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# Why America Should Compete to Win in Advanced Industries

ROBERT D. ATKINSON | APRIL 2022

Until a significant share of America's leaders believes the United States is in economic competition with other nations—and that it has a right and duty to win that competition—generating the political will for a national advanced-industry strategy will be difficult.

## KEY TAKEAWAYS

- If policymakers want to advance American economic welfare and strength, the United States must compete strenuously against other nations, including our allies, to gain a greater share of global value added produced by these advanced industries.
- Yet, global neoliberals believe "countries don't compete." They worry that if policymakers start thinking we do, they will embrace either protectionism (e.g., tariffs and "Buy America" provisions) or industrial policy—or, worst of all, both.
- Likewise, many progressives downplay the reality of economic competition out of concern for the rest of the world. They also think the most important issues are domestic, mostly revolving around the division of a fixed economic pie.
- There is only so much demand for advanced industries such as jet airplanes, machine tools, software, or semiconductors—and that means one country's gain in market share is another country's loss.
- Advanced-industry production is critical to America because it supports national defense, international competitiveness, and good-paying jobs.
- The U.S. share of seven key global industries fell from 24.1 percent in 2006 to 22.9 percent in 2018, while these industries also contributed a smaller share of overall U.S. economic output.

## INTRODUCTION

Until a significant share of America's leaders believes the United States is in economic competition with other nations—and that it has a right and duty to win that competition—generating the political will for a national advanced-industry strategy will be difficult. Just as in sports, if you don't believe you are in competition or have to win, then you will lose. When it comes to competing in the most important industries in the world, America needs to live by the words of former NFL great Vince Lombardi: "The objective is to win—fairly, squarely, decently. Win by the rules, but still, win."[1]

Why even write this? Isn't it obvious? It should be, but it's not. Paul Krugman spoke for many economists and pundits, both past and present, when he wrote in 1994, "The notion that nations compete is incorrect … countries are not to any important degree in competition with each other."[2] In line with this view, most economists, as the Peterson Institute's Adam Posen has stated, see trade as "a source of beneficial change," suggesting that it is all win-win, even when a nation loses high-wage industries to competitors.[3]

But even when individuals acknowledge that the United States is in competition with other nations, they see winning as somehow un-American. Case in point, at the first meeting of the Obama administration's National Innovation and Competitiveness Strategy Advisory Board, of which I was a member, we actually had to debate whether it was fair for the United States to compete with other nations. After all, the competition skeptics argued, we don't want to hurt their economies. One can be assured leaders in no other nation believe this.

Unless Washington embraces the view that the nation is in fierce global competition for fixed market share for advanced industries (at least in the short run), and that winning that competition is critical to America's future, it will be difficult, if not impossible, for the federal government to take needed action.

The reality is that for the share of the U.S. economy that is advanced and globally traded, competition is win-lose. If another nation gains a new semiconductor plant—to use one example—then by definition, the United States does not, and its share of global semiconductor production will fall. And that would be bad for America. So, if policymakers want to advance American economic welfare and strength, the United States must put in place an advanced-industry strategy to compete strenuously against other nations, including our allies, to gain a greater share of global value added produced by these advanced industries.

## WHY DO SO MANY BELIEVE THE UNITED STATES SHOULD NOT COMPETE?

Notwithstanding the recent passage of the House and Senate competitiveness bills (which will soon go to conference), the reality is many in Washington don't fully buy into the notion that the United States should compete to win, including in advanced industries. For example, while Twitter polls are hardly scientific, the results of one I recently posted were informative. I asked whether people thought competition between nations in high-value-added, technologically complex strategic industries (e.g., semiconductors, aerospace, etc.) was win-lose or win-win. Eighty-seven percent of respondents (some of whom, to be fair, might not have been Americans) believed it is win-win.[4] In other words, 87 percent believe that if China gains market share in semiconductors, then the United States also wins.

Views of international economic competition are embedded in broader political-economy doctrines. To see how, consider that, as Michael Lind and I articulated, there are four main competing political economy doctrines: global neoliberalism, progressive localism, national protectionism, and national developmentalism.[5] Each views international economics differently.

## Global Neoliberalism

Among foreign policy experts and economic elites, global neoliberalism is the centrist consensus uniting Clinton Democrats with Bush Republicans and most economists. Global neoliberals sing the praises of free trade and high levels of immigration, seeing globalization as a force mostly for the good. Rejecting the notion of economic competition between nations, they embrace the Ricardian notion of comparative advantage, where countries specialize in what they are naturally good at, enabling them to be largely indifferent to America's national industrial composition.

And they mostly dismiss foreign subsidies and dumping to gain competitive advantage, looking principally only at U.S. consumer gains rather than producer and worker losses. Recognizing that liberalized flows of goods, capital, and labor across borders can displace workers and harm certain regions, global neoliberals on the center-right and center-left favor policies such as retraining that helps the "losers" of global integration with minimal interference in the inexorable and beneficial process of globalization. (See table 1.)

The neoliberal view tends to be a version of Econ 101: Trade is among individuals and firms (not nations), competition is the norm, and all sides benefit from free exchange. For this reason, beyond broad policies such as investing in skills, "industrial policies" to help domestic firms compete are not only unnecessary, but detrimental.

This explains in part by global neoliberals embrace the "countries don't compete" view. They worry that if policymakers start to believe that America does compete, they will either embrace protectionism (e.g., tariffs, "Buy America" provisions, etc.) or industrial policy—or worst of all, both. As long as policymakers buy into the notion that America doesn't compete with other nations, they will not intervene in industry structure policy.

## Progressive Localism

Progressive localism seeks an alternative economy predominantly made up of small firms (ideally worker-owned co-ops or municipal corporations), supported by big government and protected from global competition through trade barriers and withdrawals from trade agreements. For them, domestic-economy issues are paramount, and why they tout the notion that a robust economy can be built around the domestically serving "care economy."

Many progressives downplay the reality of global economic competition because they see the interests of progressives across the world as in harmony, in part because, for them, the most important issues are domestic, mostly revolving around the division of a fixed economic pie. As former Center for American Progress president Neera Tanden wrote, "By committing to more inclusive politics, we can help build sustainable societies where prosperity is shared more equitably, and governments work better for their people."[6]

When they do acknowledge international competition, progressives see it as a competition largely between different factions of the capitalist class. And while they might accept that American firms compete with foreign firms—since they see most or all the gains from big business success

as going to shareholders and top managers—what difference does it make if American business takes market share from European or Asian businesses? This was the basis on which Biden administration Council of Economic Advisors member Jared Bernstein wrote approvingly of the argument "that we should welcome the diffusion of technology and rise of emerging economies. That's what globalization is supposed to be about!"[7]

Finally, while the neo-liberals see trade as win-win, most progressives see trade as lose-lose. As Adam S. Hersh and Jennifer Erickson of the Center for American Progress wrote, "Most people recognize the explicit lose-lose scenarios that can happen when the United States trades within a weak system of international economic rules."[8] If trade is lose-lose, what's the point of worrying about the structure of America's traded sectors?

**Table 1: Views of trade by major political economy camps**

| | Global Neoliberals | Progressive Localists | National Protectionists | National Developmentalists |
|---|---|---|---|---|
| **Policy Goal** | Global Efficiency | Global Fairness | U.S. Growth | U.S. and Allied Growth |
| **Trade Outcomes** | Win-Win | Lose-Lose | Win-Lose | Sometimes Win-Lose, Sometimes Win-Win |

## National Protectionists

The Right's equivalent of progressive localism is national protectionism. Largely ignored until Donald Trump tapped into their anger, its advocates also view corporations with suspicion, especially ones that produce anything outside U.S. borders. National protectionists support firms as long as they are strongly identified with the United States. They reject open borders in both immigration and trade policy and view the simple act of competing with low-wage nations as inherently unfair to American workers, something to be remedied with tariffs and withdrawals from trade agreements. While national protectionists are keenly aware that the United States competes with other nations, they tend to dismiss the benefits of trade, such as when the United States exports jet airlines to Japan in exchange for importing industrial lasers. Moreover, they want to win every competition, including in lower-wage commodity sectors the United States would be better off not specializing in. For them, potato chips, computer chips—they are both important.

## National Developmentalists

Unlike global neoliberals, national developmentalists see national economies as being in direct competition for high-value-added jobs.[9] That is why they support industrial policies targeted at ensuring U.S. leadership in key industries. To maximize foreign markets for high-value-added U.S. exports, there must be an active developmental state in America that partners with companies to help them innovate, be more productive, export, and compete globally.

Unlike progressive localists and national protectionists, national developmentalists see deeper global economic integration as beneficial in many ways—but only if the federal government works to obtain maximum benefits for domestic enterprises, workers, and regions.

They seek to maximize the relative productivity of their own national economies, not the absolute well-being of the global economy as both the global neoliberals and progressives do. And they recognize that one way to do that is to work to shift the U.S. industrial mix more toward high-value, traded sectors.

## WHY THE GLOBAL NEOLIBERALS ARE WRONG: COMPUTER CHIPS ARE MORE IMPORTANT THAN POTATO CHIPS

As noted, many global neoliberals do not believe that America is in global economic—and innovation—competition with other nations. In large part, this perspective results from fundamentally flawed advice from neoclassical economists who are on record as counseling that countries do not compete, only companies do. It's not just Krugman who states this, as many other adherents to the Washington, neoliberal consensus do the same. A top economic policy analyst at the Congressional Research Service stated that international competitiveness is a "term without rigorous meaning."[10] Former head of the Trump Council of Economic Advisors and conservative economist Kevin Hassett wrote, "Noneconomists regularly appeal to competitiveness when motivating a wide array of policies, while economists protest or look the other way."[11]

Since the notion that "countries don't compete, only companies do" has come to inform so much of U.S. economic and trade policy, it's important to explore the two arguments underlying Krugman's assertion. First, Krugman argues that because about 75 percent of the U.S. economy consists of "nontraded" goods and services intended for domestic use, the growth rate of U.S. living standards essentially equals the growth rate of domestic productivity, not U.S. productivity relative to competitors, and so countries are not really competing.

While Krugman is correct in stating that raising productivity in nontraded sectors is important, he underestimates the importance of traded sector firms to America's terms of trade and to the health of its nontraded sectors. A healthy, high-value-added export sector leads to growth in domestically traded sectors. In addition, competitive traded sectors allow the value of the dollar to be higher, thereby boosting purchasing power. Moreover, the growth of high-value-added sectors changes the mix of sectors in an economy toward more high-value-added ones, leading to higher productivity, wages, and standards of living.

The second argument underpinning Krugman's assertion is fundamentally wrong. Krugman reasons that while companies do sell products that compete with each other, the companies and consumers in these nations are also simultaneously each other's main export markets and suppliers of useful imports. And since international trade is not a zero-sum game, even if European or Asian countries gain a larger share of global high-value-added production, this benefits the United States by providing it with larger export markets and access to superior goods at a lower price. In other words, he argues, since trade is inherently win-win, even if the United States were to lose most of its high-value-added traded sectors (imagine Apple, Boeing, Cisco, Eli Lilly, Ford, General Motors, IBM, Intel, Merck, Microsoft, and other similar companies laying off the majority of their U.S. workforce), America would still benefit from trade because at least it would receive cheaper imports and have access to larger export markets from other firms in other industries that would now enjoy bigger markets.

But the reality is if Boeing, Ford, or the other companies mentioned were to lay off most of their U.S. workers, America would be worse off. While some of those workers might find jobs with

equal wages and similar value added, the majority would end up with lower-wage, lower-value-added jobs. How could they then afford to buy those goods and services now produced overseas, other than to do what the United States has been doing for almost half a century: borrow the money from overseas creditors that want us to keep importing?

Thus, Krugman's second argument is fundamentally flawed because it drastically underestimates the impact countries' strategies—whether fair and consistent with global trade rules or not—can have in shifting comparative advantage in critical technology-based sectors. Other countries are not content to sit idly by and observe how the market will allocate global production, for they know that the market could very well allocate to them low-wage T-shirt factories and call centers (or even worse, nothing at all, with resulting massive trade deficits) instead of semiconductor factories and software companies. In essence, these nations recognize that while markets can create prosperity, they don't always do so at home. The next thousand high-value-added jobs could just as easily be created or located in another nation. Recognizing the need to go beyond letting firms alone determine the best locations with high-value-added economic activity, they "intervene" in their economies with policies such as implementing national innovation strategies, funding basic and applied research, providing research and development (R&D) tax credits, and so forth.

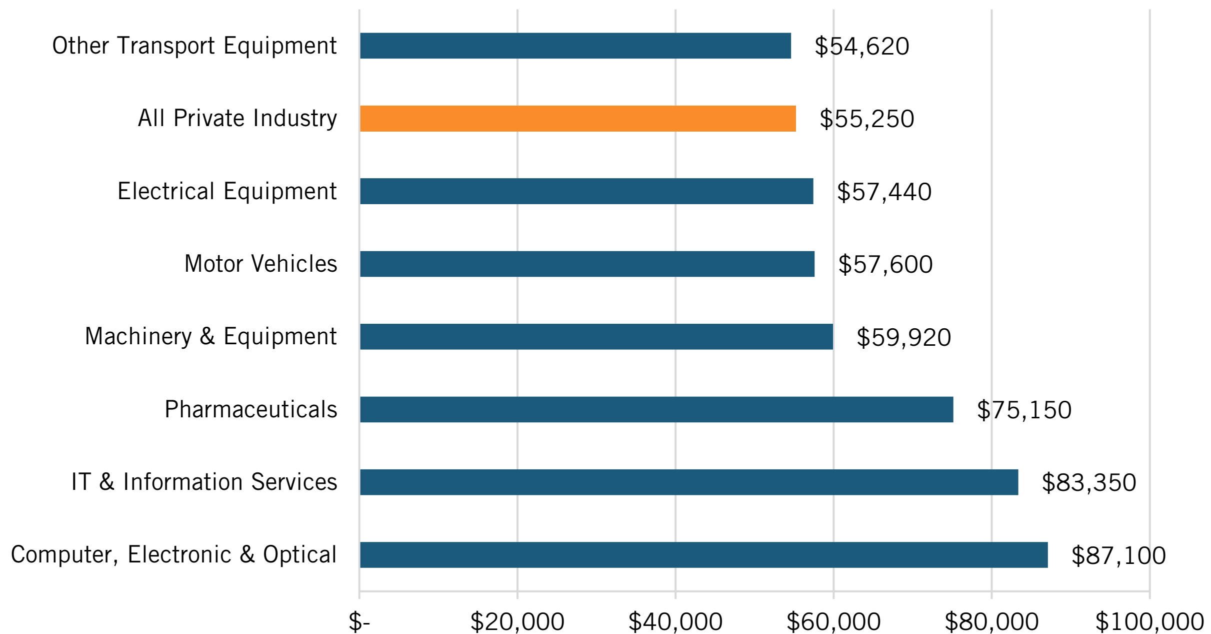
## ASSESSING AMERICA'S PERFORMANCE

The best way to consider international competition for advanced industries is to examine levels and trends in global market share of industry output or value added. In any particular year, there is only so much demand for jet airplanes, machine tools, software, or semiconductors, and that means one country's gain is another country's loss. If all industries had the same value-added per worker, losing one traded industry and replacing it with another traded industry wouldn't be a problem (leaving aside national security issues). But industries differ significantly in value added and therefore economic benefit to the nations that host them.

The Organization for Economic Cooperation and Development (OECD) provides data on industry output for a wide range of industries at a relatively broad level. This analysis examines seven industries: pharmaceuticals, medicinal chemicals, and botanical products; electrical equipment; machinery and equipment n.e.c. (not elsewhere classified); motor vehicle equipment; other transport equipment; computer, electronic, and optical products; and IT and information services. For the sake of this analysis, we chose 1995, 2006, and 2018 (the last year of data availability).

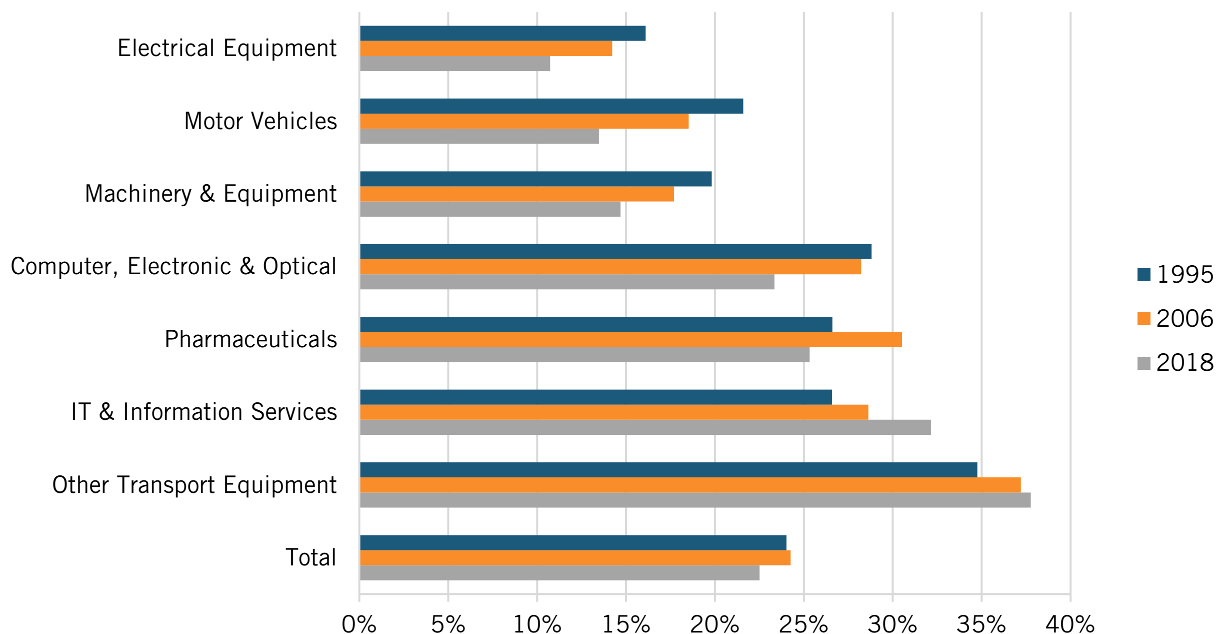
These industries are important to America for several reasons. First, these industries support national defense, either through direct production for the Department of Defense or dual-use production.[12] Second, these are sectors the United States needs to be competitive in to reduce the trade deficit and debt. Third, these are the kinds of sectors the United States should have a competitive advantage in over lower-wage, lower-skill sectors (e.g., apparel, furniture, basic metalworking) because the United States is a higher-wage, more technologically advanced economy. And finally, these sectors pay well. As figure 1 shows, each of the seven industries pays close to or significantly more than the U.S. private sector average. In fact, average wages in seven broad high-value-added traded industries are 60 percent higher than in seven lower-value-added industries.

**Figure 1: Average annual wage by U.S. industry, 2020**[13]




The U.S. share of the global economy differs significantly by industry (see figure 2), with the United States enjoying the highest share in other transportation equipment (which reflects the U.S. advantage in aerospace) and IT and information services, which include companies such as Google and Facebook). Interestingly, the U.S. global share in these two industries grew from 1995 to 2018, while the U.S. share of the other industries fell. Overall, the U.S. share of these seven global industries fell from 24.3 percent in 2006 to 22.5 percent in 2018.

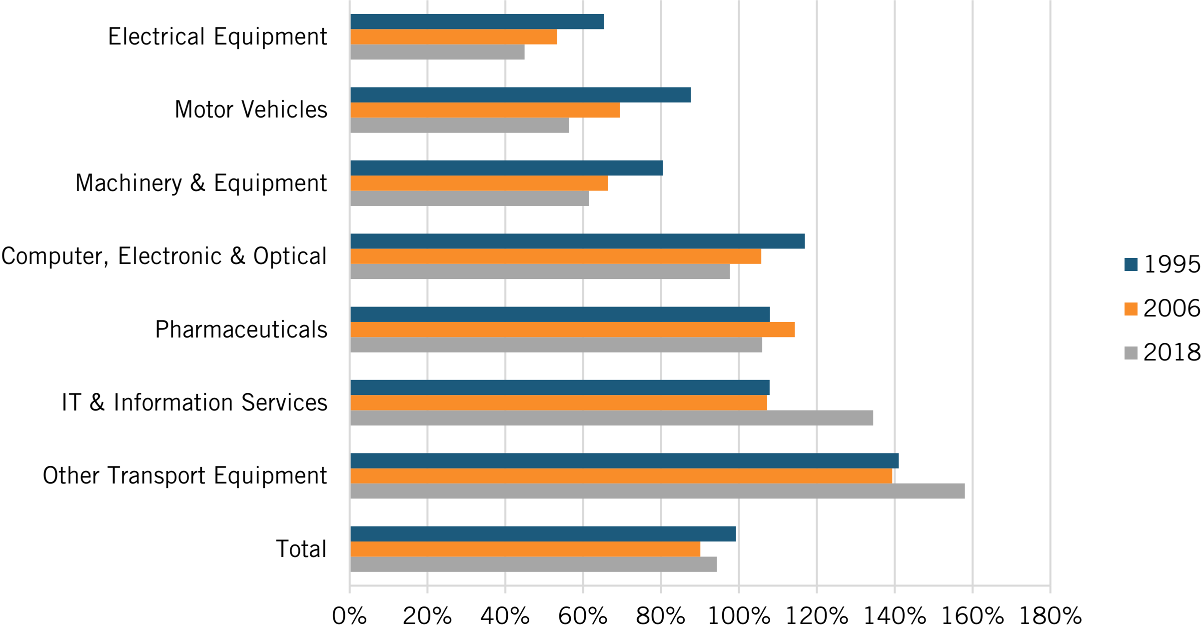
**Figure 2: U.S. share of global output in key industry sectors**



But this comparison can be misleading because it does not account for changes in the U.S. share of the global economy as a whole. Figure 3 controls for these changes, with each bar representing the U.S. share of a global industry (with three years for each industry) relative to U.S. GDP as share of the global economy. A measure of 100 percent means that a U.S. industry's output accounts for the same share of U.S. GDP as the global industry contributes to global GDP.

As figure 3 also shows, in 2018 the U.S. concentration was greater than 100 percent in only three industries—pharmaceuticals, other transportation equipment, and IT & other information services. In three of the other four industries, the U.S. concentration was quite low: 45 percent in electrical equipment, 56 percent for motor vehicles, and 61 percent for machinery and equipment. And from 1995 to 2006, U.S. concentration across all seven key industries fell from 99 to 90 percent before increasing slightly to 94 percent by 2018. In other words, the U.S. economy is less specialized in advanced industries than the world is a whole.

**Figure 3: U.S. industry share of global industry output relative to the U.S. share of global GDP**




## CONCLUSION

There are two ways to think about a national economy. The first, which is still the dominant way in the United States, is to be indifferent to industrial mix. Whatever market forces (or as is often the case, foreign industrial policies) produce is, if not optimal, at least acceptable. The second is industry mix matters. In this view, the United States will be better off from an economic and national security perspective if its industry mix is more favorable, with the broad goal of more higher-value-added, technologically complex traded sectors. As of 2018, the United States was below the global average in these key industries, suggesting the need for an explicit national advanced-industry strategy.

## About the Author

Robert D. Atkinson (@RobAtkinsonITIF) is the founder and president of ITIF. Atkinson's books include *Big Is Beautiful: Debunking the Myth of Small Business* (MIT, 2018), *Innovation Economics: The Race for Global Advantage* (Yale, 2012), *Supply-Side Follies: Why Conservative Economics Fails, Liberal Economics Falters, and Innovation Economics Is the Answer* (Rowman Littlefield, 2007), and *The Past and Future of America's Economy: Long Waves of Innovation That Power Cycles of Growth* (Edward Elgar, 2005). Atkinson holds a Ph.D. in city and regional planning from the University of North Carolina, Chapel Hill.

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## ENDNOTES

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