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REPORT *Published March 7, 2022 • 15 minute read*

The Supply Chain Crisis: What's Behind It & What to Do About It

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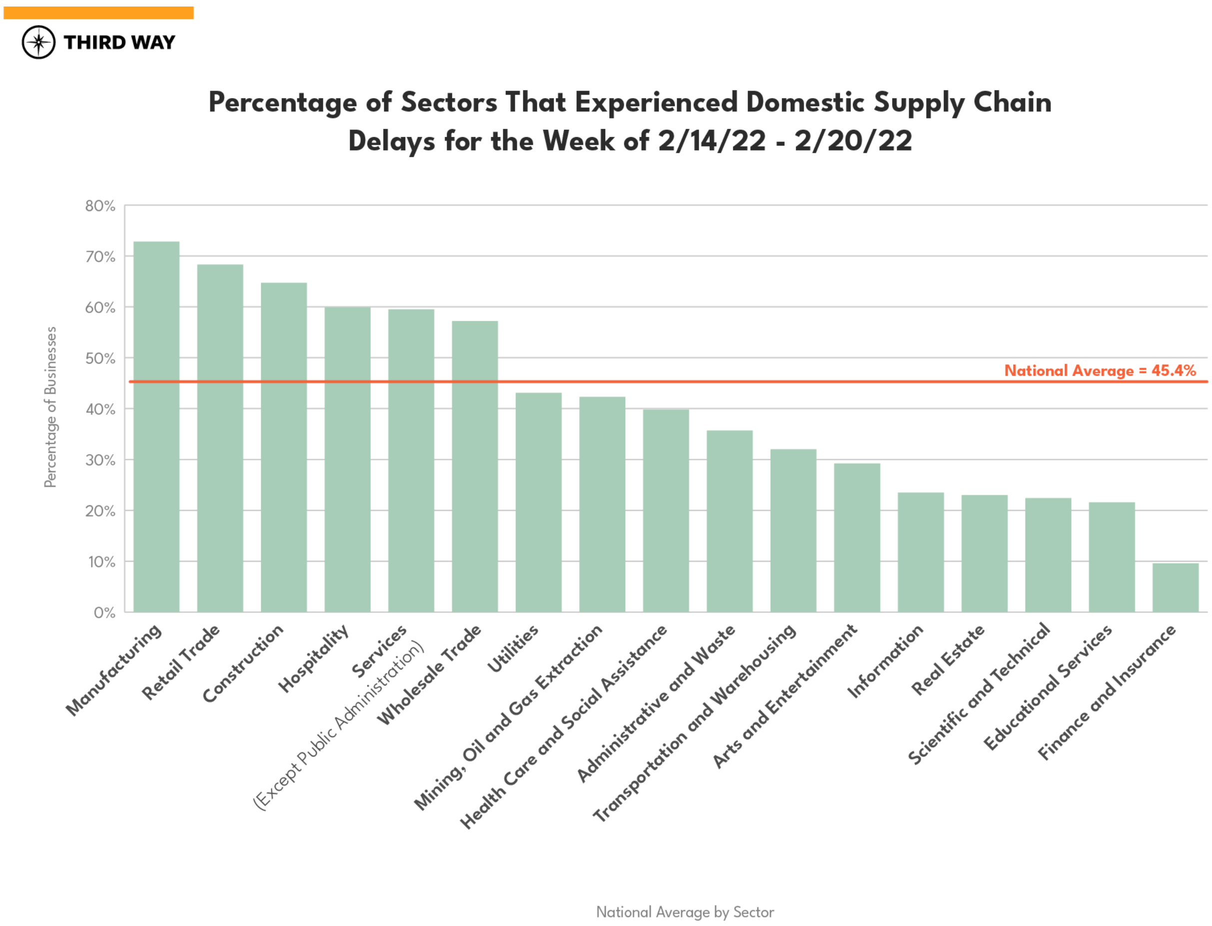
Why was there not enough toilet paper on store shelves? Why are meat, fruit, and bread more expensive? Why isn't your new car going to be ready for 6-8 months? While most consumers never had to think about supply chains, the current supply chain crunch is having an outsized impact on families across the country.

American consumers have felt the consequences through inflation and higher prices, smaller quantities of available goods, and longer wait times for purchases. In a fall consumer survey, 91% of respondents said they now consider the supply chain when making a purchase.[1] Businesses have also suffered, experiencing delayed deliveries, overworked staff, and an intensified level of uncertainty. Case in point, 45% of small businesses have reported domestic supplier delays and large businesses across sectors such as technology, energy, auto, and manufacturing have cut production forecasts for the coming year.[2]

As policymakers work to navigate the evolving economy this year, it's critical to understand why supply chains are faltering and what to do about it. In this report, we examine the root causes of the supply chain disruptions, what the federal government has done to date, and ideas for what else can be done to help steer our economy past the current challenge.

What's Wrong With Supply Chains?

The supply chain issues we're experiencing today aren't confined to one sector. In fact, as the chart below shows, a significant number of businesses are dealing with delays across the economy, from manufacturing and retail to health care and transportation.



Source: U.S. Census Bureau, Small Business Pulse Survey. Feb. 24, 2021, https://portal.census.gov/pulse/data/. Accessed 25 Feb. 2022.

There's also not one single reason for these issues—a closer look reveals a complex network of interconnected factors. These include:

Overexposure to economic shock. Since the 1970's, global firms have relied on lean manufacturing models such as the Just-In-Time inventory system which disincentives stockpiling to keep costs low for both businesses and consumers. Although these models have increased efficiency and profits while reducing losses, they require a high level of coordination and accuracy among suppliers. [3] Coupled with a reliance on China for various goods, these strategies have exposed firms to the kinds of risks currently being witnessed.

Trucking and freight industry challenges. Despite moving more than 70% of domestic freight, the long-haul trucking industry has been riddled with challenges for decades, including labor shortages, declining wages, inadequate infrastructure, and poor job quality. [4] From 1995 to 2017, the average turnover rate was 94% across large freight carriers and 79.2% across smaller ones. [5] As of 2021, the industry claims a shortage of 80,000 drivers, presenting short-term and long-term challenges for the industry. [6] These issues have affected the wider, interconnected freight transport network, including rail, maritime shipping, and air freight. [7]

A shortage of shipping containers and chassis. A piece of equipment often taken for granted across the supply chain, widespread delays and bottlenecks led to a shortage of usable shipping containers and chassis to put them on around the world. The cost of these large, steel boxes hit record prices, rising more than seven times across key shipping routes. [8] These shortages have been made worse by a lack of chassis, a simple yet hard-to-find piece of trucking equipment necessary to move shipping containers. [9] This, in turn, has increased demand and fueled higher costs for air and maritime shipping.

Supply and demand volatility. The pandemic initially restricted business and consumer activity, leading to layoffs, unprecedented levels of resignations, and a decrease in production and transportation. It was followed by a quick rebound in demand when many production decisions had already been made. This led to large-scale shortages and unmet labor demand. The resulting tight labor market has emerged as another burden on the supply chain extending to all modes of transport. Without sufficient workers, manufacturers and producers still have trouble meeting customer demand.

Shifts in consumer activity. When lockdowns commenced, normal life and activity was upended as Americans had to adjust to virtual work and school. Since families began spending more time sheltering at home, they spent more on purchasing goods relative to services, thereby adding increased strain to the supply chain.

Robust fiscal stimulus programs. Federal support helped stave off poverty and hunger for millions and has been a key factor in the ongoing economic recovery. Yet, these safety net programs also gave consumers more disposable income, increasing demand in an otherwise already volatile consumer market.

A vicious cycle of scarcity. A shortage of components and essential parts such as computer chips has increased prices and wait times across a broad swath of industries. This cycle is exacerbated by tariffs for intermediate inputs which are goods used in production of finished products. Higher costs for these intermediate products have meant American manufacturers often have to raise prices they charge other businesses and consumers, or they are forced to reduce production, close plants, and let go of workers, creating further shortages. [10]

New COVID developments and other market uncertainties. The fast spread of Omicron and the ongoing threat of new variants continue to destabilize production and labor markets. Extreme weather and one-off events such as the blocking of the Suez Canal, which created a domino effect of global supply chain disruptions, have also had negative impacts. In addition, the Russian invasion of Ukraine has also added uncertainty to energy and other raw material markets. [11]

It is difficult to predict how long it will take for the disruptions to subside as there are interdependent factors. [12] Global shipping costs have fallen from their peak in September, yet on average remain four times as high as their pre-pandemic levels. [13] Key inflation measures remain very high, with businesses and consumers feeling the pinch. [14] And recently, 45.4% of respondents in the U.S. Census Bureau's Small Business Pulse Survey cited domestic supplier delays, and nearly 22.3% mentioned having difficulty locating alternative domestic suppliers. And these supply chain issues tend to hit manufacturers worse. [15]

While the federal government and business community have engaged in ongoing efforts to reduce the severity of supply chain disruptions, full easing will depend on various factors, including supply-chain choke points, shortages of inputs, labor shortages across numerous industries, and general market instability. Across many sectors, elevated consumer prices and logistics costs, COVID uncertainty, and other supply chain complexities may persist well into 2022 and beyond.

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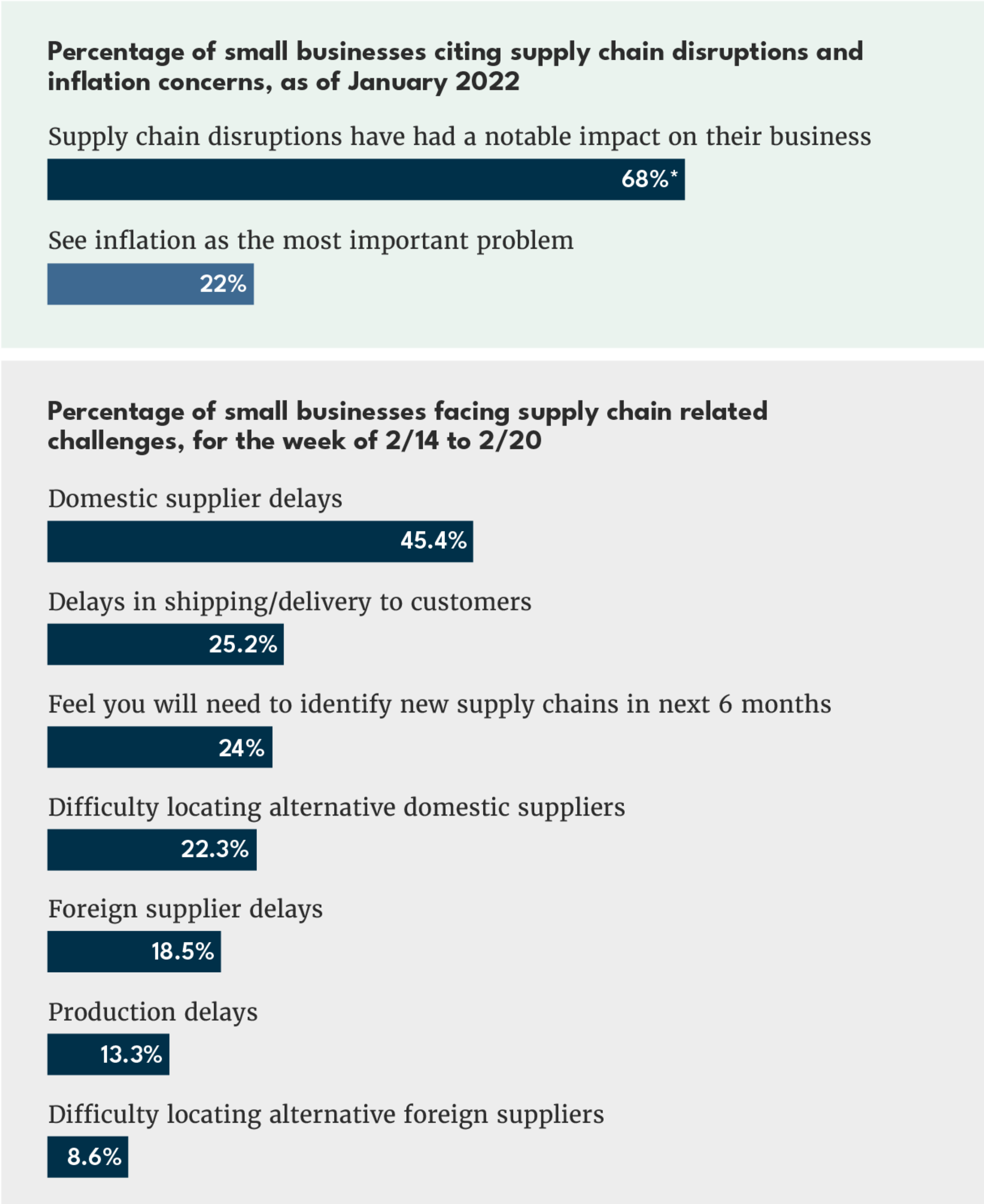
How Are Supply Chains Impacting Small Businesses?



Source: Top Chart: Dunkelberg, William C. and Holly Wade. "Small Business Economic Trends." NFIB, Jan. 2022. https://assets.nfib.com/nfibcom/SBET-Jan-2022-Final.pdf. Accessed 3 Feb. 2022. *The 68% statistic in the top graph combines significant and moderate impacts across small businesses featured in the survey.

Bottom Chart: U.S. Census Bureau, Small Business Pulse Survey. Feb. 24, 2021, https://portal.census.gov/pulse/data/. Accessed 25 Feb. 2022.

What Has the Biden Administration Done?

Over the last year, the Biden Administration has taken a series of steps to address supply chain issues. [16] These include:

- **Used the bully pulpit to address bottlenecks:** The Administration has worked to bring together retailers, shipping companies, port executives, and business leaders to assess the challenges present at various points in the supply chain and strategize on solutions. [17] These efforts have helped to catalyze a shift to 24/7 operations by California ports, relaxed age requirements for truck drivers, and expanded operating hours of many major retailers. [18]

- **Taken executive action:** In February 2021, the Administration released an executive order requiring an evaluation of critical supply chains and listing both short- and long-term priorities for creating resiliency. This includes plans to revitalize domestic manufacturing capacity, invest in innovation, and create well-paying jobs. [19] In February 2022, the White House and seven cabinet agencies published reports proposing multi-year strategies the federal government would adopt to shore up key weaknesses in the country's supply chains and increase its long-term resilience through new legislation and federal initiatives. [20]

- **Coordinated with international allies:** The supply chain disruption is not a uniquely American problem; other countries are grappling with the effects of supply chain slowdowns. The Administration has looked to strengthen global supply-chain resilience by partnering with other nations to streamline customs' processes, provide technical assistance to alleviate supply chain disruptions, and identify key sectors for future collaboration. [21]

- **Launched the Supply Chains Disruption Taskforce:** Assembled by the Administration in June 2021, the taskforce's leadership has worked across various sectors to relax certain trucking regulations, expand manufacturing of essential supplies, fast-track infrastructure projects, and bolster the private sector's ongoing efforts. [22]

- **Targeted price gouging:** The Competition Council, a group made up of high-level Administration officials, have worked to incentivize corporate competition and drive down prices. This includes ensuring transparent pricing for airline travelers, cracking down on bank and credit card "junk fees," and ramping up agency efforts to challenge mergers that are bad for the economy. [23] The Administration has also looked to directly quell price spikes in both the gas and meat sectors, two of the industries seeing the highest rates of inflation. To do so, President Biden recently pledged $1 billion in aid for independent meat and poultry producers to help diversify an industry currently dominated by four large companies. [24]

- **Supported onshoring initiatives**: The United States has gone from making 37% of the world's computer chips down to approximately 12% as production has transitioned to Asia. [25] In mid-January, President Biden announced that Intel will make a $20 billion investment to build a semiconductor plant in Columbus, Ohio, an investment similar to Samsung's November announcement of its plans to spend $17 billion in a new chip factory in Texas. [26] Both of the plants will create thousands of local jobs and be subsidized by state grants and awards. [27] This investment highlights the Administration's ongoing efforts to address shortages in semiconductors and key industries and strengthen domestic supply chains.

What Else Can Be Done?

Some progress has been made to alleviate supply chain pressure and reduce the frequency of crisis moments. Further, companies have successfully cleared the much-predicted turmoil in the 2021 holiday consumer season. [28] However, experts predict high inflation and supply chain woes will persist this year. [29] Given these expectations, there have been heightened expectations on the federal government to do more.

Below, we suggest 19 different actions policymakers can take across the following four areas: address labor issues, reduce bottlenecks, help businesses, and improve the long-term outlook for US supply chains.

Address Labor Issues

The current low rate of unemployment is a sign of a thriving economy. But a tight labor market means finding workers to manufacture goods and drivers and other logistics workers to keep things moving remains difficult. As Transportation Secretary Pete Buttigieg has said, "truck drivers are—and have always been—essential." [30] The federal government has a few tools at their disposal to help alleviate some of the impacts of the labor shortage on the supply chain.

- Fund short-term incentives for truck drivers and warehouse workers. This could include additional assistance for safe and more accessible trucker parking as proposed by Representative Peter DeFazio as well as better fitting weight/capacity regulations. These improvements alone would save truck drivers hours on the job, for example, when they spend hours searching for parking enroute to their final destinations. [31]

- Make it easier for people to work by reducing burdensome occupational licensing rules. As Third Way has written previously, there is a big disconnect between licensing and certification rules that many professions require on a state-by-state basis. The federal government can help develop new, nationwide standards for these jobs as well as provide states with incentives to reduce burdensome regulations.

- Provide more COVID tests at ports, freight transportation facilities, and manufacturing plants. This will help ensure workers can stay safe and healthy while on the job.

- Engage in the process early to support a timely contract agreement between the International Longshore & Warehouse Union and the Pacific Maritime Association so that we can avoid a July 1, 2022 expiration and new additional disruptions at critical West Coast ports.

Further Reduce Bottlenecks

Meeting the needs of rising consumer demand requires a smooth journey of goods from point A to point B (and to point C and beyond). Yet while some of the backlogs have been cleared, a new phase of the pandemic and global factory shutdowns has kept ports overwhelmed and logistics equipment in short supply. Untangling supply chain snarls remains crucial to help drive down inflation and keep products moving. There are a few additional fixes the White House and Congress could take to clear these bottlenecks.

- Provide federal funding or tax credits to build more shipping containers, chassis, and other logistics capital equipment. In addition, there are tariffs on chassis equipment that could be reduced to manage that bottleneck.

- Help ports find land that can temporarily store containers while backups remain, and temporarily suspend zoning restrictions that may prevent this storage. This policy solution was already adopted by the US Department of Agriculture in their funding of a new 25-acre site at the Port of Oakland designated for filling empty shipping containers with agricultural exports. The "pop-up" site will help improve the flow of goods while getting agricultural exports out the door more quickly. [32]

- Temporarily suspend the Jones Act for ships to access ports not subject to substantial backups. Currently, the Jones Act requires goods going from one American port to another to be transported on an American owned and built ship that is crewed by US citizens or permanent residents.

- Coordinate data sharing on freight status, port backups, and other logistics system congestion to let suppliers and receivers of goods better adapt and anticipate challenges. Also, federal funding can help smaller ports invest in the technological infrastructure needed to strengthen logistics systems and share their data to relevant parties.

Help Businesses

The supply-chain disruptions have made it harder and more expensive for businesses to meet the demands of consumers. Large retailers have been able to better handle these disruptions by renting their own shipping containers or chartering planes to move products. But those solutions are often too expensive for small businesses who have struggled to stock shelves. To help businesses better navigate the challenges, the federal government should:

- Invest federal money in small, medium, and disadvantaged businesses in critical supply chains and industries. Federal funding could help businesses stay afloat during labor and goods shortages, including supply chain delays, and it would help them build contingency plans, for example, when they have the need to diversify their supply chains.

- Eliminate tariffs on basic and intermediate goods coming to the United States for further processing for American consumers and further evaluate reductions in Trump-era tariffs with our global allies. In keeping with this approach, on February 3rd, the Department of Commerce announced the administration's move to reduce duties on softwood lumber from 17.99% to 11.64%. This reduction in tariffs would advance efforts in support of the construction and manufacturing industries, in addition to addressing the country's affordable housing problem. [33]

- Provide businesses short-term storage spaces to manage needed spikes in warehousing or partner with companies already offering these services. [34]

Improve the Long-Term Outlook for US Supply Chains

Even as we continue to navigate the pandemic's impact on supply chains, a big question looms—are we ready for the next crisis? Focusing on getting ports unclogged and shelves stocked is important in the short term. But creating flexible and resilient supply chains built to weather future disruptions will involve addressing more deep-rooted problems such as labor-supply shortages and our reliance on foreign imports. Going forward, these are some actions that Congress and the Administration may take now to strengthen our supply chains for the future:

- Improve the domestic supply chain and manufacturing workforce through legislation and reforms such as WIOA reauthorization and an expansion of the registered apprenticeship system. Efforts like these will provide workers with better quality jobs and increase the labor market's responsiveness to growing industries.

- Work to diversify US supply chains by continuing to bolster ties with other international allies, with a focus on nearshoring by increasing trade with Mexico and Central America.

- Utilize the Infrastructure Investment and Jobs Act (IIJA) funding to strengthen long-term resilience of critical ports and other supply chain infrastructure. Currently, American ports are not up to par with those of other countries and are in critical need of modernization to weather future disruptions, in addition to helping maximize the benefits from Panama Canal expansion. [35] Further investments modernizing US port operations would give them the capacity to function 24/7 when needed, a necessary feature to bolster supply chain resilience.

- Fully fund H.R.7178 — Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act to incentivize onshoring semiconductor manufacturing and pass S.2107 — Facilitating American-Built Semiconductors (FABS) Act to spur investment in semiconductor manufacturing facilities through tax credits. [36]

- Fund public-private partnership programs that focus on creating more resilient manufacturing systems and supply chains in the United States, including H.R.5978 — Manufacturing American Dynamism in Entrepreneurship and Harnessing Education to Retool Employees (MADE HERE) Act. [37]

- Create a federal agency or authority on supply chains that acts as an intermediary between the private sector and federal government. [38] This could include the Critical Supply Chain Commission Act. [39]

- Help export-driven businesses and farmers better utilize outgoing ships with H.R.4996/S.3580 — Ocean Shipping Reform Act. [40] The legislation aims to help American exporters by making it more difficult for ocean carriers to refuse exports at the ports and granting the Federal Maritime Commission greater power to oversee these carriers. [41]

- Reach agreement on the strongest parts then pass the bipartisan and bicameral China competitiveness bill currently known as the United States Innovation and Competition Act (USICA) as passed by the Senate and the America COMPETES Act as passed in House. [42]

Conclusion

Elevated prices, delays, and general market uncertainty may persist as supply chain disruptions continue to unfold well into 2022. These economic problems have historically been and remain in the domain of the private sector and dependent on the actions of the global supply chain, companies, and consumers. However, the size and scope of the current challenges have placed pressure on policymakers to provide tangible solutions to mitigate its effects on the American economy and inflation.

Over the last several months, the Federal government has taken a series of steps to mitigate the short-term ramifications of supply chain disruptions. As outlined in this report, policymakers have several more policy solutions to alleviate pressure on the supply chain and work towards both reducing short-term pressure and implementing policies that will increase the US economy’s competitiveness and resilience over the long term.

TOPICS

TRADE 97

ENDNOTES

1. Kay, Grace, "The supply-chain crisis is rattling Americans as shipping delays hit historic highs." *Business Insider*, 1 Oct. 2021, https://www.businessinsider.com/supply-chain-crisis-worries-majority-americans-shipipng-delays-2021-9. Accessed 25 Feb. 2021.

2. U.S. Census Bureau, Small Business Pulse Survey. Feb. 24, 2021, https://portal.census.gov/pulse/data/. Accessed 25 Feb. 2022; See also: Friesen, Garth. "No End in Sight for the COVID-Led Global Supply Chain." *Forbes*, 3 Sep. 2021. https://www.forbes.com/sites/garthfriesen/2021/09/03/no-end-in-sight-for-the-covid-led-global-supply-chain-disruption/?sh=7c7072ec3491. Accessed 25 Feb. 2022.

3. Goodman, Peter S. and Niraj Choksi. "How the World Ran Out of Everything." *The New York Times*, 22 Oct. 2021, https://www.nytimes.com/2021/06/01/business/coronavirus-global-shortages.html. Accessed 25 Feb. 2022.

4. Smith, Jennifer. "White House Revs Up Trucker Recruitment Drive." *The Wall Street Journal*, 16 Dec. 2021, https://www.wsj.com/articles/white-house-revs-up-trucker-recruitment-drive-11639648803?mod=series_supplychainwoes. Accessed Feb. 25, 2022.

5. U.S. Bureau of Labor Statistics. Is the U.S. labor market for truck drivers broken? Monthly Labor Review, Mar. 2019, https://www.bls.gov/opub/mlr/2019/article/is-the-us-labor-market-for-truck-drivers-broken.htm?utm_source=npr_newsletter&utm_medium=email&utm_content=20210524&utm_term=5413005&utm_campaign=money&utm_id=5246456&orgid=151&utm_att1=money#_edn38. Accessed 25 Feb. 2022.

6. Smith, Jennifer. "White House Revs Up Trucker Recruitment Drive." *The Wall Street Journal*, 16 Dec. 2021, https://www.wsj.com/articles/white-house-revs-up-trucker-recruitment-drive-11639648803?mod=series_supplychainwoes. Accessed 25 Feb. 2022.

7. United States International Trade Commission. The Impact of the Covid-19 Pandemic on Freight Transportation Services and U.S. Merchandise Imports. 2021, https://www.usitc.gov/research_and_analysis/tradeshifts/2020/special_topic.html. Accessed 25 Feb. 2022.

8. Chang, Evelyn. "Surging shipping costs will drive up prices for some consumer products by 10%, new UN report finds." *CNBC*, 18 Nov. 2021, https://www.cnbc.com/2021/11/19/surging-shipping-costs-to-drive-consumer-price-inflation-unctad-says.html. Accessed 25 Feb. 2022.

9. Berger, Paul. "A Simple Piece of Steel and Wheels is Holding Up the Global Supply Chain." *The Wall Street Journal*, 28 Oct. 2021. https://www.wsj.com/articles/a-simple-piece-of-steel-and-wheels-is-holding-up-the-global-supply-chain-11635452843. Accessed 25 Feb. 2022.

10. York, Erica. Trump-Biden Tariffs Hurt Domestic Manufacturing. Tax Foundation,1 Dec. 2021, https://taxfoundation.org/trump-biden-tariffs-manufacturing/. Accessed 25 Feb. 2022.

11. Stevens, Pippa. “The ship that blocked the Suez Canal may be free, but experts warn the supply chain impact could last months.” *CNBC*, 29 Mar. 2021, https://www.cnbc.com/2021/03/29/suez-canal-is-moving-but-the-supply-chain-impact-could-last-months.html. Accessed 25 Feb. 2022.

12. Goodman, Peter S. “How the Supply Chain Broke, and Why It Won’t Be Fixed Anytime Soon.” *The New York Times*, 31 Oct. 2021, https://www.nytimes.com/2021/10/22/business/shortages-supply-chain.html?action=click&module=RelatedLinks&pgtype=Article. Accessed 25 Feb. 2022.

13. Kamali, Parisa. Global Shipping Costs Are Moderating, But Pressures Remain. *IMF Blog*, 13 Jan. 2021, https://blogs.imf.org/2022/01/13/global-shipping-costs-are-moderating-but-pressures-remain/. Accessed 25 Feb. 2022.

14. Newman, Jesse and Jaewon Kang. “U.S. Food Supply Is Under Pressure, From Plants to Store Shelves.” *Wall Street Journal*, 23 Jan. 2022, https://www.wsj.com/articles/from-plants-to-store-shelves-u-s-food-supply-is-under-pressure-11642933805. Accessed 25 Feb. 2022.

15. U.S. Census Bureau, Small Business Pulse Survey. Feb. 24, 2021, https://portal.census.gov/pulse/data/. Accessed 25 Feb. 2022

16. The White House. *Executive Order on America’s Supply Chains: A Year of Action and Progress*. Report, 24 Feb. 2022, https://www.whitehouse.gov/wp-content/uploads/2022/02/Capstone-Report-Biden.pdf. Accessed 25 Feb. 2022.

17. The White House. *Fact Sheet: Biden Administration Efforts to Address Bottlenecks at Ports of Los Angeles and Long Beach, Moving Goods from Ship to Shelf.* Fact Sheet, 13 Oct. 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/10/13/fact-sheet-biden-administration-efforts-to-address-bottlenecks-at-ports-of-los-angeles-and-long-beach-moving-goods-from-ship-to-shelf/. Accessed 25 Feb. 2022.

18. Ana Swanson et al. “Biden Announces Measures at Major Ports to Battle Supply Chain Woes.” *The New York Times*, 2 Nov. 2021. https://www.nytimes.com/2021/10/13/us/politics/biden-port-los-angeles-supply-chain.html and https://www.nytimes.com/2022/01/19/business/apprentice-program-truck-drivers.html. Accessed 25 Feb. 2022.

19. Tankersley, Jim and Ana Swanson. “Amid Shortfalls, Biden Signs Executive Order to Bolster Critical Supply Chains.” The *New York Times*, 24 Feb. 2021, Updated 13 Oct. 2021. https://www.nytimes.com/2021/02/24/business/biden-supply-chain-executive-order.html. 25 Feb. 2022.

20. The White House. “The Biden-Harris Plan to Revitalize American Manufacturing and Secure Critical Supply Chains in 2022.” Press Release, 24 Feb. 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/the-biden-harris-plan-to-revitalize-american-manufacturing-and-secure-critical-supply-chains-in-2022/. Accessed 25 Feb. 2022.

21. The White House. "The Biden-Harris Plan to Revitalize American Manufacturing and Secure Critical Supply Chains in 2022." Press Release, 24 Feb. 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/the-biden-harris-plan-to-revitalize-american-manufacturing-and-secure-critical-supply-chains-in-2022/. Accessed 25 Feb. 2022; See also: U.S. Department of Commerce, "U.S. – Mexico High-Level Economic Dialogue (HLED) Fact Sheet." Fact Sheet, 13 Dec. 2021, https://www.commerce.gov/news/fact-sheets/2021/12/us-mexico-high-level-economic-dialogue-hled-fact-sheet. Accessed 25 Feb. 2022.

22. The White House. "Fact-Sheet: Biden-Harris Administration Announces Supply Chains Disruptions Task Force to Address Short-Term Supply Chain Discontinues." Fact Sheet, 8 Jun. 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/08/fact-sheet-biden-harris-administration-announces-supply-chain-disruptions-task-force-to-address-short-term-supply-chain-discontinuities/. Accessed 25 Feb. 2022.

23. The White House. "Readout of the Second Meeting of the White House Competition Council." Press Release, 24 Jan. 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/24/readout-of-the-second-meeting-of-the-white-house-competition-council/. Accessed 25 Feb. 2022.

24. Tankersley, Jim and Alan Rappeport. "As Prices Rise, Biden Turns to Antitrust Enforcers." *The New York Times*, 25 Dec. 2021, https://www.nytimes.com/2021/12/25/business/biden-inflation.html and https://www.washingtonpost.com/us-policy/2022/01/03/white-house-beef-supply/. Accessed 25 Feb. 2022.

25. Whalen, Jeanne and Aaron Gregg. "Intel's $20 billion investment in Ohio chip factories said to be the state's largest ever." *The Washington Post*, 21 Jan. 2022, https://www.washingtonpost.com/business/2022/01/21/intel-chip-factory-ohio/. Accessed 25 Feb. 2022.

26. Whalen, Jeanne and Aaron Gregg. "Intel's $20 billion investment in Ohio chip factories said to be the state's largest ever." *The Washington Post*, 21 Jan. 2022, https://www.washingtonpost.com/business/2022/01/21/intel-chip-factory-ohio/. Accessed 25 Feb. 2022.

27. Noah Buhayar et al. "Texas Put Up Millions to Lure a Samsung Plant and Won. Will It Pay Off?" *Bloomberg*, 24 Nov. 2021, https://www.bloomberg.com/news/articles/2021-11-24/texas-s-samsung-bet-shifts-focus-to-recouping-millions-it-put-up#:~:text=The%20plan%20includes%20waiving%2090,estimated%20to%20cost%20%24314%20million. Accessed 25 Feb. 2022

28. The White House. "Remarks by President Biden in Press Conference." 19 Jan. 2022, Shttps://www.whitehouse.gov/briefing-room/speeches-remarks/2022/01/19/remarks-by-president-biden-in-press-conference-6/. Accessed 25 Feb. 2022.

29. Lynch, David J. "Omicron fallout and tough labor talks likely to rattle supply chains and fuel inflation." *The Washington Post,* 15 Jan. 2022, https://www.washingtonpost.com/business/2022/01/15/omicron-supply-chain-inflation/. Accessed 25 Feb. 2022.

30. Buttigieg, Pete [@SecretaryPete]. "Tweet Message." *Twitter,* 12 Jan. 2022, https://twitter.com/SecretaryPete/status/1481344560890585092. Accessed 25 Feb. 2022.

31. Korte, Gregory. "Sleepy Truckers Get Forgotten in Supply Crisis Choking Economy." *TIME,* 22 Jan. 2022. https://time.com/6141206/sleepy-truckers-get-forgotten-in-supply-crisis-choking-economy/. Accessed 25 Feb. 2022.

32. Polansk, Tom. "U.S. helps fund California port Project as export delays hurt food makers." *Reuters,* 30 Jan. 2022. https://www.reuters.com/world/us/us-helps-fund-california-port-project-export-delays-hurt-food-makers-2022-01-30/. Accessed 25 Feb. 2022.

33. National Association of Home Builders. "NAHB Welcomes Biden Administration Move to Lower Lumber Tariffs." Press Release, 31 Jan. 2022, https://nahbnow.com/2022/01/nahb-welcomes-biden-administration-move-to-lower-lumber-tariffs/. Accessed 25 Feb. 2022.

34. "Ten steps retailers can take to shock-proof their supply chains." *McKinsey and Company*, 11 Nov. 2021. https://www.mckinsey.com/industries/retail/our-insights/ten-steps-retailers-can-take-to-shock-proof-their-supply-chains. Accessed 5 Feb. 2022.

35. Mufson, Steven. "An expanded Panama Canal opens for giant ships," *Washington Post*, 26 June 2016. https://www.washingtonpost.com/world/the_americas/an-expanded-panama-canal-opens-for-giant-ships/2016/06/26/11a93574-37d1-11e6-af02-1df55f0c77ff_story.html. Accessed 3 Feb. 2022.

36. United States, Congress. H.R.7178 CHIPS for America Act. *Congress.gov*, https://www.congress.gov/bill/116th-congress/house-bill/7178. 2021-2022 session. Introduced in House 11 June. 2022.

United States, Congress. S.2107 Facilitating American-Built Semiconductors Act. *Congress.gov*, https://www.congress.gov/bill/117th-congress/senate-bill/2107?s=1&r=77. 2021-2022 session. Introduced in Senate 17 June 2021.

37. United States, Congress. H.R.5555 MADE HERE Act. *Congress.gov*, https://www.congress.gov/bill/117th-congress/house-bill/5555. 2021-2022 session. Introduced in House 12 Oct. 2021.

38. Iakovou, Eleftherios and Chelsea C. White III. "How to build more secure, resilient, next-gen U.S. supply chains." *Brookings Institution*, 3 Dec. 2020. https://www.brookings.edu/techstream/how-to-build-more-secure-resilient-next-gen-u-s-supply-chains/. Accessed 3 Feb. 2022.

39. United States, Congress. H.R. 3848 Critical Supply Chains Commission Act. *Congress.gov*, https://www.congress.gov/bill/117th-congress/house-bill/3848. 2021-2022 session. Introduced in House 11 June. 2021.

40. United States, Congress. H.R.4996 Ocean Shipping Reform Act of 2021. *Congress.gov*, https://www.congress.gov/bill/117th-congress/house-bill/4996. 2021-2022 session. Passed in the House 8 Dec. 2021.

41. Berman, Jeff. "Klobuchar and Thune introduce Ocean Shipping Reform Act in the Senate." *Logistics Management*, 4 Feb. 2022. https://www.logisticsmgmt.com/article/klochubar_and_thune_introduce_ocean_shipping_reform_act_in_the_senate. Accessed 2 Feb. 2022.

42. While senators indicate that the name of USICA has been changed to the Make it in America Act, that legislation has not yet been released and so we refer to the Senate bill as passed on June 8, 2021.

United States, Congress. H.R.4521 America COMPETES Act of 2022. *Congress.gov*, https://www.congress.gov/bill/117th-congress/house-bill/4521. 2021-2022 session. Passed in the House 4 Feb. 2022.

United States, Congress. S.1260 United States Innovation and Competition Act of 2021. *Congress.gov*, https://www.congress.gov/bill/117th-congress/senate-bill/1260. 2021-2022 session. Passed in the Senate 8 June. 2021.