue to decline. However, as a classroom teacher, I saw a bright side. Because both administrations supported the tariffs, I would be able to evaluate and discuss the tariff in the classroom without any fear of political bias, either from students, or their perception of my own biases. This article will explain (without using graphs!) how a tariff is paid, how it affects different goods, and finally the potential long-run implications of protectionist policies.

There is a lot of misinformation regarding tariffs. To begin, who "pays" the tariff is often misunderstood, and for good reason. A tariff is nothing more than a tax imposed on imported goods and services. Any tax can be levied on either the consumer or the producer. Whichever party does not explicitly pay the tax, implicitly pays the tax through the change in the price of the good or service. This split is called "tax incidence," and the proportion paid by each side is determined by the elasticity of the good being taxed. So, while a tax is specifically placed on either buyer or seller, both pay. Consider the following two examples to see how the market determines the split.

A Tax on Insulin

Imagine the free-market price of insulin is $100/vial. If the government wanted to impose a $10 tax on insulin, they could choose to tax either the producer or the consumer. Insulin buyer's demand is almost perfectly inelastic, meaning the quantity they demand is not responsive to price changes. How much insulin diabetics need is nearly constant, as there is no good substitute for a hormone that the body can no longer produce. Sure, they can substitute diet and exercise, but a minimum amount of insulin is needed to support life.

If the tax is imposed on consumers, the $10 decrease in demand has a very small translation in terms of quantity, meaning the downward pressure on insulin prices is negligible. For argument's sake, assume their decrease in insulin demand causes the price to fall to $99.50. Who then, pays the tax? Explicitly, the consumer pays $10, but this is offset by producers accepting a lowered price, implicitly paying $.50. Therefore, the consumer pays 95% of the tax, and the producers 5%.

If the tax is imposed on producers, their first instinct would be to raise prices by exactly $10 to $110. Because the cost of producing insulin (supply), and the benefit enjoyed by insulin consumers (demand) are fundamentally unchanged in either scenario, a price of $110 would result in a small surplus of insulin, and the price would fall, to exactly $109.50. In this case, the producer explicitly pays the $10 tax, and the consumer implicitly pays the tax through a $9.50 increase in the market price. Again, the consumer pays the lion's share of tax. The reason was hinted at before, there is no good substitute for insulin.

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Thankfully, the government doesn't tax life-saving goods and services. Instead, they tax things like alcohol, tobacco, and gasoline. On the surface, these items have little in common with insulin, save for one important feature: lack of substitutes. When a good has few (or no) substitutes, the tax will be efficient. Tax efficiency is a measure that evaluates how many consumers (and therefore units produced) are lost after the tax is imposed. In practice, consider the different amounts of driving people do across different states with different gasoline and automotive-related taxes: very little.

A tax on gift cards

If a tax on insulin sounded silly, a tax on gift cards would be downright nuts. For argument's sake, imagine the government wanted to impose a 10% tax on the face value of any gift card sold.

In the first scenario, where consumers pay the tax, the decrease in demand a $2 tax would have on a $20 gift card purchase would translate into a very large change in quantity, likely forcing the price of a $20 gift card down to almost $18, say $18.20. While the tax is explicitly imposed on consumers, producers implicitly pay most of the tax ($1.80), by accepting a lower price.

If the tax were imposed on producers (sellers of gift cards), they may try to pass the entire tax through to customers, by charging $22 for $20 gift card. At $22, there would be a large surplus of gift cards, putting downward pressure on the price of gift cards, to say, $20.20. Of course, after the tax is paid, the net result is identical, the producer pays nearly all of tax.

Taxing something like gift cards would be a tragic policy. The revenue collected by the government would be very minimal. Why? Because the quantity of gift cards sold in the taxed market would be a very small amount compared to the pre-tax market. Why am I so sure of this? Because although consumer's use of cash is falling, a crisp Andrew Jackson is a pretty darn good substitute for a $20 gift card, no matter the retailer.

To summarize, it doesn't matter whom the tax is placed on. The tax will be paid by both the consumer and the producer. The split is determined by the availability of substitutes. When there are few substitutes, most of the tax will be paid by consumers. When there are many substitutes, the producer pays.

Tariffs on Chinese Goods

First, the tariffs placed on Chinese goods are paid by the importer, not China. However, the astute reader will understand that Chinese firms *do* implicitly pay the tax if the price they accept is lower. This, of course, is determined by the availability of substitutes from other countries. While there is variation from one market to the next, the increased price of imported goods is indeed passed on to consumers, however, the overall increase in the cost of living to American consumers may be less than anticipated.[1]

Domestically, the reality of Tariffs has been muddled with other inflationary market characteristics related to the global Covid-19 pandemic. If tariffs on Chinese goods aren't as inflationary as concerned, then the revenue they create for the government should be a legitimate tradeoff. Unfortunately, the revenue isn't that remarkable either.[2] What then, is the real danger of Tariffs?

Unintended consequences

If "The Princess Bride" were made today, Vizzini's line, "Never get involved in a land war in Asia" may be replaced with, "Never enter a trade war with China." The reality of a trade war is that consumers suffer, and the political framework of China would dictate they are comfortable sacrificing the economic well-being of their 1.4 billion people in order to "win" any economic or political skirmish with a Western adversary.

Conjecture aside, the unintended consequences of prior trade wars are still felt today. During the Lyndon Johnson administration, a tariff was placed on light-duty trucks, which was in response to a tariff placed by West Germany and France on imported US poultry. This so-called "Chicken tax" is why most other markets in the world have small, street-legal utility pickup trucks.

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[1]The Non-partisan *Tax Foundation* finds households will pay between $200 and $600 more annually for goods subject to Tariffs on Chinese Goods. https://taxfoundation.org/research/all/federal/trump-tariffs-biden-tariffs/

[2]Even the most generous estimates of tariff revenue created are a drop in the bucket compared to the overall US budget.

Evolving truck demand in the United States has morphed these work vehicles into luxury minivans with short, open-air beds, leaving farmers and ranchers with few options for true utility vehicles. Instead, they are left buying Gators, Mules, Mahindras, and other $30,000+ glorified golf carts to get their chores done on the farm or ranch.

Summary

The takeaway from this article should be that tariffs are a political tool, not an economic one. They do raise prices and revenue, but not as much as advertised (by either side).

At its core, Economics is the study of how scarcity is solved. That is, how limited resources are best utilized. Time and time again, Adam Smith's idea that the invisible hand of markets would guide us to welfare-maximizing solutions, largely through specialization and trade is proven. It's why most of us specialize in one career and trade our hard-earned money for goods and services instead of producing them at home. Domestic taxes undermine this to some extent, but the tradeoff is necessary, and the amount of taxes levied would never halt domestic trade.

Trade wars and debilitating tariff rates could escalate until all trade is eliminated. While the economy of the United States is an extraordinary machine, the ability to trade for coffee, tea, maple syrup, or semiconductors increases our collective standard of living.

At the beginning of this article, it was mentioned that I enjoyed the opportunity to teach without my personal biases interfering with a student's ability to learn. By this point, my bias should be clear; our politicians should craft policies aimed at working with global trading partners instead of against them. These policies may be difficult to create, but for the benefit of all Americans, they are worth the effort.

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