

Trade surpluses of countries trading with the United States

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Abstract

This paper briefly summarizes trends in recent U.S. trade deficits, and places them in the context of how economists think about trade balances and their implications for national economies. It then looks in more detail at the inverse of U.S. trade deficits, i.e., the trade surpluses that U.S. trading partners have been running with the United States. By presenting basic data from the U.S. and other governments, it shows that many large U.S. trading partners have been running trade surpluses that account for a large portion of their GDP every year for many years. The paper concludes that, from an initial look at basic government data, reducing the U.S. trade deficit could mean a large adjustment not only for the United States, but also for many U.S. trading partners.

Introduction

The U.S. trade deficit has been persistently over two, and mostly over three, percent of U.S. GDP for several decades. When the United States (or any country) runs a trade deficit, its trading partners by definition run a trade surplus with the United States (or that country). While some Keynesian and heterodox economists have expressed concerns about the size and persistence of the U.S. trade deficit, the modern U.S. economics profession has been mostly dismissive of such concerns.

Arguably, modern U.S. economists have engaged in even less analysis of the effect of the U.S. trade deficit on its trading partners. This paper describes what basic data say about the scale of that effect, within the context of a brief summary of how economists think about trade balances. Hopefully, such a description can be a starting point for understanding not only the potential cost (or benefit) to the United States of persistent trade deficits, but which countries are potentially benefitting (or losing) and by how much.

This paper will first summarize briefly how economists think about trade balances. Second, it will offer a brief history of the U.S. trade deficit. Third, it will proceed to present basic data on the scale of the U.S. trade deficit relative to GDP growth in the countries with which the United States runs the largest trade deficits. Some further analysis follows.

How economists think about trade balances

Most economists use gross domestic product (GDP) as a measure of a country's economic activity within a period of time (usually a year or a quarter). GDP is defined as a country's

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consumption plus its investment plus its government spending plus its trade balance (a surplus if the country's exports are more than its imports, and a deficit if imports are more than exports). That is, the classic formulation is:

$$\text{GDP} = \text{Consumption} + \text{Investment} + \text{Government spending} + \text{Exports minus Imports}$$

As a matter of arithmetic, a trade surplus (that is, exports being greater than imports) adds to a country's GDP, while a trade deficit (exports being less than imports) subtracts from GDP.

For many Keynesian economists, trade deficits should be avoided when a country and/or its trading partners are not already at full capacity utilization, because trade deficits mean lower national income. Closing a trade deficit when the economy is at less-than-full capacity utilization could boost a country's GDP without offsetting side effects, similar to the arithmetic noted above.² Keynesians have been making such arguments since the time of John Maynard Keynes himself, and the arguments enjoyed a particular strength from the 1950s through the 1970s, when numerous well-known economists encouraged countries to reduce their trade deficits to spur economic growth and increase employment. Keynes himself argued in multiple fora that closing trade deficits was important to eliminate unemployment and have international economic stability.³ More recently, prominent economist Larry Summers may have rediscovered some of these arguments.⁴

On the other hand, for the most part, many modern (and especially U.S.) economists have argued that trade deficits should not be a concern for U.S. (or sometimes any country's) policymakers. These economists make a variety of arguments for why one should not necessarily be concerned about U.S. (or other) trade deficits. Some describe a country's trade deficit as simply the result of a surplus of foreign investment over domestic savings, and not a problem. For these economists, a trade deficit can provide other benefits to the trade deficit country, benefits such as increased investment in domestic industries, lower prices to consumers, and increased competitiveness of domestic industries.⁵ They may argue that if the U.S. trade deficit were to go away, then U.S. GDP might suffer in other areas, such as from lower consumption or lower investment. They may also argue that closing a trade deficit could reduce employment, or that a trade deficit may reflect foreigners' sense that investments in the United States are secure.⁶

² For example, economist Dean Baker, discussing the U.S. trade deficit in 2014, stated "We must either have more consumption, more investment, or more government spending, or some combination, than would normally be the case because we have a trade deficit of 3.0 percent of GDP. Again, this is accounting identity stuff, it has to be true. If you disagree, read this as many times as necessary until you understand." See Baker, "Secular Stagnation," November 2014.

³ See discussions of Keynes' views, and the views of his followers, including Kaldor and Robinson, in Milberg, "Say's law in the open economy," 2002, pp 240-245; Lavoie, *Post-Keynesian Economics*, 2014, pp. 492-511; and Irwin *Against the Tide*, 1996, pp. 200-202. The word "Keynesian" is difficult to define exactly, as some have argued that Keynes' views are more radical than some of his followers, both in the immediate decades after Keynes, and especially since the advent of New Keynesians. This paper uses the word "Keynesian" to mean more generally the views of Keynes and his more immediate followers, and not the modern New Keynesians. See N. Smith "How 'Keynes' Became a Dirty Word," September 2014, Y. Smith, *Econned*, 2010, pp. 35-42, and Keen, *Debunking Economics*, pp. 199-210.

⁴ See Ip, "The Case for Free Trade is Weaker Than You Think," Wall Street Journal, April 2016.

⁵ See examples of these arguments listed in Benedetto, "Who Financed Recent U.S. Trade Deficits?" May 2014.

⁶ See, for example, Perry "Imports and trade deficits" May 6, 2015 and Scissors "The trade deficit" March 16, 2015.

Alternatively, other modern economists describe trade deficits (as part of a current account deficit) as the sign of a lack of national savings, i.e. a reflection of other, “macro” economic problems, rather than a problem in and of itself.⁷ This argument is fundamentally different than the above arguments, in that it is acknowledging that the trade deficit is associated with negative economic effects, instead of claiming it is actually a positive good for the trade deficit country. However, it is blaming the trade deficit on problems not directly related to trade, and thus alleging that it cannot be solved through trade policies.

As noted earlier, modern economists’ lack of concern over trade deficits is relatively new (or a revivification of older ideas), and a shift from the Keynesian view that held more sway before the 1970s. Economist Douglas Irwin attributes the decline in modern economists’ concern about trade deficits to their faith in the argument that flexible exchange rates will balance trade.⁸ On the other hand, economists Dean Baker and Jared Bernstein explain that differences in economists’ approaches toward trade deficits are in large part explained by whether a country is at full capacity utilization or not. At full capacity utilization, a trade deficit provides less expensive products for domestic consumers. At less-than-full capacity utilization, Keynesian economists emphasize that a trade deficit is a drain on jobs and production, and hence national growth.⁹

This paper is not analyzing which of these arguments is correct. However, it attempts to add to the debate by summarizing the other side of the historical U.S. trade deficit ledger, i.e., the effect of the U.S. trade deficit on U.S. trading partners. Using the logic of modern economics, U.S. trading partners are hurting themselves by running such trade surpluses, and would benefit from reducing them, although there may be some adjustments. Using Keynesian logic, though, these countries may benefit from these surpluses, and would thus likely be loath to let them go.¹⁰

Understanding the relative scale of other nations’ trade surpluses with the United States can also help answer some general questions, no matter what one’s analysis of the effects of U.S. trade deficits. For example, in 2005, then-U.S. Federal Reserve Chairman Ben Bernanke famously called for rebalancing global trade and investment accounts.¹¹ Nonetheless, Bernanke’s analysis has been criticized by some Keynesian and heterodox economists, even

⁷ See Stein, “Balance of Payments,” 2008 and Benedetto “Who Financed Recent U.S. Trade Deficits?” May 2014, for a summary of some of these arguments, including those which focus on capital flows or the effects of having a reserve currency. Milberg also shows the parallel between the arguments of those economists who argued with Keynes in the 1930s and modern economist Paul Krugman’s denunciations of those concerned with balanced trade in the 1990s. See Milberg, “Say’s law in the open economy,” 2002, pp. 251-252.

⁸ Irwin, *Against the Tide*, 1996, pp. 202-203.

⁹ See Baker, “Secular Stagnation,” November 2014; Bivens, “Yes, Trade Deficits,” May 2015; and Bernstein, “What we’re arguing about,” May 2015, with Bernstein citing further work by Federal Reserve Chairman Ben Bernanke and economist Larry Summers. This difference between economists who worry about the trade deficit and those who do not has been widely recognized as the root of economists’ debates over trade deficits for a long time. For example, economist Douglas Irwin cites famed economist J.R. Hicks as having been persuaded by Keynes’ arguments that the classical arguments for free trade were not completely correct. See Irwin, *Against the Tide*, 1996, pp. 202-204. More recent Keynesians, such as Thomas Palley, posit that demand deficiencies in emerging economies lead some governments of emerging economies to engage in currency and other policies to maintain trade surpluses with the United States. See Palley, “The theory of global imbalances,” 2014, at pp. 23-24.

¹⁰ See, for example, Schumacher “Deconstructing the Theory of Comparative Advantage” p. 96 for additional explanation of why, when the assumptions used by modern trade economists are relaxed, countries benefit from trade surpluses.

¹¹ Bernanke, “Remarks,” March 2005.

if they also in the end call for policies that would close U.S. trade deficits.¹² While not taking a position on this debate, the data in this paper give a rough idea of how much trade balance adjustment such proposals would require of U.S. trading partners.¹³ Additionally, whether one regards the U.S. trade deficit as a benefit or a cost to the U.S. economy, understanding its scale compared to other countries' economies will help in understanding from which countries this benefit or cost comes.

A brief history of the U.S. trade balance

Historically, the United States had roughly balanced trade from the 1790s until the 1970s.¹⁴ In 1861, when Southern legislators left Washington, the remaining Congress and President Buchanan passed high tariff increases, as advocated by the incoming President Lincoln. Tariff levels then remained high for most of the period after 1860. During this period, while the small trade deficits of the pre-Civil War period were replaced by small trade surpluses, the United States remained a nation for which trade was a small share of GDP, and trade was roughly in balance. Despite some claims,¹⁵ the United States clearly did not develop behind large mercantilist trade surpluses, as no large surpluses ever existed outside a very brief period after World War II.¹⁶

After World War II, the United States ran large trade surpluses with the rest of the world, from 1942-1952. However, after this brief period, U.S. trade balances went back to their traditional small surpluses. For almost 30 years after World War II, trade was not a large share of U.S. GDP, and U.S. trade was roughly in balance.¹⁷

By the 1970s, U.S. trade balances were beginning to swing to deficits, albeit small ones.¹⁸ Meanwhile, trade as a share of U.S. GDP was also rising. By the 1980s and 1990s, the U.S. was routinely running trade deficits of 3 percent of GDP or more (see figure 1), and trade was a much larger share of the U.S. economy (see figure 2) than it had historically been.

The U.S. trade deficit (or initially, the possibility thereof,) became a controversial issue as early as the Kennedy Round trade negotiations of the 1960s, with the controversy intensifying

¹² For example, Palley explains that Bernanke is ignoring U.S.-based financial activity at the root of financing the U.S. current account deficit, as well as the "barge economics" nature of neoliberal globalization. Palley, "The theory of global imbalances," 2014, at pp. 11-12 and 26-28.

¹³ Of course, there are other components to the current account, and those could also be adjusted as part of such proposals.

¹⁴ Benedetto "Who Financed Recent U.S. Trade Deficits?" May 2014.

¹⁵ For example, the issue was raised by famous English economist Joan Robinson, who in 1973 stated that "free trade is just a more subtle form of mercantilism... believed only by those who will gain an advantage from it." (quoted in Lavoie, *Post-Keynesian Economics*, 2014, p. 507). Similarly, in 1977, Robinson described how the British Empire advocated free trade when it had a captive market in its colonies, and then offhandedly asserted that while the United States advocated free trade after World War II, it "has no objection to protection for [its] own industries when they are strongly pressed by Japan." See Robinson, "What are the questions?" December 1977. This author, with the benefit of more historical hindsight than Robinson had in 1977, does not agree that the United States has pursued a vigorously protectionist policy with Japan either before or after 1977. Nor can the enthusiasm of many U.S. policymakers for "free trade" since the 1970s be accurately described as stemming from any U.S. net export advantage, as no such advantage has existed. (This fact does not mean Robinson is wrong about her other historical examples.)

¹⁶ Benedetto "Who Financed Recent U.S. Trade Deficits?" May 2014.

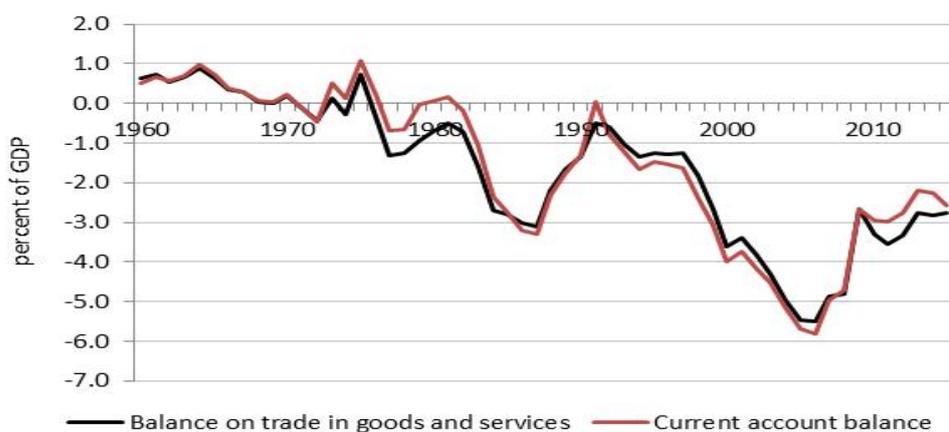
¹⁷ Benedetto "Who Financed Recent U.S. Trade Deficits?" May 2014.

¹⁸ Eckes, *Opening America's Market*, 1995 pp. 197-217.

in the 1980s, and remaining a source of political and economic debate ever since.¹⁹ Since the late 1990s, the major sources of the U.S. trade deficit have widened to include not only Japan and Europe, but also Mexico and especially China.

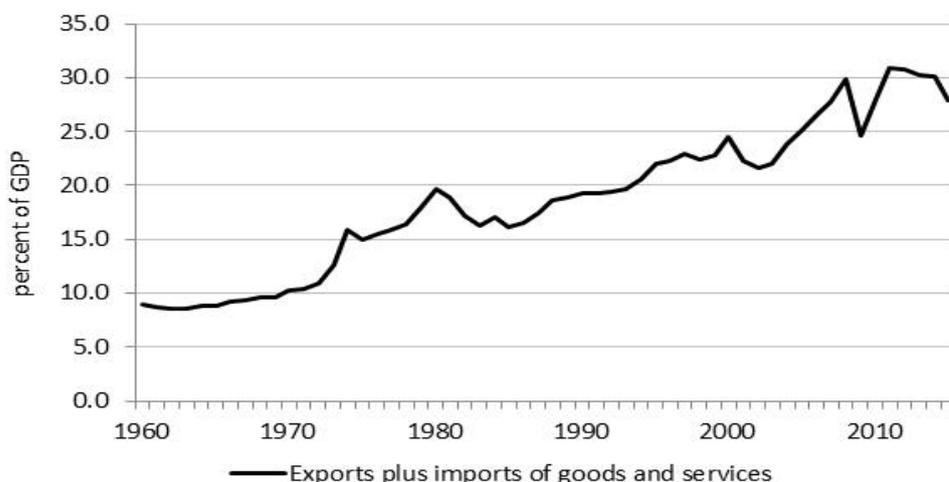
In sum, a large U.S. trade deficit, accompanied by rising trade overall, has been a constant in the U.S. economy for several decades, in contrast to almost all U.S. economic history before this modern period. U.S. trade deficits have been controversial within the United States, and arguments continue over whether these deficits are a cost to the U.S. economy or a benefit to U.S. consumers and an indicator of relative U.S. economic strength.

Figure 1: U.S. trade and current account balances as a share of GDP, 1960-2015



Source: data from BEA and author's calculations.

Figure 2: U.S. trade (exports plus imports of goods and services) as a percentage of GDP, 1960-2015



Source: data from BEA and author's calculations.

¹⁹ For a discussion of some of the controversies over the U.S. trade deficit in the 1960s and 1970s, see Congressman Don Bonker's *America's Trade Crisis*, 1988, pp. 51-54, Eckes, *Opening America's Market*, 1995 pp. 197-217; Prestowitz *The Betrayal*, 2010, pp. 77-120; and Stein, *Pivotal Decade*, 2010.

U.S. trading partners

But what of U.S. trading partners? How much could the U.S. trade deficit have affected them? This paper will now describe briefly what basic data say has been happening to U.S. trading partners during the same period of time.

As has been shown already, the U.S. trade deficit has been above or around 3 percent of U.S. GDP for many years. At 3 percent of U.S. GDP, the U.S. trade deficit is a much smaller share of the rest of the world's summed GDP. Thus, it is possible that trade surpluses with the United States are not a large factor for most countries, if those trade surpluses with the United States were spread out evenly across the world. However, as shall be shown, for a small number of countries and regions, trade surpluses with the United States are a large share of their annual economic growth.

Table 1 shows the largest U.S. trade deficits (surpluses for the partner country) and surpluses (deficits for the partner country) for the largest partner surpluses and deficits in 2015, as reported by the U.S. Department of Commerce. As can be seen from the table, the largest surpluses dwarf the largest partner deficits. This fact suggests that the U.S. trade deficit is concentrated in a handful of countries/regions: China, the EU, Japan, Korea, and Mexico. Moreover, for the United States, those trade deficits are not cancelled out by large U.S. trade surpluses with other countries. (If they were, then obviously the United States would not be running trade deficits overall.)

Table 1: U.S. trade balance (exports less imports of goods and services) of largest deficit and surplus countries, 2015

Country	U.S. trade balance (goods and services), billions of dollars
<i>Countries with a trade surplus with the United States</i>	
China	-334.1
Germany	-77.3
Mexico	-57.9
Japan	-55.4
India	-29.9
Italy	-29.9
South Korea	-18.7
France	-14.7
Taiwan	-10.3
<i>Countries with a trade deficit with the United States</i>	
Hong Kong	31.7
Brazil	25.3
Singapore	17.5
United Kingdom	12.0
Saudi Arabia	6.3
Canada	6.1
All other countries not listed above, together	28.9

Source: BEA data from *U.S. International Trade by Selected Countries and Areas*, table 3, sorted by author.

The basic data in table 1 suggest a follow-up question. How large are these other countries' trade surpluses relative to their own economies?

Table 2 compares the size of those countries' or regions' trade balances (usually surpluses) with the United States to those countries' own GDP, by year. Doing so will allow analysis (below) of how large each country's or region's trade surplus with the United States is, compared to its average annual income (GDP) growth.

Comparing the U.S. trade surplus share of a country's GDP to a country's GDP growth is comparing a flow (the former) to a change in a flow (the latter). The comparison allows a rough idea of the importance of a country's trade surplus with the United States on that country's annual national growth rate. (See Analysis below).²⁰

For trade data, table 2 uses both goods and services trade data from the U.S. BEA. For GDP, table 2 uses International Monetary Fund (IMF) data, which is sourced from the countries in question. Thus, table 2 is comparing U.S. trade data with foreign countries' own GDP data. In general, foreign countries' own merchandise trade data is usually close to U.S. trade data.²¹ The major exception to this general statement is China, which reports a much lower trade surplus with the United States than the United States reports with it. However, this issue in the Chinese trade data exists not only with the United States, but with many countries. For example, China reports a merchandise trade deficit with Japan every year over 2010-2015, while Japan often reports merchandise trade deficits with China over the same period.²²

Additionally, a note of interest and a note of caution are warranted for the EU data. First, as the note of interest, Germany and Italy are shown separately in table 2, along with the entire EU. The EU trade surplus with the United States was \$102.9 billion in 2015, but the German trade surplus with the United States was \$77.3 billion and the Italian trade surplus with the United States was \$29.9 billion, suggesting that these two countries represent the lion's share of the EU trade surplus with the United States.²³ Germany and Italy were the first- and fourth-largest economies in the EU in 2015. The United States ran a trade surplus with the EU's second-largest economy (the United Kingdom) and a trade deficit of \$14.7 billion with the EU's third-largest economy (France) in 2015.

As the note of caution, the U.S. trade deficit (as reported by the U.S. government) with the EU consists of a large goods trade deficit with the EU, mitigated by a trade surplus with the EU in services. The EU, however, reports a trade surplus in services with the United States.²⁴ This paper assumes the U.S. services data are correct. However, if the EU services data are correct, then the overall U.S. trade deficit (goods plus services) with the EU is even larger. It is also worth noting that, even according to the U.S. data, the United States runs a trade deficit with Germany and Italy in services (but a surplus with France and the United Kingdom).²⁵

²⁰ This paper is not a modeling exercise designed to weigh multiple possible economic effects against each other if the U.S. trade deficit were to decrease.

²¹ Benedetto, "Trade deficits and tax evasion," 2016.

²² Data from Global Trade Atlas database, accessed August 6, 2015, and author's calculations., and Scott, "Value-added Analysis of Trade," 2013.

²³ See BEA, *U.S. International Trade by Selected Countries and Areas*, September 2015, table 3.

²⁴ See European Commission Directorate-General for Trade, "Countries and regions United States."

²⁵ See BEA, *U.S. International Trade by Selected Countries and Areas*. table 9.

Table 2: Selected large U.S. trading partners' trade surpluses with the United States as a percentage of their own GDP, 1999-2015

Year	Trade surplus with United States as a percent of GDP								
	Canada	China	EU	Germany	Italy	Japan	Korea	Mexico	Saudi Arabia
1999	4.2	6.1	0.3	1.2	1.0	1.3	1.5	3.3	-1.3
2000	6.5	6.9	0.5	1.5	1.3	1.3	2.0	3.1	3.4
2001	6.6	6.2	0.6	1.6	1.3	1.3	2.3	3.5	3.2
2002	5.9	7.0	0.8	1.9	1.2	1.4	1.9	4.5	4.0
2003	5.3	7.4	0.7	1.7	1.0	1.3	1.7	5.1	6.0
2004	6.0	8.3	0.7	1.8	1.1	1.3	2.4	5.5	5.5
2005	6.2	8.8	0.8	1.9	1.2	1.5	1.5	5.2	5.8
2006	4.6	8.4	0.7	1.8	1.2	1.8	1.0	6.1	5.9
2007	3.7	7.3	0.5	1.5	1.0	1.7	0.8	6.6	5.5
2008	3.9	5.8	0.3	1.3	0.9	1.2	0.7	5.3	7.5
2009	0.2	4.3	0.1	0.9	0.7	0.6	0.6	4.6	1.7
2010	0.4	4.3	0.3	1.1	0.7	0.8	0.4	5.6	2.9
2011	0.6	3.7	0.3	1.4	0.9	0.8	0.5	4.9	4.2
2012	0.3	3.5	0.4	1.9	1.1	1.0	0.6	4.6	4.2
2013	0.2	3.1	0.5	2.0	1.1	1.2	0.7	3.8	3.4
2014	0.6	3.0	0.5	2.1	1.3	1.2	1.1	4.0	2.8
2015	-0.4	3.0	0.6	2.3	1.6	1.3	1.4	5.1	-1.0
Average 1999-2015	3.2	5.7	0.5	1.6	1.1	1.2	1.2	4.8	3.6
Average real GDP growth, 1999-2015	2.3	9.4	1.6	1.3	0.3	0.8	4.7	2.4	4.8

Source: data from BEA and IMF, calculations by author

As can be seen from the last two rows of table 2, the U.S. trade deficits with its major trading partners likely have a large impact on the economies of those trading partners. In table 2, over 1999-2015, the average annual contribution of the Canadian, German, Italian, Japanese, and Mexican trade surpluses with the United States to those countries' GDP was more than their own average annual GDP growth. For China, the EU, Korea, and Saudi Arabia, the average annual contribution of their trade surpluses with the United States was a large fraction of their annual growth rate.²⁶

This result suggests that for these countries, running a trade surplus with the United States has been an important part of their annual GDP growth for many years. If so, whether one believes the United States has a trade deficit problem or not, these trading partners will also be subject to substantial adjustment should the U.S. trade deficit be reduced.

However, before concluding, this paper now conducts three robustness checks on the table: first, whether the results change if purchasing power parity (PPP) data are used; second, whether energy trade accounts for much of the U.S. trade deficit; and third, whether value-added analysis would change the findings.

²⁶ By contrast, India, which is not presented in the tables, presented somewhat different results. India's trade surplus with the United States represented an average 1.1 percent of Indian GDP on an exchange rate basis (for 1999-2015), falling to 0.3 percent if PPP was used. These percentages compare to an annual average GDP growth rate of 7.1 percent for India over the same period.

Robustness checks

1. Purchasing power parity

When using another country's GDP data, the question arises of how to compare its data in its own currency to U.S. data in dollars. The IMF data offer both a simple dollar conversion (i.e., the foreign GDP amounts are converted to dollars based on the exchange rate of the time), which are the data used in table 2 above. However, the IMF also offers a conversion based on purchasing power parity (PPP), i.e., by attempting to capture the difference in what each currency can actually purchase in its own country. For countries that are substantially poorer than the United States, PPP conversions may make their GDP look larger than market exchange rate conversions, as their own currencies can buy more in their own countries than a market exchange rate might suggest.

Thus, while this paper takes no position on the relative value of using market exchange rates or PPP rates, table 3 also compares these countries' trade surpluses with the United States to their own GDP, as calculated on a PPP basis. Such a calculation substantially reduces the importance of China's trade surplus with the United States to the Chinese economy from the extremely high level in table 2. However, because the Chinese trade surplus with the United States is so large, the reduction still leaves the Chinese trade surplus with the United States as a high percentage of Chinese GDP- generally over 2 percent and always at least 1.7 percent. PPP data also reduces the size of the U.S. trade surplus on the economies of Mexico and Saudi Arabia, but has much less effect on the other countries in the tables.

Table 3: Selected large U.S. trading partners' trade surpluses with the United States as a percentage of their own GDP on a PPP basis, 1999-2015

Year	Trade surplus with United States as a percent of PPP GDP								
	Canada	China	EU	Germany	Italy	Japan	Korea	Mexico	Saudi Arabia
1999	3.3	2.1	0.3	1.1	0.8	1.8	1.1	1.7	-0.4
2000	5.3	2.3	0.4	1.2	0.9	1.9	1.5	1.7	1.1
2001	5.1	2.0	0.5	1.2	0.9	1.7	1.5	2.1	1.0
2002	4.5	2.3	0.6	1.6	0.9	1.7	1.3	2.7	1.2
2003	4.6	2.5	0.7	1.7	0.9	1.5	1.3	2.8	1.9
2004	5.6	2.9	0.7	1.8	1.1	1.7	1.8	3.0	1.8
2005	6.2	3.1	0.7	1.9	1.1	1.7	1.2	3.1	2.2
2006	5.0	3.1	0.7	1.8	1.1	1.9	0.9	3.7	2.4
2007	4.2	2.9	0.5	1.6	1.0	1.7	0.7	4.1	2.3
2008	4.6	2.6	0.3	1.5	1.0	1.4	0.5	3.4	3.5
2009	0.2	2.0	0.1	1.0	0.7	0.7	0.4	2.5	0.6
2010	0.4	2.1	0.3	1.2	0.7	1.0	0.3	3.3	1.3
2011	0.8	2.0	0.3	1.5	0.9	1.0	0.3	3.0	2.1
2012	0.3	2.0	0.4	1.8	1.1	1.3	0.5	2.7	2.1
2013	0.3	1.8	0.5	2.0	1.1	1.3	0.5	2.3	1.6
2014	0.6	1.8	0.5	2.1	1.3	1.1	0.8	2.4	1.3
2015	-0.4	1.7	0.5	2.0	1.4	1.1	1.0	2.6	-0.4
Average 1999-2015	3.0	2.3	0.5	1.6	1.0	1.5	0.9	2.8	1.4
Average real GDP growth, 1999-2015	2.4	9.4	1.6	1.3	0.3	0.8	4.7	2.4	4.8

Source: data from BEA and IMF, calculations by author.

2. Energy trade

A few of these countries' trade surpluses with the United States are heavily influenced by net exports of energy. Saudi Arabia and Canada, for example, run trade surpluses with the United States only because they run trade surpluses in mineral fuels (as categorized in the Harmonized System code HS 27).²⁷

However, for the other large trading partners in the table, trade in HS 27 is a much smaller share of their trade surplus with the United States. For Mexico, its trade surplus with the United States in HS 27 represented only 11.9 percent of its total trade surplus with the United States in 2014, and even fell to a trade deficit with the United States in 2015. However, over 25 percent of Mexico's trade surplus with the United States was from HS 27 from 2009 to 2012. For China, the EU, and Japan, trade balances with the United States in HS 27 are very small shares (less than 3 percent) of their trade surpluses with the United States over 2011-2015. (Additionally, these trade balances are often trade deficits, not surpluses.) Korea, which exports jet fuel (a manufactured product included in HS 27) to the United States, sometimes has its trade surplus in HS 27 rise to almost nine percent of its total trade surplus with the United States because of these exports.²⁸

In sum, for the most part, the persistent U.S. trade deficits with most of the largest U.S. trading partners are not energy-related.

3. The impact of value added analysis

Recently, some trade economists are urging that trade relationships between countries be analyzed on a value-added, rather than "gross" (i.e. reported exports and imports) basis. They argue that this analysis would record, for example, Japanese contributions to the products exported by China to the United States as Japanese exports rather than Chinese exports. The most frequently-used value-added data set is the Trade in Value-Added data from the Organization of Economic Cooperation and Development, referred to in this paper as the OECD data.

Some have implied that the countries that run large trade surpluses with the United States on a reported basis are not the countries running large trade surpluses with the United States on a value-added basis.²⁹ Thus, it may be worthwhile to examine whether this paper's findings above, i.e., that major U.S. trading partners have been running large (reported) trade surpluses (relative to their own economies) for a long time, holds up when examined using the value-added data from the OECD.

However, before doing so, it is also important to note that there are also some concerns about using the OECD value-added data. Creating value-added data involves some estimation to eliminate discrepancies between various countries' trade data.³⁰ These discrepancies can be large, especially in the case of China, and thus the more general economic reader may not be

²⁷ This fact is only true recently for Canada; in the mid-2000s, Canada ran an overall trade surplus with the United States net of HS 27 as well.

²⁸ This paragraph is based on data obtained from Global Trade Atlas.

²⁹ See Benedetto, "Implications and Interpretations," July 2012 for some of these arguments.

³⁰ This kind of estimation is true whenever one would try to align different countries' trade data. The concern in this case comes from the apparent proximity of the OECD estimate to the Chinese data, which are often quite different than the data from other countries, as discussed below.

aware of how much the particular value-added data take the Chinese government's data into account.

For example, the Economic Policy Institute (EPI) has pointed out that, with many of its trading partners, China reports different imports and exports than its partners do, and those differences make the Chinese reported trade surplus with the world much smaller than the sum of Chinese trading partners' reported Chinese trade surpluses. While China reported a trade surplus of \$157.8 billion with the world in 2011, EPI sums up China's largest trading partners' reported data and finds a Chinese surplus with the world of \$526.3 billion in the same year. EPI then notes that the OECD data state that China ran a merchandise trade surplus with the world of \$187.7 billion in 2011, obviously much closer to the Chinese government's estimate than to the rest of the world's estimate. My paper is not endorsing one estimate or another, but notes that there are these widely variant descriptions of the Chinese trade relationship with the world that come from whether one uses data from the Chinese government to some substantial extent (OECD) or not at all (EPI).^{31 32}

However, even if one leaves these concerns aside, this paper now considers how the OECD's value-added data might change this paper's findings above. The most recent value-added data available from the OECD are from 2011. From what these data show, the U.S. trade deficit with China on a value-added basis would be somewhat smaller than on a reported basis, but would still be large. For example, in 2011, according to the OECD value-added data, China had total value-added exports to the world of \$2.0 trillion, of which \$1.3 trillion (68 percent) was Chinese value-added. However, an additional \$0.3 trillion of those Chinese total value-added exports were value-added in Canada, the EU, Japan, Korea, and Mexico. Overall, 81 percent of Chinese value-added exports were value-added from China or those countries.³³

While value-added data can reallocate the reported U.S. trade deficit among its trading partners, value-added data cannot change the total value of the U.S. trade deficit in theory.³⁴ (In practice, the OECD estimate that seems to lend a lot of weight to the Chinese data would reduce the U.S. trade deficit. However, this estimated reduction is entirely due to the use of Chinese government data, and not because of the use of value-added analysis.) Thus, even to the extent that China's trade surplus with the United States is somewhat lower in the OECD data, it appears the main beneficiaries (in terms of exporting value to China that the United States imports in Chinese products) would mostly be the other countries already discussed. Additionally, it is important to remember that China has been moving up the value chain both before 2011 and since, and could be adding more value now than it was before. However,

³¹ See Scott, "Value-added Analysis of Trade," 2013. Some economists have also raised concerns about how other parts of Chinese GDP are measured, and argued that Chinese GDP overall is overestimated. See, for example, Rawski, "What is happening to China's GDP statistics?" 2001.

³² Furthermore, value-added data are based on an assumption that labor costs in all countries reflect market conditions. See McMillion, "China Trade Apologists" October 2011; Benedetto, "Implications and Interpretations," July 2012; Scott, "Value-added Analysis of Trade," 2013; and Mandel "Introduction," 2015. As Benedetto (2012) explains, foreign government subsidies and/or foreign labor conditions can affect how much measured "value-added" is in an export. Mandel (2015) also notes this point.

³³ Data for this analysis from OECD Trade in Value-Added Database. Calculations are the author's. It should also be noted that in the OECD data, U.S. exports of value-added are also a little lower than U.S. reported exports, so U.S. exports would also be reduced if the OECD data were used. (Thus, lower Chinese value-added in its exports to the United States, which would make the U.S. value-added trade deficit with China lower than the U.S. reported trade deficit with China, would be partially offset by lower U.S. value-added in its exports to China, which would somewhat increase the magnitude of the U.S. value-added trade deficit with China.)

³⁴ See Benedetto, "Implications and Interpretations," July 2012.

even if China were only adding what the value-added data report for 2011, the U.S. trade deficit would remain large, and a large percentage of Chinese GDP.

Thus, it is highly likely that (1) most (at least two-thirds)³⁵ of Chinese exports to the United States consists of Chinese value-added and (2) even if as large a share of Chinese exports to the United States consists of value-added in other countries as the OECD estimates, those other countries are primarily the other ones that run persistent large trade surpluses with the United States.

In other words, value-added analysis using the OECD data would almost leave the trade surplus with the United States as a large contributor to the GDP of China, the EU, Japan, and Korea, albeit with somewhat less emphasis on China and more on the other large U.S. trading partners.

Analysis

The large share of average annual GDP growth accounted for by several countries' trade surpluses with the United States suggests that reducing the U.S. trade deficit would require not only a large adjustment for the United States, but also for these nations. The basic story remains the same whether nominal exchange rates or PPP rates are used. Use of value-added data may change the exact amounts for each trading partner, but not the basic story. If many large U.S. trading partners were to lose their typical trade surplus with the United States, they would need to make up a substantial share of their typical GDP growth somewhere else.

Modern economists might argue that it is the United States that has benefitted from the imports from these nations, and that these nations would be better off without such an emphasis on net exports to the United States. Even so, modern economists could find that these countries would also require large adjustments to their own economies if they were to lose their persistent trade surpluses with the United States.

On the other hand, economic analysis rooted in an older Keynesian tradition might lead one to conclude that these nations have grown accustomed to a boost to their own economies from large net exports to the United States. Such an analysis might argue that these nations need to reduce their surpluses in order to maintain a harmonious global economy.³⁶

Whatever one's view of trade balances and their costs and benefits, it is clear that the U.S. trade deficit is not an issue of relevance only to the United States. For many years, the United States' largest trading partners have been receiving a large portion of their annual GDP from their repeated trade surpluses with the United States.

³⁵ See also OECD-WTO *Trade in Value-Added Data*, October 2015. If one were to use the two-thirds estimate noted on U.S. data on goods trade with China, it would reduce the Chinese trade surplus with the United States from from \$367 billion in 2015 to \$207 billion, still quite large. This calculation assumes that one-third of 2015 U.S. imports from China reflect other nations' value-added, and no 2015 U.S. exports to China reflect Chinese value-added. Whether or not these assumptions are reasonable, I use them to show that even under the most generous assumptions possible, the Chinese trade surplus with the United States remains large.

³⁶ Keynes himself advocated such an adjustment by surplus countries as part of the Bretton Woods system. See Lavoie, *Post-Keynesian Economics*, 2014, p. 500.

Conclusions

This paper has presented relatively basic economic data to show that the U.S. trade deficit is not only a large-scale economic reality to the U.S. economy, but also (as its mirror, a trade surplus) to the largest U.S. trading partners. The paper has done so by comparing U.S. trade balance data with the GDP data of other nations. It has taken into account potential wrinkles such as purchasing power parity and value-added analysis, and found that while such analysis could change the precise size or distribution of other countries' trade surpluses with the United States, it would not change the fundamental conclusion.

These basic data strongly suggest that reducing the U.S. trade deficit would likely require or force substantial adjustments by U.S. trading partners. To the extent policymakers in these countries use traditional Keynesian analysis, the loss of their trade surplus with the United States would mean a large adjustment to their national economies. Modern economic analysis, which might conclude that other countries' large trade surpluses with the United States are not a long-run benefit to those countries, might also conclude that there could be large adjustments for those countries as well, albeit perhaps more to their own benefit. Either way, it is highly possible that the scale of these adjustments would cause major geopolitical ripples. It is fair to say the U.S. trade deficit is not only a U.S. issue.

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SUGGESTED CITATION:

John B. Benedetto, "A note on recent data on U.S. trading partners' trade surpluses with the United States", *real-world economics review*, issue no. 77, 10 December 2016, pp. 103-117, <http://www.paecon.net/PAEReview/issue77/Benedetto77.pdf>

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