

Trump must act now to protect U.S. steel and aluminum

Administration delays have already heightened the import crisis for tens of thousands of steel and aluminum industry workers

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Summary

After long, costly, and unnecessary delays, the Commerce Department has given the White House its reports on the national security implications of steel and aluminum imports. This means that President Trump could finally act to protect U.S. steel and aluminum industries that have been decimated by massive excess production capacity in, and unfair trade by, China and other countries, including South Korea, Russia, India, Japan, Taiwan, Turkey, Brazil, and Vietnam. Action is long overdue. China and other countries have been illegally subsidizing their industries to produce much more steel and aluminum than their domestic markets can consume, and then flooding world markets, especially the United States, with unfairly traded products. Massive amounts of government-supported, excess production capacity is also suppressing prices below sustainable levels, driving domestic producers out of business. The president needs to act promptly to impose tariffs and quotas on a broad range of steel and aluminum products from countries that are responsible for global excess capacity in these industries, as outlined below.

President Trump first gave workers hope for relief last April when he ordered the Commerce Department to conduct special “Section 232” investigations of the risks that imports of aluminum and steel pose to U.S. national security, broadly defined to include disaster preparedness. As the *Washington Post* explains, “If the Commerce Department finds that imports are threatening America’s industrial base, that [Section 232] legal provision would allow the administration to impose sweeping tariffs or other restrictions” (Swanson 2017a).

While the president promised that the administration would conclude its investigation and act to preserve U.S. steel and aluminum industries before July 1, 2017, those decisions were delayed several times for the G20 summit and talks with China last July, by internal conflicts within the administration (Swanson 2017b),

and because of decisions by the White House to put repealing the Affordable Care Act and tax cuts ahead of national security. To be clear, the Trump administration cannot put the blame for this delay on an uncooperative Congress—steel and aluminum trade are purely administrative issues that can be addressed directly through executive action.

The results of the Commerce Department’s steel and aluminum investigations have finally been sent to the president, who has an additional 90 days to decide on any potential action. Relief from unfairly subsidized imports and excess capacity is sorely needed not only to preserve the industries’ capacity to produce the defense equipment and infrastructure needed for national security but also to help save jobs in steel and aluminum. While the Trump administration was delaying taking action, the problem got much worse. Imports of steel and aluminum surged in 2017, as producers in foreign countries raced to get ahead of any potential tariffs or quotas (Swanson 2017b). On top of the hundreds of thousands of steel workers who have lost jobs in the last two decades, thousands of steel workers were laid off between December 2014 and November 2017, and since fall 2017 the press has reported that steel mills will close in Coalton, Kentucky (Associated Press 2018); Ashland, Kentucky; and Conshohocken, Pennsylvania (Gerard 2018; Swanson 2017b). At the same time, production at other plants around the country has been idled or cut back, and additional layoffs have been announced (Swanson 2017b).

The solution to the threats to U.S. national security and jobs must include strong, effective efforts to provide enforceable reductions in global overcapacity in these industries.

Effective relief could spur global industry-wide solutions to rising excess capacity and unfair trade that have become chronic problems in these industries over the past few decades (Paul 2018). As noted by United Steelworkers International President Leo W. Gerard, the Section 232 investigations present an “once-in-a-lifetime opportunity to reset the trade agenda and protect and preserve the jobs of hardworking Americans now and for the future” (Gerard 2018). Arguments against providing relief through the Section 232 process are weak (Scott 2017a). The costs of trade relief have been vastly overestimated (Bivens 2007) and there is little risk that such measures would ignite a “trade war” with China or other countries (Lawder and Walsh 2018). China’s exports to the United States exceed U.S. exports to China by more than four to one, so China has much to lose and little to gain from a tit-for-tat trade war with the United States.

Why immediate action is needed

To date, the trade policies of the Trump administration amount to all talk and no action, and the failure to act has been costly. The prolonged national security investigations in steel and aluminum, which have yet to result in any concrete trade policy actions, have actually injured domestic producers. Imports have accelerated as firms race to beat the clock under the threat of tariffs or quotas, which has hurt the industry more than if the president had taken no action at all.

Surging imports and price suppression of unfairly traded steel and aluminum are decimating U.S. producers.

- Annual steel production in the U.S. fell 23.0 percent between 2000 and 2016. From January 2000 to November 2017, more than 49,000 domestic jobs were lost in steel mills alone—and the losses rise to more than 64,000 when adding downstream producers of steel products from purchased steel, such as pipe and rails. Surging steel imports, which increased 17.1 percent from 2016 to 2017 (comparing January–November of 2016 with January–November of 2017) have resulted in additional announced layoffs in the steel industry.
- Aluminum production in the U.S. fell 27 percent between 2000 and 2016. From 2000 to 2017, 18 of 23 domestic smelters shut down and more than 13,000 good domestic production jobs disappeared. Aluminum imports increased 16.5 percent from 2016 to 2017 (comparing January–November of 2016 with January–November of 2017). With only two smelters producing at full capacity left, the domestic industry is literally on its last legs.

Strong domestic steel and aluminum industries are vital to U.S. national defense and infrastructure. But if current trends persist, in time of war or other national emergency, the United States would find itself dependent on unstable import sources.

- There is now only one domestic aluminum smelter that can make the high-purity aluminum needed for fighter jets and other military aircraft and vehicles and to make rocket fuel.
- There is only one domestic manufacturer that can make high-quality, grain-oriented electrical steel needed for transmission and distribution transformers for electricity distribution. In the wake of Superstorm Sandy, there were unnecessary delays in restoring power to areas in the Northeast because the United States no longer produced the needed electrical transformers.

Specific actions the Trump administration should take

The Trump administration should impose tariffs and quotas on a broad range of steel and aluminum products from countries that are responsible for global excess capacity in these industries.

- The solution can't be China-centric. It must include other major exporters and unfair traders such as South Korea, Russia, India, Japan, Taiwan, Turkey, Brazil, and Vietnam.
- The solution must reflect a broad and appropriate definition of national security, which should include the electrical grid, pipelines, and disaster preparedness.
- The solution should come sooner rather than later to avoid continuing surges and additional gaming by importers.
- The solution must cover a broad range of steel categories and unwrought aluminum

products to be effective.

- The solution must be followed by efforts to restrict circumvention and provide enforceable reductions in global overcapacity.

The Trump administration could use the threat of tariffs and/or quotas to encourage joint action with other countries on excess production by China and other unfair traders (Aleem 2017). The administration could announce global tariffs on all steel imports but offer to change the structure of those tariffs if other countries agreed to a joint plan to crack down on global excess capacity and unfair trade. This would restore steel prices to market-sustaining levels and reduce any competitive disadvantages that could affect downstream steel users in the United States.

The bottom line is that the time has come for the administration to fish or cut bait on steel and aluminum trade. Trump and the Commerce Department have waited too long and further delays will only lead to more layoffs and plant closures and to the permanent loss of steel and aluminum production capacity.

Background

In April 2017 the White House directed the Commerce Department to launch Section 232 investigations to determine whether steel and aluminum imports are a threat to national security. Section 232 investigations are investigations to determine the effects of imports on U.S. national security, broadly defined to include disaster preparedness and critical infrastructure (U.S. Department of Commerce 2017a, 2017b). The president has wide latitude in the design, duration, and composition of remedies, if Commerce finds that national security is threatened. These investigations cover broad categories of steel imports, from most or all countries. They differ from anti-dumping and countervailing duty investigations—which are product-, firm-, and country-specific—and from safeguard investigations, which provide broad but temporary relief from import surges. Commerce Secretary Wilbur Ross set a deadline of June 30, 2017, for his department to conclude these reviews and present recommendations for relief, but these decisions were delayed in part for the G20 summit and bilateral talks with China in July (Lawder 2017), and to focus on repealing the Affordable Care Act and passing massive tax cuts. Steel executives appealed to President Trump for immediate import restrictions, in part because of surging steel imports. Data from the U.S. Census Bureau’s Imports of Steel Products database show that these imports increased 17.1 percent from 2016 to 2017 (comparing January–November of 2016 with January–November of 2017). On September 12, 2017, 10 former high-ranking military officers wrote to the president to request that he “proceed without further delay” on the Section 232 investigations (Retired U.S. Flag Officers and National Security Experts 2017).

The core issue in the Section 232 investigations and demands for relief is massive global overcapacity, centered in China, which is depressing prices and leading to a flood of dumped and subsidized imports in U.S. and other markets, resulting in job losses, plant closures, and loss of domestic production capacity (Scott 2017e). Loss of domestic capacity, in turn, threatens the ability of the United States to produce key products needed

for national defense and infrastructure and to maintain U.S. capacity in other industries as well, such as weapons, helmets, armor, ships, submarines, tanks, artillery, aircraft, rocket fuel, and electronic equipment (Scott 2017c). The problem extends far beyond direct imports of dumped and subsidized steel and aluminum, because steel and aluminum are incorporated by exporters in China and other countries in many other products, ranging from auto parts and aircraft to refrigerators and other electronic equipment (Scott 2017b). Hence, elimination of excess production capacity is essential, because it is depressing prices worldwide, but especially in China and other markets distorted by extensive, systematic subsidies and unfair trade practices (Haley 2008).

China and other countries involved in the systematic overproduction of steel and aluminum are systematically exploiting the fact that the U.S. market is one of the most open in the world, providing easy access to U.S. consumers of steel, aluminum, and many related metal products. The recent surge is adding insult to the injury of a long-run trend: soaring imports of dumped and subsidized steel and nonmarket pricing of aluminum products have eliminated hundreds of thousands of U.S. jobs in metalmaking industries in the past two decades (Swanson 2017b).

Jobs displaced in steel and aluminum sectors are the tip of the iceberg of a much larger number of jobs lost because of currency misalignment with China and other countries with large, persistent trade surpluses (Scott 2017d). Between 2.3 and 5.8 million jobs could be created over the next three years by ending currency misalignment, many of them good jobs with excellent wages and benefits in manufacturing (Scott 2014).

The patterns of injury by massive growth of excess capacity and overproduction in China and other countries are similar in both the U.S. steel and aluminum industries. Chinese steel production increased from 128.5 million tons in 2000 to 808.4 million tons in 2016, an increase of 529 percent (World Steel Association 2010, 2017). China accounted for 87.3 percent of total growth in worldwide steel output in this period. Meanwhile, there is more than 700 million tons of global overcapacity in the steel industry, more than half of it in China (Ferriola 2017). And China exports more steel than is produced in the United States, Mexico, and Canada, combined. As a result, annual steel production in the E.U. and the United States fell 16 percent and 23 percent, respectively, between 2000 and 2016 despite rapid growth in global steel consumption (World Steel Association 2010, 2017).

Excess capacity means that steel and aluminum production facilities have the capacity to produce much more metal than markets demand (Scott 2017b). High fixed costs, capital intensity, and the large scale of production encourages state-owned and state-backed producers with excess capacity to maintain production in excess of domestic demand and to export this surplus at below-market rates (Stewart et al. 2014). This drives down the price of steel and aluminum on world markets below costs, with devastating consequences in steel-importing countries such as the United States. In effect, China and other unfair traders are dumping and subsidizing all steel- and aluminum-containing products on world markets, whether those goods are subject to formal anti-dumping and countervailing duties or not.

In addition, other steel products, such as autos and parts, machine tools, washing

machines, and other appliances made by foreign producers are benefiting from this dumped and subsidized steel and aluminum because they are more likely to be made with unfairly traded metals. Thus, eliminating excess capacity and unfair trade in steel and aluminum is one key to restoring balanced trade in a much larger range of downstream products.

Patterns in steel trade

The glut of exports from global excess steel supply is targeted in particular at the U.S. market. U.S. steel imports increased from 25.9 million net tons in 2011 to a peak of 40.2 million net tons in 2014, before falling back to 30 million tons in 2015 following imposition of anti-dumping and countervailing duties in a number of successful fair trade cases (U.S. Census Bureau 2012, 2015, 2017a, 2017b). Imports increased 17.1 percent in 2017 (through November, relative to the same period last year) and, if sustained at the current pace, will reach 35.1 million tons (for 2017, when December 2017 data are released). Since 2011, imports have increased not only in absolute terms, but also relative to domestic production and consumption, seizing more of the U.S. market and thwarting the domestic industry's efforts to recover from the Great Recession (U.S. Census Bureau 2017a, 2017b).

While U.S. steel output did recover from the depths of the Great Recession between 2009 and 2014, domestic producers have experienced declining shipments since 2014, and they suffered sharply declining revenues and employment between 2012 and 2014. As a result, the U.S. steel industry had net losses of \$388 million in 2012 and \$1.2 billion in 2013, and the industry posted net losses in four of the five years between 2009 and 2013 (Stewart et al. 2014). More recently, the U.S. steel industry lost \$1.4 billion in the fourth quarter of 2015 alone, and it lost \$233 million in the first quarter of 2016 (U.S.–China Economic and Security Review Commission 2016, 4).

From January 2000 to November 2017, more than 49,000 domestic jobs were lost in steel mills alone—the losses rise to more than 64,000 when adding downstream producers of steel products from purchased steel, such as pipe and rails (Bureau of Labor Statistics 2018). The surge of unfairly traded steel imports in 2014 was responsible for the loss of 6,000 direct jobs in the U.S. steel industry (including jobs in downstream industries such as steel pipe, rails, and rebar) between December 2014 and November 2017, and for the elimination of thousands of additional jobs in industries supported by steel production (Bureau of Labor Statistics 2018).

Other countries, including India and Vietnam, are following China's lead and are using government policies to support the expansion of domestic steel industries (Gibson 2017). Other countries such as South Korea, Taiwan, Russia, Japan, Brazil, and Turkey have frequently been found guilty of dumping and subsidizing steel products in the United States.¹ Often, the problem starts out with dumped and subsidized steel from China, which is subject to unfair trade duties in the United States and other advanced markets. Producers in other countries (such as South Korea, Japan, Turkey and Vietnam) circumvent unfair trade duties by importing these basic, raw materials and converting them into downstream products such as pipes, rails, bars, construction materials, and mechanical

products for cars, lawn furniture, and related products (Scott 2017b). Unfortunately, under outdated U.S. fair trade laws and current anti-circumvention regulations, duties cannot be assessed on unfairly traded inputs, even though such products often make up anywhere from 50 to 85 percent of the cost of producing such downstream products.

Nonetheless, producers from these other countries have frequently been found guilty of dumping and subsidizing their steel exports to the United States (Stewart et al. 2014).

Steel products (including mill products, other products and castings, and pipe products) make up more than one half (222 out of 426, or 52.1 percent) of all U.S. anti-dumping and countervailing duty (AD/CVD) orders in effect as of January 4, 2018. China alone was responsible for more than one-fifth (21.6 percent of all steel product AD/CVD orders).²

Patterns in aluminum trade

In aluminum, the patterns are even more extreme. Chinese primary aluminum production increased from 2.5 million tons in 2000 to 31.2 million tons in 2016, an increase of more than 1,100 percent (*World Aluminium* 2017). China was responsible for 83 percent of the global increase in production in this period. As a result, U.S. primary aluminum production fell 27 percent during this period. China's aluminum production capacity has grown even faster if 2017 data are included, increasing 1,500 percent between 2000 and 2017 and being responsible for 82 percent of the total, worldwide increase in primary aluminum capacity in this period (Scott 2017c).

Primary aluminum production capacity is also known as "nameplate" production capacity, what is produced by a facility operating on a full-time, full-year basis. Optimal operating capacity utilization rates (that is, production as a share of nameplate capacity) are in the range of 80 percent. The existence of excess capacity (that is, the capacity to produce more aluminum than is demanded by the market at optimal capacity utilization rates), which results in reduced or suboptimal rates of capacity utilization, tends to exert a depressing, downward effect on prices in global commodity markets. The threat of increased production tends to have a chilling effect on the pricing power of steel or aluminum producers. Hence, excess capacity levels are a critical issue in the management of global steel and aluminum industries.

Aluminum, in particular, is a global commodity, and prices are primarily driven by total global supply and demand, regardless of where the aluminum is produced, sold, or stored (Scott 2017c). The U.S. aluminum market effectively imports the adverse price and volume effects of China's capacity and production via changes in London Metal Exchange (LME) prices.

Collapsing prices have decimated U.S. primary aluminum production, capacity, and employment. The LME market price of aluminum fell 39 percent between 2007 and 2016. In an industry with high fixed costs, most domestic producers have not survived this prolonged, steady price collapse. From 2000 to 2017, 18 of 23 domestic smelters shut down and more than 13,000 good domestic production jobs disappeared, leaving only two smelters fully operational at this time (Scott 2017c). Aluminum imports increased 16.5

percent from 2016 to 2017 (comparing January–November 2016 with January–November 2017) (USITC 2018b). The domestic industry is literally on its last legs.

How China subsidizes its steel and aluminum producers

In both the steel and aluminum industries, massive increases in offshore production and exports, combined with dumping (sales below cost of steel products), have decimated prices and profits of private steel and aluminum producers around the world. But China’s steel and aluminum producers don’t have to respond to the dictates of the market.

Massive, illegal subsidies for energy and power production and for raw materials, land, and technology allow Chinese steel and aluminum producers to undersell producers from market-based economies that must purchase inputs at market-based prices (Haley 2008). Many Chinese companies in steel and aluminum are state-owned enterprises (SOEs) that have access to cheap or free land, free or below-market financing, and forms of public support (such as special regulatory preferences).

SOEs are reported to generate 22 percent of total industrial profits in China, and they represent 38 percent of industrial assets. Nicholas Lardy, noted China scholar with the Peterson Institute, reports that state firms contribute 25 to 30 percent of China’s industrial output on average, and that “SOE contribution in some monopoly sectors can exceed 90 percent” (U.S.–China Economic and Security Review Commission 2016, 92–93). SOEs have contributed to the massive growth of excess capacity in both the steel and aluminum industries.

Steel and aluminum imports pose significant threats to U.S. national security and critical domestic infrastructure

The threat to U.S. national security posed by aluminum imports is significant. The domestic aluminum industry is losing its ability to develop and supply products for U.S. defense and critical infrastructure applications. Instead, the downstream U.S. producers are becoming increasingly dependent on unreliable sources of imports from the Middle East, Russia, and elsewhere. If current trends persist, in time of war or other national emergency, the United States would find itself dependent on unstable import sources (Scott 2017c; U.S. Department of Commerce 2017a).

Steel is also vital for U.S. national defense, and both steel and aluminum are needed for critical infrastructure. The military needs high-quality steel and aluminum to make products ranging from helmets and tanks to rocket fuel, fighter jets, and aircraft carriers (Alliance for American Manufacturing 2017). There is now only one domestic smelter that can make the high-purity aluminum needed for fighter jets and other military aircraft and vehicles and to make rocket fuel. Likewise, there is only one domestic manufacturer that can make high-

quality, grain-oriented electrical steel needed for transmission and distribution transformers for electricity distribution. In the wake of Superstorm Sandy, there were unnecessary delays in restoring power to areas in the Northeast because the United States no longer produced the needed electrical transformers (Scott 2017e; U.S. Department of Commerce 2017b).

Thus, maintaining viable steel and aluminum industries is critical to the maintenance of high levels of national defense readiness and preparedness for increasingly common national weather disasters and emergencies.

Conclusion: Costs of inaction greatly outweigh any potential disruptions which might be attributed to trade remedies

The steel and aluminum industries in the United States stand at a crossroads, with global excess capacity and unfair trade practices threatening their ongoing viability. With broad trade relief in the form of tariffs and quotas on imports, both domestic industries can stabilize, reinvest, and recover. Absent trade protection, global excess capacity and a flow of unfairly traded imports threatens to further decimate domestic production, leading to more widespread plant shutdowns and mass layoffs, with attendant costs in steel- and aluminum-making communities around the country.

The steel industry last obtained broad trade relief in 2002, when global tariffs and tariff-rate quotas (TRQs) were imposed on broad categories covering most imports of steel mill and downstream products. The United States International Trade Commission (USITC) conducted an in-depth analysis of the Steel 201 tariffs, which ranged up to 30 percent; the agency found that the tariffs had negligible economy-wide effects (USITC 2003). The key reason why is that while tariffs impose costs on some sectors (higher consumer prices for output from steel-using industries, for example), they also boost income in some sectors (higher wages and profits in steel-producing industries, for example). In 2002, for example, the U.S. had a current dollar GDP of roughly \$11 trillion, and the USITC estimated the economy-wide effects of the Steel 201 duties ranged from a gain of \$65.6 million (0.0006 percent of GDP) to a loss of \$110.0 million (0.0010 percent of GDP). In 2016, the United States imported \$22.3 billion in steel mill products (U.S. Census Bureau 2017a). If a tariff of 30 percent were imposed on all steel mill products, it would increase their cost (using 2016 data) by at most \$6.7 billion. In all likelihood, tariffs might be applied to only a small fraction of imports, with base levels of some or most products facing no tariff under a TRQ system. Thus, tariffs might raise the cost of imports by, at most, .04 percent of GDP, on U.S. GDP of \$18.6 trillion in 2016 (Bureau of Economic Analysis 2018). Based on the USITC analysis of steel tariffs in 2002, the effect on the economy would likely amount to a fraction of this amount, well within a rounding error of national output estimates. And the economy-wide benefits of higher investment, production, and employment would support continued growth.

Likewise, there is every reason to believe that any tariff imposed on aluminum arising out

of these investigations will likewise have an insignificant impact—if any measurable impact—on the overall economy (Scott 2017a). A 30 percent tariff on aluminum imports would increase their cost by less than \$4 billion, or about 0.02 percent of GDP. Taken together, steel and aluminum tariffs would have a trivial impact on the U.S. economy. And, again, the positive impact of increased investment, production, and employment should more than offset any minor negative consequences.

Eliminating excess capacity and unfair trade in steel and aluminum is the key to saving jobs in these critical industries, to restoring balanced trade in wide range of downstream industries, and to ensuring that reliable sources of domestic supply of these critical materials are available to meet national defense, critical infrastructure, and disaster preparedness needs. The Trump administration has made trade problems worse by promising and then delaying action. Tens of thousands of jobs are at risk because of plant closings and layoffs. The administration should act now to stop the damage and begin the much-needed recovery in the steel and aluminum industries.

About the author

Robert E. Scott joined the Economic Policy Institute in 1996 and is currently director of trade and manufacturing policy research. His areas of research include international economics, trade and manufacturing policies and their impacts on working people in the United States and other countries, the economic impacts of foreign investment, and the macroeconomic effects of trade and capital flows. He has published widely in academic journals and the popular press, including the *Journal of Policy Analysis and Management*, the *International Review of Applied Economics*, and the *Stanford Law and Policy Review*, as well as the *Los Angeles Times*, *Newsday*, *USA Today*, *The Baltimore Sun*, *The Washington Times*, and other newspapers. He has also provided economic commentary for a range of electronic media, including NPR, CNN, Bloomberg, and the BBC. He has a Ph.D. in economics from the University of California at Berkeley.

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Endnotes

1. Author's analysis of anti-dumping and countervailing duty orders in place on iron and steel and steel mill products, other iron and steel products and castings, and pipe products, sorted by country (USITC 2018a). Countries listed are those most frequently appearing in this group.
2. Author's analysis of anti-dumping and countervailing duty orders (USITC 2018a).

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