

PROTECTING THE WORKING CLASS IN A GLOBAL
ECONOMY – AN ANALYSIS OF THE 232 TRUMP TARIFFS
ON THE AMERICAN STEEL INDUSTRY

by

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A THESIS

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Has the implementation of steel tariffs under the Trump Administration improved the production and profitability of the steel industry and increased employment? A brief history of America’s steel industry is provided to give an overview and perspective of more recent trends of the industry. This thesis then reviews the concepts of tariffs and globalization and explains how Trump implemented tariffs within the context of Section 232 of the Trade Expansion Act and contrary to decades of efforts to ease worldwide trade. Three domestic steel companies are analyzed for the effects from the “232 tariffs”. A geopolitical evaluation of Chinese steel production and trade are described to give context to how tariffs might operate in this era of globalization. It remains too soon to ascertain whether the 232 tariffs helped the industry and comprehensive analysis is complicated by the global pandemic. However, the Biden administration has not yet lifted the tariffs and appears to support them. Domestic steel production can’t be viewed in isolation and without evaluation of international politics and production. Tariffs may boost domestic production and profitability in the long run. New technology may preclude the need for hiring and may not bode well for the steel worker employment levels, regardless of tariff implementation.

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I. Introduction

A. A Desire to Help America's Working Class

The United States economy performed well during the years leading up to Trump's presidency when he promised that he would "Make America Great Again." Overall GDP growth was steady, inflation remained low, and the technology and health care sectors boomed. But other sectors of the economy lagged badly, with the steel industry doing especially poorly in comparison to previous decades. Trump specifically invoked protectionist language when he spoke to the discouraged working-class of America in his inaugural address when he proclaimed "Every decision on trade, on taxes, on immigration, on foreign affairs, will be made to benefit American workers and American families. We must protect our borders from the ravages of other countries making our products, stealing our companies, and destroying our jobs. Protection will lead to great prosperity and strength."¹ Earlier in his speech, he alluded to American factories being closed, workers being left behind, and middle-class Americans being stripped of their wealth. In theory, there are many ways to increase the number of jobs in an economy, however, Trump insisted on reclaiming American manufacturing jobs or re-negotiating trade deals with some of our closest (and largest) economic allies.² This pro-American method of job regeneration is argued over and disputed in academic circles. Many scholars believe that protectionism only harms American workers and the domestic economy. This thesis reviews whether protectionist policies helped the steel

¹ Politico Staff, "Full Text: 2017 Donald Trump Inauguration Speech Transcript," Politico, January 20, 2017, <https://www.politico.com/story/2017/01/full-text-donald-trump-inauguration-speech-transcript-233907>

² Politico, "2017 Donald Trump Inauguration."

industry, which has been a bedrock of our country's industrialization and success in the past and has implications in the re-building of our infrastructure and so for the continued success of our future. Did Trump's rollout of protectionist policies lead to a recovery of production, profitability, and employment numbers in the American steel industry? Did these tariffs help steel companies or steel workers, or both, or neither?

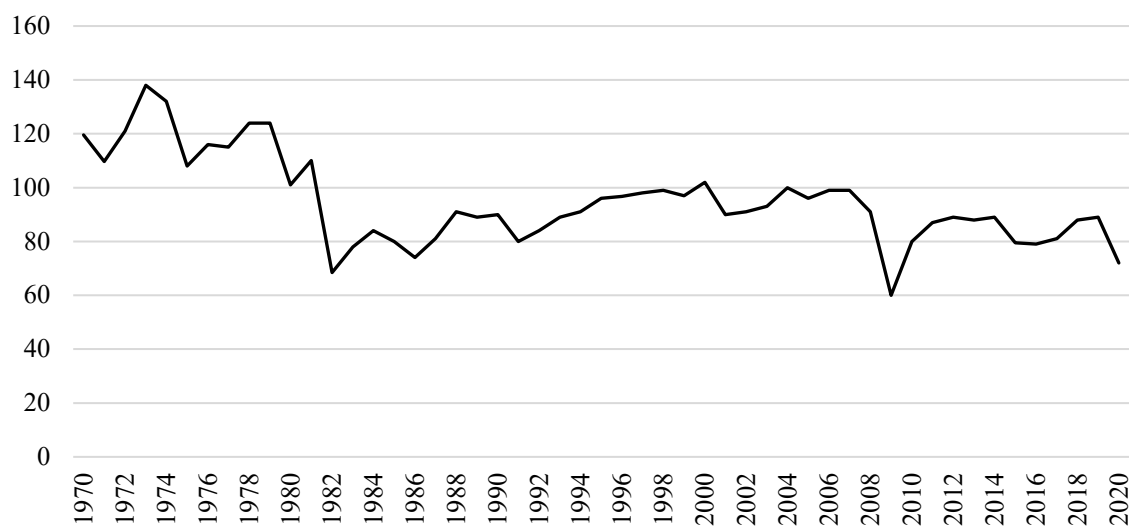
B. A Brief History of Steel Production in the U.S.

Steel is an alloy; a mixture of iron and other metals that is used in buildings, roads, bridges, tools, ships, cars, machines, appliances, and weapons. Because steel is used in so many ways, its production has been an indicator of economic development. The United States had been a dominant force in the global steel market since the 19th century. Steel production began to ramp up in the decades following the civil war. In the 1880ies annual production was 1.25 million tons, which grew to 10 million tons by 1900 and 24 million tons by 1910. These large quantities made the United States the biggest steel producing country at the time and amounted to almost 40% of global steel output.³ As industrial advancements continued well into the 20th century, both domestic and international demand for steel continued to increase, especially in the years following World War II. The destruction and devastation caused by the war resulted in many foreign countries relying on U.S. steel to revitalize their crippled infrastructures, which made domestic steel production quite profitable.

³ Benjamin Bartholomew, "The Steel Industry and its Place in the American Economy", BDO, August, 2019, <https://www.bdo.com/insights/business-financial-advisory/valuation-business-analytics/the-steel-industry-and-its-place-in-the-american-e>

While the steel industry is still important to our domestic economy, its influence has waned greatly. “Crude steel production in 2018 totaled about 73% of 1970 production levels while global production has tripled over that time span. As of March 2018, American steel mills employed about 83,000 workers, while employment regularly exceeded 700,000 workers throughout the 1950s”, according to the BDO, an international accounting firm.⁴ Such a large reduction in steel employment is the result of a number of factors including technological advancements and increased foreign production. European, Asian, and South American countries have increased their steel production as they rebuilt their economies and infrastructures. More recently the World Steel Organization has produced totals for overall U.S. steel production, which has declined from 120 million tons of steel in 1970 to just over 70 million tons of steel in 2020. For the last five decades, the output of domestic steel has steadily declined.⁵

U.S. Raw Steel Production
(Millions of Metric Tons)



⁴ Bartholomew, “Steel and its Place in the American Economy.”

⁵ World Steel Organization, “United States Steel Production”, Trading Economics, February 2021, <https://tradingeconomics.com/united-states/steel-production>

While U.S. steel production has declined in the last 50 years, it is also worthwhile to examine whether the domestic steel production utilization rate has fallen as well. Utilization rate is output index divided by capacity index; what the industry has produced over what it can produce. As U.S. steel production decreased and foreign production increased, large steel mills across the country have closed. So now domestic production is produced by smaller “specialty” steel mills. These small steel mills, although productive, cannot produce at the levels that the larger mills can, which has resulted in a decade of lower levels of utilization.⁶ Several institutions that specialize in analysis of our steel industries, conclude that over the last five years the steel industry in the U.S. has shrunk 4.4% year over year.⁷ The almost five percent drop annually, in addition to an increase in foreign steel being imported into the country, has provided the catalyst for the implementation of these tariffs, as anyone in almost any related industry and the military has a continued need for a healthy domestic steel industry. Additionally, domestic production of steel has been adversely affected by the oversupply of steel at a global level, where supply has significantly outpaced demand.⁸

⁶ Tolomeo, Fitzgerald, Eckleman, “US Steel Sector Thrives as Mills Move Up Quality Ladder”, S&P Global, May 9, 2019, <https://www.spglobal.com/platts/en/market-insights/blogs/metals/050919-us-steel-sector-thrives-as-mills-move-up-quality-ladder>

⁷ IBIS World, “Iron and Steel Manufacturing Industry in the US – Market Research Report, IBIS, November 23, 2020, <https://www.ibisworld.com/united-states/market-research-reports/iron-steel-manufacturing-industry/>

⁸ United States of America, Office of Technology Evaluations, and John Worrell. *The Effect of Imports of Steel on the National Security with Redactions 20180111*, U.S. Department of Commerce, 2018, <https://www.bis.doc.gov/index.php/documents/steel/2224-the-effect-of-imports-of-steel-on-the-national-security-with-redactions-20180111/file>

C. A Protectionist Push Back Against Globalization

It is difficult for nation-states to operate and compete in the current era of globalization. How a democratic country with a wide dispersal of power that operates in a mostly capitalistic economy can maintain healthy domestic industries in relation to other countries who operate under different forms of government and economic systems is complicated. The U.S. steel industry competes with China, India, Argentina, Spain, Europe and Japan's steel industries. In the face of such widespread competition, it is tempting to withdraw from international trade deals to protect oneself, and it's within this context that Trump desired to withdrawal from treaties and impose tariffs. His instinctive reaction was to safeguard American industries.

Protectionism is the act of shielding a country's domestic industries from foreign competition by imposing restrictions, tariffs, or taxes on domestic importers who purchase foreign products. A government may choose to impose these restrictions in hopes of encouraging its corporations and citizens to purchase domestic goods over foreign goods. A tax levied on domestic producers who purchase foreign goods, in theory, can make a Chinese made steel hammer cost more than an American made steel hammer. So then when my grandmother shops at Home Depot, she will purchase the less expensive domestically made hammer before she would purchase the taxed and therefore more expensive Chinese-made hammer. While this may be good for the American tool industry, the price point for hammer may end up being higher overall. My grandmother will have to pay more for a product she could hypothetically get for less if the protectionist policies were not put in place.

A tariff is a tax on a product produced outside of America. The tax is not on the foreign country, but on the domestic company that imports foreign goods. In 2018 Donald Trump altered the foundations of global trade by imposing tariffs on billions of dollars' worth of goods from foreign countries all around the world.⁹ These tariffs are how he and his administration wished to carry out his protectionist policies. "America First" is what he promised in his inaugural speech. What he did was an abrupt departure from the global free trade system that has been in place since the end of WWII. Would the imposition of these steel tariffs work to stop the decline of the U.S. steel industry? Would these protectionist tariffs aid domestic industries in the long term, but create higher costs for our citizenry in the short term?

⁹ Erika York, "Tracking the Economic Impact of U.S. Tariffs and Retaliatory Actions", Tax Foundation, September 18, 2020, <https://taxfoundation.org/tariffs-trump-trade-war/>

II. How Trump Imposed Steel Tariffs

A. Section 232 of the Trade Expansion Act of 1962

Global economic relationships have been increasing and expanding in scope ever since the end of World War II. The United States strongly encouraged the concept of free trade during the post war period, in hopes of bringing consumer costs down for its own citizens and companies. Through its implementation of the Trade Expansion Act of 1962, America hoped to “Promote the general welfare, foreign policy, and security of the United States through international trade agreements and through domestic assistance to domestic industry, agriculture, labor, and for other purposes.”¹⁰ The Trade Expansion Act did provide an escape hatch for policies that were deemed harmful to domestic interests. Section 232 of the Act allows the President, along with the review and recommendation of the U.S. Secretary of Commerce, to impose tariffs on specific products or industries, if “an article is being imported into the United States in such quantities or under such circumstances as to threaten or impair the national security” of the United States.¹¹ Although use of Section 232 in this way has been subject to recent legal wrangling, Trump’s administration imposed tariffs by presidential proclamation without consulting congress.¹² Prior to Trump’s presidency, Section 232 was invoked twice; President Carter invoked Section 232 in 1979 and

¹⁰ “Adjusting Imports of Steel Into the United States.” *Federal Register*, National Archives and Records Administration, March 15, 2018, www.federalregister.gov/documents/2018/03/15/2018-05478/adjusting-imports-of-steel-into-the-united-states.

¹¹ Adjusting Imports of Steel Into the U.S, *Federal Register*.

¹² Inu Manak and Scott Lincicome, “The USCIT Dumps Trump’s Tariffs on Steel and Aluminum Derivatives, but There’s Still Plenty of Work to be Done”, Cato.org, Cato Institute, April 7, 2021. <https://www.cato.org/blog/uscit-dumps-trumps-tariffs-steel-aluminum-derivatives-theres-still-plenty-work-be-done>

President Reagan did so in 1982. Section 232 has not been cited since the World Trade Organization was founded in 1995, an organization formed as a conduit to facilitate free trade amongst sovereign nations around the world. For 36 years our executive branch did not use Section 232 to impose protectionist policies.¹³

B. The U.S. Department of Commerce: A Departure from Past Norms

On January 11, 2018, the U.S. Department of Commerce and Wilbur Ross produced a report titled, “The Effect of Imports of Steel on the National Security.”¹⁴ This report was made under the auspices of Section 232 and produced four main findings:

- 1) That steel is an important material for domestic security, and by extension, the domestic manufacturing of steel is of high importance for the protection of the national government and its people.
- 2) The high level of foreign importation of steel adversely impacts the economic welfare of the U.S. steel industry, therefore posing a threat to national defense.
- 3) The disappearance of domestic steel production has weakened our internal economy.
- 4) The growing supply of foreign steel production is the leading cause for the disappearance of our domestic steel production.¹⁵

Based on this report, Secretary Ross concluded that the erosion of U.S. steel manufacturing, and its impact on the economy, had the potential to impair national

¹³ Chad Bown, “Trump has Announced Massive Aluminum and Steel Tariffs”, Peterson Institute for International Economics, March 1, 2018, <https://www.piie.com/commentary/op-eds/trump-has-announced-massive-aluminum-and-steel-tariffs>

¹⁴ United States of America, Office of Technology Evaluations, and John Worrell, *The Effects of Imports of Steel on U.S. Economy*.

¹⁵ *The Effects of Imports of Steel on U.S. Economy*.

security as defined by Section 232 in the TEA.¹⁶ He recommended that President Trump “take immediate action by adjusting the level of these imports through quotas or tariffs. The quotas or tariffs imposed should be sufficient, even after any exceptions (if granted), to enable U.S. steel producers to operate at an 80 percent or better average capacity utilization rate...”

C. Trump’s Presidential Proclamation and a Twenty-five Percent Tariff

On March 8, 2018, President Trump issued Proclamation 9705 titled, “Adjusting Imports of Steel Into the United States.” The Proclamation states that, “...present quantities of steel article imports and the circumstances of global excess capacity for producing steel are resulting in the persistent threat of further closures of domestic steel production facilities and the ‘shrinking [of our] ability to meet national security production requirements in a national emergency.’” The Proclamation was an attempt to make good his promise to “Make America Great Again” which required him to be tough on foreign competition. Trump felt that there were certain countries playing by unfair rules and by acting he could help level the playing field. Later in the proclamation, he stated “In the exercise of these authorities, I have decided to adjust the imports of steel articles by imposing a 25 percent ad valorem tariff on steel articles...In my judgment, this tariff is necessary and appropriate in light of the many factors I have considered, including the Secretary's report, updated import and production numbers for 2017, the failure of countries to agree on measures to reduce global excess capacity.”

¹⁶ *The Effects of Imports of Steel on U.S. Economy.*

This Proclamation exempted two of our biggest trading parties, Canada and Mexico, from these tariffs. Later, Argentina, Brazil and South Korea would also be made exempt.¹⁷ This begs the question, on which foreign countries did he wish to tip the scales?

¹⁷ Adjusting Imports of Steel Into the U.S, *Federal Register*.

III. International Steel Production & China

Our domestic steel companies don't operate in a vacuum, especially in the era of global economic integration. A 2018 U.S. Commerce Department reported that there were 36 million metric tons of steel imported while 81.6 million metric tons were produced domestically; the U.S. imported roughly 40% of the steel it used by year end 2017.¹⁸ Although most of our nation's steel imports come from Canada, Brazil, Argentina and South Korea, China, as the biggest producer of steel in the world by far, must be taken into account when considering whether the Section 232 tariffs were effective in helping United States steel companies.

Due to its massive productivity potential, China wields an oversized influence on U.S. [and global] steel prices. In one month, China produces as much steel as the United States does in one year. China is the biggest producer of steel in the world. In fact, in terms of global steel production, China accounts for more than half of the world's steel production per year at 53%.¹⁹ This gives China an enormous amount of leverage over the international steel markets. Their decisions impact every country and company which produces steel, including those based in the United States.

There are a few reasons why this Chinese domination of the steel industry has been harmful for U.S. companies. First, in the United States, steel companies are private, meaning they are for profit business which rely little on government financial assistance. Our steel companies play by the free-market rules which determines how

¹⁸ Global Steel Trade Monitor , "Steel Import Report: United States", International Trade Administration, May 20, <https://legacy.trade.gov/steel/countries/pdfs/imports-us.pdf>

¹⁹ ArcelorMittal, "The Impact of Global Overcapacity", ArcelorMittal USA, October 2018, <https://usa.arcelormittal.com/sustainability/our-business/operating-context/impact-global-overcapacity>

much steel is demanded, and therefore produced, and what the price will be. In China, much of the steel industry is nationalized, meaning the central Chinese government has enormous input on steel production and employment.²⁰ If China decides they need to build high-rises and train tracks and bridges, both internally and internationally, their government can dictate demand and supply. These Chinese-sponsored projects has enabled their capacity utilization to skyrocket.²¹

Second, there is an overproduction of steel on a global scale. One of the reasons for this global glut is how the Chinese produce steel. Most steel made in China is created by using blast furnaces. Blast furnaces take raw iron ore, heat it until it becomes molten iron, then through a purification process the molten iron is converted into gigantic chunks of material known as cuboids. Steel products are then carved out of these cuboids. These furnaces are super productive, and cost effective, and despite their environmental limitations are incredibly effective at rapidly pumping out steel. However, these blast furnaces must be kept going continuously because if they were turned off, the iron ore would collect at the bottom of the furnace and harden into a very inflammable material, which is incredibly difficult and costly to remove. Therefore, these blast furnaces must produce continuously, leading in part to overproduction of steel.²²

Third, China has very limited environmental and safety regulations compared to the United States. If a Chinese company were to violate air or water laws, the

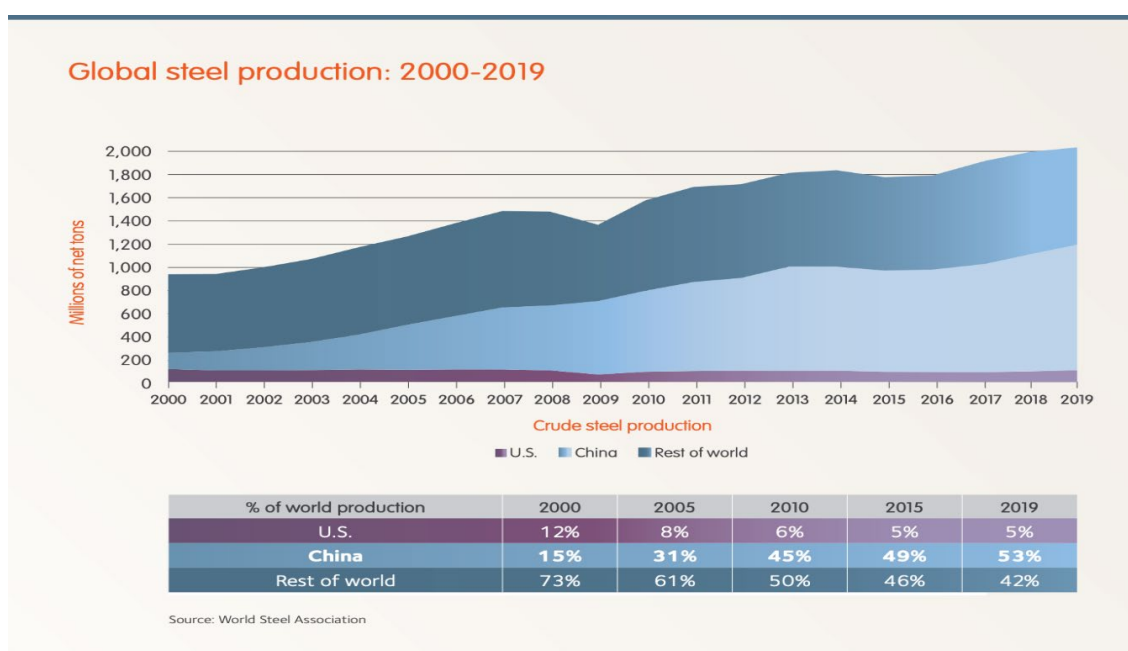
²⁰ Scott Paul, “The Chinese Steel Steal: How They Do It”, Alliance for American Manufacturing, YouTube, 14 August 2009, <https://www.youtube.com/watch?v=uwgdhfOHfqq>

²¹ Elizabeth Braw, “Don’t Let China Steal Your Steel Industry”, ForeignPolicy.com, 19 May 2020, <https://foreignpolicy.com/2020/05/19/dont-let-china-steal-your-steel-industry/>

²² Scott Paul, “The Chinese Steel Steal”.

maximum punishment a company faces is a one-time \$14,000 fine. It is unknown to what degree these regulations are enforced. In contrast, if any U.S. steel firms are found in violation of the Clean Air Act, there is an up to \$32,000 fine *per day* when they have been found to be in violation of such standards.²³ This allows Chinese steel companies to reduce their costs as compared to U.S. steel companies

This graph from the World Steel Organization demonstrates the rapid increase in the global production of steel over the last two decades:



Although the United States imports most of its steel from Canada, Brazil, Argentina and South Korea, Chinese steel still wields incredibly influence over U.S. steel prices. What many U.S. firms have argued is that these steel imports are entering the country at unreasonably low prices. This concern is valid, given that Chinese steelmakers are playing by different rules than U.S. producers. Chinese steel is largely

²³ Scott Paul, “The Chinese Steel Steal”.

undercutting the prices in the U.S. market, making it hard for firms to stay competitive over the long run. Nucor had this to say about the 232 tariffs:

“The Section 232 steel tariffs implemented by the current administration in 2018 are having their intended impact by preventing the dumping of steel products in the U.S. market...For the full year 2019, imports of finished steel were down approximately 18% from the previous year and accounted for approximately 19% of U.S. market share...Approximately six million fewer tons of imports entered the United States in 2019 than in 2018. The comprehensive nature of the Section 232 tariffs is also preventing the transshipment of artificially low-priced steel through third party countries.” (Nucor, annual report 2019, pg. 39).

What U.S. firms were hoping for was that steel imports would cost more and therefore more manufacturers would purchase domestic steel.

IV. Domestic Steel Financials and Tariff Response

Did the Section 232 tariffs make U.S. steel companies more profitable? Did higher profits result in additional hiring of employees? The three biggest U.S. steel companies by market capitalization are Nucor Corporation at \$17 billion, Steel Dynamics Incorporated at slightly over \$8 billion, and United States Steel Corporation at \$4.3 billion. Because the tariffs would have the largest impact upon the largest companies, an analysis of their public financial statements could give a window into whether the 232 tariffs effected any change. The cumulative sales of each organization, their profit levels (described as earnings) and employment level for each company are reviewed below. All information is from their annual reports.

A. Nucor Corporation

For many years the Nucor Corporation has been labeled the gold standard of U.S. steel. For over a decade now, Nucor has been the overall leader in total sales for U.S. firms. The company had been showing tremendous growth from 2016 to 2018.²⁴ By yearend 2017, total sales had increased 25% from the year before to \$20.2 billion, up from \$16.2 billion. Net earnings increased by 53% and employment by the end of 2017 was at 25,100 up 5% from the previous year 23,900 level.²⁵ Nucor continued their success from 2017 into 2018, with net sales again rising 24%, going from \$20.2 billion to \$25 billion. Earnings increased by 80% and employment once again was up 5% to

²⁴ 2016 Annual Report, Nucor Corporation, 2016, <https://nucor.gcs-web.com/static-files/c13b6849-ace4-4b66-b1bd-a33df46f5e87>

²⁵ 2017 Annual Report, Nucor Corporation, 2017, <https://nucor.gcs-web.com/static-files/bb4d40f7-7cb4-438b-8d43-9c992cbf4103>

26,300. 2018 was the first year in which the Trump tariffs were implemented. It appears the new tariff protections were serving as a boost to this already strong company run.²⁶ The story was much different in 2019 and 2020, however. By year end 2019, the tariffs had been in place for over 18 months. 2019 saw sales decline by 10% and net earnings falls by 40%. This decline in growth was met with a silver lining in the employment level as Nucor increased its employees from 26,300 to 26,800. 2020 saw sales decline 11% and net earnings once again fell by over 40%. Sales have been reduced back to their 2016 levels, with the profit line falling back below what it was by year end 2016.²⁷ The downward trend in profitability had begun pre-pandemic.

In comparison to their financial fundamentals, the production totals of Nucor in terms of tonnage of steel produced per year follows very similarly. The following totals are year-end production values of total steel produced. From 2016 to 2018, Nucor saw steel production increase every year. 2016 totals ended at 21,950,000 tons of steel produced, which increased to 24,390,000 tons by year-end 2017 and peaking at 25,900,000 tons in 2018. This three-year period saw an increase in production of over 16%. This rise in production would soon be curtailed however, as 2019 was the first full year that the steel tariffs had been place. In 2019, steel production dropped more than 9% as the total amount produced settled at slightly over 23,000,000 tons.²⁸

The company has produced several pages in their 2019 annual report reacting to the implementation of the steel tariffs. In summation, they are fully behind the

²⁶ 2018 Annual Report, Nucor Corporation, 2018, <https://nucor.gcs-web.com/static-files/5d609996-5a8d-4810-b40a-76f894bb05b7>

²⁷ 2019 Annual Report, Nucor Corporation, 2019, <https://nucor.gcs-web.com/static-files/67f7d0b6-7747-4265-8cce-49524721d3ef>

²⁸ World Steel Association, Top Steel-Producing Companies, June, 2020, <https://www.worldsteel.org/steel-by-topic/statistics/top-producers.html>

governmental assistance. Part of their support is because Chinese steel companies are tremendously supported by their government. They are partially in support because the tariffs have reduced import levels of foreign steel into the U.S. In their own words,

“Section 232 steel tariffs are keeping dumped steel products out of the U.S. market. The U.S. government is also negotiating new or renegotiating existing trade agreements with many countries, including China, which provide another opportunity to address excess steelmaking capacity. Should these efforts fail to reduce excess capacity and the Section 232 tariffs be lifted, U.S. steelmakers would be at risk of having to compete again against steel products dumped in the U.S. market.”²⁹

B. Steel Dynamics Incorporated (SDI)

Steel Dynamics Incorporated, with a market capitalization of \$8.2 billion is the second biggest steel company in the United States. Located in Fort Wayne, Indiana it is about half the size of Nucor, and proportionally it does about half the sales of its larger competitor. SDI is very profitable and until 2018 was seeing good growth in its sales, rising at around 20% in the two years prior. The company had also become 20% more profitable and was seeing its employment level rise modestly, at around 5% in both years.³⁰ At the end of 2018, the company had grown from 7,635 full time employees to 8,200. However, just like Nucor Corporation, 2018 marked the end of sales and earnings growth for SDI as well. Cumulative sales dropped by 12% in 2019, 8% in 2020 and is down another 3% this year (in its trailing twelve months). Despite this decline in growth, the company managed to increase the number of employees from 8,200 to 8,385 full time employees.³¹ In their 2019 annual report, the company

²⁹ 2019 Annual Report, Nucor, pg. 43.

³⁰ 2017 Annual Report, Steel Dynamics Inc, 2017, <https://s3.amazonaws.com/b2icontent.irpass.cc/2197/173709.pdf?AWSAccessKeyId=1Y51NDPSZK99KT3F8VG2&Expires=1620085366&Signature=VHG5AWQR1LKOS%2Bzdpp1CwOwmXio%3D>

³¹ 2018 Annual Report, Steel Dynamic Inc, 2018.

mentioned that global steelmaking capacity is greater than the total steel requirement, which acutely affects U.S. steel making companies. As with Nucor, they are steadfast in their beliefs that steel tariffs are beneficial to their business and points to Chinese manufacturers overproducing necessary levels of steel as the main reason in which worldwide prices are declining as rapidly as they are. Additionally, SDI comments that many foreign producers of steel are subsidized and controlled by foreign governments, which in turn negatively impacts U.S. steel prices due to harmful political and economic policies that impact that international price of steel. In turn, U.S. firms must lower the price of their steel to remain competitive on an international and domestic level. In essence, SDI believes that tariffs provide necessary protection for their industry.³²

“A higher volume of steel imports into the United States tends to occur at depressed prices when steel producing countries experience periods of economic difficulty, decreased demand for steel products or excess capacity. The global steelmaking overcapacity is exacerbated by Chinese steel production capacity that far exceeds that country’s demand and has made China a major global exporter of steel, resulting in weakened global steel pricing than otherwise would be expected. While tariffs pursuant to Section 232 of the Trade Expansion Act of 1962, as amended (“Section 232”), other measures to curb unfair trade such as duties or quotas, and the renegotiation of trade agreements with other countries, including the recently signed United States-Mexico-Canada Agreement (“USMCA”), have decreased the volume of steel and steel products imports in the United States, domestic steel and steel products prices remain negatively impacted by excessive imports of steel and steel products into the United States.” (SDI, annual report 2019, pg. 20).

Like Nucor, SDI saw a growth in production from 2016-2018 and then a decline in 2019. Production went from 8 million tons in 2016 to 8.27 million tons in 2017 and then peaked at 8.92 million tons in 2018. This 11% increase in production over three years came to an end in 2019, when production was cut by 4% to 8.59 million tons. The

³² 2019 Annual Report, Steel Dynamic Inc, 2019.

top 104 steel producing companies in the world saw a decline in steel production in the year 2019, following tariff implementation in 2018. None of the biggest steel producers were exempt from this decline in production and that extended to the biggest U.S. steel producers as well. U.S. steel was no exemption.³³

C. U.S. Steel

As much as Nucor and SDI have struggled over the last few years, it'd be hard to argue either had it tougher than U.S. Steel. At yearend 2018, U.S. Steel had seen record sales and record profits to go along with a record profit margin. Since then, sales have fallen over 30% and its profit margin has turned negative. After posting a \$1.1 billion dollar profit in 2018, the 2019 and 2020 bottom lines have turned negative figures, with the company posting a -\$630 million and -\$1.1 billion-dollar loss in back-to-back years. It has seen its liquidity continue to decline and has seen its free cash flow turn negative, both of which measure the struggling cash position the company appears to be in. In an excerpt from their most recent 10-K filings, they state that their most recent decline in sales is a result of, "The decrease in net sales in 2019 as compared to 2018 was primarily due to lower average realized prices in all of our reportable segments...".³⁴ Unfortunately, the annual reports from U.S. Steel did not produce tangible steel employment levels. There was however a slight increase in the hiring levels at U.S. Steel from mid 2018 to now.

The story of production for U.S. Steel is very much the same as it was for Nucor and SDI. From 2016 to 2018, production rose 8.5%, going from 14.22 million tons

³³ World Steel, Top Steel-Producing Companies.

³⁴ 2019 Annual Report, U.S. Steel, 2020.

https://s26.q4cdn.com/153509673/files/doc_financials/2020/ar/2020-Form-10-K-woExhibits.pdf

produced to 15.37 in 2018. In 2019, production dropped nearly 10% as production went from 15.37 million tons to 13.89 million tons. As we have seen from these three companies, a drop in global steel prices is the main reason for the reduction in steel sales and profit, however the decrease in production also plays a role in profitability as well.³⁵

Although production declined in the months and years following the implementation of the 232 tariffs, steel imports into the U.S declined as well.³⁶ This increased reliance on importation, that had been growing for decades, was a mounting problem for the U.S. steel industry at large. Although the U.S. does not import a significant amount of steel from China, their footprint on the steel industry is massive. Taking a closer look at their country's steel industry helps explain why Trump and his administration thought these tariffs were important in the first place.

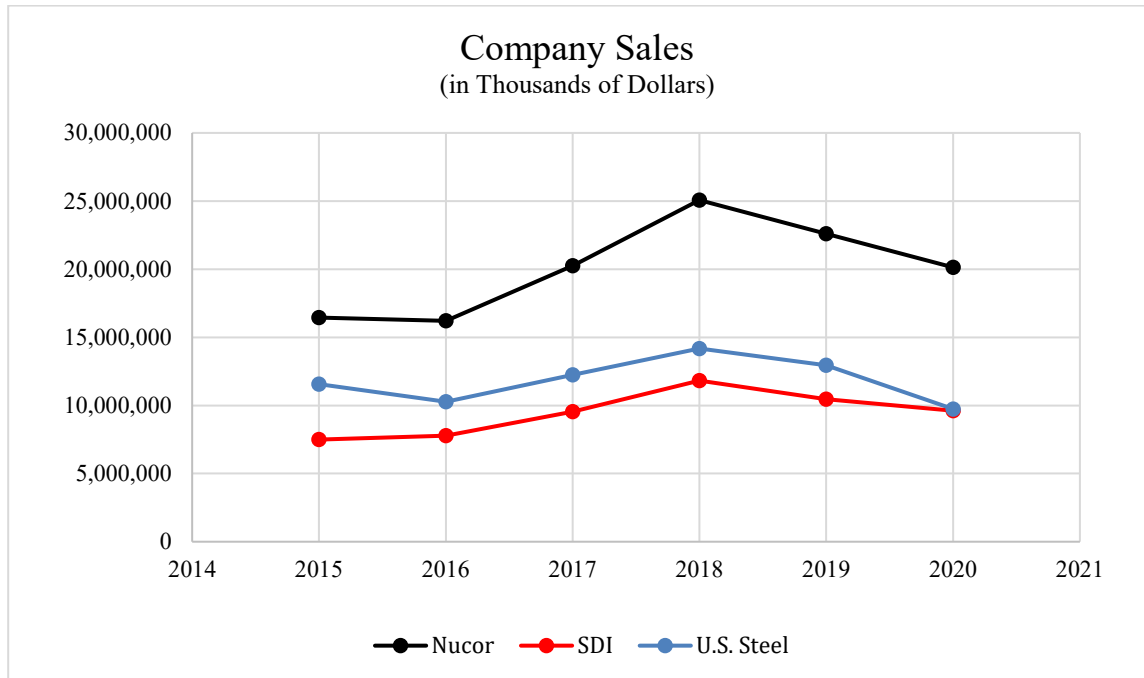
Reviewing the financials of the top three producing steel companies in the United States, it becomes apparent that they all support the section 232 tariffs. The CEO of U.S. Steel is David Burritt and although he is undoubtedly biased towards the steel industry, he makes a good point when he notes that the steel industry is foundational to this country, "We know that we're foundational to the U.S.A....Have to be able to make things in the United States, if you outsource fundamental foundational things to your country then you're at the whim of bad actors and others who can shut you down. It's not just the military that's affected, it's the roads, bridges, infrastructure and as you

³⁵ World Steel, Top Steel-Producing Companies.

³⁶ Global Steel Trade Monitor, "Steel Imports Report: United States", International Trade Administration, May 2020, <https://legacy.trade.gov/steel/countries/pdfs/imports-us.pdf>

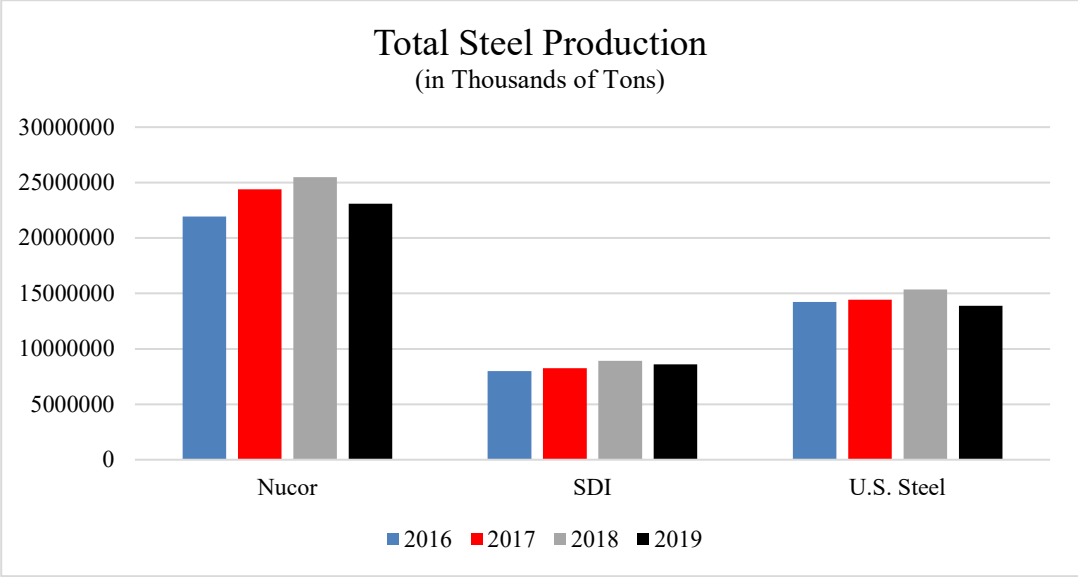
mentioned it's the jobs.” Later in his interview, he doubles down on this claim, stating that the United States has been in a trade war with China for 30 years.³⁷

D. Graphs Displaying Company Health

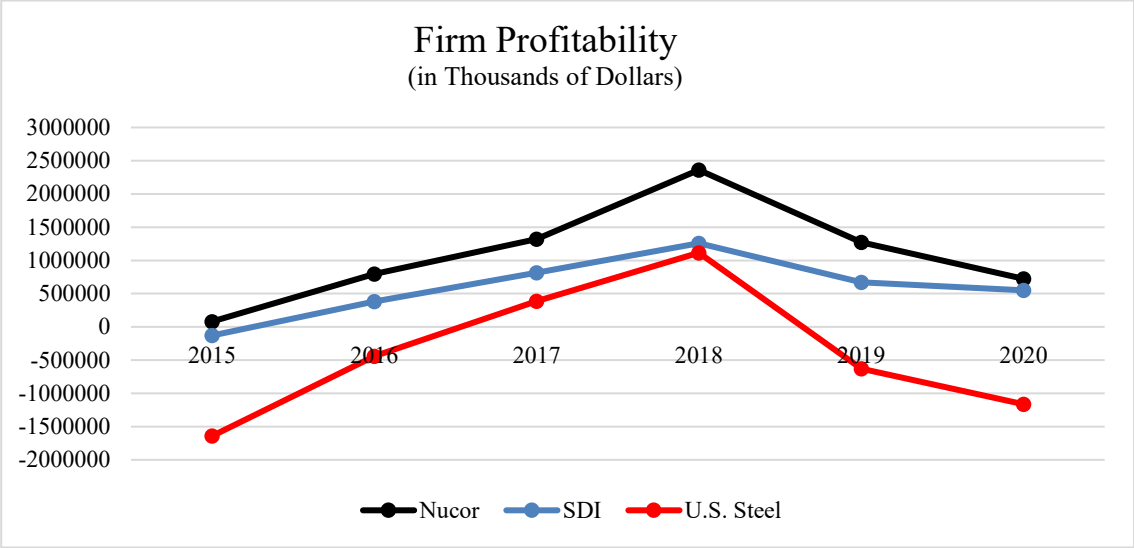


The three steel companies follow a similar trajectory. Sales are generally rising from 2015 through 2018, the year the 232 tariffs are implemented, and then are reduced by 10-20% following tariff implementation. This is a trend that will be familiarized through examination of their other financial indicators.

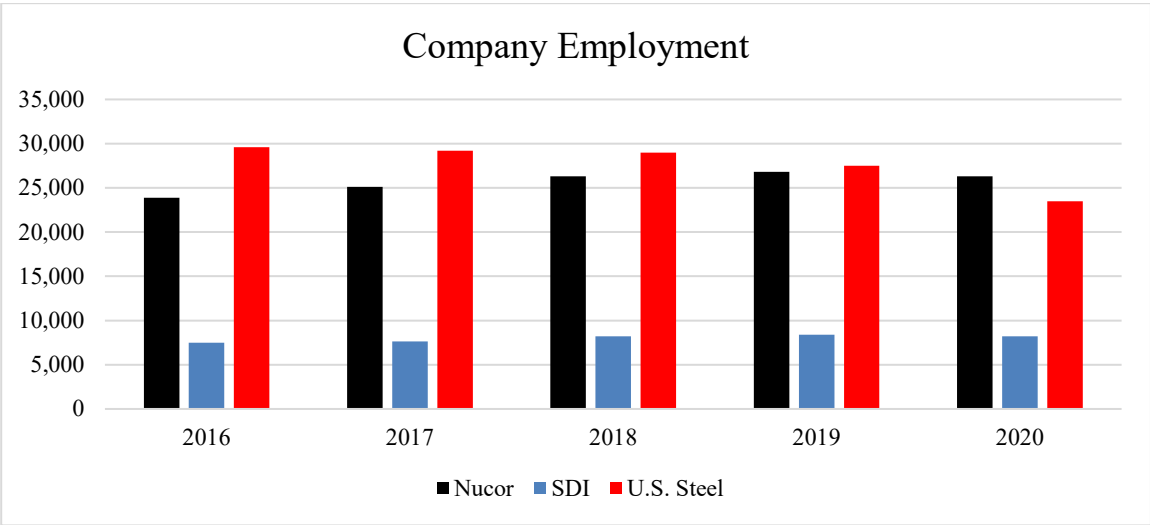
³⁷ David Burritt, “U.S. Steel CEO: We’ve Been in a Trade War for 30 Years”, CNBC TV, YouTube, 12 June 2018, <https://www.youtube.com/watch?v=eggY0MwRYaU>



The ‘upside down v’ trend continues from company sales into total production for each company. This graph displays the total steel production of the three main steel companies from 2016-2019. In the case of all three companies, their most productive year by totals, was in 2018, followed by a noticeable decline in 2019. Unfortunately, no results could be found for their 2020 year-end totals, however, with the COVID-19 crisis overwhelming our society/economy by late April, it’s fair to conclude that production most likely declined in 2020 as well.



Firm profitability, once again, enhances the trend that is now familiar. 2018 was the defining year for the biggest U.S. steel companies.³⁸ A high price, strong demand and perhaps excitement over the newly implemented tariffs, led to the most profitable 12 months these companies have seen all decade.³⁹



Company employment is the only statistic that bucks the upside-down v trend. Nucor is the only company who decreased employment in 2019 after increasing it in 2018.⁴⁰ SDI managed to increase their employment year by year from 2016 through 2020.⁴¹ U.S. Steel however saw a decline in their employment levels every year since 2016.⁴²

³⁸ YCharts, “SDI Net Income (Annual)”, December 31, 2020, https://ycharts.com/companies/STLD/net_income_annual

³⁹ YCharts, “Nucor Net Income (Annual)”

⁴⁰ Nucor Annual Report, 2020.

⁴¹ SDI Annual Report, 2020.

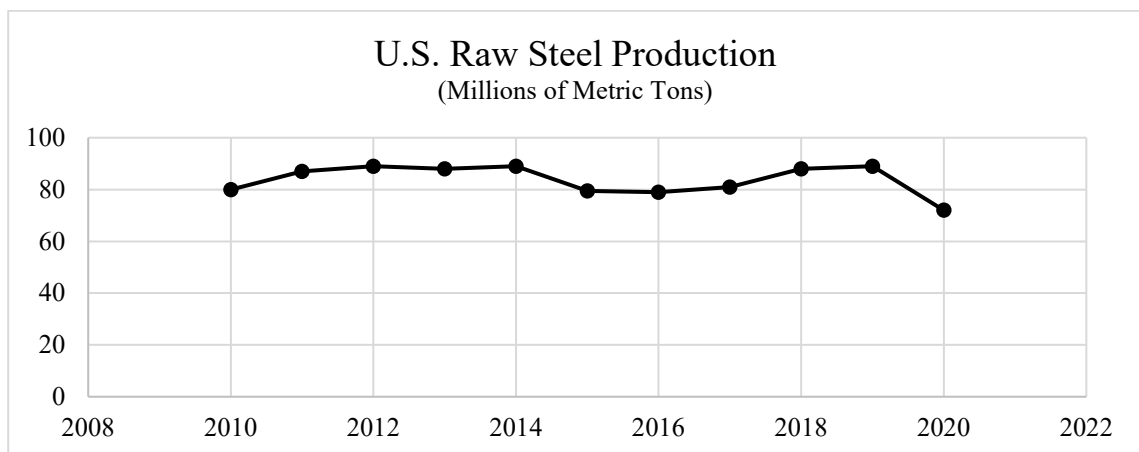
⁴² U.S. Steel Annual Report, 2020.

V. Direction of the U.S. Steel Industry – Post Tariff Implementation

After a thorough analysis of the three largest domestic steel companies in the United States, this section will expand out and look at the steel industry from a national perspective. The results below, in addition to the takeaways from Nucor, SDI and U.S. Steel and analysis of the international steel industry, will determine whether Trump’s implementation of steel tariffs was a net-positive or net-negative for the industry at large.

A. Production

Production saw an increase of just under 11% in the years after 2016. Production grew from 81 million tons of steel produced in 2017, to 88 million tons in 2019 and capped out at 89 million tons in 2019.⁴³ This would indicate that the steel tariffs had a modest, positive impact on cumulative steel production. COVID-19 effected the U.S. economy beginning in March of 2020 and must be considered in evaluating the health of the steel industry.

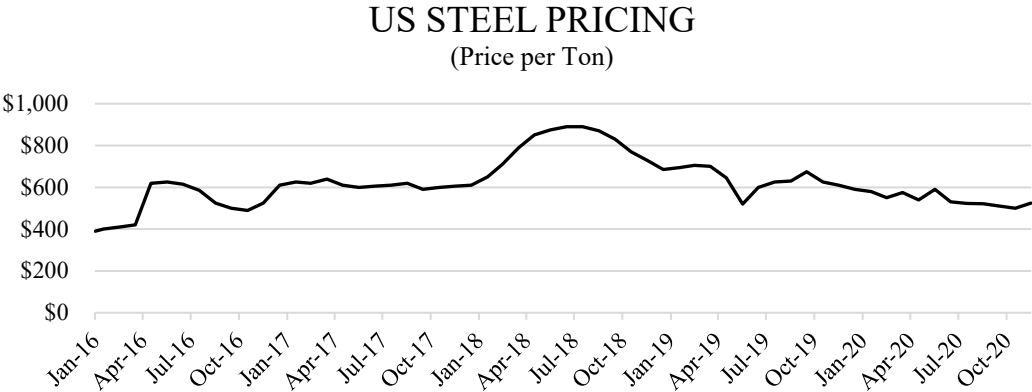


⁴³ Lori Robertson and Eugene Kelly, “Trump’s Steel Industry Claims.” *FactCheck.org*, Annenberg Public Policy Center, 29 Aug. 2019, www.factcheck.org/2019/08/trumps-steel-industry-claims/

Source: U.S. Geological Survey, American Iron and Steel Institute with FactCheck.org

B. Pricing

“The 25% tariffs on imported steel then boosted prices in the U.S., at least for 2018, which was good news for steel companies’ bottom lines.”⁴⁴ This evidence confirms the information seen in the analysis of profitability of the three biggest steel companies in a prior section. Although prices initially jumped for American-made steel, they quickly came back down to earth, resulting in substandard profitability in years 2019 and 2020. Companies that use steel as intermediate goods also claimed tariffs impacted their profitability. ‘With the price spike, the mills were “minting money,” the editorial argued, “to the detriment of America’s consumers and steel-reliant industries.” Ford Motor Co. said its tariff costs on steel and aluminum amounted to \$750 million in 2018,⁴⁵ and Caterpillar said it would raise prices in the second half of 2018 to offset higher costs due to the tariffs.⁴⁶

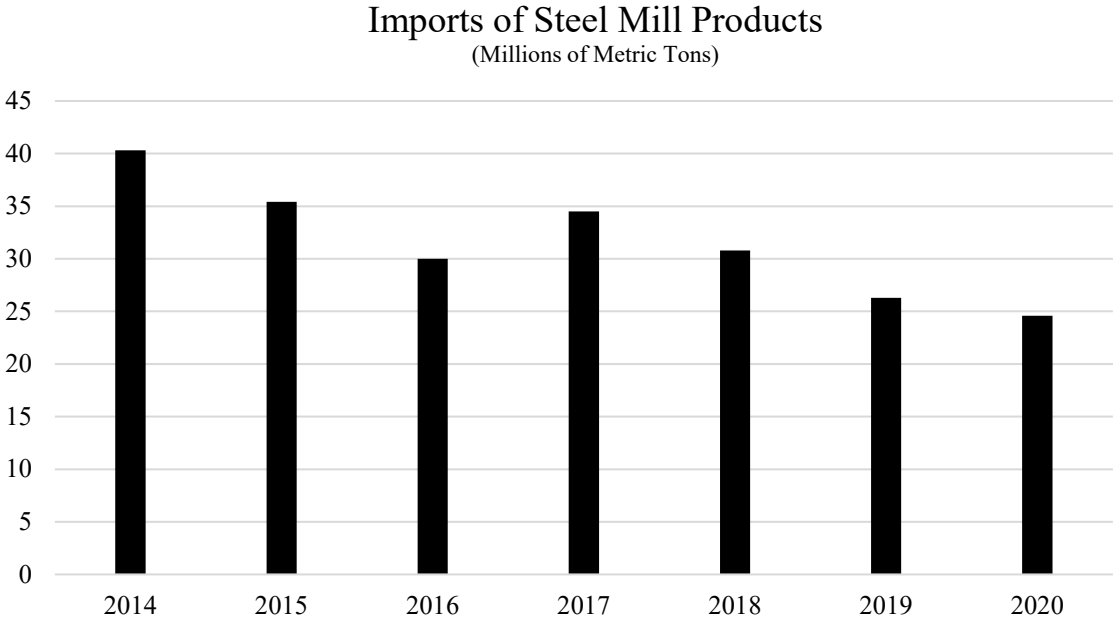


⁴⁴ Lori Robertson and Eugene Kelly, “Trump’s Steel Industry Claims”
⁴⁵ Tom Krisher, “Ford posts quarterly loss amid struggles in Europe, China”, AP, January 23, 2019, <https://apnews.com/article/5717a1e50ef746c6a87bd484cb8a29a1>
⁴⁶ Caterpillar, “Caterpillar Reports Second Quarter 2018 results”, July 30, 2018, <https://www.caterpillar.com/en/news/corporate-press-releases/h/caterpillar-second-quarter-2018-results.html>

Source: Argus Media, a global service provider for various commodities

C. Imports

In essence, steel imports were the main factor that the 232 tariffs were meant to address. There was a concern among the administration that companies based in the U.S. were becoming too reliant on foreign made steel. The U.S. economy demands more steel than its companies produce each year meaning we will continue to rely on a certain level of imported steel to meet demand. That being said, the main goal of the steel tariffs was to reduce the level of imported steel into the country, which appears to have happened. Total imports are 30% lower since the beginning of 2018.⁴⁷

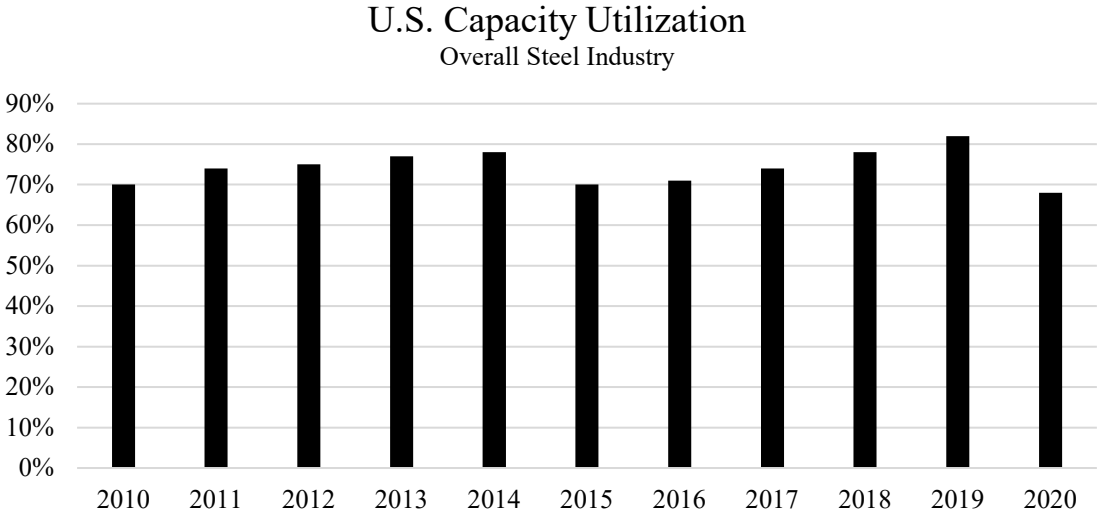


Source: U.S. Geological Survey, American Iron and Steel Institute with FactCheck.org

⁴⁷ Lori Robertson and Eugene Kelly, “Trump’s Steel Industry Claims”

D. Capacity Utilization

In many ways, capacity utilization and imported steel are very closely related. In the report done by the Secretary of Commerce, which prompted tariff implementation, they noted that capacity utilization was well below the 80% level, which they deemed as the minimum requirement for long term industry viability. They concluded that high importation levels heavily contributed to capacity utilization level being lower than where they needed to be. As a result of a lowering of the import levels, a demonstrated increase in the capacity utilization levels has appeared. In 2019, the 80% threshold was surpassed for the first time in over a decade.⁴⁸ Unfortunately, in large part due to the COVID-19 pandemic, the capacity utilization level dipped back below 70% leaving the industry with a lot of ground to recover in the coming years.

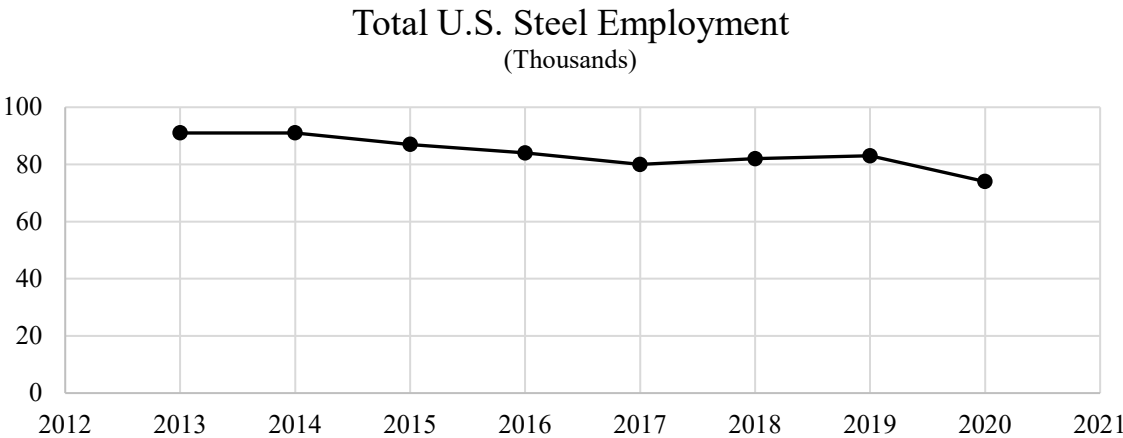


Source: U.S. Iron and Steel Institute

⁴⁸ Lori Robertson and Eugene Kelly, “Trump’s Steel Industry Claims”

E. Steel Employment

While the previous four graphs can be used to determine the health of the steel industry, the employment level is a variable for analyzing if average, middle-class American workers have benefitted from the 232 tariffs. The industry employs significantly less people than it has in the past, and going into the future, it’s plausible that technological advances will lead to less employment in the decades to come. That being said, when looking at employment in the year before and after the 232 tariffs, it clear that there was an increase, albeit modestly, in the employment level in the U.S. steel industry. From 2017 to 2019, steel employment increased from 80,000 to 83,000.⁴⁹ Although it appears that the corporations benefitted to a greater degree than the middle-class workers did as a result of tariff implementation, some of the benefits were extended to middle class Americans as well.



Source: U.S. Bureau of Labor Statistics

⁴⁹ U.S Bureau of Labor Statistics, “Structural Iron and Steel Workers”, May 2019, <https://www.bls.gov/oes/current/oes472221.htm>

VI. Conclusions

A. Micro-Economic Impact

How did the implementation of the 232 tariffs in early 2018 effect the domestic steel market? Did the companies maximize or change production and capacity so that it could lower prices and better compete with the help of these tariffs that artificially increased foreign steel prices? In the months following implementation of the 232 tariffs, there was an immediate increase in the price of U.S. steel. The price per ton in March of 2018 was \$710, and by August the price point had jumped 20% to \$890, which helped increase sales and profitability for the three major steel producers in the U.S. during that year. From 2017 to 2018, Nucor nearly doubled their profits as they saw a rise from \$1.3 billion to nearly \$2.4 billion. SDI and U.S. Steel similarly saw immense growth in profitability as SDI went from \$850 million in profits to \$1.25 billion and U.S. Steel nearly tripled their profits, from \$387 million in 2017 to \$1.15 billion by year end 2018. Although hundreds of millions of dollars were added in profitability over 2018-2019, there was only minimal increased hiring. In 2017, the industry accounted for 80,000 workers while in 2019 the domestic steel industry employed around 83,200. Although the slight increase in steel employment was good for the working class, it is far from the promise that Donald Trump made to American workers and families. Steel firms benefitted more from the tariffs than the average employee did.

The executives of Nucor, SDI and U.S. Steel were encouraged but not entirely satisfied with the 232 tariffs. They agreed that the tax on domestic purchase of foreign steel, in the short run, reduced imports which generated positive momentum for their

business. Imports dropped from 31 million tons in 2018 to a little over 26 million tons in 2019. However, in the latter half of 2019 and the beginning of 2020, prices came back below the \$710 per ton price point where steel sat during March of 2018 and remained in the low \$600's/high \$500's until COVID-19 disrupted the world in March 2020. The 232 tariffs had a limited positive impact before the global marketplace brought U.S. prices back to pre-Tariff levels.

This import reduction of 15% and the concurrent rising of capacity utilization to levels above 80% are important indicators in determining 232 effectiveness. Although the price per ton dropped below pre-tariff levels, production managed to increase in 2019, even after its sharp gain in 2018. This, along with a reduction in imports is what commerce secretary Wilbur Ross hoped for. A modest recovery in production, coupled with a decline in import levels is ultimately what made these 232 tariffs moderately successful for the domestic steel industry. The steel tariffs have at best stabilized American steel or at worst slowed the decades of decline that has plagued the industry since the 70s.

B. National Interests

Political divides aside, Biden has chosen to keep the tariffs for now, “The Biden administration is reviewing its trade policies, including the fees of 25 percent on steel... Commerce Secretary Gina Raimondo said recently and also claimed the tariffs ‘helped save American jobs in the steel [industry].’”⁵⁰ Keeping the 232 tariffs implies that right

⁵⁰ David Lynch, “Even as supply lines strain, Biden is in no rush to scrap Trump’s steel tariffs”, The Washington Post, April 17, 2021, <https://www.washingtonpost.com/us-policy/2021/04/17/biden-steel-tariffs-trade/>

now, sustaining this tax is more acceptable than letting domestic steel companies compete on the open market with foreign firms (and governments) that might not be playing by traditional, free-market rules. In the same article, a small business owner by the name of Charles Bernard, the president of the small Eagle Metals states that “It’s not great for us. The tariffs were a blunt instrument. But we need a domestic steel industry.”⁵¹ His first sentence is a reference to the fact that the steel tariffs raised the overall price of steel, which he uses as an intermediate good for some of the goods he manufactures. This correlates with Ford and Caterpillar raising the prices of their goods as well in response to the higher price of steel. Simultaneously, he acknowledges that the U.S. desperately needs a steel industry, for military and infrastructure projects,⁵² and the relief provided by tariffs resulted in a much-needed cushion for firms to recover.

While global Chinese steel dominance is just one component of their growing power, in many ways it is a perfectly analogous microcosm of their accumulation of control on the global scale. China’s intense production of steel has allowed them to commence what is undoubtedly the centerpiece of the CCP’s foreign policy plan, known as the “Belt and Road Initiative”. The Belt and Road Initiative, as described by Trump’s former national security advisor H.R. McMaster, is a \$1 trillion-dollar, global infrastructure plan that intends to put China at the center of a global trade route and communication center.⁵³ The plan includes more than 70 countries and involves China making large loans to developing nations. When these countries default on their loans, China trades debt for equity to gain access to their ports, airports, railways and

⁵¹ Lynch, “Even as supply lines strain...”

⁵² David Burritt, “U.S. Steel CEO: We’ve Been in a Trade War for 30 Years”

⁵³ H.R. McMaster, “How China Sees the World”, The Atlantic, May 2020, <https://www.theatlantic.com/magazine/archive/2020/05/mcmaster-china-strategy/609088/>

communication networks. Countries such as Pakistan, Djibouti, Mongolia and Kyrgyzstan, already have unsustainably high levels of debt.⁵⁴

Although not the only input needed to carry out the plans for the Belt and Road Initiative, steel is a main component in the execution of this enterprise. This explains why China has produced enough steel to greatly contribute to the global oversupply of steel. China has spent the last two decades ramping up their steel industry in order to carry out this authoritarian method of economic and political integration. The 232 tariffs, although they make a minor impact, is a step in the right direction. It signifies that our leaders are aware of China's accelerating dominance and are willing to put up a fight. Similar actions are needed to curtail the rise of China. As McMaster states, "Without effective pushback from the United States and like-minded nations, China will become even more aggressive in promoting its statist economy and authoritarian political model.... [However]...If we compete aggressively, we have reason for confidence."⁵⁵ The 232 tariffs are a necessary show of strength that the U.S. needs to revitalize our domestic steel industry and fight back against bad foreign actors.

C. Effects on Other Domestic Industries

A recent Congressional report on the Section 232 tariffs goes into an in-depth analysis of how efforts were made to limit negative domestic impact on industries other than steel or aluminum. Many 'exclusion' requests were submitted to get an exception to the imposition of the tariffs, and about half were approved through the end of 2019.⁵⁶

⁵⁴ McMaster, "How China Sees the World"

⁵⁵ McMaster, "How China Sees the World"

⁵⁶ FN Congressional Research Service "Section 232 Investigations: Overview and Issues for Congress" CRS Report, May 18, 2021. <https://fas.org/sgp/crs/misc/R45249.pdf>

After the tariffs were imposed, many domestic companies, and specifically the automotive industry, expressed concerns about the impacts on their industries. Several investigations were initiated by the government and by the private industries. In 2019, The American Automotive Policy Counsel estimated that the tariffs added \$400 to the price of a new vehicle. As a result, many legal challenges have been brought to attempt to address the economic impact on “downstream” manufacturers and other industries.⁵⁷

Although the tariffs were modestly successful in terms of their impact on the domestic steel industry, it came at the cost of other downstream firms and industries. A thorough analysis of these issues is beyond the scope of this thesis, however the 232 steel tariffs proved to be damaging for peripheral industries that rely on steel as an input. Rising steel costs cut into bottom lines, which would not have been the case had the 232 tariffs not been implemented. There are always winners and losers when using tariffs and making a promise to improve the lives of every working-class person with protectionist policies is a promise that can't be kept. Biden may or may not keep the steel tariffs, but it will be interesting to see how the greater trade wars will shape the socio-political and economic relationships that the United States has with China and other global competitors in the decades to come.

⁵⁷ FN Congressional Research Service “Section 232 Investigations: Overview and Issues for Congress”

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