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Policy Brief

Trade Policy, Trade Deficits, and Global Production Networks

By Felix Tintelnot

President Donald Trump walked away from this month's Group of 7 summit accusing America's closest allies of using trade deals to take advantage of the United States.

He has long criticized international trade agreements as unfair to American interests.[1] And he left the G-7 gathering in Canada tweeting his refusal to sign a joint communique "as we look at Tariffs on automobiles flooding the U.S. Market."[2]

Reducing America's trade deficit with China was a primary objective for recent trade negotiations with Beijing, according to a Trump administration document that received widespread media attention.[3] And Mexico is frequently accused by the administration of running a bilateral trade surplus against the U.S., which has motivated the U.S. to renegotiate NAFTA.

As shown in Table 1, America does have large bilateral trade deficits with several of its main trading partners. That's a fact. But in this policy brief, I will explain why the focus on bilateral trade deficits is misguided, particularly in a world with global production networks.

Understanding Trade Deficits

A brief moment of introspection reveals that the concern regarding bilateral trade deficits is based on flawed logic.

Let me explain this in the simplest possible terms using my personal trade deficits and surplus as an example.

I travel a lot for work, so I have a large bilateral trade deficit with a major airline. I also go to the local gym and cook food at home, resulting in bilateral trade deficits with the gym and the local grocery store. I have a large bilateral trade surplus with my employer, the University of Chicago. If I self-imposed a tariff on going to the gym, I would likely lower my gym expenses. But my aggregate trade surplus — the sum of all my bilateral deficits and surpluses — would be unchanged as it is determined by my savings decision.

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1   Trump, Donald J. (@realDonaldTrump) "The U.S. has a 60 billion dollar trade deficit with Mexico. It has been a one-sided deal from the beginning of NAFTA with massive numbers…" "…of jobs and companies lost. If Mexico is unwilling to pay for the badly needed wall, then it would be better to cancel the upcoming meeting." Twitter post, January 26, 2017, 8:51 a.m., *https://twitter.com/realdonaldtrump/status/824615820391305216*

Trump, Donald J. (@realDonaldTrump) "Spoke to Prime Minister Abe of Japan, who is very enthusiastic about talks with North Korea. Also discussing opening up Japan to much better trade with the U.S. Currently have a massive $100 Billion Trade Deficit. Not fair or sustainable. It will all work out!" Twitter post, March 10, 2018, 12:23 p.m., *https://twitter.com/realdonaldtrump/status/972523294233710593*

Trump, Donald J. (@realDonaldTrump) "Delegation heading to China to begin talks on the Massive Trade Deficit that has been created with our Country. Very much like North Korea, this should have been fixed years ago, not now. Same with other countries and NAFTA...but it will all get done. Great Potential for USA!" Twitter post, May 1, 2018, 6:00 a.m., *https://twitter.com/realdonaldtrump/status/991271009570484224*

2   *https://www.npr.org/2018/06/09/618534987/trump-leaves-g-7-with-a-call-to-end-unfair-trade*

3   This document has been covered and published by several news organizations and is available here: *http://xqdoc.imedao.com/16329fa0c8b2da913fc9058b.pdf*

About the Author

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We can generalize this example to represent the aggregate economy by using national accounting identities and incorporating investment. A national accounting identity states that exports minus imports plus net income from foreign sources is equal to savings minus investment. This identity is also known as the "current account:"

$$X - M + R = S - I$$

where X and M denote exports and imports of goods and services respectively; R denotes net income from foreign sources; S denotes net savings after depreciation expenses; and I indicates net investment.

From this equation, it is clear that the country is going to have a large current account deficit if it is investing more than it is saving.

This is achieved by borrowing from abroad. Two things are important to note here. First, focusing on reductions in bilateral trade deficits without changes in private and public investment and savings behavior will only result in bilateral deficits shifting from one trade partner to another. That leaves the country's aggregate deficit unchanged.

In order to reduce the deficit, a country has to either increase its savings, reduce investment, or both.

Second, trade and current account deficits are not inherently bad for the economy. A country can run a trade and current account deficit to finance productive investments, which will result in higher growth in the future.

Because of this, demonizing a single number without fully understanding the fundamentals leads to misguided policy. Table 2 shows the decomposition of the current account in the U.S. for the year 2017.

As we can see from the table, the U.S. ran a large trade deficit of $571 billion in 2017. As the numbers in Table 2 show, an excess of investment over savings supports this trade deficit.

Looking more closely, we can see that extensive borrowing by the public sector of nearly $844 billion (negative savings) is driving some of the large excess of investment over

Table 1. US Trade with its Main Partners, 2017 (billions of dollars)

		Canada	China	Mexico	Rest of the World
Exports	Goods	282.97	130.80	243.45	893.50
	Services	58.72	56.04	33.25	632.87
	Total	**341.69**	**186.84**	**276.70**	**1,526.37**
Imports	Goods	306.13	506.47	319.70	1,229.63
	Services	32.79	17.55	26.28	461.49
	Total	**338.92**	**524.02**	**345.97**	**1,691.13**
Trade Balance	Goods	-23.16	-375.67	-76.25	-336.13
	Services	25.93	38.49	6.98	171.37
	Total	**2.77**	**-337.18**	**-69.27**	**-164.76**

Source: Bureau of Economic Analysis.

Trade Policy in Times of Global Production Networks

Thanks to advances in communication and shipping technology, and a reduction in tariffs throughout the second half of the 20th century, production today is often split into multiple stages or components, which in turn are distributed across countries with the lowest production costs and best access to the relevant markets for consumption. Tariffs, however, are not levied on the value added of the exporting country, but on the gross value of the exported good (which

savings and therefore part of the trade deficit.

may contain value added from many different countries).

These global production networks create various issues for trade policy and, in particular, for the effectiveness of 19th- and 20th-century policy ideas. On the one hand, tariffs are more punitive under global production networks, because a good with a 10 percent value added from the country on which the tariff is levied may face a 25 percent tariff on the value of the exported good.

On the other hand, global production networks make it much easier to avoid tariffs that are not levied equally on all exporting countries.

For example, if the U.S. administration, as proposed, would levy a 25 percent tariff on a large

set of goods exported from China to the U.S., the natural response for the manufacturers in China would be to add a layer of production or assembly in another Asian country, which is then used as an export platform to sell to the U.S. at a lower tariff rate.[4]

Furthermore, if the U.S. presses China to buy more American products, this could simply divert U.S. exports to India, which then, in turn, are channeled through China. The focus on countries' bilateral trade deficit is a bad idea for the reasons discussed above, but the idea gets even worse in the modern economy with global production networks.

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4 Felix Tintelnot, "Global Production with Export Platforms," *The Quarterly Journal of Economics* 132, no. 1, (February 2017): 157–209

Table 2. Decomposing the Current Account for the US in 2017

$$CA = X - M + R = S - I$$

	CA	X – M	R	S		I	
				Private	Public	Private	Public
Billions USD	-466.25	-571.60	102.20	1,193.70	-843.9	716.40	83.30
% of GDP	-2.40	-2.95	0.53	6.16	-4.35	3.69	0.43

Source: Bureau of Economic Analysis.

Notes: The data for private and public net savings and investment comes from the National Income and Product Accounts. The data on the current account, the trade balance and net income from abroad come from the International Transaction Accounts. For this reason, the sum of private and public savings minus investments does not exactly equal the amount for the current account.

Savings and investment are net of depreciation. They are defined as gross savings or investment minus consumption of fixed capital (depreciation).

The public sector includes the federal government as well as state and local governments.