

Feeding America in a Time of Crisis

The United States Grocery Supply Chain and the COVID-19 Pandemic

An FTC Staff Report

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Executive Summary

In 2020, the COVID-19 pandemic substantially disrupted supply chains across the United States economy. Factories and ports across the globe shut down or greatly curtailed their operations to prevent the spread of illness. In turn, many of the key inputs needed to keep our economy running smoothly suddenly became scarce, causing production delays, product unavailability, and sudden price spikes. In effect, large sectors of our economy underwent a sudden stress test of their resilience and flexibility.

For many Americans, disruption in the availability and prices of their usual groceries became a highly visible and direct impact of the COVID-19-related supply chain disruptions. Grocery stores and consumers experienced periodic shortages of certain food and household products, as well as major price hikes.

To better understand supply chain disruptions throughout the economy, in 2021, the White House launched a systematic examination of supply chains in critical sectors of our economy, including semiconductors, clean energy, freight and logistics, defense, healthcare, and agriculture.¹ As part of that broader review, the Federal Trade Commission (“FTC”) undertook this examination of the grocery supply chain to better understand how pandemic-related supply chain disruptions affected competition among retailers, wholesalers, and producers, as well as the impacts on consumers and businesses.

To conduct this study, the FTC issued orders to nine companies—including three grocery retailers, three grocery wholesalers, and three grocery producers—to better understand their practices and responses to supply chain disruptions. The FTC also examined publicly available data on industry costs and revenues.

Our examination yielded several key insights regarding market structure, business conduct, and effects on consumers:

- ***Some large purchasers pressed their suppliers for favorable allocations of products in short supply.*** At the outset of the pandemic, many companies suspended policies that would penalize suppliers for not filling orders of items that were in shortage. However, when suppliers could not fulfill every order, simply having product in stock became a point of competitive differentiation for wholesalers and retailers. To gain access to scarce products and therefore a competitive advantage, some companies—most often larger ones—used policies that imposed strict delivery requirements on their upstream suppliers and threatened fines for noncompliance. Walmart even tightened the delivery requirements its suppliers had to meet to avoid fines as the pandemic went on. In some cases, suppliers preferentially allocated product to the purchasers threatening to fine them, which may have affected competition between the companies that threatened these fines and those that did not. The potential for powerful retailers to

¹ See THE WHITE HOUSE, EXECUTIVE ORDER ON AMERICA’S SUPPLY CHAINS: A YEAR OF ACTION AND PROGRESS (2022), <https://www.whitehouse.gov/wp-content/uploads/2022/02/Capstone-Report-Biden.pdf>; THE WHITE HOUSE, BUILDING RESILIENT SUPPLY CHAINS, REVITALIZING AMERICAN MANUFACTURING, AND FOSTERING BROAD-BASED GROWTH: 100-DAY REVIEWS UNDER EXECUTIVE ORDER 14017 (June 2021), <https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf>; THE WHITE HOUSE, TWO YEARS OF BUILDING STRONGER SUPPLY CHAINS AND A MORE RESILIENT ECONOMY (June 2023), <https://www.whitehouse.gov/wp-content/uploads/2023/06/Supply-Chain-Report-Card.pdf>; U.S. DEP’T OF COMMERCE, *Results from Semiconductor Supply Chain Request for Information* (Jan. 25, 2022), <https://www.commerce.gov/news/blog/2022/01/results-semiconductor-supply-chain-request-information>; Patrick W. McLaughlin et al., *National Trends in Food Retail Sales During the COVID-19 Pandemic: Findings from Information Resources, Inc. (IRI) Retail-Based Scanner Data* (U.S. Dep’t of Agric., Econ Res. Serv. COVID-19 Working Paper, AP-108, Dec. 2022), <https://www.ers.usda.gov/webdocs/publications/105367/ap-108.pdf?v=9499.6>.



distort product allocations during a shortage suggests that crises may create an opportunity for some firms to entrench their market power.

- ***Companies came to recognize that excessively consolidated supply chains were a liability.*** The pandemic revealed that concentration can undermine market resiliency and create market fragility. The stark impact of the supply chain disruptions during the pandemic prompted some firms to recognize the risks associated with having few suppliers available. Where a firm has many viable suppliers, the failure of any single supplier is less likely to disrupt operations. As a result, during the pandemic some retailers sought to diversify their supplier base, particularly of private-label (or store-branded) goods. Some larger firms purchasing in markets with few producers began exploring whether to build or acquire manufacturing capacity to reduce their exposure to concentrated markets. These efforts, however, have the potential to leave the remaining buyers even worse off if those large customers buy one of the few remaining producers rather than building that capability from scratch. Without policy intervention, markets that are fragile because of concentration may only further consolidate.
- ***When trade promotions designed to increase demand for products dried up, some firms were harmed more than others.*** Supply chain disruptions also changed dynamics in trade promotions, which for purposes of this study we define as any payment by a supplier for preferential access to downstream customers through the commitment of retail shelf space, product placement, or advertising. Trade promotions represent a significant revenue stream for many wholesalers and retailers. The reduction or withdrawal of these payments during the pandemic had a greater impact on retailers that were more dependent on promotional funds and made it harder for them to compete with rivals that used different pricing strategies. The significant size of trade promotions suggests further study of their economic impact may be warranted in light of their potential competitive impacts.
- ***Grocery retailer profits rose and remain elevated, warranting further consideration by the Commission and policymakers.*** This study did not test whether the specific companies that received 6(b) Orders increased their prices by more or less than their input cost increases. However, publicly available data on general grocery retail patterns reveal that during the pandemic, one measure of annual profits for food and beverage retailers—the amount of money companies make *over and above their total costs*—rose substantially and remain quite elevated. Specifically, food and beverage retailer revenues increased to more than 6 percent over total costs in 2021, higher than their most recent peak, in 2015, of 5.6 percent. In the first three-quarters of 2023, retailer profits rose even more, with revenue reaching 7 percent over total costs. This casts doubt on assertions that rising prices at the grocery store are simply moving in lockstep with retailers’ own rising costs. These elevated profit levels warrant further inquiry by the Commission and policymakers.

The pandemic made clear that supply chain bottlenecks, which can be created or exacerbated by limited competition, can leave markets exposed to major supply chain shocks—and that those shocks, in turn, can allow major firms to entrench their dominance and further harm competition. Achieving more diversified supply chains, including through promoting competition, can both limit the severity of supply chain shocks and, in turn, reduce the opportunity for that entrenchment.



Background

Study Design

Grocery retailers sell fresh foods and “Consumer Packaged Goods” (“CPG”)—an industry term for a wide range of packaged food and other household products that are regularly consumed and replenished—which they typically purchase either from wholesalers or directly from producers.² Thus there are typically three levels of the grocery supply chain: retail, wholesale, and production. This study aimed to capture a snapshot of pandemic-related disruptions and responses at each of these levels.

In November 2021, the FTC issued orders requiring documents and information from a total of nine participants in the grocery supply chain, covering retail, wholesale, and production functions.³ These orders sought information on the supply chain disruptions at each key step in the process of bringing food from farm to table. We asked the companies to provide information on the disruptions they experienced, how they adapted to those disruptions, and how those approaches may have ultimately affected competition and consumers.

The Information sought for this study was focused principally on senior executives’ documents and documents used in negotiations with trading partners. Accordingly, the conclusions reported here are based on specific information, but they do not measure the wider prevalence of observed practices or the magnitude of their impact on competition. Importantly, each order recipient provided information not only about its own activities, but also the actions of numerous other companies they did business with, providing staff with a broader perspective of the pandemic’s impact on the nation’s grocery supply chain. Staff also supplemented the information and productions provided by the respondents with research from public sources as appropriate and adjusted this report to exclude or anonymize confidential business information.⁴

The Grocery Supply Chain

Grocery Retailers

In the United States, there are approximately 25,000 conventional supermarkets and roughly 15,000 additional grocery retail stores in different formats, which collectively employ about 2.6 million people.⁵ Modern

² In some cases, grocery retailers own production facilities as well. This report uses the term “supplier” to refer to any entity selling products to another company and can include both producers and wholesalers.

³ The orders sought information from January 1, 2019, to November 24, 2021 (the date of the orders).

⁴ Because sections 6(f) and 21(d)(1)(B) of the FTC Act prohibit the Commission from disclosing trade secrets or commercial or financial information that is privileged or confidential, the information discussed in this report is provided on an anonymous and aggregated basis. See 15 U.S.C. §§ 46(f), 57b-2.

⁵ *How many grocery stores are there in the United States?*, FOODINDUSTRY.COM (Apr. 2019), <https://www.foodindustry.com/articles/how-many-grocery-stores-are-there-in-the-united-states/>; BUREAU OF LABOR STATISTICS, U.S. DEP’T OF LABOR, *BLS Data Viewer: Annual employment (thousands of jobs) for NAICS 44511, supermarkets and other grocery (except convenience) stores, U.S. total*, https://beta.bls.gov/dataViewer/view/timeseries/IPUHN44511_W200000000 (last visited March 11, 2024). This employment statistic does not include specialty food or convenience stores.



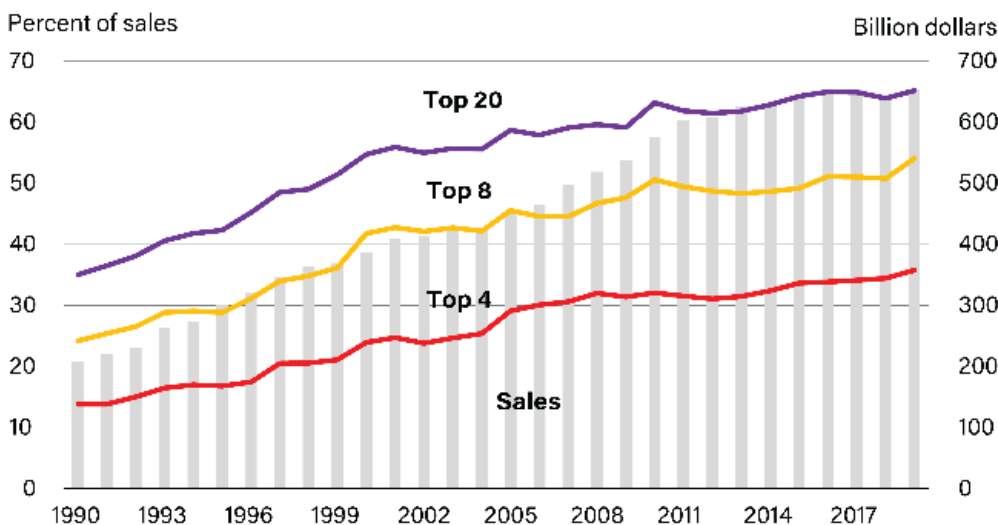
supermarkets carry an enormous variety of products. According to industry estimates, the average number of individual stock-keeping units (“SKUs”) in a supermarket exceeds 31,000.⁶

The retail grocery sector has undergone significant consolidation over time, with the top four firms accounting for over 30 percent of the sales in 2019, as compared to around 15 percent in 1990.⁷ Much of the consolidation is attributable to larger, national firms acquiring smaller regional chains. Walmart has also grown into one of the nation’s largest grocery retailers.⁸ These national numbers illustrate broad trends, but likely underestimate the level of concentration in carefully defined antitrust markets, because different retailers may be significantly differentiated by location and store format.⁹

Table 1¹⁰

Top 4, 8, and 20 firms' share of U.S. food sales, 1990-2019

The share of food sales at supermarkets, other grocery stores, warehouse clubs, and supercenters of the top 4, 8, and 20 retailers trended upwards for the last three decades



Notes: Sales are estimated based on the sales per employee ratio calculated by firm size and North American Industry Classification System (NAICS) code. NAICS codes included: 445110 (supermarkets and other grocery (except convenience) stores) and 452311 (warehouse clubs and supercenters). Food sales are calculated using the Economic Census product lines statistics on the percentage of sales on food (on and off premises). Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, and National Establishment Time Series.

⁶ FOOD INDUS. ASS’N, *Food Industry Facts*, <https://www.fmi.org/our-research/supermarket-facts> (last visited Mar. 11, 2024).

⁷ ELIANA ZEBALLOS ET AL., ECON. RES. SERV., U.S. DEP’T OF AGRIC., *A DISAGGREGATED VIEW OF MARKET CONCENTRATION IN THE FOOD RETAIL INDUSTRY*, ERS-314, at 1 (Jan. 2023), <https://www.ers.usda.gov/publications/pub-details/?pubid=105557>.

⁸ Frank T. Rothaermel & David R. King, *Walmart*, MCGRAW HILL ED., at 5 (2017), <https://www.casrilanka.com/casl/images/stories/PDBF/walmart%202019.pdf>.

⁹ ZEBALLOS ET AL., *supra* note 7, at 2.

¹⁰ Econ. Res. Serv., U.S. DEP’T OF AGRIC., *Retail Trends*, (data as of May 2021) (last updated Nov. 14, 2023), <https://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/retail-trends/> (last visited Mar. 11, 2024).

To capture a targeted snapshot of different distinct types of grocery retailers, the FTC issued 6(b) Orders and reviewed documents and responses from three major grocery retailers:

- **Kroger.** Kroger is the country’s largest supermarket chain. Today it operates almost 2,800 different grocery stores across 35 states, under 28 different brand names.¹¹ In 2022, it reported \$148 billion in sales and an operating profit of over \$4 billion.¹²
- **Walmart.** Walmart is the nation’s largest mass merchandise retailer, operating over 5,000 different retail outlets in the United States, including 3,560 “Supercenters”, and approximately 600 Sam’s Club warehouses.¹³ Supercenters carry both groceries and non-grocery products such as clothing, electronics, and furniture in one large store, while Sam’s Club sells a relatively limited selection of groceries (focused on bulk quantities) as well as non-grocery items. Walmart also operates an internet-based retail operation that sells to consumers nationwide. In the United States, Walmart’s sales were just short of \$400 billion in 2022, earning the company an operating profit of \$21 billion.¹⁴
- **Amazon.** Amazon is the country’s largest internet-based retailer. In 2022, Amazon made \$242 billion in product sales and another \$271 billion in service sales¹⁵, with a total operating income of \$12 billion.¹⁶ These sales figures reflect many products and services, in addition to groceries, that make up Amazon’s business. Amazon began selling groceries through its Amazon Fresh program in 2007 and purchased the roughly 500-store grocery chain Whole Foods in 2017 to begin selling groceries in-person.¹⁷ In 2020, it opened its first physical Amazon Fresh location and as of August 2023 operated more than 40 stores,¹⁸ though it may begin scaling back its Amazon Fresh footprint.¹⁹

Grocery Wholesalers

Grocery stores typically do not warehouse goods on-site to restock their shelves, maximizing square footage for selling space. Their operations thus rely on frequent deliveries of relatively modest quantities of each item to

¹¹ KROGER, *The History of Kroger*, <https://www.thekrogerco.com/about-kroger/history/> (last visited Mar. 11, 2024). On October 14, 2022, Kroger announced that it had agreed to merge with Albertsons Companies Inc., which would lead to a combined firm with approximately 5,000 stores. Press Release, Kroger Co., Kroger and Albertsons Companies Announce Definitive Merger Agreement (Oct. 14, 2022), <https://www.prnewswire.com/news-releases/kroger-and-albertsons-companies-announce-definitive-merger-agreement-301649531.html>. At the time of this report, the merger is pending.

¹² Kroger Co., Annual Report (Form 10-K) at 53 (Mar. 29, 2022).

¹³ WALMART, *Investor Relations*, <https://stock.walmart.com/financials/unit-counts-and-square-footage/default.aspx> (last visited Mar. 11, 2024); Walmart, *Company & Leadership*, <https://corporate.walmart.com/about/samsclub/company-and-leadership> (last visited Mar. 11, 2024).

¹⁴ Walmart, Annual Report (Form 10-K) at 39 (Mar. 18, 2022).

¹⁵ Amazon operates a large cloud-server business, AWS or Amazon Web Services, which is separate from its retail business.

¹⁶ Amazon.com, Annual Report (Form 10-K) at 37 (Feb. 4, 2022) (Amazon ultimately posted an overall loss of \$2.7 billion in 2022, a departure from 2021 when it earned \$33 billion and 2020 when it earned \$21 billion.).

¹⁷ WHOLE FOODS MARKET, *Whole Foods Market History*, <https://www.wholefoodsmarket.com/company-info/whole-foods-market-history> (last visited Mar. 11, 2024).

¹⁸ Nathaniel Meyersohn, *Amazon Fresh grocery chain has struggled. See its stores of the future*, CNN BUSINESS (Aug. 3, 2023), <https://www.cnn.com/2023/08/03/business/amazon-fresh-grocery-stores/index.html>.

¹⁹ Danielle Kaye, *Amazon may have met its match in the grocery aisles*, NPR (Aug. 2, 2023), <https://www.npr.org/2023/08/02/1190689525/amazon-fresh-grocery-store-layoffs>.

minimize excess inventory. In contrast, the companies that make or package grocery products generally produce and ship large quantities of an individual item at once. Wholesalers (or retailer-owned distribution centers) step in between the manufacturer and the retail supermarket to solve this mismatch in scale. Wholesalers and distribution centers receive and then break up large loads from producers into smaller sizes more appropriate for each individual grocery store, and then deliver to individual grocery stores via truck appropriate amounts of many different products from many different producers.²⁰

Some large grocery retailers operate their own distribution centers that receive products directly from grocery producers.²¹ But not all retailers operate their own distribution centers, and even those that do often supplement their internal supply operations with purchases from grocery wholesalers.²²

Wholesalers sold \$758 billion of grocery and related products in 2021 to both retailers and food service establishments.²³ The grocery wholesaling industry consists of more than 4,500 businesses that vary in size and geographic scope and employ about 167,000 people.²⁴

There has been some consolidation in grocery wholesaling as market participants sought to increase the scope of their offerings or broaden their geographic base.²⁵ For example:

- 2013 – SpartanNash was created by the merger of Spartan Stores, the ninth largest grocery wholesaler at the time, and Nash Finch, the largest food wholesaler serving military commissaries and exchanges;
- 2014 – C&S Wholesale Grocers acquired the warehouse and distribution operations of the eighth largest wholesaler, Grocers Supply, and the ninth largest grocery wholesaler, Associated Wholesalers Inc.;²⁶
- 2017 – SuperValu Inc. acquired Unified Grocers;
- 2018 – United Natural Foods Inc. acquired SuperValu for about \$2.9 billion.²⁷

²⁰ Wholesalers and large retailers typically own and operate their own trucking fleets, but also can utilize third party shippers for this function.

²¹ Brigette Thomas, Grocery Wholesaling in the US (Indus. Rep., 42441), IBISWorld, at 11-12, 19 (May 2022).

²² Retailers also sometimes receive product directly from suppliers into their retail stores, in a process known as “DSD” or Direct Store Delivery. Most CPG products are not delivered to grocery retailers this way, and DSD is not a significant focus of this report.

²³ See U.S. CENSUS BUREAU, ANNUAL REPORT FOR WHOLESALE TRADE: 2021, ESTIMATED SALES OF U.S. MERCHANT WHOLESALERS: 1992 THROUGH 2021, Table 1 (Dec. 14, 2022), <https://www.census.gov/data/tables/2021/econ/awts/annual-reports.html> (sales for North American Industry Classification System (“NAICS”) code 4244, grocery and related products).

²⁴ Brigette Thomas, GROCERY WHOLESALING IN THE US (INDUS. REP., 42441), IBISWORLD, at 7 (Jan. 2023).

²⁵ See, e.g., ECON. RES. SERV., U.S. DEP’T AGRIC., *Wholesaling*, (last updated Nov. 14, 2023), <https://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/wholesaling/> (last visited Mar. 11, 2024); Thomas, IBISWORLD (May 2022), *supra* note 21, at 12.

²⁶ See, e.g., ECON. RES. SERV., U.S. DEP’T AGRIC., *Wholesaling*, (last updated Nov. 14, 2023), <https://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/wholesaling/> (last visited Mar. 11, 2024).

²⁷ See Thomas, IBISWORLD (May 2022), *supra* note 21, at 12.

As part of this study, the FTC issued 6(b) Orders and reviewed documents and responses from three large grocery wholesalers that serve a variety of different types of retailers, including both very large retailers and independent grocery stores:

- **C&S Wholesale Grocers.** C&S, a private company, is a major wholesaler, with an estimated national sales share of 11.9 percent, \$29.4 billion in revenue, and 13,800 employees in 2021.²⁸ It supplies more than 7,500 outlets, including independent supermarkets, chain stores, and military bases. The company also operates 24 grocery stores.
- **McLane Company.** McLane is a wholly owned subsidiary of Berkshire Hathaway Inc., a publicly traded company. McLane is a major wholesaler with a revenue of \$53.21 billion and 7,554 employees in 2022.²⁹ The company's operations are divided into three business units: grocery distribution, foodservice distribution, and beverage distribution. McLane "provides wholesale distribution services in all 50 states to customers that include convenience stores, discount retailers, wholesale clubs, drug stores, military bases, quick service restaurants and casual dining restaurants."³⁰ McLane's grocery distribution unit is its largest business unit. The company's grocery business "maintains a dominant market share within the convenience store industry and serves most of the national convenience store chains and major gas station retail outlets."³¹
- **Associated Wholesale Grocers.** AWG was founded in 1924 by 20 independent grocers who aggregated their purchasing power to attempt to better compete with national grocery chains. AWG is collectively owned by approximately 1,100 grocery retailers who are members of the cooperative and shareholders of AWG stock. Members range in size from one to about 200 stores, for a total of 3,200 retailer-owned supermarkets in 28 states. Members have the right, but not the obligation, to purchase from AWG. The company offers full product lines including grocery, meat, produce, health, beauty, floral, deli, and bakery, with products distributed from 11 warehouses across the country. Its profits are distributed to its members each year.

Grocery Producers

The nation's grocery supply depends on thousands of producers that themselves rely on local farms and growers for fresh meat and produce, as well as on input suppliers from around the world. The huge variety of groceries that United States consumers see in their local retail supermarket often travel through a long and complex supply chain to get there. Crops are grown and harvested, animals raised and slaughtered, metals mined, trees felled and converted into cardboard and the like. Sometimes the raw materials must then be transported by ship, rail, and/or truck to processing plants and manufacturing facilities where skilled workers turn them into intermediate and final products. Finished goods must themselves then be transported and stored through distribution and warehousing networks.

Supply chains and market conditions can vary enormously by product, and we do not attempt to summarize product-by-product variation for all of the many products sold in grocery stores. We do note briefly, however, that there is extensive evidence that consolidation has occurred among the various producers of the nation's finished

²⁸ See Thomas, IBISWORLD (Jan. 2023), *supra* note 24, at 5, 31-2.

²⁹ See Berkshire Hathaway Inc., 2022 Annual Report, at K-20, K-52, A-3 (Feb. 25, 2023); Berkshire Hathaway Inc., Annual Report (Form 10-K) K-20, K-52 (Feb. 2, 2023). In addition to its grocery wholesale distribution business, McLane is also a foodservice wholesaler, serving establishments that provide prepared food such as restaurants.

³⁰ Berkshire Hathaway Inc., Annual Report (Form 10-K) K-20 (Feb. 2, 2023).

³¹ *Id.*



grocery products, as the recent business activity of the respondents illustrates. Procter & Gamble has a long history of acquisitions, including a \$57 billion purchase of Gillette in 2005.³² Kraft Heinz is itself the product of a May 2015 merger of two large conglomerates – H.J. Heinz Company and Kraft Foods Group – to form “the 3rd largest food and beverage company in North America and the 5th largest . . . in the world,” with \$28 billion in revenues.³³ Tyson Foods Inc. is one of the largest meat and poultry producers and itself has recently expanded through multibillion dollar acquisitions.³⁴ Concentration in meatpacking is very high – USDA reports that in 2019, the top four packers controlled 85 percent of the market for beef processing, 53 percent for chicken processing, and 67 percent for pork processing – and has grown rapidly in recent decades.³⁵

As part of this study, the FTC issued 6(b) Orders and reviewed documents and responses from three of the largest producers of food and household products generally (but not solely) sold in grocery stores or online:

- **Procter & Gamble.** Procter & Gamble is the largest producer of non-food CPG products in the country and the third largest CPG producer overall, with global 2022 sales of \$80.2 billion, half in North America.³⁶ It produces a wide variety of products, which it groups into five broad business segments: Fabric and Home Care (35 percent of sales, including laundry, household, and dish cleaners); Baby, Feminine and Family Care (25 percent of sales, including diapers, toilet paper, and tissues); Beauty (18 percent of sales, including shampoo, deodorants, and skin care); Health Care (14 percent of sales, including oral care, vitamins, pain and illness relief); and Grooming (8 percent of sales, including shaving razors, creams and shampoos).³⁷ More than 106,000 employees manufactured and distributed these products for Procter & Gamble, a quarter of whom are based in the US.³⁸

³² This acquisition was challenged by the FTC. The challenge was resolved through a consent decree that required the companies to divest certain assets. Press Release, Fed. Trade Comm’n, FTC Consent Order Remedies Likely Anticompetitive Effects of Procter & Gamble’s Acquisition of Gillette (Sept. 30, 2005), <https://www.ftc.gov/news-events/news/press-releases/2005/09/ftc-consent-order-remedies-likely-anticompetitive-effects-procter-gambles-acquisition-gillette>.

³³ Press Release, H.J. Heinz Company & Kraft Foods Group, H.J. Heinz Company and Kraft Foods Group Sign Definitive Merger Agreement to Form The Kraft Heinz Company, at 1 (Mar. 25, 2015), <https://ir.kraftheinzcompany.com/static-files/2303265e-a98f-4082-bfc1-fc90f462742f>.

³⁴ Press Release, Tyson Foods, Tyson Foods to Acquire AdvancePierre Foods for 40.25 Per Share in Cash (Apr. 25, 2017), <https://www.tysonfoods.com/news/news-releases/2017/4/tyson-foods-acquire-advancepierre-foods-4025-share-cash> (announcing \$4.2 billion acquisition of “a leading national producer of ready-to-eat lunch and dinner sandwiches, sandwich components and snacks”).

³⁵ See James M. MacDonald et al., ECON. RES. SERV., U.S. DEP’T. AGRIC., EIB-256, *Concentration and Competition in U.S. Agribusiness Concentration*, 25 (Table 6) (June 2023), <https://www.ers.usda.gov/webdocs/publications/106795/eib-256.pdf?v=7330.5>. Corresponding 1980 concentration figures were 36 percent for beef processing and 34 percent for hog processing in 1980. *Id.* While corresponding statistics for 1980 were not reported for broilers, a previous USDA report estimates four firm concentration ratios for chicken processing in the US of approximately 23 percent. See Floyd A. Lasley et al., ECON. RES. SERV., U.S. DEP’T. OF AGRIC., Agric. Econ. Rep. 591, *The U.S. Broiler Industry*, 24 (Table 10) (1988) <https://ageconsearch.umn.edu/record/305460?ln=en>.

³⁶ CONSUMER GOODS TECH., *Top 100 Consumer Goods Companies of 2022*, <https://consumergoods.com/top-100-consumer-goods-companies-2022> (last visited March 11, 2024); Procter & Gamble, 2022 Annual Report (Aug. 5, 2022).

³⁷ Procter & Gamble, 2022 Annual Report 15 (Aug. 5, 2022).

³⁸ *Id.* at 2.

- **Kraft Heinz.** Kraft Heinz is the 20th largest CPG company,³⁹ with \$26.5 billion in 2022 global sales and approximately 37,000 employees.⁴⁰ Kraft Heinz produces thousands of unique items in a wide variety of food categories.⁴¹ Kraft Heinz is active in producing products for sale under private-label brands.⁴²
- **Tyson Foods.** Tyson Foods is one of the largest processors of meat and poultry products, and the 7th largest CPG company in the world.⁴³ In 2022, Tyson Foods had total sales of \$53.3 billion, produced by 142,000 employees, 124,000 of whom were located in the US.⁴⁴ Tyson is a leading producer in each meat sector, with sales divided among four major divisions: Beef \$19.9 billion, Pork \$6.4 billion, Chicken \$17.0 billion, and Prepared Foods \$9.7 billion.⁴⁵ These sales went through four major distribution channels: 43.7 percent to retail establishments such as grocery and warehouse stores and internet outlets; 29.4 percent to foodservice establishments such as restaurants, hotels, schools, and the military; 15.2 percent to international sales; and 11.7 percent to industrial or others, such as other food processing companies for use in their products.⁴⁶ Tyson has long been active in producing meat and poultry products for sale under private labels.⁴⁷

I. Major Supply Chain Disruptions

The producers, wholesalers, and retailers who received 6(b) Orders reported major disruptions throughout the entire grocery supply chain shortly after the outbreak of the COVID-19 pandemic. On the supply side, disruptions

³⁹ CONSUMER GOODS TECH., *Top 100 Consumer Goods Companies of 2022*, <https://consumergoods.com/top-100-consumer-goods-companies-2022> (last visited March 11, 2024).

⁴⁰ Kraft Heinz Co., 2022 Annual Report (Form 10-K) at 4, 24 (Feb. 16, 2023).

⁴¹ The company requires a vast array of inputs to produce this large variety of different products. *See id.* at 2 (inputs include “dairy products, meat products, soybean and vegetable oils, tomatoes, coffee beans, sugar and other sweeteners, other fruits and vegetables, corn products wheat products, and potatoes”). In 2012, the current Kraft Heinz separated from Mondelez International, Inc. (formerly Kraft Foods Inc.), thereby separating its grocery business from its chocolate, biscuits, gum, candy, coffee and powdered beverages business. *See* Press Release, The Kraft Heinz Company, Mondelez International Completes Spin-Off of Its North American Grocery Business (Oct. 1, 2012), <https://ir.kraftheinzcompany.com/news-releases/news-release-details/mondelez-international-completes-spin-its-north-american-grocery>.

⁴² Mark Ritson, *Heinz Private Label Strategy Proves Masterful*, BUS. STRATEGY INSIDER, <https://brandingstrategyinsider.com/heinz-private-label-strategy-proves-masterful/> (last visited March 11, 2024) (“Heinz has been quietly producing own-label products for supermarkets for years.”); David Dunne & Chakravarthi Narasimhan, *The New Appeal of Private Labels*, HARV. BUS. REV. (May-June 1999), <https://hbr.org/1999/05/the-new-appeal-of-private-labels> (Heinz “supplies many private labels in categories where it offers major brands”).

⁴³ CONSUMER GOODS TECH., *Top 100 Consumer Goods Companies of 2022*, <https://consumergoods.com/top-100-consumer-goods-companies-2022> (last visited March 11, 2024); Tyson Foods, Inc., 2022 Annual Report (Form 10-K) at 2 (Nov. 12, 2022) (Tyson is “one of the world’s largest food companies and a recognized leader in protein”).

⁴⁴ Tyson Foods, Inc., 2022 Annual Report (Form 10-K) at 6, 24 (Nov. 12, 2022).

⁴⁵ *Id.* at 76.

⁴⁶ *Id.* at 77.

⁴⁷ Press Release, Tyson Foods Inc., Tyson Honored for Private Label Meat Business (Oct. 4, 2006), <https://www.globenewswire.com/news-release/2006/10/04/349100/7106/en/Tyson-Honored-for-Private-Label-Meat-Business.html> (announcing that PL Buyer magazine “has given Tyson a 2006 ‘Category Colonel Award’ for the company’s performance as a premier supplier of refrigerated, value-added meats under a store brand”).

to labor supply, transportation networks, and the flow of inputs and raw materials needed for manufacturing reduced output. Meanwhile, on the demand side, consumers rapidly shifted away from restaurants and towards meals eaten at home, significantly shifting production requirements. In the aggregate, these issues led to substantial, sustained, and highly visible shortages. In response, some consumers stockpiled non-perishable groceries and other CPG, further stressing an already overtaxed supply chain. We briefly discuss each of these issues below.

Labor Supply Disruptions

The grocery supply chain relies heavily on workers to run factories, drive trucks, stock shelves, and assist customers. During the crisis, many of these workers were correctly recognized as “essential.” These workers’ jobs suddenly were much more dangerous than before—particularly before vaccines became available.⁴⁸

Illness, risk of exposure, and lack of childcare reduced labor supply for these front-line positions. When workers got sick, they could not work. Outbreaks of COVID-19 forced temporary plant closures to protect workers.⁴⁹ The risk of infection increased worker attrition, as workers stayed home to protect both themselves and their loved ones. With schools and day care centers closed, many working parents were forced to stay home to care for their children.

Where workers were able to work, new safeguards to reduce the spread of infection were added to existing work processes. This increased workers’ responsibilities and the amount of time and effort needed to perform their normal duties, reducing productivity. Problems were especially acute for labor-intensive processes in facilities such as slaughterhouses where workers previously operated in close proximity to one another.

Worker turnover rates in the grocery sector increased as workers found more attractive wages, shifted away from positions where the risk of infection was higher, or stayed home to care for children or elderly parents and so could not be easily enticed to return to the labor force. Moreover, as the pandemic dragged on, employers in other sectors across the economy were simultaneously competing to fill positions for many of the same reasons that our study respondents encountered, increasing competition for the more-limited-than-usual supply of workers.⁵⁰

⁴⁸ In recognition of the work done to keep grocery stores stocked during the pandemic, the Department of Labor inducted essential workers during the pandemic, including grocery and transportation workers, into its “Labor Hall of Honor.” Press Release, U.S. Dep’t of Labor, US Department of Labor Inducts Essential Workers of the Coronavirus Pandemic into Labor Hall of Honor (Sept. 1, 2022), <https://www.dol.gov/newsroom/releases/osec/osec20220901>.

⁴⁹ Dianne Gallagher & Pamela Kirkland, *Meat processing plants across the US are closing due to the pandemic. Will consumers feel the impact?*, CNN BUSINESS (Apr. 27, 2020), <https://www.cnn.com/2020/04/26/business/meat-processing-plants-coronavirus/index.html>; Taylor Telford & Kimberly Kindy, *As they rushed to maintain U.S. meat supply, big processors saw plants become covid-19 hot spots, worker illnesses spike*, WASH. POST (Apr. 25, 2020), <https://www.washingtonpost.com/business/2020/04/25/meat-workers-safety-jbs-smithfield-tyson/>.

⁵⁰ U.S. BUR. LABOR STAT., *Frequently asked questions: The impact of the coronavirus (COVID-19) pandemic on the Employment Situation for April 2020*, <https://www.bls.gov/covid19/employment-situation-covid19-faq-april-2020.htm> (last visited March 11, 2024) (BLS monthly survey showing non-farm employment declined over 20 million during the first two months of the pandemic, the most precipitous drop in the history of the survey as employees left the workforce due to COVID-19); OFFICE OF ASS’T SEC. PLANNING & EVAL., U.S. DEP’T HEALTH AND HUMAN SERVS., *Impact of the COVID-19 Pandemic on the Hospital and Outpatient Clinician Workforce: Challenges and Policy Responses* (May 3, 2022), <https://aspe.hhs.gov/reports/covid-19-health-care-workforce> (gathering literature regarding labor shortages in healthcare due to COVID-19 pandemic); NAT’L RESTAURANT ASS’N, *Restaurants continue to struggle filling job openings* (May 6, 2022), <https://restaurant.org/research-and-media/research/economists->

Newer employees hired to replace departing workers needed training and were often initially less efficient than the more experienced staff they replaced.

These issues put significant pressure on producers, wholesalers, and retailers to both retain their existing employees and find new ones.⁵¹

Given these staffing challenges, companies in this study invested in automating their supply chains. These companies used automation to offset increasing labor costs and reduce exposure to risks from an unstable labor market.

Transportation/Trucking Disruptions

Disruptions in transportation were a substantial challenge at all levels of the grocery supply chain. In particular, respondents reported that demand for shipping products by truck far outstripped the available supply of both trucks and qualified truck drivers during the pandemic. In addition to the labor supply disruptions described above, companies in this study also said they were impacted by reduced production of new trucks due to chip shortages.

As part of a government-wide, systematic assessment of critical supply chains, the Department of Transportation completed a comprehensive study of the transportation industrial base, including freight and logistics, and recommended several policy changes to improve the resiliency of our nation's supply chains.⁵²

Although companies in our study generally had existing contingency plans for trucking disruptions, those plans were ill-suited for a long-term disruption of nationwide scale. Rather, the plans often assumed an ability to shift resources from areas with adequate resources to those in greater need.

Faced with these issues, the companies in this study increasingly used expensive third-party contract carriers, expanded their private fleets, and offered signing bonuses and training to new drivers, incurring notable new costs. In turn, third-party trucking companies significantly increased freight rates and struggled to deliver orders to retailers on time. Even companies that operated their own fleets struggled to retain drivers and maintain internal service levels.

Disruptions to Availability of Inputs and Raw Materials

As discussed above, the companies that manufacture finished grocery products rely on lengthy supply chains for their inputs and raw materials. All of the producers of grocery products we studied struggled to access sufficient inputs to meet public demand for finished goods.

Just as the firms we studied directly struggled with labor and transportation issues, so too did the firms that supplied them with critical inputs. This created cascading waves of supply chain failure for many inputs other than

[notebook/analysis-commentary/restaurants-continue-to-struggle-filling-job-openings/](#) (trade association summarizing labor shortages due to COVID-19 in the restaurant industry).

⁵¹ In labor markets subject to employer market power, wages may have been depressed by that market power before these increases, and the size of the wage response to pandemic-induced disruptions may likewise have been affected by that market power. See U.S. DEP'T. OF TREASURY, THE STATE OF LABOR MARKET COMPETITION 25 (2022), <https://home.treasury.gov/system/files/136/State-of-Labor-Market-Competition-2022.pdf> ("we believe the best available empirical evidence suggests that labor market power reduces wages by at least 15 percent.").

⁵² U.S. DEP'T OF TRANSP., SUPPLY CHAIN ASSESSMENT OF THE TRANSPORTATION INDUSTRIAL BASE: FREIGHT AND LOGISTICS (Feb. 2022), https://www.transportation.gov/sites/dot.gov/files/2022-03/EO%2014017%20-%20DOT%20Sectoral%20Supply%20Chain%20Assessment%20-%20Freight%20and%20Logistics_FINAL_508.pdf.

food. For example, we learned that some firms in this sector struggled to obtain building supplies to build additional warehouses or could not buy enough trucks to manage their internal distribution systems.

Heavy reliance on overseas container shipping across the United States economy also caused disruptions. When international shipping snarled as port operations slowed,⁵³ even wholly domestic producers of food products discovered they were reliant on foreign inputs that could not be timely or affordably accessed. For example, companies in this study identified situations where firms had sufficient inputs to produce certain items but nevertheless were forced to shut down production because they could not obtain the packaging materials their factories were designed to use. Even though they typically sourced the packaging material domestically, manufacture of the packaging material was in turn reliant on an input from overseas.

Bottlenecks within the grocery supply chain further exacerbated the broad labor and transportation problems that grocery retailers, wholesalers, and producers were also experiencing at the same time.

Shifts in Consumer Demand

As people sheltered in place during the COVID-19 pandemic, Americans ate more meals at home and reduced consumption at restaurants.⁵⁴ This created an overall spike in demand for consumer groceries of all kinds. But producers struggled to adapt to these sudden shifts in demand, because it was not simple for them to shift production lines from quantities and packaging designed for restaurants to manufacturing smaller packages designed for retail sale.

Grocery retailers also saw shifts of demand within their product mix. Demand for disinfectants and cleaning products across retail channels increased dramatically, along with staple paper goods like toilet paper. Our study also confirmed what many knew at the time to be true anecdotally: while stuck at home and looking for things to do, many people started doing more baking, which drove up demand for flour and other baking inputs.

These issues meant that demand for many retail grocery products unexpectedly spiked upward during the pandemic, just as the supply chain was struggling with a series of input, labor, and transportation challenges. Unfortunately, the existing distribution system had only a modest degree of flexibility built into it. The wholesalers in this study had systems in place to alter the product mix being shipped to each store in response to an unexpected but isolated change in demand. For example, existing contingency plans for distribution systems contemplated shifting some of the bottled water that was originally destined for Atlanta to stores in Florida after a hurricane. This had previously worked well when crises impacted only small areas of the country, but the COVID-19 pandemic presented a fundamentally different stressor. The sustained, virtually identical, large shifts in supply and demand all over the country posed a supply chain shock that the existing wholesale distribution system was never designed to handle and which it struggled to manage.

Further, as consumers noticed visibly empty shelves and shortages of products, many began to strategically stockpile the groceries that were available. Stockpiling by consumers inflated demand further, placing even more pressure on the supply chain.

⁵³ Consolidation in ocean shipping increased costs and reduced capacity. *Id.* §2.7 (Feb. 2022) (“Large sectors of the freight market have experienced significant consolidation over the last several decades, leading to increased shipping rates. . . . Ocean carriers, both alone and through their operating alliances, use their market power to control capacity and maintain shipping rates.”).

⁵⁴ KEENAN MARCHESI & PATRICK W. MCLAUGHLIN, ECON. RES. SERV., U.S. DEP’T OF AGRIC., COVID-19 WORKING PAPER, AP-100: THE IMPACT OF COVID-19 PANDEMIC ON FOOD-AWAY-FROM-HOME SPENDING (Mar. 2022).



In the early weeks of the pandemic, these changes in consumer demand were quite large, with consumers purchasing up to 56 percent more food for at-home consumption than the prior year, stabilizing at a roughly 7 percent year-over-year increase in weekly purchases from July 2020 to March 2021.⁵⁵ There is little question that, in aggregate, the changes in demand due to these various factors had a significant impact on the magnitude of the supply chain crisis in this sector of the economy.

II. Competitive Impacts of Disruptions

As firms across the grocery supply chain scrambled to address the pandemic disruptions, the existing competitive pressures among the firms in this sector changed. Previously unusual issues emerged, such as simply having sufficient stock. Firms leaned into their existing advantages to help them navigate this new environment, and some large firms were better able to protect their market share and profits than others.

Retailer Revenues Exceeded Cost Increases and Profits Remain Elevated

As a result of the COVID-19 pandemic and supply chain disruptions, market participants across the grocery supply chain faced cost increases, with the cost of needed inputs such as raw materials, labor, and transportation all rising. These cost increases were then generally passed along through the supply chain. According to a United States General Accounting Office estimate, retail food prices in the United States spiked 11 percent between 2021 and 2022.⁵⁶ For comparison, over the previous decade, annual retail price increases for food averaged about 2 percent.⁵⁷

Our study of the supply chain did not test whether the specific companies that received 6(b) Orders increased their prices by more or less than their cost increases. Rather, we look to publicly available data to understand general retailer patterns. As shown in Table 2, Census data indicates that one measure of annual profits for food and beverage retailers—the amount of money companies make *over and above their total costs*—rose substantially during the pandemic and remain quite elevated. Specifically, food and beverage retailer revenues increased to more than 6 percent over total costs in 2021, substantially higher than their recent peak of 5.6 percent in 2015. In the first three-quarters of 2023, retailer profits rose even more, with revenue reaching 7 percent over total costs. This measure of profits considers total costs, including fixed costs and labor costs, to account for changes in labor costs driven by the pandemic. This profit trend casts doubt on assertions that rising prices at the grocery store are simply moving in lockstep with retailers' own rising costs. Examining the cause or nature of rising industry profits is

⁵⁵ McLaughlin et al., *supra* note 1, at 28-29, <https://www.ers.usda.gov/webdocs/publications/105367/ap-108.pdf?v=9499.6>.

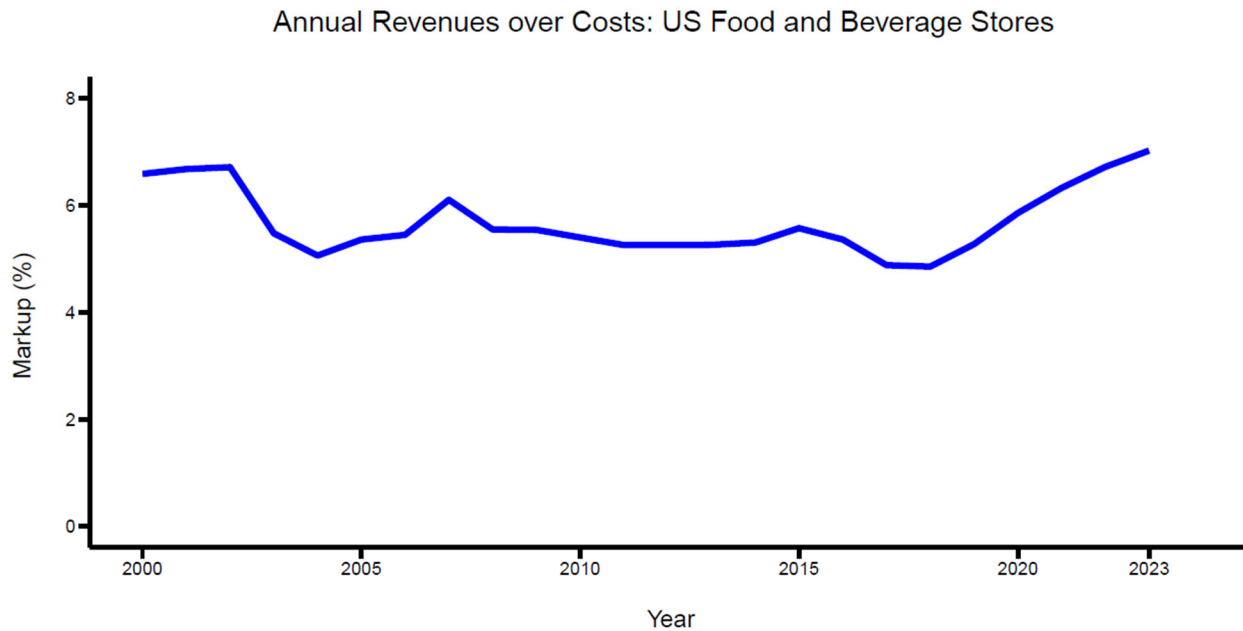
⁵⁶ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-23-105846, FOOD PRICES: INFORMATION ON TRENDS, FACTORS AND FEDERAL ROLES 1 (2023), <https://www.gao.gov/assets/gao-23-105846.pdf>; see also David Mead et al., U.S. Bur. Labor & Statistics, *The impact of the COVID-19 pandemic on food price indexes and data collection*, MONTHLY LABOR REV. (Aug. 2020), <https://www.bls.gov/opub/mlr/2020/article/the-impact-of-the-covid-19-pandemic-on-food-price-indexes-and-data-collection.htm> (discussing price increases for food in the earlier months of the COVID-19 pandemic).

⁵⁷ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-23-105846, *supra* note 56, at 1. (Note that overall food prices can be impacted by a variety of additional issues such as weather, agricultural pests, etc. in addition to the COVID-19 supply chain issues we discuss in this report. The USDA warned that it is very difficult to separate out the various components driving overall food prices accurately, and so the comparison between 2021-2022 and prior years should be viewed as a rough proxy for the overall price increases caused by the pandemic supply chain disruptions rather than an absolute indicator of their magnitude).



beyond the scope of this limited study into pandemic-related supply chain disruptions. However, the question warrants further inquiry by the Commission and policymakers.

Table 2⁵⁸



Source: US Census, Quarterly Financial Report, Food and Beverage Stores, US Total

Some Larger Purchasers Use “On Time In Full” Policies That Provide a Competitive Advantage in Accessing Products in Shortage

In industry parlance, items in limited supply are put “on allocation.” Before the pandemic, it was not uncommon to occasionally have a product go on allocation. However, the number of products put on allocation during the pandemic, particularly at the outset, was extraordinary. With more orders than they could fill, producers and wholesalers both had to allocate their available product among their customers. In some cases, large customers improved their own ability to access scarce products through applying pressure on these allocation decisions. In particular, some large customers used on time and in full (“OTIF”) delivery policies to pressure their suppliers to favor them over rivals. When products are in short supply, OTIF policies incentivize producers or wholesalers to divert products towards customers that impose OTIF penalties and away from customers that do not. During the

⁵⁸ Table 2 uses data from the U.S. Census Quarterly Financial Report. U.S. Census, *Quarterly Financial Report, Food and Beverage Stores, Time Series/Trend Charts*, <https://www.census.gov/econ/qfr/index.html> (last visited Feb. 26, 2024) (all retail food and beverage stores). The illustrative profit measure reported here reflects the ratio of “Not Seasonally Adjusted Net Sales, Receipts, and Operating Revenues” to “Not Seasonally Adjusted All Other Operating Costs and Expenses.” This cost metric includes both variable and fixed costs, including labor costs. “Food and Beverage Stores” includes convenience stores, specialty food stores, and beer, wine, and liquor stores in addition to grocery stores. Although this profit calculation is illustrative, other profit calculations may be more appropriate measures of profits in an antitrust case seeking to assess the impact of a specific merger or specific conduct.

pandemic, some large retailers and wholesalers leveraged OTIF penalties to pressure their suppliers to give them preferential allocations of scarce products.

Producer Allocation Policies

Prior to the pandemic, producer allocation policies for goods in short supply were often set unilaterally and communicated to their customers, but not set out in written contracts. During the pandemic, some of these firms unilaterally altered allocation policies.

Our review showed that producers generally used their customers' prior order history to allocate products in short supply. But our review also showed that suppliers feared the financial penalties imposed by large customers for failing to meet OTIF requirements. As the pandemic dragged on, some large customers were able to marshal that fear to cause some producers to shift their allocations to favor them over customers without such penalties, as discussed below. As a result, those customers who did not have such contractual commitments or protections received less than their purchasing history would have allotted them, meaning they bore more than their share of the impact from shortages.

Wholesaler Allocation Policies

Just as with producers, existing wholesaler contracts with retailers often did not establish allocation rules or priorities. This left wholesalers largely free to design and alter their allocation policies during the pandemic.⁵⁹

As producers filled fewer orders, wholesalers' "service levels," which reflect the percentage of goods requested in customer orders that they could fill, dropped in parallel. Like producers, wholesalers sometimes used prior order history to allocate available products. But they also employed other strategies such as limiting each customer to a maximum order quantity or cutting off later orders once a certain amount of product had been loaded onto trucks for delivery. Wholesalers found that some of their attempts to allocate products using these methods were difficult to implement and labor-intensive.

Some Wholesalers and Retailers Increase Penalties to Gain Better Access to Scarce Products

Despite companies' initial suspension of OTIF policies early in the pandemic, as the pandemic dragged on and disrupted supply chains, the surging importance of simply having products in stock caused some wholesalers and retailers to adjust their OTIF requirements and penalize suppliers for incomplete or late deliveries. These policy changes pushed producers to shift product away from competing buyers in order to avoid penalties. Competing wholesalers and retailers receiving less products as a result of enhanced OTIF requirements were at a competitive disadvantage.

Even as the supply chain crisis brought on by the pandemic continued, some retailers reimposed *or even heightened* the standards for their OTIF policies later in 2020. For example, Walmart tightened its OTIF requirements in September 2020, requiring suppliers to achieve 98 percent OTIF compliance to avoid fines of 3

⁵⁹ Where existing allocation requirements were spelled out in contracts in our limited sample, we saw that those contracts were typically with the largest volume and most sophisticated customers of the wholesalers, rather than with smaller retailers.

percent of the cost of goods.⁶⁰ Walmart was not alone: a November 2022 McKinsey survey found that “[m]any large retailers are even increasing the demands they place upon their suppliers,” with more than half of consumer-packaged goods companies reporting that retailers had tightened their OTIF requirements, and 63 percent of those surveyed reporting new delivery requirements or increased fines.⁶¹

A review of contracts included in this study suggests that larger customers generally imposed more stringent OTIF requirements and penalties on their suppliers than smaller customers did. This may reflect greater bargaining leverage or bargaining power on the part of larger customers, who can therefore successfully pressure suppliers to accept more onerous terms than can their smaller rivals.

We observed that where a buyer had an OTIF policy in place that imposed significant fines, suppliers tried to avoid incurring those OTIF fines. These policies sometimes caused suppliers to shift product allocations to favor the buyers with OTIF policies in place and away from other buyers without similar policies.⁶²

Retailers did not necessarily have unlimited freedom to impose different OTIF requirements, however. At least some of their suppliers already had contractually defined OTIF requirements, and those existing provisions may have protected them from the changing OTIF requirements and penalties.

Our study did not attempt to empirically evaluate the magnitude of product diversions due to OTIF policies across the vast number of suppliers and retailers in the grocery supply chain. But these issues were significant in a time of sustained, widespread shortages and likely gave firms with OTIF policies a competitive advantage relative to other retailers, especially smaller retailers, during a time when having products in-stock was a critical point of competitive differentiation.

Companies Identified Risks Associated with Excessively Concentrated Supply Chains, Leading Some to Diversify and Others to Explore Vertical Integration

Given the enormous variety of different items grocery stores stock, retailers must manage inventory costs effectively. This is a particularly complex task because products expire and must be restocked at different rates (e.g., perishable vegetables versus canned goods), and because demand for certain items spikes around seasonal events (e.g., turkeys around Thanksgiving). Ordering either too much or too little of anything can be costly. Excess inventory may spoil and has potential carrying costs until it sells, while being out-of-stock causes the store to lose incremental sales and potentially even customers. As a result, before the pandemic, grocery retailers had every incentive to restock quickly, but only when necessary, to avoid either extreme. These inventory dynamics meant that grocery retailers prioritized lean and efficient “just in time” stocking and supply chains.

⁶⁰Mark Solomon, *Walmart tightens on-time, in-full requirements*, FREIGHTWAVES (Sept. 11, 2020), <https://www.freightwaves.com/news/walmart-tightens-on-time-in-full-requirements>; Kim Souza, *Walmart demands all suppliers comply with 98 percent on-time in-full shipment rule*, TALK BUS. & POL. (Sept. 3, 2020), <https://talkbusiness.net/2020/09/walmart-demands-all-suppliers-comply-with-98-on-time-in-full-shipment-rule/>.

⁶¹ Changes include shifting from requested to scheduled delivery dates, adding delivery requirements, or increasing fines. Shruti Lal & Clin Regnier, *Great service—but who’s paying?*, MCKINSEY & CO. (Nov. 18, 2022), <https://www.mckinsey.com/capabilities/operations/our-insights/great-service-but-whos-paying>. The study surveyed 35 senior leaders of 28 North American consumer packaged goods companies.

⁶² As noted above, this study included information about the practices of many companies that did not produce documents or information in addition to those that did, and it should not be read to describe the actions of any particular company where such company is not explicitly identified.

When the COVID-19 pandemic hit the United States, this intense focus on efficiency meant that these systems were particularly ill-suited to weather sustained and widespread supply or demand shocks. Our review of documents and responses from companies that received 6(b) orders showed that executives at the companies quickly recognized this shortcoming.

In particular, retailers especially focused on ways to make their supplier base more resilient when it came to the supply of private-label products. Private-label offerings are a significant part of the grocery business in the United States and a key area of competition among grocery retailers. Roughly 15-20 percent of the groceries sold in the United States are sold as private-label or store-branded products.⁶³ All three producer respondents identify private label competition as significant in their public filings.⁶⁴ Moreover, for a grocery retailer, private-label products can have several important advantages over nationally branded alternatives. These products typically generate higher margins for the retailer than the nationally branded equivalent.⁶⁵ Having high-quality private-label goods available is viewed as important to fostering customer loyalty, particularly among the large cohort of grocery shoppers that are highly price sensitive.⁶⁶ As a result, retailers are understandably very sensitive to both the quality and availability of their private-label offerings.⁶⁷

During the pandemic, retailers struggled to maintain adequate stock levels of popular, private-label goods. These struggles sensitized retailers to the overall fragility of their private-label supply chains. In particular, retailers identified concerns that some of the private-label products they needed could only be purchased from one or two potential suppliers. Concerned that they were excessively dependent on concentrated markets, some retailers began to examine alternatives, including directly manufacturing these products themselves rather than buying them from outside suppliers.

Not all customers are equally able to develop self-supply. Moreover, if one customer resolves its own supply chain fragility by buying one of the market's few existing producers, that may exacerbate the concentration problem for the merged firm's competitors, because those competitors may have one fewer producer available in a market that was already overly concentrated.

⁶³ *What percentage of food sales are private label store brands?*, FOODINDUSTRY (Feb. 2023), <https://www.foodindustry.com/articles/what-percentage-of-food-sales-are-private-label-store-brands/>; Mark Hamstra, *Consumers can't get enough of private label*, SUPERMARKET NEWS (Dec. 20, 2022), <https://www.supermarketnews.com/bakery/consumers-can-t-get-enough-private-label>.

⁶⁴ Kraft Heinz 2022 Annual Report, at 2. (stating that Kraft Heinz “compete[s] with both branded and private label products”); Tyson 2022 Annual Report, at 14 (observing that the company’s ability to “compete against private-label products, especially during economic downturn, may adversely affect our profitability”); Procter & Gamble 2022 Annual Report, at 1 (“we compete against other branded products as well as retailers' private-label brands”).

⁶⁵ Trefor Moss, *Supermarkets Offer More Store Brands to Lure Cost-Conscious Shoppers*, WALL ST. J. (Dec. 14, 2022), <https://www.wsj.com/articles/supermarkets-offer-more-store-brands-to-lure-cost-conscious-shoppers-11670976015>.

⁶⁶ *Id.*

⁶⁷ In many cases, grocery suppliers make and sell both branded and private-label products. To increase output during shortages, many suppliers focused production on a smaller selection of SKUs than normal, and some retailers worried that private-label SKUs—which are less profitable for manufacturers than branded SKUs—would be targeted for production cuts. We did not identify specific instances of cuts targeting private-label SKUs in our limited sample.

Supply Disruptions Reduced Trade Promotions, Affecting Retailers Differently Based on Their Pricing Strategies

Producers in the grocery industry often provide funds to wholesalers and retailers to promote their goods in varying ways. Producers pay retailers to get their goods on the retailers' shelves, to obtain prominent placement, or to fund discounts, among other strategies. In the grocery industry, these payments from producers represent significant amounts of money. During the pandemic, this flow of money from producers into the downstream supply chain to drive incremental sales was curtailed. When a producer cannot satisfy all of the outstanding orders it has, there is little need for it to spend money to further increase demand for its products.

We saw that the reduction in trade promotion funds had differential impacts across the industry, with some retailers less impacted than others. Retailers that depended on periodic sales promotions to drive sales and traffic saw a decrease in the number of producer-funded promotions and an increase in their relative costs. In contrast, retailers that focused on everyday low pricing ("EDLP") instead of periodic promotions ("high-low pricing") were less affected by the decrease in producer-funded promotions.

Background on Trade Promotion of Groceries

Retail trade promotions come in many varieties but have two primary mechanisms to drive sales: increasing visibility of a product or decreasing the price.

First, perhaps the most important component of in-store promotion is the relative placement of products, because shoppers can be materially influenced by how goods are presented to them. For example, a product at eye level is more likely to be purchased by shoppers than an item placed on the bottom shelf or high up. Similarly, products on the "end caps" of each aisle receive extra exposure and attention. Producers often influence retail store layouts by paying for prominent placement of their products or by serving as a "category captain" or "category manager," which is a large producer that provides retailers with guidance on how to arrange one type of product for display (among other things).⁶⁸ Online, paying for desirable promotion operates similarly, with producers paying for advertisements to appear next to algorithmic search results on an internet retailer's website.

Second, producers engage in trade promotion by funding discounts. For example, producers may induce shoppers to try new products or to buy in bulk, by temporarily boosting sales with discounted prices. To fund these short-term sales, producers often rebate or otherwise reduce their wholesale prices and provide funds for advertising the promotion.⁶⁹

In reviewing documents and responses from companies receiving 6(b) Orders, we found that marketing funds from these producer-funded promotions were generating large flows of money from producers to both wholesalers and retailers. The information provided by the respondents showed that grocery retailers across the industry depend on promotional money provided to them as a large and important source of their revenue. This phenomenon is

⁶⁸ The term category captain typically refers to services provided by one of the major product suppliers for the relevant category of goods. We note that category captain arrangements can be controversial because they can essentially empower a major or even dominant supplier of a given product category to determine where its rivals will be placed on the shelves. The term category manager is more often used when similar services are provided by a third party that is not a product supplier, although in some instances product suppliers maintain relationships with these category managers in ways that can raise similar controversy.

⁶⁹ Sometimes manufacturers require that the entire rebate be used to lower the retail price to consumers. Other times the rebates are offered without this requirement, but with the assumption that lower wholesale prices will induce grocers to purchase and resell more product.

not limited to physical retail stores; online retailers can also generate significant revenue and profit from producer-funded discounts and placement of online advertisements in prominent, attractive locations.

We observed that trade promotion funds were also important to wholesalers. Sometimes, wholesalers pass marketing funds through directly to their own customers. However, wholesalers are not simple conduits for this money. Wholesalers also provide various promotional services to their retailer customers on behalf of grocery producers. Just like larger grocery store chains, wholesalers view these promotional activities as an important source of profitability. If a wholesaler can retain even a modest percentage of these marketing funds for itself, that can be a critical source of revenue and profitability.

However, not all retailers participate in producer-funded promotions to temporarily lower prices. Some retailers, most often larger ones, instead follow an “Every Day Low Price” or “EDLP” strategy. Walmart, for example, generally demands that its producers provide a consistently low wholesale price rather than trade promotions targeting short-term price reductions. Walmart uses this strategy to maintain consistent, lower retail prices over longer time periods, rather than occasionally putting items on sale.

The “Every Day Low Price” Model Was Less Affected When the Pandemic Reduced Temporary Promotions

We observed that, during the pandemic, retailers that more heavily relied on an EDLP model, such as Walmart, were less affected than those that tended to follow a more traditional grocery retailing model that relies more heavily on short-term promotions and sales to drive demand. The latter model involves expenditures to increase sales and is not well-suited to a situation, like the pandemic, where demand substantially outstrips supply. When a producer is already receiving more orders than it can fill, there is little need to spend any money promoting those items.

Thus, the dynamics of the pandemic drove down manufacturer promotional spending on the items in short supply. The 2022 *Independent Grocers Financial Survey* stated that “[t]he uncertainties in the supply chain combined with labor constraints at retail drove down promotional levels in the past two years.”⁷⁰ Furthermore, the report found that food and beverages that were on a promotion at the time of sale represented 32.9 percent of all food and beverage sales in 2019, 26.5 percent in 2020, and 27.5 percent in 2021, suggesting a decline in promotional funding over that period that had not fully recovered in 2021.⁷¹

During the pandemic, companies employing the more traditional grocery retailing model also sometimes faced higher prices than companies using EDLP strategies. In the traditional model, retailers effectively pay slightly higher wholesale prices upfront but later receive significant co-operative promotional funds. Under that model, if a producer continues to charge the same prices but then pauses or fails to deliver the expected promotional allowances, that effectively increases net prices to that retailer. On the other hand, an EDLP retailer foregoes all promotional co-operative expenditures on its behalf in exchange for the lowest possible wholesale price. In a world where promotion is now temporarily undesirable, the EDLP retailer benefits while the traditional retailer is harmed, assuming the grocery producer makes no price adjustments between these classes of trade.⁷²

⁷⁰ FMS SOLUTIONS ET AL., 2022 INDEPENDENT GROCERS FINANCIAL SURVEY 5 (2022).

⁷¹ *Id.* at 5.

⁷² Our study, focused on a limited set of firms, did not identify a widespread, general effort to reduce prices to retailers that typically receive co-operative advertising funds or to raise prices to EDLP retailers to compensate for the disparate impacts of this situation.

Both traditional promotional strategies and EDLP strategies are likely to remain common, with strong proponents of each within the industry. However, during the pandemic, losing promotional funds placed those retailers who deploy the traditional model at a competitive disadvantage in relation to their EDLP peers, at least temporarily. Grocery wholesalers were similarly harmed by this temporary drought in promotional spending brought on by the pandemic, because promotional expenditures by grocery producers are also a critical source of revenue for them. We did not attempt to empirically evaluate the impact of the loss of promotional expenditures on either wholesalers or their customers. Not every product was on allocation for significant periods of time during the pandemic, and wholesalers serve both EDLP retailers and traditional high-low retailers. But there is little doubt that, during the pandemic, these losses were significant for both wholesalers and the retailers they served.

Conclusions

The COVID-19 pandemic placed tremendous pressure on the supply chains that produce and move the nation's food from farm to table. When unexpectedly put under sustained stress, there were not enough extra hands ready to pick up the work of sick colleagues, not enough spare trucks and truck drivers ready to haul more loads, and no easy way to suddenly ramp up production to meet surging demand. Bottlenecks were suddenly exposed as firms up and down the supply chain struggled to maintain their output and feed our nation. Some firms seem to have used rising costs as an opportunity to further hike prices to increase their profits, and profits remain elevated even as supply chain pressures have eased.

Larger retailers and wholesalers with considerable leverage over their suppliers were able to take more aggressive action to protect themselves than were their smaller rivals. After widespread suspension of OTIF policies early in the pandemic, some large firms reimposed OTIF fines and penalties while the pandemic continued, pressing their suppliers to fill their orders or face large fines. In turn, smaller retailers and wholesalers without stringent OTIF policies were placed at a competitive disadvantage during the pandemic, when they received proportionally less product than their rivals.

The sudden inability to obtain needed goods did sensitize industry participants across the supply chain to the dangers of excessive dependence on a small number of viable suppliers for critical inputs. As supply chains were disrupted, we observed firms across the supply chain beginning to examine alternatives to their existing suppliers with a new and more critical eye. Where concentration was highest, we observed retailers looking to protect themselves from markets that were excessively concentrated by considering vertically integrating to better control their supply of products.

Shortages likewise prompted producers to reduce their funding of trade promotions. Promotions designed to increase sales made little sense when those producers were unable to meet existing demand. These changes affected retailers differently depending on their pricing model. Most notably, these trade promotions reflect a significant amount of money within the industry, and so the competitive impact of these differential effects (or of the promotions generally), may warrant further study.

The supply chain disruptions during the pandemic provided insight into the competitive dynamics of the grocery industry. Limited competition can lead to bottlenecks that increase the impact of supply chain shocks on different businesses and consumers while simultaneously creating opportunities for further entrenchment. The potential for powerful retailers to distort product allocations during a shortage suggests that crises may create an opportunity for some firms to entrench market power. Similarly, retailers saw that they needed to increase the resilience of their supply chains when they faced markets with few producers, recognizing the value that markets with many producers bring to securing supply. As supply chains normalize, some of these symptoms may subside, but the underlying issues remain.



Appendix A
Model Order to Retailers

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

COMMISSIONERS: Lina M. Khan, Chair
Noah Joshua Phillips
Rebecca Kelly Slaughter
Christine S. Wilson

FTC Matter No. P162318

ORDER TO FILE A SPECIAL REPORT

Pursuant to a resolution of the Federal Trade Commission (“FTC” or “the Commission”) dated November 24, 2021, entitled “Resolution Directing Use of Compulsory Process Regarding the Competitive Impact of Supply Chain Disruptions in Consumer Goods,” a copy of which is enclosed, [company name] (the “Recipient”) is ordered to file with the Commission, no later than 45 days after date of service, a Special Report containing the information and Documents specified herein.

The Commission is seeking information concerning the sources of supply chain disruptions and the impact of such disruptions on competition in consumer goods and retail markets. The Special Report will assist the Commission in conducting a study of these supply chain issues.

The Special Report is required to be subscribed and sworn by an official of the Recipient who has prepared or supervised the preparation of the report from books, records, correspondence, and other data and material in your possession. Your written report should restate each item of this Order with which the corresponding answer is identified. If any question cannot be answered fully, give the information that is available and explain in what respects and why the answer is incomplete. The Special Report and all accompanying documentary responses must be Bates-stamped.

The Recipient is required to respond to this Order using information in the Recipient’s possession, custody, or control, including information maintained in a central data repository to which the Recipient has access. The Recipient should not seek any responsive information and data from separately incorporated subsidiaries or affiliates or from individuals (other than in their capacity as the Recipient’s employee or as the Recipient’s agent). However, the Recipient should provide information relating to separately incorporated subsidiaries or affiliates if the Recipient already has possession, custody, or control of such information. No later than 14 days from the date of service, the Recipient should contact Commission staff and indicate whether all of the information required to respond to this Order is in the Recipient’s possession, custody, or control. If certain information is not in the Recipient’s possession, custody, or control, no later than 14 days from the date of service, the Recipient also must: (1) Identify, both orally and in writing, each question or sub-question that the Recipient is not able to fully answer because information is not in the Recipient’s possession, custody, or control, and (2) for each, provide the full names and addresses of all entities or individuals who have possession, custody, or control of such missing information.

Confidential or privileged commercial or financial information will be reported by the Commission on an aggregate or anonymous basis, consistent with Sections 6(f) and 21(d) of the FTC Act. Individual submissions responsive to this Order that are marked “confidential” will not be disclosed without first giving the Recipient ten (10) days’ notice of the Commission’s intention to do so, except as provided in Sections 6(f) and 21 of the FTC Act.

Specifications

1. Describe the supply chain disruptions you have experienced and how those disruptions have varied by geography. Include in your description:
 - a. the primary factors causing disruptions in your acquisition of products or transportation and the geographic regions in which those issues are most prevalent;
 - b. the primary factors causing disruptions in your distribution and sale of products by region, including issues relating to:
 - i. product manufacturing;
 - ii. air freight;
 - iii. shipping container availability;
 - iv. container shipping;
 - v. ports, terminals, and terminal operators, including fees and rules;
 - vi. warehouses;
 - vii. trucking and chassis availability; and
 - viii. rail;
 - c. the product and input categories for which supply chain disruptions have had the most significant impact on your business by region;
 - d. identification of the twenty suppliers whose supply chain disruptions have had the greatest impact on your business;
 - e. how the disruptions in your acquisition of products or transportation manifest, whether in terms of cancelled orders, modification of orders, delayed delivery, delivery of only a portion of the ordered goods, increased cost of goods, or increased transportation costs;
 - f. how the disruptions in your distribution and sale of products manifest, whether in terms of increased price of goods, increased transportation costs, or increased frequency of stockouts;
 - g. which supply chain disruptions are generating the most customer complaints; and
 - h. steps you are taking or considering to alleviate such disruptions, including identifying:
 - i. changes to your strategy regarding the factors listed in Specification 1(b);
 - ii. any partners you are working with to address disruptions,
 - iii. plans or efforts to begin new business functions (such as shipping, logistics or manufacturing) or relocate existing ones, whether through your own development or acquisition;
 - iv. changes to your standard terms and conditions; and
 - v. changes to your supplier base (such as diversification efforts or shifts to local suppliers or private label products).

2. Produce all documents prepared by or submitted to senior management relating to supply chain disruptions, including documents relating to the sources of those disruptions, the products and regions affected by those disruptions, your efforts to mitigate those disruptions, and the impact of such disruptions on your or your competitors':
 - a. supply chain strategy;
 - b. prices or pricing strategy;
 - c. marketing and promotions strategy;
 - d. costs;
 - e. margins;
 - f. sales volumes;
 - g. selection of suppliers and brands, including sourcing of private label products;
 - h. market share.
3. Describe your inventory strategy, inventory costs, and how you allocate and price product among your stores when there is a shortage or a product is out of stock, including how the following factors impact that allocation and pricing:
 - a. the anticipated duration of the product shortfall;
 - b. proximity to supplier or distribution center;
 - c. local competitive conditions;
 - d. proximity of competing stores;
 - e. existence of shortages at local competitors' stores.
4. Produce all documents prepared by or submitted to senior management regarding pricing and allocation of products in short supply among your stores.
5. Describe your use or acceptance of trade promotions to determine which products to carry or how prominently to display or market such products, including the total amount of such fees received, the percentage of your suppliers that provide such fees, and any changes that have occurred in your use or acceptance of such fees in response to supply chain disruptions.
6. Identify the ten largest and 41st to 50th largest providers of trade promotions to you (measured by the total value of trade promotions provided to you), and for each:
 - a. state the annual amount of trade promotions paid to you by that supplier; and
 - b. produce all contracts governing your relationship with the supplier.
7. Describe your use of suppliers as category captains, including the identity of each category captain, the services provided to you by category captains, the fees paid by each category captain to obtain that position, and any changes that have occurred in your use of category captains in response to supply chain disruptions.
8. Identify your ten largest and 41st to 50th largest suppliers (measured by the total dollar amount of your purchases from that supplier across all products) and for each:
 - a. produce all contracts governing your relationship with the supplier;
 - b. produce all documents reflecting negotiations relating to shortages, supply chain disruptions, shipping delays, shipping cost changes, and pricing changes;
 - c. state the total annual amount of trade promotions received from each such supplier;
 - d. identify each group of products for which it serves as a category captain, if any.
9. Describe your logistics strategy, including which functions you perform internally (e.g. private fleet and warehousing) and which functions you outsource to third party logistics service providers (e.g., freight brokerage, contract carriage). For each such third party provider include:

- a. the identity of your logistics service provider;
 - b. a description of the services provided to you; and
 - c. how your use of such services has been affected by supply chain disruptions.
10. Produce all reports, analyses, and studies provided to you by any third party logistics provider.
11. Describe your supply chain, procurement, and distribution strategy prior to the COVID-19 pandemic, including with respect to the elements of the supply chain identified in Specification 1(b). Explain why you chose that strategy and the efficiencies, costs, and risks associated with the decision.
12. Describe how you have altered or plan over the next five years to alter your supply chain, procurement, and distribution strategy including with respect to the elements of the supply chain identified in Specification 1(b). Explain why you made or plan to make those changes and the efficiencies, costs, and risks associated with those decisions.

Definitions

For the purposes of this Order, the following Definitions apply:

D1. The terms “you,” “your,” and “the Company” mean [company name]; its domestic and foreign parents, predecessors, divisions, subsidiaries, affiliates, partnerships, and joint ventures; and all directors, officers, employees, agents, and representatives of the foregoing. The terms “parent,” “subsidiary,” “affiliate,” and “joint venture” refer to any person in which there is partial (25 percent or more) or total ownership or control between the Company and any other person.

D2. The term “category captain” refers to a product supplier that provides services to a retailer to manage any aspect of the retailer’s display, marketing, and sales of a category of products, including the display, marketing and sales of other suppliers’ products.

D3. The term “contract” refers to any agreement and all related amendments and documents incorporated by reference, including agreements embodied in purchase orders, order acknowledgments, statements of work, memoranda setting out terms and conditions, and cooperative marketing agreements.

D4. The term “identify,” when used with reference to a company, means to provide the name and address of that company, along with the name and contact information for your principal contact at that company.

D5. The term “margins” refers to any metric you use to track the profitability of your business or any part of your business.

D6. The term “senior management” refers to the Company’s Board of Directors, Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, or equivalent positions, as well as the most senior individuals with direct responsibility for each of the following: pricing strategy, supply chain strategy, marketing strategy, promotions, and supplier relationships.

D7. The term “supplier” refers to any company that sells you consumer goods for resale.

D8. The term “supply chain disruption” refers to any delay, delivery shortfall, or cost increase associated with the delivery of products you have ordered from a supplier or shipped to a customer.

D9. The term “store” refers to any brick and mortar store, consumer-facing online platform, or warehouse that ships directly to consumers.

D10. The term “trade promotion” refers to any payment or provision of anything of value that a product supplier makes to a retailer or wholesaler in exchange for the retailer or wholesaler carrying the supplier’s product or providing its product more favorable shelf space or marketing, including slotting fees, staying fees, display fees, free fill, promotional spend, rebates, and discounts. In the context of a wholesaler that provides category management services to retailers, a supplier’s payments to the wholesaler to receive more favorable shelf space or marketing in the retail stores managed by that wholesaler constitute trade promotions. In the context of online sales, a payment to influence the prominence of a supplier’s product display on the retailer’s website or location in the retailer’s search results constitutes a trade promotion.

D11. The term “your competitor” refers to any company that sells to consumers some or all of the products you sell to consumers.

D12. The terms “and” and “or” have both conjunctive and disjunctive meanings.

D13. The terms “each,” “any,” and “all” mean “each and every.”

D14. The term “relating to” means in whole or in part constituting, containing, concerning, discussing, describing, analyzing, identifying, or stating.

D15. Any word or term that the Recipient considers vague or insufficiently defined has the meaning most frequently assigned to it by the Recipient in the ordinary course of business.

Instructions

For the purposes of this Order, the following Instructions apply:

1. All requests seek information and documents covering the period from January 1, 2019 to the date of this Order.
2. Unless otherwise specified, this Order requires the production of all responsive documents, data, and other information in your possession, custody, or control on the date that this Order was issued.
3. In order to comply in a manner consistent with the Commission’s Rules of Practice, 16 C.F.R. § 2.7(k), the Recipient shall schedule a teleconference, within 14 days after receiving this Order, with the Commission representative identified in Instruction 9 of

this Order to confer regarding your response. Upon request, an extension of no more than 30 days for the teleconference may be granted in writing by a Commission official.

4. Do not produce any Sensitive Personally Identifiable Information (“Sensitive PII”) or Sensitive Health Information (“SHI”) prior to discussing the information with a Commission representative. If any document responsive to a particular Specification contains unresponsive Sensitive PII or SHI, redact the unresponsive Sensitive PII or SHI prior to producing the document.

The term “Sensitive Personally Identifiable Information” means an individual’s Social Security Number alone; or an individual’s name, address, or phone number in combination with one or more of the following:

- date of birth
- driver’s license number or other state identification number, or a foreign country equivalent
- passport number
- financial account number
- credit or debit card number

The term “Sensitive Health Information” includes medical records and other individually identifiable health information, whether on paper, in electronic form, or communicated orally. Sensitive Health Information relates to the past, present, or future physical or mental health or condition of an individual, the provision of health care to an individual, or the past, present, or future payment for the provision of health care to an individual.

5. Form of Production: You must submit documents as instructed below absent written modification.
 - a. Documents stored in electronic or hard copy formats in the ordinary course of business shall be submitted in the following electronic format provided that such copies are true, correct, and complete copies of the original documents:
 - i. Submit Microsoft Excel, Access, and PowerPoint files in native format with extracted text and metadata.
 - ii. Submit emails in TIFF (Group IV) format with extracted text and the following metadata and information:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the email.
Bates End	Bates number of the last page of the email.

Metadata/Document Information	Description
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of the person from whom the email was obtained.
Email BCC	Names of person(s) blind copied on the email.
Email CC	Names of person(s) copied on the email.
Email Date Received	Date the email was received. [MM/DD/YYYY]
Email Date Sent	Date the email was sent. [MM/DD/YYYY]
Email From	Names of the person who authored the email.
Email Message ID	Microsoft Outlook Message ID or similar value in other message systems.
Email Subject	Subject line of the email.
Email Time Received	Time email was received. [HH:MM:SS AM/PM]
Email To	recipients(s) of the email.
Email Time Sent	Time email was sent. [HH:MM:SS AM/PM]
Page count	Number of pages in record.
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Folder	File path/folder location of email.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC0003090.txt

- iii. Submit email attachments other than those described in subpart (a)(i) in TIFF (Group IV) format. For all email attachments, provide extracted text and the following metadata and information as applicable:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the document.
Bates End	Last Bates number of the document.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of person from whom the file was obtained.
Date Created	Date the file was created. [MM/DD/YYYY]
Date Modified	Date the file was last changed and saved. [MM/DD/YYYY]
Page count	Number of pages in record.
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Filename with extension	Name of the original native file with file extension.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Native Link	Relative file path to submitted native or near native files. Example: \NATIVES\001\FTC0003090.xls
Parent ID	Document ID or beginning Bates number of the parent email.

Metadata/Document Information	Description
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC0003090.txt
Time Created	Time file was created. [HH:MM:SS AM/PM]
Time Modified	Time file was saved. [HH:MM:SS AM/PM]

- iv. Submit all other electronic documents, other than those described in subpart (a)(i), in TIFF (Group IV) format accompanied by extracted text and the following metadata and information:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the document.
Bates End	Last Bates number of the document.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of the original custodian of the file.
Date Created	Date the file was created. [MM/DD/YYYY]
Date Modified	Date the file was last changed and saved. [MM/DD/YYYY HH:MM:SS AM/PM]
Page count	Number of pages in record.
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Filename with extension	Name of the original native file with file extension.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.

Metadata/Document Information	Description
Originating Path	File path of the file as it resided in its original environment.
Production Link	Relative path to submitted native or near native files. Example: \NATIVES\001\FTC0003090.xls
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC-0003090.txt
Time Created	Time file was created. [HH:MM:SS AM/PM]
Time Modified	Time file was saved. [HH:MM:SS AM/PM]

- v. Submit documents stored in hard copy in TIFF (Group IV) format accomplished by OCR with the following information:

Metadata/Document Information	Description
Bates Begin	Beginning Bates number of the document.
Bates End	Bates number of the last page of the document.
Custodian	Name of person from whom the file was obtained.

- vi. Submit redacted documents in TIFF (Group IV) format accompanied by OCR with the metadata and information required by relevant document type in subparts (a)(i) through (a)(v) above. For example, if the redacted file was originally an attachment to an email, provide the metadata and information specified in subpart (a)(iii) above. Additionally, please provide a basis for each privilege claim as detailed in Instruction 5.
- b. Submit data compilations in electronic format, specifically Microsoft Excel spreadsheets or delimited text formats, with all underlying data un-redacted and all underlying formulas and algorithms intact. Submit data separately from document productions.
- c. Produce electronic file and TIFF submissions as follows:

- i. For productions over 10 gigabytes, use hard disk drives, formatted in Microsoft Windows-compatible, uncompressed data in USB 2.0 or 3.0 external enclosure.
 - ii. For productions under 10 gigabytes, CD-ROM (CD-R, CD-RW) optical disks and DVD-ROM (DVD+R, DVD+RW) optical disks for Windows-compatible personal computers, and USB 2.0 Flash Drives are acceptable storage formats.
 - iii. All documents produced in electronic format shall be scanned for and free of viruses prior to submission. The Commission will return any infected media for replacement, which may affect the timing of your compliance with this Order.
 - iv. Encryption of productions using NIST FIPS-Compliant cryptographic hardware or software modules, with passwords sent under separate cover, is strongly encouraged.
 - d. Each production shall be submitted with a transmittal letter that includes the FTC matter number; production volume name; encryption method/software used; list of custodians and document identification number range for each; total number of documents; and a list of load file fields in the order in which they are organized in the load file.
6. Before using software or technology (including search terms, predictive coding, de-duplication, email threading or similar technologies) to identify or eliminate documents, data, or information potentially responsive to this Order you must submit a written description of such software or technology and any related processes and workflows. In addition:
 - a. if you use Technology Assisted Review to identify documents and information responsive to this Order or to exclude documents and information from further review describe your collection and review methodology, including: (a) how any software is used to identify responsive documents or exclude nonresponsive documents; (b) the process to identify and validate any seed set documents, if applicable; (c) the process to determine and validate accuracy of the automatic determinations of responsiveness and nonresponsiveness; and (d) the collection and review process for foreign language documents, whether reviewed manually or by some technology-assisted method;
 - b. if you use search terms to identify documents and information responsive to this Order or to exclude documents and information from further review: for each custodian, search location, or document population provide (a) a list of proposed terms; (b) a tally of all the terms that appear in the collection and the number of documents containing each term; (c) a list of stop words and operators for the platform being used; and (d) a glossary of industry and company acronyms and terminology;

- c. provide prevalence, recall, precision, validation, and confidence-level statistics;
 - d. provide access to randomized, statistically-significant samples of non-privileged documents excluded from review or production by use of keyword search terms, Technology Assisted Review software, or any other means;
 - e. identify the person(s) able to testify on your behalf about information known or reasonably available to the organization relating to your use of software or technology in responding to this Order.
7. All documents responsive to this Order:
- a. shall be produced in complete form, un-redacted unless privileged, and in the order in which they appear in your files;
 - b. shall be marked on each page with corporate identification and consecutive document control numbers when produced in TIFF format (e.g., ABC-00000001);
 - c. if written in a language other than English, shall be translated into English, with the English translation attached to the foreign language document;
 - d. shall be produced in color;
 - e. shall be accompanied by an index that identifies: (i) the name of each Person from whom responsive documents are submitted; and (ii) the corresponding consecutive document control number(s) used to identify that Person's documents. If the index exists as a computer file(s), provide the index both as a printed hard copy and in machine-readable form (provided that, Commission representatives determine prior to submission that the machine-readable form would be in a format that allows the agency to use the computer files). The Commission representative will provide a sample index upon request; and
 - f. shall be accompanied by an affidavit of a Recipient's officer stating that the copies are true, correct, and complete copies of the original documents.
8. If any material called for by this Order is withheld based on a claim of protected status, 16 C.F.R. § 2.7(a)(4), the claim must be asserted no later than the return date of this Order. In addition, pursuant to 16 C.F.R. § 2.11(a)(1), submit, together with the claim, a detailed log of the items withheld. The information in the log shall be of sufficient detail to enable the Commission staff to assess the validity of the claim for each document, including attachments, without disclosing the protected information. Unless modified by the Commission representative identified on the last page of this Order, submit the log in a searchable and sortable electronic format, and, for each document, including attachments, provide:
- a. Document control number(s);

- b. The full title (if the withheld material is a document) and the full file name (if the withheld material is in electronic form);
- c. A description of the material withheld (for example, a letter, memorandum, or email), including any attachments;
- d. The date the material was created;
- e. The date the material was sent to each recipient (if different from the date the material was created);
- f. The email addresses, if any, or other electronic contact information to the extent used in the document, from which and to which each document was sent;
- g. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all authors;
- h. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all recipients of the material;
- i. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all persons copied on the material;
- j. The factual basis supporting the claim that the material is protected; and
- k. Any other pertinent information necessary to support the assertion of protected status by operation of law.

In the log, identify by an asterisk each attorney who is an author, recipient, or person copied on the material. The titles, business addresses, email addresses, and relevant affiliations of all authors, recipients, and persons copied on the material may be provided in a legend appended to the log. However, provide in the log the information required by Instruction 6(f). The lead attorney or attorney responsible for supervising the review of the material and who made the determination to assert the claim of protected status must attest, in writing, to the log.

A document, including all attachments, may be withheld or redacted only to the extent necessary to preserve any claim of protected status. Unless otherwise provided in the instructions accompanying this Order, and except for information and material subject to a valid claim of protected status, all responsive information and material shall be produced without redaction.

9. Any questions that you have relating to the scope or meaning of anything in this Order or suggestions for possible modifications to it should be directed to Kenneth Merber at kmerber@ftc.gov or (202) 326-3551. Please notify Mr. Merber by email in advance of each production. Any password(s) necessary to access the response to the Order shall be emailed to Mr. Merber.

You are advised that penalties may be imposed under applicable provisions of federal law for failure to file special reports or for filing false reports.

By direction of the Commission.

Lina M. Khan, Chair

DATED: November 24, 2021

Appendix B
Model Order to Wholesalers

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

COMMISSIONERS: Lina M. Khan, Chair
Noah Joshua Phillips
Rebecca Kelly Slaughter
Christine S. Wilson

FTC Matter No. P162318

ORDER TO FILE A SPECIAL REPORT

Pursuant to a resolution of the Federal Trade Commission (“FTC” or “the Commission”) dated November 24, 2021, entitled “Resolution Directing Use of Compulsory Process Regarding the Competitive Impact of Supply Chain Disruptions in Consumer Goods,” a copy of which is enclosed, [company name] (the “Recipient”) is ordered to file with the Commission, no later than 45 days after date of service, a Special Report containing the information and Documents specified herein.

The Commission is seeking information concerning the sources of supply chain disruptions and the impact of such disruptions on competition in consumer goods and retail markets. The Special Report will assist the Commission in conducting a study of these supply chain issues.

The Special Report is required to be subscribed and sworn by an official of the Recipient who has prepared or supervised the preparation of the report from books, records, correspondence, and other data and material in your possession. Your written report should restate each item of this Order with which the corresponding answer is identified. If any question cannot be answered fully, give the information that is available and explain in what respects and why the answer is incomplete. The Special Report and all accompanying documentary responses must be Bates-stamped.

The Recipient is required to respond to this Order using information in the Recipient’s possession, custody, or control, including information maintained in a central data repository to which the Recipient has access. The Recipient should not seek any responsive information and data from separately incorporated subsidiaries or affiliates or from individuals (other than in their capacity as the Recipient’s employee or as the Recipient’s agent). However, the Recipient should provide information relating to separately incorporated subsidiaries or affiliates if the Recipient already has possession, custody, or control of such information. No later than 14 days from the date of service, the Recipient should contact Commission staff and indicate whether all of the information required to respond to this Order is in the Recipient’s possession, custody, or control. If certain information is not in the Recipient’s possession, custody, or control, no later than 14 days from the date of service, the Recipient also must: (1) Identify, both orally and in writing, each question or sub-question that the Recipient is not able to fully answer because information is not in the Recipient’s possession, custody, or control, and (2) for each, provide the full names and addresses of all entities or individuals who have possession, custody, or control of such missing information.

Confidential or privileged commercial or financial information will be reported by the Commission on an aggregate or anonymous basis, consistent with Sections 6(f) and 21(d) of the FTC Act. Individual submissions responsive to this Order that are marked “confidential” will not be disclosed without first giving the Recipient ten (10) days’ notice of the Commission’s intention to do so, except as provided in Sections 6(f) and 21 of the FTC Act.

Specifications

1. Describe the supply chain disruptions you have experienced and how those disruptions have varied by geography. Include in your description:
 - a. the primary factors causing disruptions in your acquisition of products, inputs, or transportation, and the geographic regions in which those issues are most prevalent;
 - b. the primary factors causing disruptions in your sale or distribution of products by region, including issues regarding:
 - i. air freight;
 - ii. shipping container availability;
 - iii. container shipping;
 - iv. ports, terminals, and terminal operators, including fees and rules;
 - v. warehouses;
 - vi. trucking and chassis availability; and
 - vii. rail;
 - c. the product and input categories for which supply chain disruptions have had the most significant impact on your business by region;
 - d. identification of the twenty suppliers whose supply chain disruptions have had the greatest impact on your business;
 - e. how the disruptions in your acquisition of products, inputs, or transportation manifest, whether in terms of cancelled orders, modification of orders, delayed delivery, delivery of only a portion of the ordered goods, increased cost of goods, or increased transportation costs;
 - f. how the disruptions in your sale of products manifest, whether in terms of cancelled orders, modification of orders, delayed delivery, delivery of only a portion of the ordered goods, increased price of goods, or increased transportation costs;
 - g. which supply chain disruptions are generating the most customer complaints; and
 - h. steps you are taking or considering to alleviate such disruptions, including identifying:
 - i. changes to your strategy regarding the factors listed in Specification 1(b);
 - ii. any partners you are working with to address disruptions;
 - iii. plans or efforts to begin new business functions (such as shipping, logistics, or manufacturing) or relocate existing ones, whether through your own development or acquisition;
 - iv. changes to your standard terms and conditions; and
 - v. changes to your supplier base (such as diversification efforts or shifts to local suppliers or private label products).

2. Produce all documents prepared by or submitted to senior management relating to supply chain disruptions, including documents relating to the sources of those disruptions, the products and regions affected by those disruptions, your efforts to mitigate those disruptions, and the impact of such disruptions on your, your competitors', and your customers':
 - a. supply chain strategy;
 - b. prices or pricing strategy;
 - c. marketing and promotions strategy;
 - d. costs;
 - e. margins;
 - f. sales volumes;
 - g. selection of products to offer to customers;
 - h. market share.
3. Describe your inventory strategy, inventory costs, and how you price and allocate product among your customers when there is a shortage or a product is out of stock, including how the following impact that pricing and allocation:
 - a. product category;
 - b. customer type (e.g., retailer, wholesaler);
 - c. local demand conditions;
 - d. contract terms with the customer (e.g., minimum purchase amounts);
 - e. geographic location of the customer;
 - f. size of customer (whether measured by total dollars of purchases from you or by that customer's potential purchase volume);
 - g. duration of your relationship with the customer; and
 - h. proximity to other customers who have received product.
4. Produce all documents prepared by or submitted to senior management regarding your pricing and allocation among your customers of products in short supply.
5. Describe any category management services you offer or provide, including how such services vary by product category, any relationship with product suppliers relating to your provision of such services to retailers, the cost of providing such services, to which customers you provide such services, and any changes that have occurred in response to supply chain disruptions.
6. Identify your ten largest and your 101st to 110th largest retail customers (measured by total dollar amount of purchases from you) and for each produce:
 - a. all contracts governing your relationship with the customer; and
 - b. all documents reflecting negotiations relating to shortages, supply chain disruptions, shipping delays, shipping cost changes, and pricing changes.
7. Produce all documents prepared by or submitted to senior management discussing the profitability of your relationship with individual customers or groups of customers.
8. Identify your ten largest and your 41st to 50th largest suppliers (measured by the total dollar amount of your purchases from that supplier across all products) and for each:
 - a. produce all contracts governing your relationship with the supplier;
 - b. produce all documents reflecting negotiations relating to shortages, supply chain disruptions, shipping delays, shipping cost changes, and pricing changes; and
 - c. state the total annual amount of trade promotions received.
9. Describe your logistics strategy, including which functions you perform internally (e.g. private fleet and warehousing) and which functions you outsource to third party logistics

service providers (e.g., freight brokerage, contract carriage). For each such third party provider include:

- a. the identity of your logistics service provider;
 - b. a description of the services provided to you; and
 - c. how your use of such services has been affected by supply chain disruptions.
10. Produce all reports, analyses, and studies provided to you by any third party logistics provider.
11. Describe your supply chain, procurement, and distribution strategy prior to the COVID-19 pandemic, including with respect to the elements of the supply chain identified in Specification 1(b). Explain why you chose that strategy and the efficiencies, costs, and risks associated with the decision.
12. Describe how you have altered or plan over the next five years to alter your supply chain, procurement, and distribution strategy including with respect to the elements of the supply chain identified in Specification 1(b). Explain why you made or plan to make those changes and the efficiencies, costs, and risks associated with those decisions.

Definitions

For the purposes of this Order, the following Definitions apply:

D1. The terms “you,” “your,” and “the Company” mean [company name]; its domestic and foreign parents, predecessors, divisions, subsidiaries, affiliates, partnerships, and joint ventures; and all directors, officers, employees, agents, and representatives of the foregoing. The terms “parent,” “subsidiary,” “affiliate,” and “joint venture” refer to any person in which there is partial (25 percent or more) or total ownership or control between the Company and any other person.

D2. The term “category management” refers to services provided to a retailer to manage any aspect of a retailer’s display, marketing, and sales of a category of products.

D3. The term “contract” refers to any agreement and all related amendments and documents incorporated by reference, including agreements embodied in purchase orders, order acknowledgments, statements of work, memoranda setting out terms and conditions, and cooperative marketing agreements.

D4. The term “customer” refers to any entity to which you sell goods or provide services, including entities that are members or owners of your business.

D5. The term “identify,” when used with reference to a company, means to provide the name and address of that company, along with the name and contact information for your principal contact at that company.

D6. The term “margins” refers to any metric you use to track the profitability of your business or any part of your business.

D7. The term “retail customer” refers to a customer of your products that sells those products to individual consumers.

D8. The term “senior management” refers to the Company’s Board of Directors, Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, or equivalent positions, as well as the most senior individuals with direct responsibility for each of the following: pricing strategy, supply chain strategy, marketing strategy, promotions, and customer relationships.

D9. The term “store” refers to any brick and mortar store, consumer-facing online platform, or warehouse that ships directly to consumers.

D10. The term “supplier” refers to any company that sells you consumer goods for resale, with or without further processing.

D11. The term “supply chain disruption” refers to any delay, delivery shortfall, or cost increase associated with the delivery of products you have manufactured, ordered from a supplier, or shipped to a customer.

D12. The term “trade promotion” refers to any payment or provision of anything of value that a product supplier makes to a retailer or wholesaler in exchange for the retailer or wholesaler carrying the supplier’s product or providing its product more favorable shelf space or marketing, including slotting fees, staying fees, display fees, free fill, promotional spend, rebates, and discounts. In the context of a wholesaler that provides category management services to retailers, a supplier’s payments to the wholesaler to receive more favorable shelf space or marketing in the retail stores managed by that wholesaler constitute trade promotions. In the context of online sales, a payment to influence the prominence of a supplier’s product display on the retailer’s website or location in the retailer’s search results constitutes a trade promotion.

D13. The term “wholesale customer” refers to a customer of your products that sells those products to another business for resale, including group purchasing organizations comprised of retail customers.

D14. The term “your competitor” refers to any company that sells to wholesalers or retailers some or all of the products you sell to wholesalers or retailers.

D15. The terms “and” and “or” have both conjunctive and disjunctive meanings.

D16. The terms “each,” “any,” and “all” mean “each and every.”

D17. The term “relating to” means in whole or in part constituting, containing, concerning, discussing, describing, analyzing, identifying, or stating.

D18. Any word or term that the Recipient considers vague or insufficiently defined has the meaning most frequently assigned to it by the Recipient in the ordinary course of business.

Instructions

For the purposes of this Order, the following Instructions apply:

1. All requests seek information and documents covering the period from January 1, 2019 to the date of this Order.
2. Unless otherwise specified, this Order requires the production of all responsive documents, data, and other information in your possession, custody, or control on the date that this Order was issued.
3. In order to comply in a manner consistent with the Commission's Rules of Practice, 16 C.F.R. § 2.7(k), the Recipient shall schedule a teleconference, within 14 days after receiving this Order, with the Commission representative identified in Instruction **Error! Reference source not found.** of this Order to confer regarding your response. Upon request, an extension of no more than 30 days for the teleconference may be granted in writing by a Commission official.
4. Do not produce any Sensitive Personally Identifiable Information ("Sensitive PII") or Sensitive Health Information ("SHI") prior to discussing the information with a Commission representative. If any document responsive to a particular Specification contains unresponsive Sensitive PII or SHI, redact the unresponsive Sensitive PII or SHI prior to producing the document.

The term "Sensitive Personally Identifiable Information" means an individual's Social Security Number alone; or an individual's name, address, or phone number in combination with one or more of the following:

- date of birth
- driver's license number or other state identification number, or a foreign country equivalent
- passport number
- financial account number
- credit or debit card number

The term "Sensitive Health Information" includes medical records and other individually identifiable health information, whether on paper, in electronic form, or communicated orally. Sensitive Health Information relates to the past, present, or future physical or mental health or condition of an individual, the provision of health care to an individual, or the past, present, or future payment for the provision of health care to an individual.

5. Form of Production: You must submit documents as instructed below absent written modification.
 - a. Documents stored in electronic or hard copy formats in the ordinary course of business shall be submitted in the following electronic format provided that such copies are true, correct, and complete copies of the original documents:

- i. Submit Microsoft Excel, Access, and PowerPoint files in native format with extracted text and metadata.
- ii. Submit emails in TIFF (Group IV) format with extracted text and the following metadata and information:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the email.
Bates End	Bates number of the last page of the email.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of the person from whom the email was obtained.
Email BCC	Names of person(s) blind copied on the email.
Email CC	Names of person(s) copied on the email.
Email Date Received	Date the email was received. [MM/DD/YYYY]
Email Date Sent	Date the email was sent. [MM/DD/YYYY]
Email From	Names of the person who authored the email.
Email Message ID	Microsoft Outlook Message ID or similar value in other message systems.
Email Subject	Subject line of the email.
Email Time Received	Time email was received. [HH:MM:SS AM/PM]
Email To	recipients(s) of the email.
Email Time Sent	Time email was sent. [HH:MM:SS AM/PM]

Metadata/Document Information	Description
Page count	Number of pages in record.
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Folder	File path/folder location of email.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC0003090.txt

- iii. Submit email attachments other than those described in subpart (a)(i) in TIFF (Group IV) format. For all email attachments, provide extracted text and the following metadata and information as applicable:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the document.
Bates End	Last Bates number of the document.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of person from whom the file was obtained.
Date Created	Date the file was created. [MM/DD/YYYY]
Date Modified	Date the file was last changed and saved. [MM/DD/YYYY]
Page count	Number of pages in record.

Metadata/Document Information	Description
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Filename with extension	Name of the original native file with file extension.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Native Link	Relative file path to submitted native or near native files. Example: \NATIVES\001\FTC0003090.xls
Parent ID	Document ID or beginning Bates number of the parent email.
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC0003090.txt
Time Created	Time file was created. [HH:MM:SS AM/PM]
Time Modified	Time file was saved. [HH:MM:SS AM/PM]

- iv. Submit all other electronic documents, other than those described in subpart (a)(i), in TIFF (Group IV) format accompanied by extracted text and the following metadata and information:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the document.
Bates End	Last Bates number of the document.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.

Metadata/Document Information	Description
Custodian	Name of the original custodian of the file.
Date Created	Date the file was created. [MM/DD/YYYY]
Date Modified	Date the file was last changed and saved. [MM/DD/YYYY HH:MM:SS AM/PM]
Page count	Number of pages in record.
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Filename with extension	Name of the original native file with file extension.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Originating Path	File path of the file as it resided in its original environment.
Production Link	Relative path to submitted native or near native files. Example: \NATIVES\001\FTC0003090.xls
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC-0003090.txt
Time Created	Time file was created. [HH:MM:SS AM/PM]
Time Modified	Time file was saved. [HH:MM:SS AM/PM]

- v. Submit documents stored in hard copy in TIFF (Group IV) format accomplished by OCR with the following information:

Metadata/Document Information	Description
Bates Begin	Beginning Bates number of the document.
Bates End	Bates number of the last page of the document.

Custodian	Name of person from whom the file was obtained.
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- vi. Submit redacted documents in TIFF (Group IV) format accompanied by OCR with the metadata and information required by relevant document type in subparts (a)(i) through (a)(v) above. For example, if the redacted file was originally an attachment to an email, provide the metadata and information specified in subpart (a)(iii) above. Additionally, please provide a basis for each privilege claim as detailed in Instruction 5.
- b. Submit data compilations in electronic format, specifically Microsoft Excel spreadsheets or delimited text formats, with all underlying data un-redacted and all underlying formulas and algorithms intact. Submit data separately from document productions.
- c. Produce electronic file and TIFF submissions as follows:
 - i. For productions over 10 gigabytes, use hard disk drives, formatted in Microsoft Windows-compatible, uncompressed data in USB 2.0 or 3.0 external enclosure.
 - ii. For productions under 10 gigabytes, CD-ROM (CD-R, CD-RW) optical disks and DVD-ROM (DVD+R, DVD+RW) optical disks for Windows-compatible personal computers, and USB 2.0 Flash Drives are acceptable storage formats.
 - iii. All documents produced in electronic format shall be scanned for and free of viruses prior to submission. The Commission will return any infected media for replacement, which may affect the timing of your compliance with this Order.
 - iv. Encryption of productions using NIST FIPS-Compliant cryptographic hardware or software modules, with passwords sent under separate cover, is strongly encouraged.
- d. Each production shall be submitted with a transmittal letter that includes the FTC matter number; production volume name; encryption method/software used; list of custodians and document identification number range for each; total number of documents; and a list of load file fields in the order in which they are organized in the load file.
- 6. Before using software or technology (including search terms, predictive coding, de-duplication, email threading or similar technologies) to identify or eliminate documents, data, or information potentially responsive to this Order you must submit a written description of such software or technology and any related processes and workflows. In addition:

- a. if you use Technology Assisted Review to identify documents and information responsive to this Order or to exclude documents and information from further review describe your collection and review methodology, including: (a) how any software is used to identify responsive documents or exclude nonresponsive documents; (b) the process to identify and validate any seed set documents, if applicable; (c) the process to determine and validate accuracy of the automatic determinations of responsiveness and nonresponsiveness; and (d) the collection and review process for foreign language documents, whether reviewed manually or by some technology-assisted method;
 - b. if you use search terms to identify documents and information responsive to this Order or to exclude documents and information from further review: for each custodian, search location, or document population provide (a) a list of proposed terms; (b) a tally of all the terms that appear in the collection and the number of documents containing each term; (c) a list of stop words and operators for the platform being used; and (d) a glossary of industry and company acronyms and terminology;
 - c. provide prevalence, recall, precision, validation, and confidence-level statistics;
 - d. provide access to randomized, statistically-significant samples of non-privileged documents excluded from review or production by use of keyword search terms, Technology Assisted Review software, or any other means;
 - e. identify the person(s) able to testify on your behalf about information known or reasonably available to the organization relating to your use of software or technology in responding to this Order.
7. All documents responsive to this Order:
- a. shall be produced in complete form, un-redacted unless privileged, and in the order in which they appear in your files;
 - b. shall be marked on each page with corporate identification and consecutive document control numbers when produced in TIFF format (e.g., ABC-00000001);
 - c. if written in a language other than English, shall be translated into English, with the English translation attached to the foreign language document;
 - d. shall be produced in color;
 - e. shall be accompanied by an index that identifies: (i) the name of each Person from whom responsive documents are submitted; and (ii) the corresponding consecutive document control number(s) used to identify that Person's documents. If the index exists as a computer file(s), provide the index both as a printed hard copy and in machine-readable form (provided that, Commission representatives determine prior to submission that the machine-readable form

would be in a format that allows the agency to use the computer files). The Commission representative will provide a sample index upon request; and

- f. shall be accompanied by an affidavit of a Recipient's officer stating that the copies are true, correct, and complete copies of the original documents.
8. If any material called for by this Order is withheld based on a claim of protected status, 16 C.F.R. § 2.7(a)(4), the claim must be asserted no later than the return date of this Order. In addition, pursuant to 16 C.F.R. § 2.11(a)(1), submit, together with the claim, a detailed log of the items withheld. The information in the log shall be of sufficient detail to enable the Commission staff to assess the validity of the claim for each document, including attachments, without disclosing the protected information. Unless modified by the Commission representative identified on the last page of this Order, submit the log in a searchable and sortable electronic format, and, for each document, including attachments, provide:
- a. Document control number(s);
 - b. The full title (if the withheld material is a document) and the full file name (if the withheld material is in electronic form);
 - c. A description of the material withheld (for example, a letter, memorandum, or email), including any attachments;
 - d. The date the material was created;
 - e. The date the material was sent to each recipient (if different from the date the material was created);
 - f. The email addresses, if any, or other electronic contact information to the extent used in the document, from which and to which each document was sent;
 - g. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all authors;
 - h. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all recipients of the material;
 - i. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all persons copied on the material;
 - j. The factual basis supporting the claim that the material is protected; and
 - k. Any other pertinent information necessary to support the assertion of protected status by operation of law.

In the log, identify by an asterisk each attorney who is an author, recipient, or person copied on the material. The titles, business addresses, email addresses, and relevant

affiliations of all authors, recipients, and persons copied on the material may be provided in a legend appended to the log. However, provide in the log the information required by Instruction 6(f). The lead attorney or attorney responsible for supervising the review of the material and who made the determination to assert the claim of protected status must attest, in writing, to the log.

A document, including all attachments, may be withheld or redacted only to the extent necessary to preserve any claim of protected status. Unless otherwise provided in the instructions accompanying this Order, and except for information and material subject to a valid claim of protected status, all responsive information and material shall be produced without redaction.

9. Any questions that you have relating to the scope or meaning of anything in this Order or suggestions for possible modifications to it should be directed to Kenneth Merber at kmerber@ftc.gov or (202) 326-3551. Please notify Mr. Merber by email in advance of each production. Any password(s) necessary to access the response to the Order shall be emailed to Mr. Merber.

You are advised that penalties may be imposed under applicable provisions of federal law for failure to file special reports or for filing false reports.

By direction of the Commission.

Lina M. Khan, Chair

DATED: November 24, 2021

Appendix C
Model Order to Producers

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

COMMISSIONERS: Lina M. Khan, Chair
Noah Joshua Phillips
Rebecca Kelly Slaughter
Christine S. Wilson

FTC Matter No. P162318

ORDER TO FILE A SPECIAL REPORT

Pursuant to a resolution of the Federal Trade Commission (“FTC” or “the Commission”) dated November 24, 2021, entitled “Resolution Directing Use of Compulsory Process Regarding the Competitive Impact of Supply Chain Disruptions in Consumer Goods,” a copy of which is enclosed, [company name] (the “Recipient”) is ordered to file with the Commission, no later than 45 days after date of service, a Special Report containing the information and Documents specified herein.

The Commission is seeking information concerning the sources of supply chain disruptions and the impact of such disruptions on competition in consumer goods and retail markets. The Special Report will assist the Commission in conducting a study of these supply chain issues.

The Special Report is required to be subscribed and sworn by an official of the Recipient who has prepared or supervised the preparation of the report from books, records, correspondence, and other data and material in your possession. Your written report should restate each item of this Order with which the corresponding answer is identified. If any question cannot be answered fully, give the information that is available and explain in what respects and why the answer is incomplete. The Special Report and all accompanying documentary responses must be Bates-stamped.

The Recipient is required to respond to this Order using information in the Recipient’s possession, custody, or control, including information maintained in a central data repository to which the Recipient has access. The Recipient should not seek any responsive information and data from separately incorporated subsidiaries or affiliates or from individuals (other than in their capacity as the Recipient’s employee or as the Recipient’s agent). However, the Recipient should provide information relating to separately incorporated subsidiaries or affiliates if the Recipient already has possession, custody, or control of such information. No later than 14 days from the date of service, the Recipient should contact Commission staff and indicate whether all of the information required to respond to this Order is in the Recipient’s possession, custody, or control. If certain information is not in the Recipient’s possession, custody, or control, no later than 14 days from the date of service, the Recipient also must: (1) Identify, both orally and in writing, each question or sub-question that the Recipient is not able to fully answer because information is not in the Recipient’s possession, custody, or control, and (2) for each, provide the full names and addresses of all entities or individuals who have possession, custody, or control of such missing information.

Confidential or privileged commercial or financial information will be reported by the Commission on an aggregate or anonymous basis, consistent with Sections 6(f) and 21(d) of the FTC Act. Individual submissions responsive to this Order that are marked “confidential” will not be disclosed without first giving the Recipient ten (10) days’ notice of the Commission’s intention to do so, except as provided in Sections 6(f) and 21 of the FTC Act.

Specifications

1. Describe the supply chain disruptions you have experienced, how those disruptions have varied by geography, and in which regions the disruptions have been most prevalent. Include in your description:
 - a. the primary factors causing disruptions in your acquisition of products, inputs, or transportation and the geographic regions in which those issues are most prevalent;
 - b. the primary factors causing disruptions in your sale of products by region, including issues regarding:
 - i. product manufacturing;
 - ii. air freight;
 - iii. shipping container availability;
 - iv. container shipping;
 - v. ports, terminals, and terminal operators, including fees and rules;
 - vi. warehouses;
 - vii. trucking and chassis availability; and
 - viii. rail;
 - c. the product and input categories for which supply chain disruptions have had the most significant impact on your business by region;
 - d. how the disruptions in your acquisition of products, inputs, or transportation manifest, whether in terms of cancelled orders, modification of orders, delayed delivery, delivery of only a portion of the ordered goods, increased cost of goods, or increased transportation costs;
 - e. how the disruptions in your sale of products manifest, whether in terms of cancelled orders, modification of orders, delayed delivery, delivery of only a portion of the ordered goods, increased price of goods, or increased transportation costs;
 - f. which supply chain disruptions are generating the most customer complaints; and
 - g. steps you are taking or considering to alleviate such disruptions, including identifying:
 - i. any partners you are working with to address disruptions;
 - ii. plans or efforts to begin new business functions (such as shipping, logistics, or manufacturing) or relocate existing ones, whether through your own development or acquisition;
 - iii. changes to your standard terms and conditions; and
 - iv. changes to your supplier base (such as diversification efforts or shifts to local suppliers).
2. Produce all documents prepared by or submitted to senior management relating to supply chain disruptions, including documents relating to the sources of those disruptions, the products and regions affected by those disruptions, your efforts to mitigate those

disruptions, and the impact of such disruptions on your, your competitors', or your customers':

- a. supply chain strategy;
 - b. prices or pricing strategy;
 - c. marketing and promotions strategy;
 - d. costs;
 - e. margins;
 - f. sales volumes;
 - g. selection of products to offer to customers;
 - h. market share.
3. Describe your production and inventory strategy, inventory costs, and how you price and allocate product among your customers when there is a shortage or a product is out of stock, including how the following impact that allocation:
- a. product category;
 - b. customer type (e.g., retailer, wholesaler);
 - c. local demand conditions;
 - d. contract terms with the customer (e.g., minimum purchase amounts);
 - e. geographic location of the customer;
 - f. size of customer (whether measured by total dollars of purchases from you or by that customer's potential purchase volume);
 - g. duration of your relationship with the customer; and
 - h. proximity to other customers who have received product.
4. Produce all documents prepared by or submitted to senior management regarding your pricing and allocation among your customers of products in short supply.
5. Describe your use of trade promotion practices to obtain placement of your product with retailers, including how your use varies by product category, identifying which retailers receive trade promotions, and any changes that have occurred in response to supply chain disruptions.
6. Identify the ten largest and 41st to 50th largest recipients of trade promotions from you (measured by the total value of trade promotions you provided), and for each:
- a. state the total annual amount of such payments; and
 - b. produce all contracts governing your relationship with the customer.
7. Describe any category captain services you offer or provide, including how such services vary by product category, the purpose of offering or providing such services, the effectiveness of such services in generating sales, the cost of providing such services, to which customers you provide such services, and any changes that have occurred in response to supply chain disruptions.
8. Identify your twenty-five largest retail customers (measured by total dollar amount of purchases from you) and for each produce:
- a. all contracts governing your relationship with the customer; and
 - b. all documents reflecting negotiations relating to shortages, supply chain disruptions, shipping delays, shipping cost changes, and pricing changes.
9. Identify your twenty-five largest wholesale customers (measured by total dollar amount of purchases from you) and for each produce:
- a. all contracts governing your relationship with the customer; and
 - b. all documents reflecting negotiations relating to shortages, supply chain disruptions, shipping delays, shipping cost changes, and pricing changes;

10. Produce all documents prepared by or submitted to senior management discussing the profitability of your relationship with individual customers or groups of customers.
11. Describe your logistics strategy, including which functions you perform internally (e.g. private fleet and warehousing) and which functions you outsource to third party logistics service providers (e.g., freight brokerage, contract carriage). For each such third party provider include:
 - a. the identity of your logistics service provider;
 - b. a description of the services provided to you; and
 - c. how your use of such services has been affected by supply chain disruptions.
12. Produce all reports, analyses, and studies provided to you by any third party logistics provider.
13. Describe your supply chain, procurement, and distribution strategy prior to the COVID-19 pandemic, including with respect to the elements of the supply chain identified in Specification 1(b). Explain why you chose that strategy and the efficiencies, costs, and risks associated with the decision.
14. Describe how you have altered or plan over the next five years to alter your supply chain, procurement, and distribution strategy including with respect to the elements of the supply chain identified in Specification 1(b). Explain why you made or plan to make those changes and the efficiencies, costs, and risks associated with those decisions.

Definitions

For the purposes of this Order, the following Definitions apply:

D1. The terms “you,” “your,” and “the Company” mean [company name]; its domestic and foreign parents, predecessors, divisions, subsidiaries, affiliates, partnerships, and joint ventures; and all directors, officers, employees, agents, and representatives of the foregoing. The terms “parent,” “subsidiary,” “affiliate,” and “joint venture” refer to any person in which there is partial (25 percent or more) or total ownership or control between the Company and any other person.

D2. The term “category captain” refers to a product supplier that provides services to a retailer to manage any aspect of a retailer’s display, marketing, and sales of a category of products, including the display, marketing, and sales of other suppliers’ products.

D3. The term “contract” refers to any agreement and all related amendments and documents incorporated by reference, including agreements embodied in purchase orders, order acknowledgments, statements of work, memoranda setting out terms and conditions, and cooperative marketing agreements.

D4. The term “identify,” when used with reference to a company, means to provide the name and address of that company, along with the name and contact information for your principal contact at that company.

D5. The term “margins” refers to any metric you use to track the profitability of your business or any part of your business.

D6. The term “retail customer” refers to a customer of your products that sells those products to individual consumers.

D7. The term “senior management” refers to the Company’s Board of Directors, Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, or equivalent positions, as well as the most senior individuals with direct responsibility for each of the following: pricing strategy, supply chain strategy, marketing strategy, promotions, and customer relationships.

D8. The term “store” refers to any brick and mortar store, consumer-facing online platform, or warehouse that ships directly to consumers.

D9. The term “supplier” refers to any company that sells you consumer goods for resale, with or without further processing, or any input you use to manufacture or produce consumer goods for retail.

D10. The term “supply chain disruption” refers to any delay, delivery shortfall, or cost increase associated with the delivery of products you have manufactured, ordered from a supplier, or shipped to a customer.

D11. The term “trade promotion” refers to any payment or provision of anything of value that a product supplier makes to a retailer or wholesaler in exchange for the retailer or wholesaler carrying the supplier’s product or providing its product more favorable shelf space or marketing, including slotting fees, staying fees, display fees, free fill, promotional spend, rebates, and discounts. In the context of a wholesaler that provides category management services to retailers, a supplier’s payments to the wholesaler to receive more favorable shelf space or marketing in the retail stores managed by that wholesaler constitute trade promotions. In the context of online sales, a payment to influence the prominence of a supplier’s product display on the retailer’s website or location in the retailer’s search results constitutes a trade promotion.

D12. The term “wholesale customer” refers to a customer of your products that sells those products to another business for resale, including group purchasing organizations comprised of retail customers.

D13. The term “your competitor” refers to any company that sells to wholesalers or retailers some or all of the products you sell to wholesalers or retailers.

D14. The terms “and” and “or” have both conjunctive and disjunctive meanings.

D15. The terms “each,” “any,” and “all” mean “each and every.”

D16. The term “relating to” means in whole or in part constituting, containing, concerning, discussing, describing, analyzing, identifying, or stating.

D17. Any word or term that the Recipient considers vague or insufficiently defined has the meaning most frequently assigned to it by the Recipient in the ordinary course of business.

Instructions

For the purposes of this Order, the following Instructions apply:

1. All requests seek information and documents covering the period from January 1, 2019 to the date of this Order.
2. Unless otherwise specified, this Order requires the production of all responsive documents, data, and other information in your possession, custody, or control on the date that this Order was issued.
3. In order to comply in a manner consistent with the Commission's Rules of Practice, 16 C.F.R. § 2.7(k), the Recipient shall schedule a teleconference, within 14 days after receiving this Order, with the Commission representative identified in Instruction 9 of this Order to confer regarding your response. Upon request, an extension of no more than 30 days for the teleconference may be granted in writing by a Commission official.
4. Do not produce any Sensitive Personally Identifiable Information ("Sensitive PII") or Sensitive Health Information ("SHI") prior to discussing the information with a Commission representative. If any document responsive to a particular Specification contains unresponsive Sensitive PII or SHI, redact the unresponsive Sensitive PII or SHI prior to producing the document.

The term "Sensitive Personally Identifiable Information" means an individual's Social Security Number alone; or an individual's name, address, or phone number in combination with one or more of the following:

- date of birth
- driver's license number or other state identification number, or a foreign country equivalent
- passport number
- financial account number
- credit or debit card number

The term "Sensitive Health Information" includes medical records and other individually identifiable health information, whether on paper, in electronic form, or communicated orally. Sensitive Health Information relates to the past, present, or future physical or mental health or condition of an individual, the provision of health care to an individual, or the past, present, or future payment for the provision of health care to an individual.

5. Form of Production: You must submit documents as instructed below absent written modification.
 - a. Documents stored in electronic or hard copy formats in the ordinary course of business shall be submitted in the following electronic format provided that such copies are true, correct, and complete copies of the original documents:

- i. Submit Microsoft Excel, Access, and PowerPoint files in native format with extracted text and metadata.
- ii. Submit emails in TIFF (Group IV) format with extracted text and the following metadata and information:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the email.
Bates End	Bates number of the last page of the email.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of the person from whom the email was obtained.
Email BCC	Names of person(s) blind copied on the email.
Email CC	Names of person(s) copied on the email.
Email Date Received	Date the email was received. [MM/DD/YYYY]
Email Date Sent	Date the email was sent. [MM/DD/YYYY]
Email From	Names of the person who authored the email.
Email Message ID	Microsoft Outlook Message ID or similar value in other message systems.
Email Subject	Subject line of the email.
Email Time Received	Time email was received. [HH:MM:SS AM/PM]
Email To	recipients(s) of the email.
Email Time Sent	Time email was sent. [HH:MM:SS AM/PM]
Page count	Number of pages in record.

Metadata/Document Information	Description
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Folder	File path/folder location of email.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC0003090.txt

- iii. Submit email attachments other than those described in subpart (a)(i) in TIFF (Group IV) format. For all email attachments, provide extracted text and the following metadata and information as applicable:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the document.
Bates End	Last Bates number of the document.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of person from whom the file was obtained.
Date Created	Date the file was created. [MM/DD/YYYY]
Date Modified	Date the file was last changed and saved. [MM/DD/YYYY]
Page count	Number of pages in record.
File size	Size of document in KB.

Metadata/Document Information	Description
File Extension	File extension type (e.g., docx, xlsx).
Filename with extension	Name of the original native file with file extension.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Native Link	Relative file path to submitted native or near native files. Example: \NATIVES\001\FTC0003090.xls
Parent ID	Document ID or beginning Bates number of the parent email.
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC0003090.txt
Time Created	Time file was created. [HH:MM:SS AM/PM]
Time Modified	Time file was saved. [HH:MM:SS AM/PM]

- iv. Submit all other electronic documents, other than those described in subpart (a)(i), in TIFF (Group IV) format accompanied by extracted text and the following metadata and information:

Metadata/Document Information	Description
Alternative Custodian	List of custodians where the document has been removed as a duplicate.
Bates Begin	Beginning Bates number of the document.
Bates End	Last Bates number of the document.
Beg Attach	First Bates number of attachment range.
End Attach	Ending Bates number of attachment range.
Custodian	Name of the original custodian of the file.

Metadata/Document Information	Description
Date Created	Date the file was created. [MM/DD/YYYY]
Date Modified	Date the file was last changed and saved. [MM/DD/YYYY HH:MM:SS AM/PM]
Page count	Number of pages in record.
File size	Size of document in KB.
File Extension	File extension type (e.g., docx, xlsx).
Filename with extension	Name of the original native file with file extension.
Hash	Identifying value used for deduplication – typically SHA1 or MD5.
Originating Path	File path of the file as it resided in its original environment.
Production Link	Relative path to submitted native or near native files. Example: \NATIVES\001\FTC0003090.xls
Text Link	Relative path to submitted text file. Example: \TEXT\001\FTC-0003090.txt
Time Created	Time file was created. [HH:MM:SS AM/PM]
Time Modified	Time file was saved. [HH:MM:SS AM/PM]

- v. Submit documents stored in hard copy in TIFF (Group IV) format accomplished by OCR with the following information:

Metadata/Document Information	Description
Bates Begin	Beginning Bates number of the document.
Bates End	Bates number of the last page of the document.
Custodian	Name of person from whom the file was obtained.

- vi. Submit redacted documents in TIFF (Group IV) format accompanied by OCR with the metadata and information required by relevant document type in subparts (a)(i) through (a)(v) above. For example, if the redacted file was originally an attachment to an email, provide the metadata and information specified in subpart (a)(iii) above. Additionally, please provide a basis for each privilege claim as detailed in Instruction 5.
 - b. Submit data compilations in electronic format, specifically Microsoft Excel spreadsheets or delimited text formats, with all underlying data un-redacted and all underlying formulas and algorithms intact. Submit data separately from document productions.
 - c. Produce electronic file and TIFF submissions as follows:
 - i. For productions over 10 gigabytes, use hard disk drives, formatted in Microsoft Windows-compatible, uncompressed data in USB 2.0 or 3.0 external enclosure.
 - ii. For productions under 10 gigabytes, CD-ROM (CD-R, CD-RW) optical disks and DVD-ROM (DVD+R, DVD+RW) optical disks for Windows-compatible personal computers, and USB 2.0 Flash Drives are acceptable storage formats.
 - iii. All documents produced in electronic format shall be scanned for and free of viruses prior to submission. The Commission will return any infected media for replacement, which may affect the timing of your compliance with this Order.
 - iv. Encryption of productions using NIST FIPS-Compliant cryptographic hardware or software modules, with passwords sent under separate cover, is strongly encouraged.
 - d. Each production shall be submitted with a transmittal letter that includes the FTC matter number; production volume name; encryption method/software used; list of custodians and document identification number range for each; total number of documents; and a list of load file fields in the order in which they are organized in the load file.
6. Before using software or technology (including search terms, predictive coding, de-duplication, email threading or similar technologies) to identify or eliminate documents, data, or information potentially responsive to this Order you must submit a written description of such software or technology and any related processes and workflows. In addition:

- a. if you use Technology Assisted Review to identify documents and information responsive to this Order or to exclude documents and information from further review describe your collection and review methodology, including: (a) how any software is used to identify responsive documents or exclude nonresponsive documents; (b) the process to identify and validate any seed set documents, if applicable; (c) the process to determine and validate accuracy of the automatic determinations of responsiveness and nonresponsiveness; and (d) the collection and review process for foreign language documents, whether reviewed manually or by some technology-assisted method;
 - b. if you use search terms to identify documents and information responsive to this Order or to exclude documents and information from further review: for each custodian, search location, or document population provide (a) a list of proposed terms; (b) a tally of all the terms that appear in the collection and the number of documents containing each term; (c) a list of stop words and operators for the platform being used; and (d) a glossary of industry and company acronyms and terminology;
 - c. provide prevalence, recall, precision, validation, and confidence-level statistics;
 - d. provide access to randomized, statistically-significant samples of non-privileged documents excluded from review or production by use of keyword search terms, Technology Assisted Review software, or any other means;
 - e. identify the person(s) able to testify on your behalf about information known or reasonably available to the organization relating to your use of software or technology in responding to this Order.
7. All documents responsive to this Order:
- a. shall be produced in complete form, un-redacted unless privileged, and in the order in which they appear in your files;
 - b. shall be marked on each page with corporate identification and consecutive document control numbers when produced in TIFF format (e.g., ABC-00000001);
 - c. if written in a language other than English, shall be translated into English, with the English translation attached to the foreign language document;
 - d. shall be produced in color;
 - e. shall be accompanied by an index that identifies: (i) the name of each Person from whom responsive documents are submitted; and (ii) the corresponding consecutive document control number(s) used to identify that Person's documents. If the index exists as a computer file(s), provide the index both as a printed hard copy and in machine-readable form (provided that, Commission representatives determine prior to submission that the machine-readable form

would be in a format that allows the agency to use the computer files). The Commission representative will provide a sample index upon request; and

- f. shall be accompanied by an affidavit of a Recipient's officer stating that the copies are true, correct, and complete copies of the original documents.
8. If any material called for by this Order is withheld based on a claim of protected status, 16 C.F.R. § 2.7(a)(4), the claim must be asserted no later than the return date of this Order. In addition, pursuant to 16 C.F.R. § 2.11(a)(1), submit, together with the claim, a detailed log of the items withheld. The information in the log shall be of sufficient detail to enable the Commission staff to assess the validity of the claim for each document, including attachments, without disclosing the protected information. Unless modified by the Commission representative identified on the last page of this Order, submit the log in a searchable and sortable electronic format, and, for each document, including attachments, provide:
- a. Document control number(s);
 - b. The full title (if the withheld material is a document) and the full file name (if the withheld material is in electronic form);
 - c. A description of the material withheld (for example, a letter, memorandum, or email), including any attachments;
 - d. The date the material was created;
 - e. The date the material was sent to each recipient (if different from the date the material was created);
 - f. The email addresses, if any, or other electronic contact information to the extent used in the document, from which and to which each document was sent;
 - g. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all authors;
 - h. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all recipients of the material;
 - i. The names, titles, business addresses, email addresses or other electronic contact information, and relevant affiliations of all persons copied on the material;
 - j. The factual basis supporting the claim that the material is protected; and
 - k. Any other pertinent information necessary to support the assertion of protected status by operation of law.

In the log, identify by an asterisk each attorney who is an author, recipient, or person copied on the material. The titles, business addresses, email addresses, and relevant

affiliations of all authors, recipients, and persons copied on the material may be provided in a legend appended to the log. However, provide in the log the information required by Instruction 6(f). The lead attorney or attorney responsible for supervising the review of the material and who made the determination to assert the claim of protected status must attest, in writing, to the log.

A document, including all attachments, may be withheld or redacted only to the extent necessary to preserve any claim of protected status. Unless otherwise provided in the instructions accompanying this Order, and except for information and material subject to a valid claim of protected status, all responsive information and material shall be produced without redaction.

9. Any questions that you have relating to the scope or meaning of anything in this Order or suggestions for possible modifications to it should be directed to Kenneth Merber at kmerber@ftc.gov or (202) 326-3551. Please notify Mr. Merber by email in advance of each production. Any password(s) necessary to access the response to the Order shall be emailed to Mr. Merber.

You are advised that penalties may be imposed under applicable provisions of federal law for failure to file special reports or for filing false reports.

By direction of the Commission.

Lina M. Khan, Chair

DATED: November 24, 2021