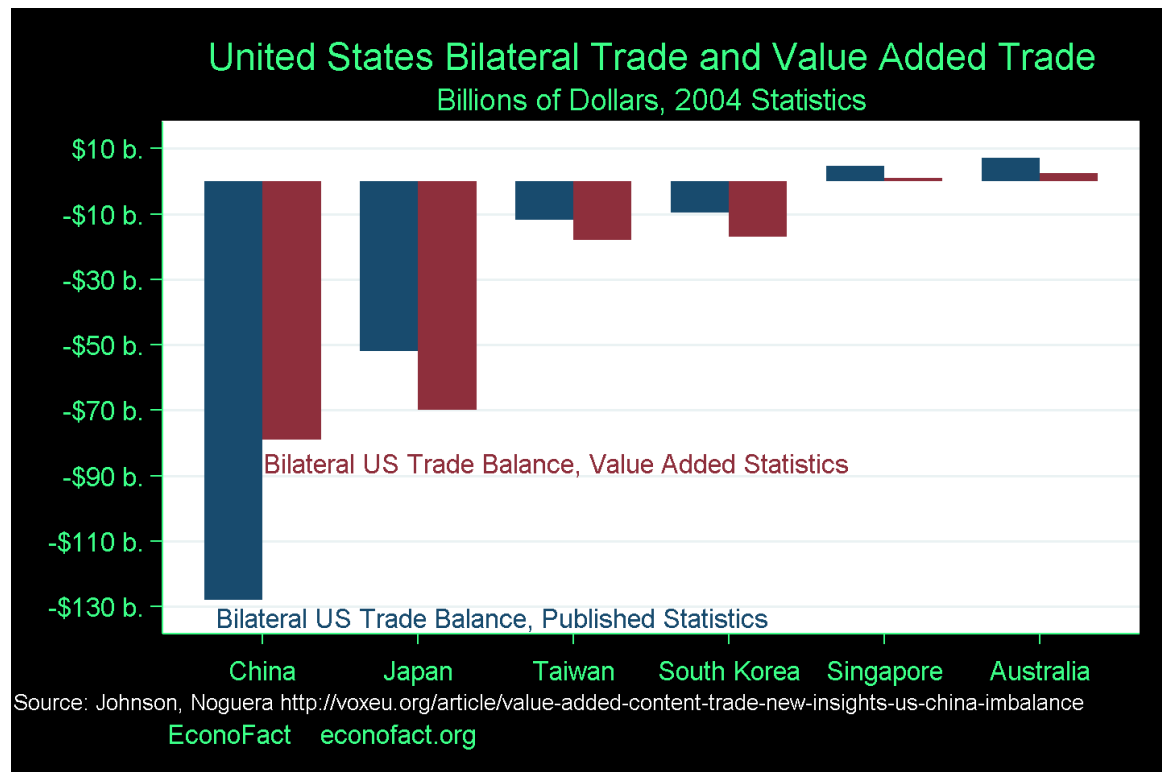


What Do We Learn from Bilateral Trade Deficits?

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The Issue:

The Trump administration proposes using United States' trade deficits with its trading partners to gauge whether the trading relationship with that country is "fair." An executive order signed on March 31 requires officials to produce an "omnibus" report naming U.S. trading partners with "significant" trade deficit in goods in 2016 by the end of June. A large bilateral trade deficit with a particular country will trigger the administration to "take necessary and lawful action," which presumably means (<http://www.economist.com/news/finance-and-economics/21720287-president-trump-might-revive-old-trade-policies-donald-trumps-review-trade>) retaliatory trade restrictions. The presumption is that the United States' bilateral trade deficits reflect unfair trade practices. The United States Secretary of Commerce, Wilbur Ross, has stated (<https://www.ft.com/content/fca7e9a4-2366-11e7-a34a-538b4cb30025>): "We are the least protectionist of the major areas. We are far less protectionist than

Europe. We are far less protectionist than Japan. We are far less protectionist than China. [...] We also have trade deficits with all three of those places. So they talk free trade. But in fact what they practice is protectionism.” But bilateral trade statistics misrepresent the true value of goods sold by a particular country to the United States. With integrated international production chains, many goods are produced using inputs from a range of countries.

Trade statistics assign the full value of the finished good to the final country of production without taking into consideration where all the different components come from.

The Facts:

- **Reported bilateral trade deficits for goods are calculated as the difference between the value of goods imported and the value of goods exported between one country and another.** But this does not take into account the fact that the value of goods shipped from, say, China to the United States represents the value added by Chinese firms as well as the value of inputs that the Chinese firm source from third countries. This is increasingly important since China, the country with which the United States has its largest bilateral trade deficit, is increasingly being used as a manufacturing assembly hub with inputs sourced from many other countries.
- **The iPhone offers a particularly illuminating example of how international supply chains cause a mismeasurement of true bilateral trade.** iPhones are assembled and tested in China. For instance, each iPhone 7 32GB imported into the United States is recorded as a \$225 import from China, since this is its manufacturing cost (the consumer unsubsidized price is \$649, which reflects Apple’s marketing, design, and engineering costs as well as its profit margin). Out of this \$225, only \$5 represents work performed in China, which is almost exclusively assembly and testing. The remaining \$220 represents the cost of components, which are overwhelmingly produced outside of China, and then exported to China for assembly. Components come from throughout Asia (Korea, Japan, and Taiwan are the largest suppliers), as well as Europe, and the

Americas. Thus, the \$225 recorded import from China embodies U.S. imports from many other countries, and should not be used to measure the extent of the bilateral trade deficit between the U.S. and China for this good.

- **If one is concerned about bilateral trade in goods, a better indicator of trade is the value that is added by each country, rather than the gross value of the good sold by the country in which it has its final assembly and testing.** In fact, this value-added approach is exactly how the statistic of aggregate production in an economy, Gross Domestic Product (GDP), is computed. In contrast, trade statistics are only measured by gross value of sales by a particular country rather than the value added by that country.
- **The difference in the reported bilateral trade deficit and the trade deficit based on value added to production of goods is most profound for the trade in goods between the United States and China.** A recent analysis (<https://www.aeaweb.org/articles?id=10.1257/jep.28.2.119>) by Robert Johnson of Dartmouth College calculates that the true bilateral deficit between the U.S. and China, using value-added measures, is 40 percent smaller than the reported bilateral trade deficit based on gross value in 2004 (see chart). Conversely, the United States' trade deficits with Japan, Taiwan, and Korea are magnified when measured as value-added, because those countries manufacture many of the components that are assembled in China and then imported as final goods into the United States (the same is true for Germany). The difference between the gross values and value added in bilateral trade between two countries does not carry over to a country's overall trade balance since the differences between the individual trading partners' gross values and value added cancel out when the trade flows from all countries are added up.
- **Another problem with the approach proposed by the administration is that it ignores trade in services.** The United States runs a trade surplus in services with almost all of its trading partners (see this EconoFact memo). For example, in 2016 the United States had a reported trade deficit (<https://www.bea.gov/international/index.htm#trade>) in goods with Japan of \$70 billion, but a reported trade surplus in services with that country of \$14 billion. Thus, the United States trade deficit in both goods and services with Japan is about 20 percent smaller than its trade deficit in goods alone.

What this Means:

Bilateral trade deficit statistics, which are based on gross values rather than value added, misrepresent the actual value of net trade between one country and another because of international supply chains and the widespread use of inputs from other countries. Thus the reported measures of bilateral trade balances do not accurately reflect the domestic content of the goods exchanged, and these measures should not be used to infer something about the reciprocity of the associated bilateral trade policies. Furthermore, a country's overall trade deficit represents the difference between its investment and its savings (including government savings, that is, the government budget surplus or, in the case of a government budget deficit, negative savings) rather than the aggregate effect of trade policies. For the United States, the aggregate trade deficit is a reflection of a low national savings rate relative to investment. This deficit does not reflect anything about the "fairness" U.S.'s trade policies with respect to any particular trading partner.

TOPICS: CHINA / INTERNATIONAL TRADE / TRADE DEFICIT

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