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The background of the page features a dark green, textured surface. On the left side, there is a faint, light-colored stock market chart with various data points and lines. On the right side, there is a close-up image of a scale of justice, showing the pans and the central pillar. The overall aesthetic is professional and analytical.

# Understanding Trade Balances and What to do About Them

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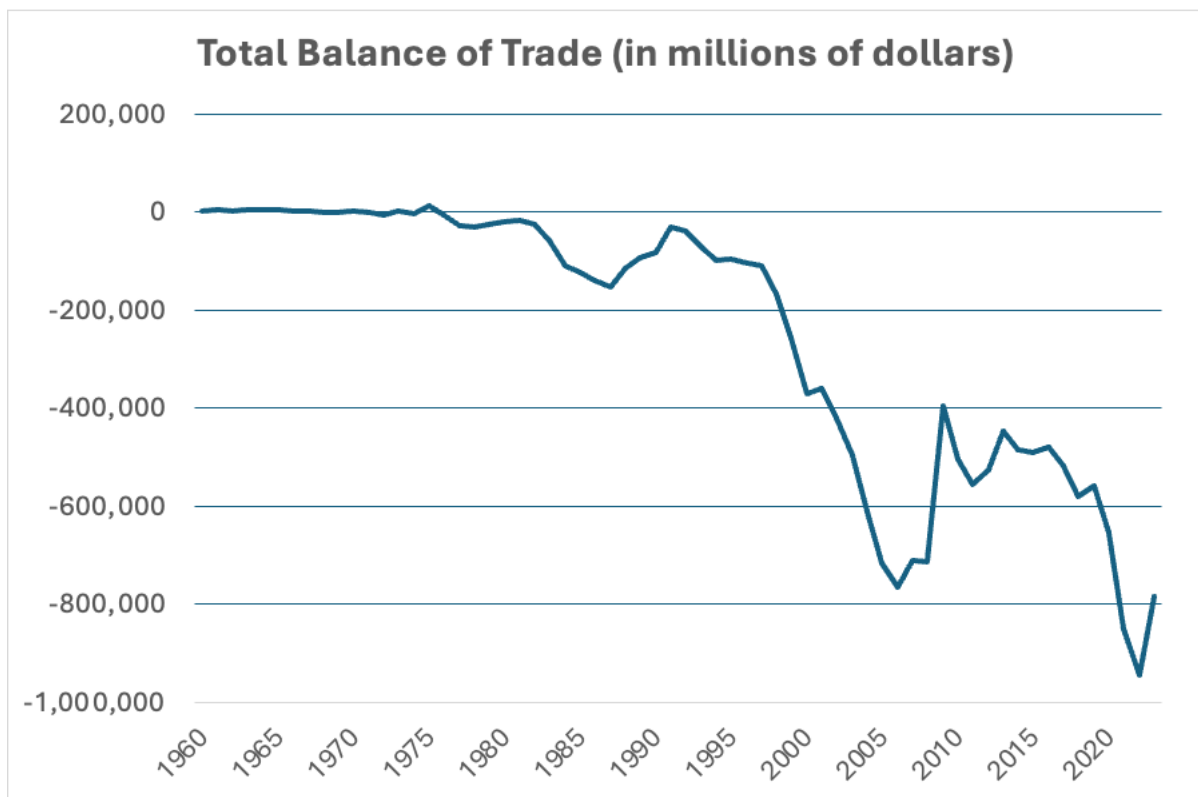
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## Part 1: What is a Trade Balance?

The balance of trade, often described under the heading of a “trade deficit” or a “trade surplus,” is the difference between the dollar value of exports a country sells and the dollar value of the imports that a country purchases. A trade deficit is said to occur when the dollar value of imports exceeds that of exports. Conversely, a trade surplus occurs when the dollar value of exports exceeds that of imports.

Elected officials and political pundits often tell citizens that trade deficits are bad, that they are evidence that another nation is “taking advantage of us,” and will announce sweeping policy reforms designed to get the nation “back on track.” After all, the word “deficit” in any other context refers to a situation where one is indebted to another. If deficits are “bad,” then surely surpluses are “good.”

Prior to 1976, the United States experienced modest trade surpluses. Since then, the US has seen nothing but trade deficits. For 2023, the most recent data as of this writing, the total US trade deficit fell from \$951.2 billion to \$773.4 billion.



Source: US Census Bureau

At face value, calculating a nation's balance of trade is a simple exercise. But the concept remains perhaps the single most misunderstood concept in all of economics. This Explainer seeks to develop a better, deeper understanding of the balance of trade, its origins, and its significance for Americans and non-Americans alike. In doing so, it clarifies the source of the common confusion surrounding what is ultimately an [accounting identity, not an economic identity](#). To better understand the balance of trade, it is necessary to understand its source: gross domestic product (GDP).

## **Part 2: Gross Domestic Product**

GDP is a widely cited figure, used by economists and policymakers alike to measure economic output, income, and even economic well-being, despite the famed and Nobel-Prize winning economist, Simon Kuznets, warning against using GDP in this latter fashion.<sup>1</sup>

GDP is a measure of the total dollar value of all the final goods and services produced in an economy in one year. This sentence deserves explication.

First, “dollar values” are used to provide a common unit for adding different and disparate items together in a meaningful way. Adding, for example, the number of apples grown each year to the number of cars produced each year would give a number. But this number would be missing the important insight that producing a single car provides much more value than producing a single apple.

Second, GDP only measures final goods and services. A final good is one that is purchased by an end-consumer for use, in contrast to raw materials and intermediate goods. Raw materials are found in nature. The trees in the forest constitute a “raw material.” For productive activities, say, building a house, trees must be harvested. The logs from the trees are milled into various dimensions of lumber, classified as an “intermediate good,” standing somewhere between the natural resource (the tree) and the final good (the house). The lumber is combined with other intermediate goods (nails, screws, wire, drywall, insulation) to arrive at the final good, the house, which the consumer ultimately purchases. The purchase price of the house, but not the price of the trees, lumber, nails, nor labor, is included in GDP. In other words, only the sale of the newly-constructed house counts toward GDP. Nothing else does.

Why are raw materials or intermediate goods not counted toward GDP? Because these are already accounted for in the price of the final good. If GDP figures were to count, for example, the purchase of the house and the purchase of the lumber that went into building the house, then the lumber would be double counted: once as lumber and again as a portion of the value of the house. By counting only the sale of the house, GDP figures implicitly also count the economic activity that went into harvesting and milling the lumber, and all the other intermediate goods that go into building a house.

Third, GDP only counts economic production that takes place within a country's borders. What happens in the United States, for example, is of primary concern to US citizens and policymakers.

In a world of international and complex supply chains, considering only “what is produced in the US” is difficult. What if, for example, cotton is grown in the US, shipped over to Cambodia to be sewn into garments, which are then shipped back to the US for purchase by American consumers? How does GDP account for this, and which country gets to count the sale of the final good?

Cotton represents a raw material, and garments represent a final good. Since the final good was assembled in Cambodia, some measures of GDP would credit Cambodia with creating the final good, and credit its economy with the full production of the garment even though the cotton was imported. Other, more nuanced measures of GDP would count the cotton toward US production and the garments, less the value of the cotton, toward Cambodia's GDP. Many countries, the US included, not only export raw materials and intermediate goods to other countries, but also import raw materials and intermediate goods to make into final goods here, further complicating tabulation.

## Components of GDP

GDP is divided into four components: consumption, investment, government spending, and net exports.<sup>2</sup>

Consumption (C) is spending on goods and services that people use and do not expect to resell or otherwise use later to generate revenue. Purchases of clothing, cars, food, entertainment, and travel count as "consumption."

Investment (I) is any spending that will either be resold later or used to generate revenue in the future. A company buying new computers or building a new factory would be classified as "investment spending." Firms stockpiling inventories is also a form of investment.

Government spending, (G) in this context, is not all government spending but only some government spending. For example, money the government spends to build a new highway system or to maintain existing highway systems will count toward GDP as government spending. The same is true for spending on defense (the purchasing of new fighter jets, missiles, tanks), education, and public transportation, etc.

Programs such as Social Security and entitlement programs, however, do not count as "government spending" in this context, so we cannot simply use the federal government's total outlays as a measure of total government spending for GDP purposes. These types of payments are referred to as "transfer payments" because it is literally transferring money from one group of people to another. In the case of Social Security payments, it is a transfer from the currently-working people to the current Social Security recipients. In the case of entitlement programs, it is a transfer from taxpayers to the tax recipients. Because the issuance of these funds do not constitute the direct purchase of final goods and services, they do not count toward GDP. The recipients of these funds, however, use them to purchase goods and services, which does count toward GDP. For example, in July of 2024, the average social security check was \$1,781.07. The check sent out by government, in and of itself, would not count toward GDP, but the purchasing of groceries, gas, and other final goods by the recipient would.

Net exports (E - M) is the final component of GDP and are defined as the total dollar value of a country's exports (E) minus the total dollar value of a country's imports (M).

All of this, taken together, gives us our equation for GDP:

$$\mathbf{GDP = C + I + G + E - M}$$



Importantly, these are the only categories into which all spending must fall. Replacing these with actual figures from the [Bureau of Economic Analysis for 2023](#), gives us (in billions of dollars):

$$\begin{aligned} & \mathbf{\$27,360.90 = \$18,570.60} \\ & \mathbf{+ \$4,843.90 + \$3,027.20 - \$3,825.90} \end{aligned}$$

## The Source of Confusion

Net exports, as a concept, is the source of discussions of the “balance of trade” or “trade balance” and of much confusion. At first blush, it seems that if a country could reduce its imports, GDP would increase by the amount of the reduction. Elected officials and Washington bureaucrats have used this mercantilist logic for decades, and it pervades popular culture and news commentary. Unfortunately, this assumption is flawed, both theoretically and empirically.

To see why, recall the definition of GDP: the total dollar value of the final goods and services produced in a country in one year. Counting exports (goods and services produced domestically and sold abroad) as a positive makes clear sense. Because they were produced in the US, this production should (and does) count toward a country’s domestic production.

Subtracting imports seems strange. Given the definition of GDP, it would seem that the US should completely ignore goods and services produced abroad and purchased here in the US.<sup>3</sup>

In an increasingly global society, consumers do not exclusively depend on the businesses in their individual communities anymore but instead acquire increasingly more goods and services from afar. American households and businesses are purchasing more goods and services from foreign producers than ever before. If a US household purchases a shirt made in Cambodia, the spending on that shirt counts toward total US consumption spending, even though it is on a foreign-produced shirt. Likewise, when a US firm buys a new computer assembled in Japan, that spending counts toward total US investment spending. And if the federal government purchases oil from the United Arab Emirates, that spending would show up under total US government spending.

So US consumption, US investment, and US government spending each have both domestic and foreign components. Expanding the above equation for GDP by splitting these into their foreign and domestic components captures this:

$$\mathbf{GDP = CD + CF + ID + IF + GD + GF + E - M}$$

Given that GDP is only supposed to measure domestic output, why are there foreign components in the equation? In an ideal world, they would not be in there at all. Simply put, GDP should be:

$$\mathbf{GDP = CD + ID + GD + E}$$

There are two items to note about this equation. First, it has gotten rid of all the foreign components from C, I, and G. Second, it has also gotten rid of imports, M. From the definition of GDP, this equation seems like it should be the most appropriate. But both equations are algebraically identical. Consider this rearrangement:

$$\mathbf{GDP = CD + ID + GD + E + CF + IF + GF - M}$$

All that has been done here is grouping the components of GDP by whether they represent domestic or foreign spending. Recall that Consumption, Investment, and Government Spending are the only categories into which all spending must be catalogued. There are no other options.<sup>4</sup>Given this, the sum of the foreign spending components would be equal to the total amount of money spent on imports. In other words:

$$\mathbf{CF + IF + GF = M}$$

With a simple substitution:

$$\mathbf{GDP = CD + ID + GD + E + M - M}$$

Imports cancel one another, and all that remains is a sum for GDP that only counts domestic production without a trace of foreign production.

In short, imports are subtracted from GDP because they have been added elsewhere. For a national GDP figure to be meaningful, imports must be subtracted in order to avoid counting other countries' production as our own, not because imports are somehow "bad" or a "drain" on the domestic economy.

### **Part 3: What Should Be Done About Trade Deficits?**

Reducing imports would not increase our GDP at all. In the best-case scenario, reducing imports would not affect GDP, since it would be tantamount to adding a smaller number and subtracting that equal, smaller number.

More likely, though, reducing imports would reduce GDP. Consider the calls from both the American Left and American Right to raise tariffs, which are taxes on imports. These are being proposed under the auspices of "protecting American jobs" and "promoting economic wellbeing."<sup>5 6</sup> If these measures protect jobs, they do so by raising the cost of imports to US households and, importantly, US firms, which use now-more-costly foreign-produced intermediate goods in their production processes. The tariff is passed on to consumers in the form of higher prices.

If businesses can get the inputs necessary to produce their products more cheaply (and pass at least some of those savings on to consumers in the form of lower prices) abroad, they absolutely will. By making it more expensive for US firms to acquire raw materials and intermediate goods, tariffs raise prices for American consumers. Higher prices mean less can be purchased, reducing GDP.

If higher consumer prices were not sufficient reason to concern ourselves with the misrepresentation of trade deficits, there is a second reason. A trade deficit is offset by a capital account surplus.

As [Don Boudreaux writes](#), "the truth is that US trade deficits are neither evidence of a faltering economy, nor a source of such faltering. Quite the opposite. US trade deficits exist because investors across the globe find America to be an attractive place to invest."

Discussions of the trade deficit by politicians and media capture only the aggregated total of goods and services traded across borders, which we refer to as the goods account. The alleged deficit does not account

for flows of currency across borders, referred to as the capital account. Virtually all people are now free from the tribulations of a barter economy, and [money is one side](#) of virtually all commercial transactions. In other words, the US does not so much “send exports out” as barter for imports. American consumers purchase imported goods and sell our exports using money, but the money is not counted in the trade deficit.

Consider the simple case of a family purchasing a loaf of bread from the grocery store for \$2.50. When this happens, the family’s goods account rises by \$2.50, and its capital account (money) falls by \$2.50. For the grocers, the exact opposite occurs: the store’s goods account falls by \$2.50 and its capital account rises by \$2.50.

Looking just at the goods account, the household would see a trade deficit and the grocery grocer would see a trade surplus. But the household would also see a capital account surplus, and the grocer would see a capital account deficit. Including both accounts for both trading partners reveals that everything is in balance. This simple insight remains true whether the grocery store is just down the street, in Canada, or in China.

## FOREIGN CURRENCY EXCHANGE

When it comes to international exchange, one complication is not present with trade between domestic partners: currency exchange. While volumes of text have been written on the complexities and intricacies of foreign currency exchange and exchange rates,<sup>7</sup> these complications are not necessary here.

Simply put, American households have dollars and Chinese factories, for example, have yuan. Americans need yuan to purchase Chinese goods, and Chinese citizens need dollars to purchase American goods. To facilitate this, American consumers sell dollars and purchase yuan. As of this writing, one US dollar buys a little over seven yuan.

Consider a slightly more complicated example of trade between the US and China. Most recent figures suggest that the [US exported around \\$45 million worth of cherries](#) to China, Hong Kong, Taiwan, and South Korea. Meanwhile, the [US imported around \\$52 billion worth of computers](#) from this same region.

Breaking this down into our goods and capital accounts, we see the following:

### US:

GOODS	CAPITAL
-\$45 million (cherries)	+\$45 million
+\$52,000 million (computers)	-\$52,000 million

### CHINA:

GOODS	CAPITAL
+\$45 million (cherries)	-\$45 million
-\$52,000 million (computers)	+\$52,000 million



Because the computers imported are worth far more than the cherries exported, this trade would not be acceptable to China unless the US pads the exchange with something else. This could be done with other US exports, but it is perhaps easiest to do so with US dollars since that is what US consumers will be paying with and Chinese producers are willing to accept US dollars. Were these the only transactions between these two regions, the US would be experiencing a trade deficit of \$51.955 billion.

As a result of just this voluntary and mutually beneficial exchange, the US now has computers and has given up cherries and dollars. China now has cherries and dollars and has given up computers.

But now that China has US dollars, what can the Chinese people do with these dollars? They cannot use them at their own stores; stores in China only accept yuan. Instead, they must find a country willing to accept dollars. The largest, most powerful economy in the world that does so is... the United States.

So what do Chinese consumers do with the \$51.955 billion US dollars they received in this exchange? They purchase other US exports, sure, but they also use those dollars to purchase US investments.<sup>8</sup> Increased foreign investment, in turn, spurs job creation and wage growth in the US, not job destruction and wage decline. Capital stocks do not simply drop like manna from heaven. Instead, they must be created. Creating capital requires labor (and uses other capital). This means more jobs, creating the very tools that spur the future successes of the US.

Some may point out that China (and other countries, for that matter) use the US dollars they acquire through international trade to purchase land, factories, condo buildings, and other physical assets located within the US. But to this, we can simply say, “so what?” These assets are immovable without insurmountable cost - China cannot, for example, repossess a condo building located in Florida and simply move it to mainland China - and so the fact that they are owned by someone in another country is largely immaterial.

Likewise, it may be argued that it would be a national security risk if, e.g., China was to purchase a US port or land near a military base. While there is merit to this concern, it does not necessarily follow that we must therefore ban all foreign investment in the US or even curtail it in the slightest. There are plenty of alternative solutions that could be used these potential national security risks that would avoid needlessly decreasing investment in the US.

## **DO OTHER COUNTRIES “OWN” THE US?**

Not all Chinese investment comes in the form of increased capital stocks. Some is generated by the Chinese purchasing US Treasury debt instruments. As of June 2024, China owns \$816.3 billion worth of Treasuries,<sup>9</sup> second only to Japan which owns \$1.1 trillion. There is a growing concern that Japan, China, and other foreign nations own “too much” of the US federal debt. The reality is that only about 20% of all US debt is owned by foreign nations; the remaining 80% is owned domestically.<sup>10</sup> Even still, the concern is real and is not unfounded.

In any transaction, there must be a buyer and a seller. In bemoaning foreign purchases of federal debt, commentators miss an equally culpable party: Congress, whose profligate spending requires the Federal Reserve to create sellable debt instruments to make up deficits. In fact, if these debt instruments were not being purchased by foreign entities, America would be worse off. Whenever the Federal Reserve and Treas-

sury issue debt, they effectively put the debt instruments up for auction, with the highest bidder being the ultimate purchaser. With bonds and other debt instruments, the higher the price paid today, the lower the rate of return for the buyer. This is the same as the US paying a lower interest rate on the debt. By virtue of their purchasing of the debt, China, Japan, and other foreign nations must be among the highest bidders. If the US were to preclude foreign nations from purchasing the debt but still create the debt in the first place, then the debt would have to be sold to bidders who did not bid as high as China, Japan, and other foreign nations. As a result, the US would take in fewer dollars today for their debt instruments and still pay the same amount in the future, effectively raising the interest rate that the US must pay on its debt.

This would mean an even greater share of the federal budget would have to go toward servicing the debt. As Savidge and Yonk describe, “net interest costs are already the second largest expenditure for the federal government (after Social Security).”<sup>11</sup>

Additionally, since these other, non-foreign purchasers of debt instruments are paying less today, the US would have to issue more debt instruments and, again, at a higher interest, thus causing national debt to increase even further and faster. This would give the Federal Reserve even more of an impetus to engage in expansionary monetary policy, which in the long run only serves to debase the dollar and cause inflation.<sup>12</sup>

A trade deficit is not only not bad for an economy to experience; it can also be a positive signal that there are lucrative investment opportunities in the US. Foreign investors who wish to invest in the US need dollars to do so. To acquire dollars, they export to us a cornucopia of goods and services at low prices so that Americans will, in return, send them US dollars. They then invest those dollars in the US economy.

A trade surplus, like the one that China is currently experiencing, suggests the opposite: that non-Chinese investors do not see many strong investment opportunities in the Chinese economy and seek to get as many goods and services out of the Chinese economy as quickly as possible.

## **DOES PROTECTIONISM WORK?**

Every single sitting president of this millennium has imposed new tariffs,<sup>13</sup> and particularly on China. George W. Bush did so in 2002 with a steel tariff, Barack Obama did so in 2009 with a 35 percent tariff on Chinese tires,<sup>14</sup> and Donald Trump famously did so in 2018 with steel and aluminum.<sup>15</sup> Most recently, Joe Biden has continued this trend<sup>16</sup> and Donald Trump has committed to doing so again in his second presidency. Clearly, politicians of all stripes view tariffs as an effective means of bringing about economic prosperity.

American Compass’s Oren Cass of American Compass has declared that “something has gone wrong” with the US economy.<sup>17</sup> Cass has claimed that the manufacturing sector and middle-class American jobs have been gutted due to the offshoring of jobs to other countries with lower wages. This, he claims, has turned America into a land of “haves” and “have nots,” where the wealthy executive class of Americans enjoys all the benefits of free and international trade while the rest of America suffers with stagnating wages, ever-increasing prices for housing, college, and food, and increased immiseration.

To combat this, scholars such as Oren Cass, Michael Lind<sup>18</sup>, and Mark DiPlacido<sup>19</sup> argue that America needs the political will to prevent offshoring with “tariffs, further trade protections, and a renewed focus on balancing our political economy.” Unfortunately, the empirical evidence is in: tariffs and other protectionist

policies fail to achieve their stated goals. Worse yet, tariffs promote political and socioeconomic dysfunction in the form of crony capitalism and special favors to anointed firms and people.

While tariffs can help protect the industry they target, at least in theory, their effects on the broader economy are often devastating. The 2019 Economic Report of the President, written by Donald Trump's own Council of Economic Advisors no less, confirms that the 2018 steel and aluminum tariffs did not lead to any beneficial changes in Chinese trade policy<sup>20</sup>. Likewise, a 2019 Federal Reserve analysis powerfully argues that tariffs imposed during Trump's first presidency were "associated with relative reductions in manufacturing employment and relative increases in producer prices."<sup>21</sup>

The reasoning behind this is simple and easy to follow. While a few jobs may have been saved in the steel and aluminum producing sectors, these gains were more than offset by losses in the steel and aluminum using sectors. Tariffs and other forms of trade protections cause prices for raw materials and intermediate goods to rise. When this happens, producers must cut costs elsewhere to continue producing their final products for the end consumer. The easiest place to cut costs is, unfortunately, labor in the form of laying off workers.<sup>22</sup>

## Conclusion

The balance of trade is perhaps one of the most misunderstood topics in all of economics. Without a nuanced understanding of the factors that result in trade deficits, otherwise well-intentioned policymakers can be led astray and propose policies that inadvertently cause more harm than good. In the end, a trade balance is nothing more than an accounting identity that is often confused for an economic identity.

To improve economic conditions for Americans, policymakers should not focus on reducing trade deficits, nor artificially altering the balance of trade. Doing so only invites further cronyism and favoritism into an economic system. Consumers and producers alike are best served by freely floating and adjusting prices, not manipulated ones.

If the goal of a policymaker is to improve the lives of her constituents, she should be looking to liberalize trade for her people, not erecting new barriers.

## ENDNOTES

1. <https://www.scientificamerican.com/article/gdp-is-the-wrong-tool-for-measuring-what-matters/>
2. <https://fraser.stlouisfed.org/title/national-income-1929-1932-971>
3. [https://www.census.gov/foreign-trade/Press-Release/current\\_press\\_release/ft900.pdf](https://www.census.gov/foreign-trade/Press-Release/current_press_release/ft900.pdf)
4. All spending must be classified as either consumption, investment, or government spending because consumers, firms, and governments, broadly defined, are the only entities that can purchase final goods.
5. <https://time.com/6972022/donald-trump-transcript-2024-election/>
6. <https://www.nytimes.com/2021/03/17/business/economy/free-trade-biden-tai.html>
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9. <https://sgp.fas.org/crs/misc/RS22331.pdf>
10. For more on this, see AIER's Explainer on Public Debt. <https://www.aier.org/article/understanding-public-debt/>
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