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SHOCKWAYES The Ripple Effect of China's Industrial Overcapacity on American Manufacturing and Factory Workers

Overcapacity is a feature, not a bug, of China's model of state capitalism.

As the Chinese government maneuvers to maintain social stability and regain the economic growth it enjoyed before a national real estate crisis, it is doubling down on its models of state-led manufacturing.¹

China intends to let export gluts drive its growth. It is even using other markets as backdoors to ship its excess capacity to the United States. Countries like Vietnam and Mexico have become routes for Chinese manufacturers to flood the American market with the products they have difficulty sending here directly.

That, in turn, is raising justifiable fears in the United States of a China Shock 2.0; a deluge of low-cost import competition that could again close tens of thousands of U.S. factories and lay off millions of U.S. manufacturing workers.

If U.S. policymakers sit idly by, this shock could be American manufacturing's last stand.

A Tectonic Trade Shift

When President Joe Biden took office in January 2021, there was a not-so-quiet belief among Washington, D.C., insiders that things would get back to normal under the new commander-in-chief.

Topping many wish lists was a return to the status quo of trade policy. The Trump administration had issued "Section 301" tariffs on many Chinese imports, an action aimed at countering China's predatory trade practices. And the Biden administration was required by statute to review those tariffs at their four-year mark; surely a decades-long veteran of Washington would quickly remove them?

Except Biden didn't remove the tariffs. He kept them all on. He even raised them significantly in strategic areas like steel, solar cells, semiconductors, and electric vehicles, and cited China's massive industrial overcapacity as the reason.

"For years, the Chinese government has poured state money into Chinese companies across a whole range of industries: steel and aluminum, semiconductors, electric vehicles, solar panels — the industries of the future — and even critical health equipment, like gloves and masks," said Biden on May 14, 2024, from the White House Rose Garden. "China heavily subsidized all these products, pushing Chinese companies to produce far more than the rest of the world can absorb. And then dumping the excess products onto the market at unfairly low prices, driving other manufacturers around the world out of business."

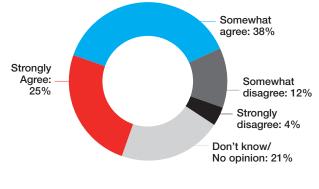
The steep new tariffs laid out by Biden that day are aimed right at this overcapacity. Existing tariffs on steel and aluminum from China will see a 25% increase, while solar cells and semiconductor tariffs will rise by 50%. Chinese electric vehicles (EVs) face a 100% boost.

These hikes represent a tectonic shift in U.S. trade policy. Never before has an American president issued such a robust, targeted response to China's industrial overcapacity. In the case of the EV tariffs, never before has a president issued them pre-emptively, to stop a wave of imports before they hit U.S. shores, instead of responding to them after the damage they cause was already done.

They are important steps. But success is not guaranteed.

Do you agree or disagree with the following statement?

China is beating the United States in manufacturing.



Source: Morning Consult poll conducted between May 1-May 3, 2024 among a sample of 2201 Adults.

Overcapacity and overproduction are problems across China's vast manufacturing sector, where dedicated state support combines with low rates of household consumption to create an environment where many industries produce far more than the Chinese market will absorb. And it is not a new phenomenon. Examples of Chinese industrial overcapacity can be found over the years in sectors from paper and steel to car tires.

But the result is almost always the same: The excess is exported, often at a loss. It is manufacturers and workers in market economies around the world that receive the sharp end of this largesse.

It has too often been the United States' open markets into which the surpluses are dumped. The last time a broad base of Chinese-made imports flooded the U.S., their effect on American workers in competing industries was so severe that economists coined a shorthand term – the China Shock – to describe it.

Our own decisions contributed to the level of that severity. Historically, U.S. policy responses to surges of unfairly traded Chinese imports have been flat-footed. Lax or piecemeal trade enforcement, endless strategic dialogues and bilateral negotiations, and litigation at the World Trade Organization (WTO) have produced mixed and – when there has been limited action – always temporary results, extracting little more than promises of economic reform from Chinese leaders.

Washington now has a new paradigm to defend its manufacturing sector. It has enacted industrial policies of its own, which, when coupled with the tariff barriers Biden has raised, represent a dramatic reversal of past practice and thought.

It still may not be enough.

What is Overcapacity?

"Structural overcapacity happens," explained the Rhodium Group, "when companies maintain or grow their unused capacity without worrying about making a profit (or a loss), often due to a lack of economic pressure to operate efficiently, like a hard budget constraint."²

Structural overcapacity is the scenario that underlies investments and production patterns across many of China's manufacturing industries: The state identifies a sector it deems crucial to its national priorities, lavishes it with market- and consumer-side subsidies to promote its growth, and then promotes the export of its artificially cheap products by orders of magnitude. And a glut of subsidized goods dumped into an unprotected market – be it commodities like glass or steel, or increasingly high value-added manufactured products like solar panels and electric vehicles – can mean a death knell for industries outside of China.

Cautionary Tales

Examples of U.S. industry that have been swamped by import surges abound and provide cautionary tales against inaction.

Glass

Glassmaking is arguably America's first industry; a glass shop was part of the Jamestown settlement in the 1600s. In the sweep of the following centuries and owing to its versatility and ubiquity as a technological and industrial input, the glass industry grew, even becoming one of the United States' biggest employers until the beginning of the 20th century. Its fortunes since then have boomed and busted – manufacturing employment peaked in 1960 around 139,000 before a long slide starting in the 1970s that coincided with increased automation and the beginnings of offshoring.³

As such, it was greatly affected by the emergence of the Chinese glass industry in the 1980s. From 1987 to 2007, and coinciding roughly with the country's construction boom, Chinese glassmaking output rose on average 18% annually.⁴

It was not simply broad economic growth that fueled this expansion. Between 2004 and 2008, Chinese manufacturers of glass and glass products are estimated to have received at least \$30.3 billion in subsidies for heavy oil, coal, electricity, and soda ash, or about 35% of their gross industrial output value in 2008, which corresponded neatly with the industry's expansion in that decade. Chinese glass production doubled between 2003 and 2009, and the industry's productive capacity increased at the same rate.⁵ Subsidies for glass manufactured for the Chinese auto-parts industry approximated \$1.6 billion between 2004 and 2010.⁶

But while most of its output was consumed domestically, this rapid expansion also fueled a significant rise in exports, which increased seven-fold between 2000 and 2007.⁷ Of that dramatic export expansion, Chinese glass exports to the United States tripled from 2000 to 2008, and their share of the U.S. market rose from 3% to 31% over the same period. The U.S. glass industry concurrently lost almost 40,000 manufacturing jobs, according to the U.S. Bureau of Labor Statistics.⁸ The number of American glass plants fell from 35 to 21 between 2005 and 2015.⁹ As domestic production faltered in the face of Chinese import competition, U.S. industry split over its response: Labor unions and smaller manufacturers called for tariffs, while larger glassmakers did not. "Some, with factories in China, have benefited from the subsidies," reported The New York Times in 2010, "and also from the economies of scale that operating in China make possible: access to a rapidly growing market there and competitively priced exports to the United States."¹⁰

Meanwhile, China's glass manufacturers continued to expand. That year, the country built 34 new flat glass production lines.¹¹ Exports of flat glass to the U.S. doubled again between 2008 and 2015.¹² Now, China leads glass production globally, exporting 28.7% of the world's glass and glassware in 2022, compared to 6.6% from the United States.¹³

"Today, the most lucrative glassmaking ventures in the United States focus on specialty products like biomedical and advanced automotive technologies," wrote Dora Segall in Belt Magazine.¹⁴ "Corning Inc. now manufactures fiber optics, scientific glassware and screens for electronic devices, among similar products."

Into this relatively voided American glassmaking ecosystem stepped a Chinese giant: Fuyao, an automotive glassmaking company known in the United States as the subject of an Oscar-winning 2019 documentary¹⁵ that followed its opening of a glass plant in a vacated General Motors (GM) factory near Dayton, Ohio.

A private firm founded in 1987, Fuyao was already among the world's largest automotive glassmakers when it opened its Ohio factory in 2016 – and an example of the national champions the Chinese government aimed to create by heavily subsidizing its manufacturing industries. It controlled 70% of China's automotive glass market that year, and 12% of the market in the United States.¹⁶

Its investment in Ohio, Fuyao said, was made at the request of its American auto industry customers. "We have to set up plants overseas to serve overseas markets, to save on tariffs and transportation fees," the company chairman told Forbes.¹⁷ "We follow in the footsteps of our clients."

The film chronicling Fuyao's arrival in the American Midwest is not nearly as serene. Clashes of work culture and expectation between Chinese management and American labor – and the latter's diminished returns – are at the heart of the documentary. A worker formerly employed at the GM factory recalls making \$30 an hour. At Fuyao she is paid \$12.84. American floor supervisors are flown to Fuyao headquarters in southeastern China where the company's migrant workforce live in dormitories, work 12-hour shifts, and visit home once or twice a year. The "company union" is headed by the chairman's brother-in-law, who describes its interaction with the company as "two gears, working together." Back in Ohio, after the defeat of a United Auto Workers unionization drive, a Fuyao executive tells another in Mandarin that he has fired its supporters.

The film was widely discussed on Chinese social media, with some saying it demonstrates the superiority of Chinese political and economic systems. Others, however, were more pensive in their reviews. "Look at how far China's capital has gone," wrote one netizen, "yet Chinese workers still don't understand how to defend their own interest, or to put it more accurately, they aren't allowed to defend their own interest. It's really worrying."¹⁸

Fuyao has since expanded its American footprint to Illinois, Michigan and South Carolina, also has a Mexican facility, and counts many electric vehicle start-ups among its customers. As of 2021, it had become the largest automotive glass supplier in America.¹⁹ By 2024, it controlled 30% of the U.S. automotive glass market and 20% of the European market.²⁰



The Economic Policy Institute in 2009 and 2010 chronicled how massive government subsidies were driving the rise of China's glass and paper industries and threatening U.S. glass and paper manufacturers.

Paper

American papermaking also dates to the early years of the country; the first paper mill was established during the colonial period, in 1690, near Philadelphia.²¹ By the early 19th century, mills had proliferated. By 1840, wood pulp became the primary input in paper manufacturing. It follows then, that modern American paper manufacturing has been centered in heavily forested states.

Paper mills were Maine's largest employers in the early 20th century²² and among the largest in Wisconsin by the 1940s.²³ Mills continued to be a vehicle of mass employment well into the latter half of the century. In the early 1980s, for example, a single plant making back-to-school notebooks in western Missouri employed more than 900 during peak season.²⁴ In 1990, approximately 650,000 people nationwide were employed in papermaking.²⁵

The impact of the rise of Chinese manufacturers on the stability of those jobs, however, cannot be understated. China's papermaking capacity grew from 3 million tons in 1990 to more than 100 million in 2015,²⁶ and it was not by accident. The Chinese government targeted and captured the global paper industry in the 2000s, advancing rapidly behind \$33.1 billion in government subsidies from 2002 to 2009 – a substantial sum that paid for everything from energy and interest-free loans to imported pulp and plantations to rebuild the forests the country had razed in previous decades.²⁷ In contrast, "The entire annual payroll for all of Wisconsin's mills is \$2.4 billion," noted the Milwaukee Journal Sentinel in 2012.²⁸

Despite federal trade remedies meant to staunch unfair import competition,²⁹ Chinese paper imports continued to flood the U.S. market, depressing prices. And despite significant private capital spending meant to improve efficiency, many American mills were mothballed.³⁰

HUMAN CONSEQUENCES

A Paper Mill Shuts Its Doors

Joe Shelley spent nearly two decades at the WestRock paper mill in North Charleston, S.C., working his way from boiler operator to a job in the recovery department. Work at WestRock wasn't always easy, but the mill paid good wages and supported the livelihoods of about 500 workers.

All of them lost their jobs when WestRock shuttered the mill in 2023.

"It was devastating," Shelley recalled. "Because of my past history, I have a lot of skills, but nothing's that certified. So, it makes it hard, unless you go into another manufacturing position, it's hard to find another job that's like what we're making at the mill."

A flood of paper imports from countries like China and Brazil contributed to the closure, Shelley said. Although the mill made the paper products people need – there was such a big demand for cardboard boxes for deliveries that the mill never shut down during the Covid-19 pandemic, for example – WestRock decided the mill wasn't profitable enough to keep open.

Surging imports were cited as a reason. "It was constantly: we're not making this, we need to make this different grade, they're flooding the market with this," Shelley said.

After the mill closed, many of the employees found work, but in places that don't pay nearly as much as the mill did, Shelley said. Shelley now works for the United Steelworkers as a resource tech based in Pittsburgh, commuting home to South Carolina every six to eight weeks.



Shelley said more needs to be done to help factory workers who lose their jobs because of unfair trade. U.S. policy also needs to stop incentivizing companies to offshore production, he said.

"We can import from China and Brazil and places like that, but it makes it so much harder for us to compete with these labor markets," Shelley said.

"When we aren't on the same level field, they can dump it on the market." The U.S. paper industry lost approximately 260,000 jobs between 1998 and 2019,³¹ with closures and lay-offs affecting all paper-producing regions.

The southeastern United States lost significant production capacity between 2000 and 2011.³² In other states with a heavy paper manufacturing presence, the closures contributed to the chaos associated with deindustrialization. "It's time to sell the things I worked for," said a worker with 39 years of experience at a paper mill in Wisconsin's Fox River Valley after his mill was closed in 2008.³³

Millinocket, Maine, a town whose existence was once owed to a pair of now-shuttered paper mills, saw its cash-strapped public school district advertise itself to Chinese exchange students in 2011, only to be ridiculed without irony in an editorial in a major Chinese state-run newspaper.³⁴

Still, there is opportunity to expand paper manufacturing. A growing global population means steady demand for sanitary items like tissue paper, napkins and toilet paper. And while today's paper mills are not making as much newspaper, e-commerce has created a global demand for packaging. "The first new paper mill in Wisconsin in more than three decades, a \$500 million facility built by a company called Green Bay Packaging that opened in 2021, focuses on the outer material and internal components used in cardboard boxes," wrote Rebecca Heilweil in Mother Jones. "In Skowhegan, Maine, the papermaking giant Sappi is converting a paper machine to produce bleached sulfate board-a kind of environmentally sustainable packaging that's frequently used for coffee cups and cosmetics products."35

America's paper industry, however, was irrevocably shifted by the introduction of subsidized Chinese import competition. Ten years after China entered the WTO, U.S. employment in paper manufacturing had dropped by a third; 23 years after, it has remained at that level.³⁶

In recent years, the domestic paper industry has seen investment from Chinese firms that benefitted from their government's subsidization program. Shortly after the Commerce Department applied 149% anti-dumping tariffs and 176.75% countervailing duty rate on its imports of uncoated paper in 2016,³⁷ Shandong Sun Paper announced a \$1 billion plan to build its first North American mill in Arkansas.³⁸ The mill never opened.³⁹ In 2018, after the Chinese government limited the import of recycled scrap paper, Nine Dragons Paper – headed by a billionaire known in her country as the "trash queen of China" – purchased and refurbished a mill in Old Town, Maine, to supply its Asian mills with pulp. Between 2019 and July 2021, more than 30 million metric tons (MT) of new paper capacity was announced in China, driven mostly by local government subsidies.⁴⁰

It was the company's fourth American acquisition in a matter of months.⁴¹ Twelve hundred people applied for the 130 jobs it made available.

"The Chinese want these paper facilities for one reason," a former union representative told The New York Times at the time.⁴² "Remember, what they want is the fiber. They don't have any. That's the issue in China. They have to get their trees somewhere else."

The results of Chinese investment in Old Town have been mixed. In 2022, it was sued by nearby residents over odor emanating from the mill.⁴³ And the new Chinese ownership has not inoculated the workers there from market swings. The mill, now non-union, has been idled indefinitely since 2023.⁴⁴

Tires

The recent history of tires presents an interesting case when considering Chinese overcapacity, overproduction, and the lack of a fulsome U.S. response. Like paper and glassmaking, tire manufacturing had been long established in the United States, as it is a product key to the automotive supply chain. But workers in American tire factories who faced a debilitating surge of import competition after China's WTO entry in 2001 were represented by a government uninterested in doing anything about it.

Concurrent to that surge, autos and their supply chains were deemed a pillar industry by the Chinese government and the manufacture of tires and other auto parts were heavily subsidized. China poured an estimated \$27.5 billion into these industries from 2001 to 2011, and if the goal was to increase global market share, it worked. Data from the International Trade Administration showed that in 2010, estimated Chinese exports of auto parts approximated \$43.86 billion — an increase of 162% from \$16.7 billion in 2005.⁴⁵ Specifically in the case of tires, China reached the top of the market. By 2008, it led the world in tire manufacturing and exports. In the three years prior, its exports to the United States of passenger vehicle and light truck tires increased 215%.46 Market share increased with China's share of the American tire market growing from 4.7% to 16.7%.47

All Tired Out

James Sheridan builds motorcycle tires at the Sumitomo Rubber USA plant in Tonawanda, N.Y., 12 miles north of Buffalo. The facility, once known as Goodyear Dunlop Tires North America, has had several layoffs over the years and announced additional furloughs in early May 2024.

"We had layoffs because of the Chinese flooding the market," said Sheridan, who is the recording secretary and legislative representative for United Steelworkers Local 135L. "We are in another truck and bus tires layoff right now because China is flooding the market again.

"The Steelworkers have filed another trade case against China, and the plant just went down to fewer shifts. China is moving their tire manufacturing to either Taiwan or Malaysia, and what they do is subsidize and they flood the market and violate trade laws."

Sheridan said many trade cases have been filed against China for dumping its inferior tires into the American market during the past 25 years.

"We went to a global conference, and we had all the rubber workers from all over the world in Pittsburgh, and every single country that was there said the biggest threat to their market, whether it was the European Union, whether it was Scotland, whether it was South America, anywhere in the world, they said the biggest threat was China," Sheridan said. "China is killing everybody. That's what happens when you have a government that just funds business. They manipulate their currency, so all their products go in lower."



Sheridan believes that filing all these expensive trade cases is a vicious cycle, but that it must be done.

"I love my union. To see the stuff that they do just makes me happy," he said. "It makes me happy when guys ask where dues go, and I can tell them.

"When you see a facility close, the ancillary jobs that are lost just decimates a city. Look at Gary, Indiana or Akron, Ohio. There is almost nothing left. That is the sad part of our society."

This was not unnoticed by tire factory workers, whose employers lost significant business to that import competition and passed down to them layoffs.⁴⁸ Employment, relatively stable in the industry in the preceding decade, began to drop precipitously with China's WTO entry in 2001.⁴⁹ In 2009, the United Steelworkers union (USW), tapping a special safeguard provision that was part of the U.S. agreement to support China's WTO entry, petitioned the U.S. International Trade Commission (ITC) requesting an investigation into that import surge.⁵⁰

The safeguard – Section 421 of the Trade Act of 1974 – allowed the President of the United States to impose temporary measures, such as import surcharges or quotas, specifically targeting Chinese goods in the event of domestic market disruption. The union's petition alleged there had been such a rapid increase that it caused market disruption for domestic producers to be a significant cause or threat of material injury. And a few months later, the ITC's investigation came to the same conclusion. Its report found that from 2004 to 2008, domestic tire manufacturing capacity declined from 226.8 million tires to 186.4 million tires, a more than 26% decrease; and capacity utilization declined from 96.3% to 86.0%; and U.S. producer commercial U.S. shipments declined from 194.7 million tires to 136.8 million. The ITC recommended President Barack Obama impose tariffs, and he responded by raising them for three years, with rates on the subject products of 35% in the first year, 30% in the second and 25% in the third.⁵¹ American workers claimed victory and vindication. But it should be noted the safeguard – only a temporary mechanism, allowed for 12 years after China's WTO entry – was rarely used. The Bush administration, which was in office for most of that window, showed no interest in picking up this tool. What's more, U.S. companies had rushed their tire production to China, contributing to one of the most acute periods of deindustrialization in American history. Multinationals were benefitting from manufacturing in China, and President George W. Bush effectively sided with them by ignoring Section 421 safeguard petitions and the recommendations that came across his desk.

In testimony to the U.S.-China Economic and Security Review Commission in 2010, Robert Lighthizer, who

would become the Trump administration's U.S. Trade Representative, put it thusly:⁵²

Between 2002 and 2005, the U.S. International Trade Commission heard four cases in which it determined that the requirements for a China-specific safeguard had been met. In every case, however, the Bush Administration exercised its discretion to deny relief – effectively rendering Section 421 a dead letter.

The Section 421 safeguard for Chinese imports was a success, but only in that it staunched the bleeding. Tire manufacturing in the United States had been effectively reduced. National employment in March 2024 stood at 58,000; a roughly 30% drop since 2001. It has increased only marginally since then.⁵³

Contemporary Threats

There is a buzzy new phrase being used by Chinese leadership: "New productive forces." Coined by Chinese Leader Xi Jinping in September 2023, it serves as shorthand for the advanced manufacturing industries the Chinese state intends to dominate.⁵⁴ It follows, then, that these are export-heavy industries with production gluts today.

Solar

Solar technology is an American invention. The modern solar cell was created in 1954 by researchers at Bell Labs in New Jersey.⁵⁵ But decades later, when a nascent U.S. solar industry began to scale up behind relatively modest government support, it was quickly dispatched by heavily subsidized competitors from China.

Early Chinese solar companies were founded by scientists returning from overseas universities and drew on local government funding to establish themselves.⁵⁶ The country's first photovoltaic (PV) cell production line went online in 2002. Shortly after, Chinese manufacturers began exporting PV cells to Europe⁵⁷, where a booming market had been created by substantial consumer-side subsidies offered there.⁵⁸

As such, nearly all of China's early solar production was aimed at export markets, and, armed with ...the chief executive and founder of China's largest solar panel manufacturer told The New York Times it was selling solar panels on the American market for less than the cost of the materials, assembly and shipping, in order to build market share.

inexpensive labor and equipment, Chinese solar manufacturers expanded.⁵⁹ After the 2008 financial crisis caused international demand to drop, the central government stepped in with additional subsidies to support what had become, with significant provincial-level support, a burgeoning domestic industry.

In 2009, Beijing announced it would subsidize 50% of investment for solar power projects and relevant power transmission and distribution systems to connect them to power grids.⁶⁰ But, while domestic demand grew slightly, Chinese solar manufacturers remained

export-oriented. That year, the chief executive and founder of China's largest solar panel manufacturer told The New York Times it was selling solar panels on the American market for less than the cost of the materials, assembly and shipping, in order to build market share. Chinese solar companies, meanwhile, encouraged executives at their American subsidiaries to join industry trade groups to tamp down on anti-Chinese sentiment.^{61, 62}

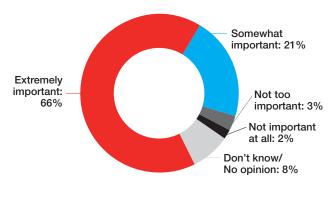
In addition to provincial support, cheap capital provided by the central government greatly fueled the Chinese solar industry's rise.⁶³ In 2010, solar was tapped as a strategic emerging industry in the country's 12th Five Year Plan, and it subsequently received an estimated \$42 billion worth of subsidies between 2010 and 2012.⁶⁴ This was key in triggering a supply glut that saw world prices for solar panels drop by 80% from 2008 to 2013.⁶⁵

U.S. support for its solar manufacturers, meanwhile, was not comparable. Presidents Bush and Obama pushed initiatives to encourage solar industry growth^{66, 67}, and factories emerged across the country. But they faced constant pressure from import competition, and the incentives and tariff barriers Washington offered in response were not enough to keep the domestic solar industry viable. **By 2011, China accounted for three-fifths of the world's solar panel production, and was exporting 95% of it, much of it to the United States**,⁶⁸ **rolling over U.S. anti-dumping tariffs like speed bumps.**⁶⁹ China supplied nearly half of U.S. solar panel imports by 2012, with the volume rising from 3.8 million in 2008 to more than 45 million units that year.⁷⁰

After the high-profile failure of Solyndra, a U.S. solar company that had received a guaranteed federal loan, Washington largely stopped offering them.⁷¹ And beset by a market in recession and heavily subsidized imports, U.S. solar manufacturing suffered a wave of bankruptcies, and its manufacturing employment, always a small segment of the larger industry, remained that way through this time period. The number of manufacturing employees in the U.S. solar industry was 12,575 in 2012.⁷²

Consider the example of Suniva, an American solar manufacturer. From its founding at Georgia Tech University in 2007, the company grew quickly into one of the largest solar panel makers in the United States. But even with solar panel installations on the rise, Suniva was forced to declare bankruptcy in 2017, citing a flood of heavily subsidized Chinese imports as the reason.⁷³ How important is it for the United States to be able to manufacture goods in the following categories domestically instead of importing from other countries?

Energy



Source: Morning Consult poll conducted between May 1-May 3, 2024 among a sample of 2201 Adults.

Suniva revived in 2023, announcing it would reopen its shuttered factory in Norcross, Ga., and hire 240 workers to operate it. The company pointed to the clean energy incentives in the U.S. Inflation Reduction Act (IRA) as its impetus to do so.⁷⁴

But this good news is not without an immediate challenge: The glut of solar imports that took Suniva out five years ago is still churning out of Chinese factories. The entire solar supply chain is now firmly based in China, whose solar manufacturers control 80% of the international market.⁷⁵ Through 2023, China's annual capacity for finished solar modules was 861 gigawatts (GW) equivalent, according to China Photovoltaic Industry Association data, more than double the global module installations that year.⁷⁶

And yet Chinese-fostered production capacity is still growing at an incredible rate.⁷⁷ Even as Suniva reopened its Georgia facility with an annual capacity of 1 GW, a Chinese solar company, recognized by Beijing as a National Manufacturing Champion, broke ground in China on a plant that can produce 56 GW.⁷⁸ That is roughly 73% more than all solar installed in the United States in 2023, contained in a single factory.

As a result of unceasing capacity additions, solar prices have again collapsed. According to one estimate, excess capacity pushed prices of finished solar panels in China down 42% in 2023, making them more than 60% cheaper than American-made solar equipment. But this has not introduced market discipline. Some Chinese manufacturers even continue to take orders at a loss in order to preserve market share.⁷⁹ The market fundamentals have been so warped by Chinese interventions that an International Energy Agency estimate finds solar panel supply globally will reach 1,100 GW by the end of this year, three times the forecast for demand.⁸⁰

Astoundingly, solar has not emerged as the dominant energy supply in China. An April 2024 report by Global Energy Monitor observed the world added more coal power capacity last year than any year since 2016, and that China accounted for two-thirds of the growth. The country is responsible for more than half of global coal consumption since 2011.⁸¹

Its solar growth has continued apace, and American policy responses have been mixed. For example, solar importers suffered a setback after the passage of the Uyghur Forced Labor Prevention Act, which bans the import of products made in whole or in part in China's Xinjiang region, where the government faces credible accusations of genocide against ethnic and religious minorities. A significant amount of the China's solar supply chain runs through the province.⁸²

But Chinese imports' hold on the U.S. solar industry is significant. In response to a 2022 Commerce Department investigation alleging many of China's largest solar firms were routing exports through third-party countries to skirt longstanding anti-dumping duties, a pressure campaign mounted by U.S. solar installers – eager to maintain their supply of cheap panels – resulted in the Biden administration announcing a two-year moratorium on any resulting tariffs.⁸³

U.S. solar imports have soared by 82% in the meantime, with most of them coming from Chinese-controlled companies in the Southeast Asian countries named in the circumvention complaint.⁸⁴ The concluded circumvention investigation ultimately was affirmed, and companies found to have skirted U.S. anti-dumping duties now face steep tariffs; the moratorium ended in June 2024.

The United States, meanwhile, has not been idle. In 2022, Washington enacted the Inflation Reduction Act (IRA), a centerpiece industrial policy that is meant to jumpstart domestic production in clean energy technologies; namely, solar and EV production. Thus far it has worked; \$5.4 billion in private spending on solar manufacturing construction has been announced since it was enacted.⁸⁵

New trade enforcement action also may be forthcoming. In May 2024, the Commerce Department opened a new probe into solar products from Southeast Asia, following another petition from domestic manufacturers who allege subsidized imports are stifling their ability to compete.⁸⁶ Additionally, President Biden announced Chinese solar duties administered under the Section 301 tariffs first put in place during the Trump administration would rise from 25% to 50%.⁸⁷

Still, the deluge of Chinese solar imports presents an ongoing risk to Washington's significant IRA investment: Without strict enforcement of these tariffs, the second American attempt at building a solar industry could suffer the same fate as the first.

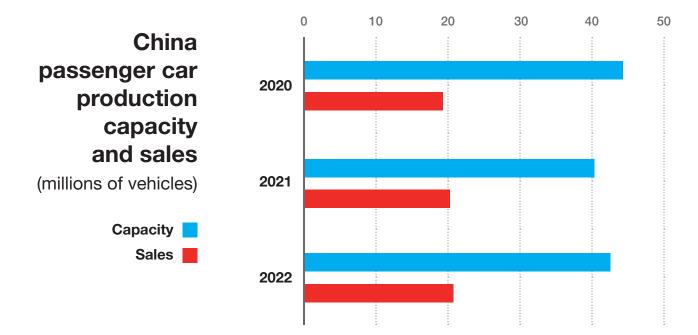
"These products are just flooding into the U.S. market, they're willing to take any price and they're just losing money on it," Mike Carr, executive director of the industry group Solar Energy Manufacturers for America, said in April 2024. "It's like a bankruptcy sale."⁸⁸

Autos

The U.S. auto industry has been a linchpin of American manufacturing for nearly a century, sitting at the center of an entire ecosystem of manufacturing, from steelmaking to semiconductor fabrication and atop a supply chain that supports millions of domestic factory jobs. The auto sector alone accounts for 3% of U.S. GDP and, what's more, it is a target of significant U.S. federal investment as the industry pivots to electric vehicles. As such, risking it to heavily subsidized Chinese import competition is not an option.

That competition is coming. As the Alliance for American Manufacturing documented in a report focused on auto imports⁸⁹, China's auto sector, and particularly the electric vehicle industry within it, has seen incredible growth since EVs were tapped along with solar panels as a strategic emerging industry in the country's 12th Five Year Plan. To bolster and ultimately capture this burgeoning clean energy industry, the Chinese government has poured both direct and indirect subsidies into its automakers.

Its investment has returned tremendous results; the Chinese auto industry's growth has been exponential.⁹⁰ China became the world's leading auto exporter in 2023, selling in markets around the world, and its automakers lead the world in EV production and sales. It has built indigenous technology and developed extensive supply chains, particularly for critical battery raw materials and components, behind a deliberate industrial strategy.



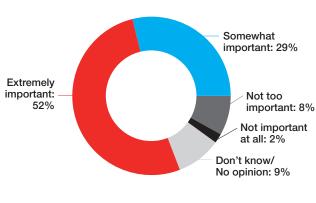
Note: Some of the production capacity is idle. Source: Automobility (capacity), China Passenger Car Association (sales)

Its robust program of subsidies, though, has created the same production imbalances seen in other industries. Though it annually sells only 22 million vehicles domestically, China has the capacity to produce 40 million. And instead of restructuring to bring that more in line with demand, the industry's exports have roughly quintupled over three years to roughly 5 million vehicles in 2023.⁹¹ There are no signs of it stopping; more capacity is coming online. BYD, one of the country's automotive champions and a recent recipient of \$3.7 billion from the government, has set a target of a 20% sales increase in 2024.⁹²

According to Chinese media reports, the country's production capacity for EVs alone in 2025 is expected to reach over 36 million vehicles, while domestic sales are expected to be at 17 million.⁹³ Its automakers are actively seeking new markets into which it can sell its surpluses.

A particularly attractive one is the United States, which is likely to see falling interest rates and thus a more active pool of car buyers in the next few years. A deluge of dirt-cheap Chinese EVs, however, threatens not only the viability of the U.S. auto sector and the millions of jobs for which it is responsible, but the massive investment Washington has put toward clean energy manufacturing via the IRA. How important is it for the United States to be able to manufacture goods in the following categories domestically instead of importing from other countries?

Cars & Trucks



Source: Morning Consult poll conducted between May 1-May 3, 2024 among a sample of 2201 Adults. Chinese automakers currently face significant barriers to the U.S. market; a 27.5% tariff is a hedge large enough to keep their vehicles out, and the Biden administration has announced a 100% tariff on Chinese EVs set to go into effect in 2024. But Chinese auto investments in neighboring Mexico have recently surged⁹⁴, suggesting they plan to advantage themselves of duty-free access to the U.S. market by establishing assembly lines within North America's trade bloc and accessing American consumers from there.⁹⁵ U.S. free trade agreements and preference programs, therefore, must be updated so that the rules of origin that govern them bar the participation of state-owned and -supported enterprises based in non-market economies.

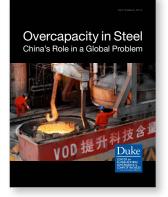
Steel

Global steel markets have long been plagued by excess production capacity, but the Chinese state's decision 20 years ago to insert itself into them supercharged the problem. China's chronic steel overcapacity is well documented, and it follows along with its capacity increases.

On its face, this did not happen because Chinese entrepreneurs discovered a knack for steelmaking; rather the government deemed steelmaking "strategic"⁹⁶ in the early 1990s and then pumped in incredible amounts of state support – in the form of low-cost loans, discounted energy and inputs, and hefty tax incentives – to boost production capacity to gargantuan levels. China's annual steel output grew exponentially during the 2000s, with crude steel production growing from 23.7 metric tons (MT) in 1977 to 804 MT annually by 2015,⁹⁷ roughly half of global output.

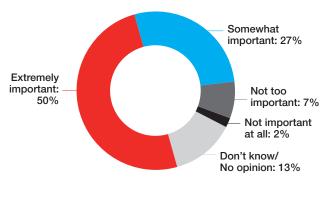
The results were dramatic. Global steel overcapacity by 2014 was over half a billion MT. China's surpluses alone accounted for a third of it.⁹⁸

"From 2000-2015, nominal global steelmaking capacity additions averaged 82 MT per year, which is roughly equivalent to total annual U.S. steel production. In other words, the world was adding steelmaking capacity equivalent to U.S. annual steel production for more than a decade, a remarkable rate



How important is it for the United States to be able to manufacture goods in the following categories domestically instead of importing from other countries?

Steel



Source: Morning Consult poll conducted between May 1-May 3, 2024 among a sample of 2201 Adults.

of growth in steelmaking capacity, most of it centered in China," a 2016 Duke University report found.⁹⁹

The resulting flood of Chinese steel imports had a dire effect on the American steel industry. Steel manufacturing is a cornerstone industry, a base commodity used in everything from household appliances, automobiles and construction projects to defense platforms like aircraft carriers and fighter jets. The maintenance of domestic steelmaking capacity therefore is essential to U.S. economic and national security. And yet, the U.S. steel industry suffered a series of shocks from 2000 to 2015, the closure of 10 major mills¹⁰⁰ and the layoff of 225,000 steelworkers during the same time period, according to the U.S. Bureau of Labor Statistics.¹⁰¹

The Chinese steel industry in 2024 is not among the new productive forces being talked up by the Chinese Communist Party, but it remains a subsidized target of its economic planners because it is an essential manufacturing commodity. Control over steel begets influence over the supply chains built on it.

Faced with mounting international pressure over the last decade, Beijing has been doing everything imaginable – issuing plans, writing memoranda and guidance, and making promises in negotiations – to address its steelmaking overcapacity. Still, despite its repeated promises to rein it in, China's overcapacity continues to increase. After the last global overcapacity crisis, again largely at the feet of its massive steel industry, China embarked on a four-year effort during which it mothballed 700 small steel mills with 140 MT of steel capacity deemed substandard and reduce another 150 MT of capacity from larger firms. Chinese steelmakers still managed production increases. It produced a record 928.26 MT of crude steel in 2018; a world record it has since broken.^{102, 103}

In 2024, the Chinese steel industry can produce more than 967 MT annually, according to Global Energy Monitor.¹⁰⁴ Production and exports continue to climb, explains the Organization for Economic Development, and despite capacity cuts Chinese steel manufacturers still benefit from "strong financial and non-financial incentives and subsidies from many levels of governments. Such incentives can act in similar ways as a cost reduction, thereby artificially boosting the price competitiveness of exports."¹⁰⁵ The proof is in the pudding. In the 12 months before February 2024, China exported 95 million metric tons of steel, according to Chinese customs data, a sum that is roughly on par with annual U.S. steel consumption.¹⁰⁶ In March, China's steel exports posted their strongest month since 2016, spurred on by domestic demand that has crashed along with the country's real estate market.¹⁰⁷

Despite being relatively inoculated from artificially cheap Chinese steel by Section 232 tariffs implemented during the Trump administration and maintained by President Biden, the U.S. market remains a target of China's gargantuan steel firms. Transshipment through Mexico is a growing concern for U.S. political leaders, and in May 2024, as part of the findings of the Biden administration's review of Section 301 tariffs facing Chinese imports, the White House announced that 301 tariff rates on Chinese steel and aluminum will roughly triple this year, from 0-7.5% to 25%.¹⁰⁸ Steel industries in Latin America are beginning to react to Chinese imports, too. Mexico, Chile and Brazil have all hiked tariffs in response to the flood.¹⁰⁹

HUMAN CONSEQUENCES

Standing Up for Steel

Kameen Thompson has worked at the Cleveland-Cliffs Conshohocken steel mill for 19 years making light gauge armor for military applications. He is the president of United Steelworkers (USW) Local 9462, was laid off in 2010-2011, and saw additional layoffs at his plant in 2018.

Thompson was working as a crane operator when he was laid off along with more than 100 other workers in 2010. "That layoff lasted almost two years, and at that time I didn't know if I was going to get my job back or not," Thompson said. "The orders were not coming in like they were in the previous months, so things just got really bleak and slow. It was very rough." Thompson still wonders how the Conshohocken mill could have layoffs and a decrease in permanent employees since the steel is being produced for the U.S. military.

"When you get a job here at this plant, you think you've got a lifetime job because our military and government will always be ahead of the game," Thompson said. "But we had two layoffs in the last 15 years.

"You are making steel for national security, making steel for the U.S. government, and you are processing steel to make MRAPs, tanks, ships, subs, and all of a sudden you get a notice you are getting laid off. That just baffles me, and it is not right."



Thompson feels President Biden did the right thing by increasing tariffs on steel imports, but he is uncomfortable with the review process.

"It shouldn't be a fight or a review of tariffs," he said. "I believe it always should be something that is triggered automatically. I don't think it should be up to the president, it should be up to us as a country to make sure the overcapacity just doesn't happen."

Who Will Benefit from U.S. Investment?

Chinese economic strategy clearly favors export-led growth over internal consumption, and repeated attempts to tap into U.S. domestic spending programs make clear doing so is a Chinese policy priority.

In the wake of the 2008 financial crisis, which caused liquidity to dry up and prompted the U.S. government to deploy economic relief measures, China saw the opportunity to expand its industrial footprint. And it did. Simultaneously snapping up distressed companies and establishing state-owned and -controlled companies in the American market,¹¹⁰ China played the long game for industrial dominance. Its move was multipurposed, explained a report from consultancy Radarlock:

"First, Beijing sought footholds in the US market that would allow Chinese players, through local presence and local influence, consistently to evade US tariff and non-tariff barriers for the long-term.

"Second, the CCP positioned to acquire technological and material resources at low cost.

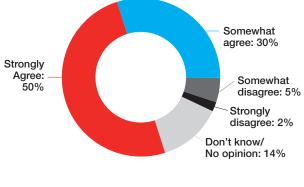
"Third, Beijing targeted strategic footholds in US infrastructure and supply chains that promised long-term access to American resources and leverage over American systems."¹¹¹

Not all its plans were as grand. Chinese-owned and -invested firms – some with links to the Chinese military – also managed to receive hundreds of millions of dollars of loans from 2020's Paycheck Protection Program, rolled out by Washington to stabilize the economy amid Covid-19 pandemic shutdowns.¹¹²

China's sights are now set on advantaging itself of current U.S. industrial policies. Chinese companies are investing heavily in final-stage plants¹¹³ in the U.S. where, after performing the high-value manufacturing in China, they will assemble solar panels and be in position to draw on clean energy subsidies in the IRA.¹¹⁴ Other industries are targeting other funding in the IRA meant to boost domestic production, like the consumer subsidies for electric vehicles. Beijing has filed a complaint at the WTO that the subsidy is discriminatory; that Chinese-made EVs should be allowed to benefit too.¹¹⁵ Meanwhile, a notably cheap EV assembled in the United States by Volvo, a Chinese-owned auto brand, hopes to avoid U.S. tariffs on Chinese

Do you agree or disagree with the following statement?

The federal government should crack down on unfair trade practices.



Source: Morning Consult poll conducted between May 1-May 3, 2024 among a sample of 2201 Adults.

auto imports and could potentially qualify for federal tax credits through a leasing loophole.¹¹⁶

All of this is likely to succeed, unless policymakers update and use the trade enforcement tools at their disposal. For years, the United States has employed its established tools to push back on Chinese import surges, chiefly in the form of anti-dumping and countervailing duties and WTO complaints. In the case of steel, an Economic Policy Institute report noted, "President Obama pressed the excess capacity issue through diplomatic channels at the G20 and in the U.S.-China Strategic and Economic Dialogue and under U.S. law, overseeing 370 trade remedy actions on imported steel products."¹¹⁷

But it takes months and sometimes years to see a case through and a remedy produced, by which time the damage to a victimized party is already done. Chinese manufacturers, faced with anti-dumping duties, can rely on their government to help overcome them.¹¹⁸

It also should not be discounted how much U.S. policymakers' shortsightedness has aided past import surges. After the Clinton administration and a bipartisan Congress granted China Permanent Normal Trade Relations in 2000¹¹⁹ – thereby removing the threat of an annual tariff review and paving the way for its WTO

ascension – China suffered no lasting consequences when it pegged its currency to the U.S. dollar for a decade¹²⁰. The Bush administration sat on its hands through repeated surges, while American manufacturing workers suffered significant layoffs. There are multiple examples of Chinese state-sponsored industrial espionage that, once uncovered, elicited official complaints and not much else.¹²¹

At the state level, meanwhile, Chinese industry has sometimes been actively abetted. In 2011, California forewent federal funding in order to avoid Buy America preferences and awarded the contract for the center span of a reconstructed San Francisco-Oakland Bay Bridge to a Chinese state-owned enterprise that had never built a bridge before. It came in late and at roughly double the cost.¹²² The renovation of a New York City bridge named for Alexander Hamilton, the father of American manufacturing policy, was awarded to a China-controlled company.¹²³ Multiple transit agencies across the country have contracted with another Chinese state-owned enterprise to build railcars for their subway system. Faced with quality problems and production delays, at least one of them has canceled its contract.¹²⁴

There are also examples of outright failure to enforce existing rules governing the licensure of new technology developed using federal funding. Consider the vanadium redox flow battery. An investigation uncovered that this breakthrough technology – capable of delivering enough clean energy to power a home for decades and developed by the Pacific Northwest National Laboratory – could have been manufactured by a private company in the United States, but instead was produced in Dalian, China. The federal agency charged with ensuring the license holder manufactured the batteries in the U.S. as required by law simply failed to do so.¹²⁵

There Is No Time to Lose

Chinese industrial overcapacity is an issue in 2024 because it is structural, a result of the country's system of state capitalism that funnels money into its manufacturing industries to maintain domestic economic stability.

We must take the Chinese Communist Party at its word when it openly announced at its National Party Congress plans to plow forward with support for export-oriented manufacturing.¹²⁶ It has no plans to turn to domestic consumption as a growth model; heavily subsidized, export-led manufacturing is its tested vehicle. Its industries will eagerly sell into foreign markets at a loss to build market share, because it can then exert dominance over those markets. The goal is control.

The funding it is devoting to doing so is already on level far greater than other countries – a ratio of approximately nine to one¹²⁷ – and is resulting in production surpluses that will ultimately be sold at basement-level prices on the international market, weakening China's industrial competitors and creating dependencies on Chinese suppliers. It is already

happening now, particularly in the clean tech fields China intends to dominate.

This presents a serious challenge for the United States, which has recently made enormous investments of its own in the form of federal infrastructure and clean energy manufacturing programs. These industrial policies were written and enacted to benefit domestic manufacturing industries, but Chinese production gluts are threatening to smother these U.S. industries before they find their footing. Despite significant tariff barriers, heavily subsidized Chinese goods are leaking into the U.S. market. Chinese exports to neighboring Vietnam have surged and, correspondingly, Vietnamese exports to the U.S. have too.¹²⁸

Beijing, meanwhile, has claimed halfheartedly to be aware of the concerns its overcapacity is generating in the market economies with which it trades. But removing only the most inefficient steel mills from an industry approaching an annual crude steel output of 1 billion MT while still maintaining subsidies does not suggest it considers the effects its overcapacity has on the international market as a serious issue, nor do persistent capacity additions in oversaturated solar and EV industries. In fact, it suggests the opposite. "Unfortunately – and in spite of the central government's stated focus on curtailing overcapacity – many of the sources of the problem have resulted from macroeconomic, industrial and fiscal policies that have been part of a development strategy designed to favor industrial and investment and expansion over consumption," observed a report prepared by the European Chamber of Commerce in China and issued in 2016.¹²⁹ "It therefore needs to be recognized that the Chinese government's current role is part of the problem."

Not much has changed, but U.S. political leadership has increasingly come to grips with the momentous problem that Beijing's industrial strategy presents. "We have learned from the past," said National Economic Council Director Lael Brainard before a Washington audience in May 2024.¹³⁰ "There can be no second China shock here in America."

We have seen what Chinese import surges caused by overcapacity and overproduction have done before. It cannot be allowed to happen again. Washington must implement the following policies without delay.

Policy Recommendations

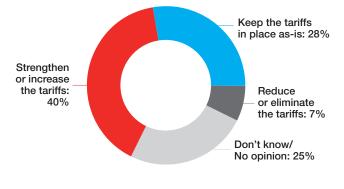
On May 14, 2024, after a long-awaited review of the Section 301 tariffs, President Biden directed U.S. Trade Representative Katherine Tai to strengthen tariff rates across a range of products for which China has been a major contributor to global overcapacity and has engaged in persistent market distortions that have undermined U.S. efforts to strengthen our own industrial capabilities. These sectors include steel, solar cells, semiconductors, electric vehicles, and batteries.

While the nature of China's unfair trade practices shifts from time to time, the goals are always clear: to disrupt global norms, weaken American economic security, and seek growth at the expense of others. The Section 301 tariffs, together with investments in industry and infrastructure coupled with Buy America domestic preferences, form the framework of an effective 21st century industrial policy for America.

The United States must continually update its policy framework for addressing overcapacity, particularly as China seeks to route its excess production through countries that enjoy beneficial trade relations with the United States. Indeed, the American people back strong trade enforcement action, with 80% agreeing the federal government should crack down on unfair trade practices, according to a May 2024 poll.¹³¹

Outlined below are recommendations for policy actions that will be necessary to manage overcapacity caused by the People's Republic of China (PRC) and other major trading partners. AMERICA SPEAKS

Joe Biden has kept in place virtually all of the tariffs that Donald Trump imposed on steel and aluminum from many countries, as well as additional tariffs on many products from China. How should the president elected in 2024 treat this policy?



Source: Morning Consult poll conducted between May 1-May 3, 2024 among a sample of 2201 Adults.

1. Reinstate and modernize the Section 421 import surge protection safeguard to address domestic market disruptions caused by China's significant role in global overcapacity across a range of critical sectors.

The Section 421 tool, which expired in 2013, allowed the United States to impose tariffs or other restrictions to address "market disruptions" caused by import surges as China entered the WTO and was expected to transition into a market economy. But Beijing has failed to abide by its WTO commitments and remains a non-market economy. Its state-driven support for critical sectors is causing massive overcapacity and threatens import surges in the United States, necessitating the reinstatement of the Section 421 tool. The threat has evolved, and the tool should be modernized to:

- Cover third-country production;
- · Accelerate relief before lasting and permanent damage occurs;
- Broaden the options for relief measures;
- · Extend the duration of relief; and
- Require the president to provide thorough justification in the event relief is denied.

2. Modernize and strengthen U.S. antidumping (AD) and countervailing duty (CVD) tools.

The predatory industrial policies and unfair trade practices of China and many other trade partners – including developing countries and even U.S. allies – are an everyday reality for U.S. manufacturers and their workers and a broader existential danger to our free and rules-based market economy. Left unchecked, persistent trade cheating contributes to overcapacity and results in significant, negative community and personal impacts on people's lives when a factory closes due to unfair trade. Congress and the administration should modernize and strengthen trade remedy tools by:

- Enacting the *Leveling the Playing Field Act 2.0* (S. 1856 / H.R. 3882) to stay ahead of new and evolving circumvention tactics used by Chinese firms;
- Enacting the Fighting Trade Cheats Act (S. 805 / H.R. 2667) to address evasion of existing duties; and
- Self-initiating and streamlining the petitioners' process for countervailing duty (CVD) trade cases that
 address currency manipulation, providing domestic companies and their workers prompt relief when
 injured by subsidized imports resulting from a foreign government's actions to devalue its currency.

3. Utilize Section 232 and Section 301 tools when traditional trade remedy tools are not sufficient to address U.S. economic and national security threats due to global overcapacity in key sectors.

Traditional antidumping (AD) and countervailing duty (CVD) trade enforcement measures provide effective, yet targeted, relief against unfair trade on specific products from specific trading partners. They do not, however, serve as an effective tool to address global overcapacity by China and other contributors. Both the Section 232 (steel and aluminum) and Section 301 (China) tools have been deployed by the Trump administration and reaffirmed, and in some cases strengthened, by the Biden administration to address broader economic and national security impacts of unfair trade and overcapacity on critical U.S. sectors. The Biden administration recently enhanced existing Section 301 tariff rates on a range of products and is currently conducting a Section 301 investigation into the PRC's predatory actions to boost its maritime logistics and shipbuilding industries to the detriment of U.S. capabilities.

4. U.S. free trade agreements (FTAs) and preference programs must address overcapacity with strong rules that are comprehensive and enforceable.

U.S. negotiators must prioritize overcapacity in all U.S. trade agreements, enlisting trading partners to eliminate their own excess capacity and to join the United States in pressuring China and those countries most responsible for distorting global markets. All existing and future FTAs and preference programs must:

- Contain strong rules of origin (ROO) that direct the benefits of the agreement only to its signatories. Priority must be given to all stages of production without overlooking the components, parts, and upstream raw materials fundamentally necessary to produce a given product.
- Exclude state-owned and -supported companies based in non-market economies and those countries
 most responsible for overcapacity from enjoying the benefits of FTAs and preference programs. For
 instance, U.S. negotiators must address a recent trend of PRC-affiliated companies seeking to establish
 downstream production facilities in Mexico as a means of avoiding U.S. trade policies and enforcement
 mechanisms.
- Ensure that the preferential trade treatment under the Generalized System of Preferences (GSP) program, and other preference programs, is in fact only granted to developing countries and not to third-party countries, such as China, that are neither developing countries nor a deserving or intended beneficiary country under the GSP and other preference programs.
- Address the underlying issues that contribute to excess capacity, including forced labor, prohibited subsidies, state-owned enterprises, and inferior environmental and labor standards.

5. Advance U.S.-EU Global Arrangement negotiations in a manner that produces enforceable mechanisms to quarantine excess steel and aluminum production from markets committed to a level playing field.

The United States and the European Union continue to evaluate the potential for a Global Arrangement on Sustainable Steel and Aluminum arising from the Section 232 process. While those discussions have yet to produce a workable and enforceable agreement, they are predicated on an understanding that those who are committed to decarbonization are at risk from predatory trade practices from those who lack that commitment. Often, these are the same countries that contribute most to greenhouse gas emissions and overcapacity. It is essential that any agreement accounts for the different production processes in the steel industry, where both integrated and electric arc furnace (EAF) technologies are present.

6. Seek solutions to overcapacity at the Organisation for Economic Co-operation and Development (OECD), World Trade Organization (WTO), International Monetary Fund (IMF), and other international organizations.

The United States has for years worked at the OECD, including the Global Forum on Steel Overcapacity, to seek enforceable multilateral disciplines, but these efforts have not produced meaningful results. Regrettably, our trading partners have refused to join the United States in taking meaningful action, and China walked away from this process. Such engagement at international organizations should continue in the pursuit of solutions to overcapacity and the underlying issues that contribute to excess capacity, including forced labor, prohibited subsidies, state-owned enterprises, and inferior environmental and labor standards. However, such efforts must not stand in the way or serve as an excuse to pause or diminish the use of trade remedy and enforcement tools that afford relief to domestic companies and their workers and protect U.S. economic and national security.

7. Identify major trading partners that violate currency manipulation standards of systematically intervening to gain an unfair competitive advantage and take decisive action to counter the impacts, where appropriate.

China, Japan, South Korea, Vietnam, and other major trading partners have a long history of currency manipulation or competitive devaluation, which benefits their exports to the U.S. market and artificially taxes our exports when sold abroad. This combined impact erodes U.S. competitiveness, undermines manufacturers and farmers seeking to grow their export markets, and fuels market distortions that result in global overcapacity. To address this ongoing challenge, the Treasury Department should:

- Take a more aggressive stance in identifying currency manipulation and competitive devaluation in its semiannual report on exchange rate policies;
- Fully leverage existing authorities to address currency manipulation and competitive devaluation both at the IMF and using domestic tools;
- Offset the impacts of major trading partners' actions through calculated Treasury interventions that maintain the competitiveness of the U.S. Dollar, particularly at times when the United States is running large and persistent trade deficits.

DOMESTIC CONTENT REQUIREMENTS AND PROHIBITIONS ON OVERCAPACITY CULPRITS

8. Fully enforce domestic content preference policies to ensure that taxpayer dollars support domestic manufacturers and their workers rather than flowing to companies backed by countries most responsible for global overcapacity.

Buy American and Buy America policies applied to government procurement and federal assistance infrastructure projects are long-standing and highly successful policies that ensure that American tax dollars support American manufacturers and workers. Federal departments and agencies should accelerate and fully implement the 2021 "Build America, Buy America" Act (BABA) in a manner consistent with congressional directives and by avoiding "general" waivers that erode Buy America coverage.

9. Strengthen and fully enforce incentives for clean energy infrastructure projects to be constructed using iron, steel, and other products that are produced in the United States.

The Treasury Department must strengthen its implementation of domestic content "bonus credits" established under various Inflation Reduction Act programs, which Congress intended to incentivize the use of Americanmade iron, steel and manufactured products in clean energy projects receiving tax credits. Simply put, the implementing policies and origin standards in the Treasury guidance allow clean energy projects to "satisfy" the domestic content requirement while incorporating massive amounts of foreign content – including from China and other overcapacity culprits – while doing little to create demand for truly domestic components. And U.S. taxpayers will be on the hook for the bonus tax credit afforded to these projects.

10. Expand and strengthen policies that restrict access to taxpayer funded infrastructure projects, tax credits, and other forms of federal assistance for those most responsible for overcapacity and its underlying causes.

In 2019, Congress enacted the Transportation Infrastructure Vehicle Security Act (TIVSA) to limit transit federal assistance dollars from being used to purchase railcars, buses, and other rolling stock from China's state-owned and -supported companies. More recently, the 2024 reauthorization of Federal Aviation

Administration (FAA) programs expanded this law to apply to airport projects. Separately, Congress has imposed restrictions on Chinese content for eligibility under tax credits for clean vehicles, although the implementation has resulted in loopholes. These policies serve as a starting point for Congress and the administration to apply commonsense restrictions on access to taxpayer resources for those most responsible for overcapacity and its underlying causes.

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