UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF ILLINOIS

EASTERN DIVISION

IN RE BROILER CHICKEN ANTITRUST LITIGATION	No. 1:16-cv-08637
This Document Relates To: All End-User Consumer Plaintiff Actions	Honorable Thomas M. Durkin Magistrate Judge Jeffrey T. Gilbert

DECLARATION OF DR. DAVID SUNDING IN SUPPORT OF END-USER CONSUMER PLAINTIFFS' MOTION FOR CLASS CERTIFICATION

REDACTED VERSION

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I. INTRODUCTION

A. Experience and Qualifications

1. My name is David L. Sunding. I am the Thomas J. Graff Professor in the College of Natural Resources at UC Berkeley, where I have been a tenured professor in the Department of Agricultural and Resource Economics since 2000. In October 2020, I became a Professor of the Graduate School at Berkeley. In addition to my academic appointment, I am also the President of The Brattle Group, an economic and financial consulting firm based in Boston, MA. I received a Ph.D. in Agricultural & Resource Economics from University of California, Berkeley in 1989, an M.A. in African Area Studies from the University of California, Los Angeles in 1986, and a B.A. in Economics from Claremont McKenna College in 1983. My curriculum vitae, which includes a list of my testimony in the last four years, is attached to this report as **Appendix A**.

2. I have taught graduate and undergraduate courses in microeconomic theory, industrial organization, environmental and resource economics, and law and economics. I served two terms as chair of Berkeley's Department of Agricultural and Resource Economics and am a founding director of the Berkeley Water Center. Before joining the UC Berkeley faculty, I taught economics and law at Boston College.

3. In addition to my academic and consulting work, I served as Senior Economist at the Council of Economic Advisers in the Clinton White House from 1996-1997, I have advised numerous government agencies on the development of regulatory interventions. I have testified before Congress and served on panels of the National Academy of Sciences and the USEPA's Science Advisory Board.

4. My involvement in this litigation began in 2018. My compensation for time spent on this matter is $800 per hour. This compensation does not depend on the opinions and conclusions I reach or the outcome of this litigation. My analysis of this matter is continuing, and I reserve the right to supplement and revise my opinions as additional information becomes available to me.

5. In forming the opinions herein, I have relied on public sources and defendants' internal documents and data produced to date in the context of the litigation. A list of documents relied upon is attached as **Appendix B**.

6. I understand the plaintiffs in this matter are seeking to certify the end-user consumer class in this matter defined as follows:

> All persons and entities who indirectly purchased the following types raw chicken, whether fresh or frozen: whole birds (with or without giblets), whole cut-up birds purchased within a package, breast cuts or tenderloin cuts, but excluding chicken that is marketed as halal, kosher, free range, organic, diced, minced, ground, seasoned, flavored or breaded – from defendants or co-conspirators for personal consumption in the Repealer Jurisdictions from January 1, 2012 to July 31, 2019.

The Repealer Jurisdictions are those states which have "repealed" the Supreme Court's holding in *Illinois Brick Co. v. Illinois*[1] and which provide standing to indirect purchasers of a price-fixed good.[2] The defendants in this case include the world's largest processors of chicken.[3] Excluded from the class are the defendants and co-conspirators, any entities or personnel related to the defendants and co-conspirators, government entities, and any judicial officers involved in this proceeding.

B. Assignment

7. I have been asked by counsel for the end user consumer plaintiffs to address the availability of methods common to the class to demonstrate: (1) whether defendants could collectively exercise market power in a relevant antitrust market; (2) whether the structure of the market for chicken is conducive to successful collusion; (3) whether common methods and

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[1] *Illinois Brick Co. v. Illinois,* 431 U.S. 720 (1977).

[2] For the purposes of this class certification motion, those jurisdictions are: California, District of Columbia, Florida, Hawaii, Illinois, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, and Wisconsin.

[3] These are the following: Agri Stats, Inc., Claxton Poultry Farms, Inc.; Norman W. Fries, Inc., d/b/a Claxton Poultry Farms, Inc., Fieldale Farms Corporation, Foster Farms, LLC; Foster Poultry Farms, George's, Inc.; George's Farms, Inc., Harrison Poultry, Inc., House of Raeford Farms, Inc., Koch Foods, Inc.; JCG Foods of Alabama, LLC; JCG Foods of Georgia; LLC, Koch Meat Co., Inc., Mar-Jac Poultry, Inc.; Mar-Jac Poultry AL, LLC; Mar-Jac AL/MS, Inc.; Mar-Jac Poultry, LLC; Mar-Jac Holdings, LLC, Mountaire Farms, Inc.; Mountaire Farms, LLC; Mountaire Farms of Delaware, Inc., O.K. Foods, Inc.; O.K. Farms, Inc.; O.K. Industries, Inc., Peco Foods, Inc., Perdue Farms, Inc.; Perdue Foods LLC, Pilgrim's Pride Corporation, Sanderson Farms, Inc.; Sanderson Farms, Inc. (Foods Division); Sanderson Farms, Inc. (Production Division); Sanderson Farms, Inc. (Processing Division), Simmons Foods, Inc.; Simmons Prepared Foods, Inc., Tyson Foods, Inc.; Tyson Chicken, Inc.; Tyson Breeders, Inc.; Tyson Poultry, Inc., and Wayne Farms, LLC.

evidence can demonstrate whether collusion caused widespread harm across the class; and (4) whether common methods and evidence can be used to quantify the damages to the class caused by defendants' collusion. The products I have been asked to offer opinions on are those outlined in the class definition, but more generally whole birds with or without giblets and breast meat.

C. Summary of Conclusions

8. I conclude that:

a) The market for chicken produced in the United States is a relevant antitrust product market. A given set of products (goods or services) constitutes a relevant antitrust market if an actual or hypothetical single seller controlling all the output of these products could profitably raise prices above the competitive level by a small but significant and non-transitory amount. The standard methodology for defining a relevant antitrust market, which is reflected in the joint United States Department of Justice and FTC Horizontal Merger Guidelines,[4] reflects these principles. I conduct a SSNIP test to determine whether a hypothetical monopolist in the provisional market for chicken could profitably implement a "significant," non-transitory increase in price (a "SSNIP"), with 5% being the standard rule of thumb. Using conservative assumptions regarding margins and the own-price demand elasticity for chicken, I show that the SSNIP test is easily passed. Accordingly, I conclude that the market for chicken produced in the United States is a relevant antitrust product market.

b) There are common and well recognized methods and evidence that establishes Defendants collectively exercised their market power in the market for chicken produced in the United States. In addition to showing high collective market share in a relevant market with barriers to entry, I also used well established econometric methods to show that Defendants collectively increased chicken prices above the competitive level during the class period.

[4] Merger Guidelines §§2 and 4.

c) The structure of the market for chicken has characteristics that make it conducive to successful collusive behavior. Chicken processing is vertically integrated from the stage in which day-old chicks are acquired from genetics companies to the stage at which final products are distributed for consumption. Processors maintain tight control over the genetics of their primary input. Chicken has no close substitutes and there is little foreign competition. The defendants have a dominant market share in the relevant market, producing between 96.0% and 98.0% in the relevant market. There are significant barriers to entry that limit competition in the broiler industry, including the capital cost of constructing new processing facilities, the need to recruit contract farmers who grow the chickens to maturity, know-how limitations, and economies of scale.

d) To test whether the challenged conduct resulted in elevated prices for class products during the class period, I estimate the parameters of what economists refer to as a "reduced form price equation" (also referred to throughout as my "overcharge regression"). A reduced from price equation is a well established economic tool that is commonly employed in antitrust litigation and describes the relationship between observed market prices and fundamental factors influencing supply and demand. Explanatory variables in my model include supply-side factors such as grain prices (because the cost of corn and soybeans is a major determinant of the cost of growing chickens), and demand factors including household income, dietary preferences and the prices of substitute products such as beef and pork. I estimate the reduced form price equation based on over 2.7 million transactions in the broiler industry. The estimation results confirm that wholesale prices for whole birds and breast meat sold by the defendants were significantly elevated during the class period relative to levels that would be expected under competitive conduct based on the fundamental factors included in the model. Specifically, I conclude that whole bird prices were elevated by 13.5% and breast meat prices were increased by 17.0% during the class period. These results are highly statistically significant, and robust to alternative specifications of the overcharge regression. They are also supported by a corroborating analysis of USDA whole bird and breast meat price data going back as far as 1989 as well as an examination of Defendants' profit margins as reflected in the figure below.

[redacted]

Sources/Notes: 12-month moving average of price and cost. Dashed gray and red lines (before 2004) give [redacted] variable cost with fixed costs removed. Price is wholesale whole bird price as collected by AMS at the USDA. See figure_variable_vs_wholesale.do in my backup.

Thus, I conclude that common methods and evidence demonstrate that the challenged conduct led to an artificially increased price of chicken in the relevant market.

e) I undertake several analyses using well established economic tools to evaluate whether the challenged conduct resulted in higher prices market-wide, and whether those higher prices impacted all or nearly all products purchased by the class. First, my overcharge model disaggregates the overcharge by part and concludes that prices were elevated for both whole birds and for breast meat. I also estimate a version of my overcharge model that disaggregates overcharges by year and shows that the annual overcharge is positive for every year of the class period for both whole birds and breast meat. Second, I review the documentary record established in this case and demonstrate that the defendants themselves believed that chicken is a homogeneous commodity product (i.e., chicken produced by one processor is interchangeable with chicken produced by another processor) and, consistent with economic theory, restricting the supply of chickens would elevate prices in all parts of the market. Third, to support the idea that movements in aggregate price will be broadly shared by all products, I performed a price movement analysis examining specific episodes in which there is a change in the average price of breasts or whole chickens of the same magnitude as the overcharge measured by my overcharge regression. In order to perform this analysis, I compare the prices of the exact same products, sold before and after a price shock. For each of the price shocks examined, I matched all of the transactions for the same product purchased by the same direct purchaser in the same month of the year before and after the shock. For those product-customer pairs that had transactions both before and after any of these price shocks, I find that products representing 92% of the volume of chicken sold moved in the same direction as the price shock. Based on these independent lines of analysis, I conclude that common methods and evidence show that the challenged conduct resulted in higher prices market-wide, and that those higher prices impacted all or nearly all products purchased by the class.

f) Next, I address the question of whether wholesale price changes caused by the challenged conduct were "passed through" to retail prices. Ample documentary evidence produced in this case establishes that the defendants themselves operated under the assumption that wholesale price changes would result in changes in retail prices. This belief is consistent with economic theory given the competitive nature of the retail grocery industry (i.e., retail grocers must at least cover their variable costs). Using established economic techniques I conducted an econometric analysis of firm-specific pass-through using data from individual grocers, club stores, distributors, trader/brokers, and parts processors. The firms in my sample account for 88.7% of the national club store volume of commerce and

54.1% of the retail grocery volume (easily the two largest channels through which chicken is sold in the United States). In every case, I find a positive and statistically significant pass-through rate, with the grocery channel pass-through rate averaging 80% and the club store pass-through averaging 98%. These results are supported by my corroborating analysis of national USDA retail-wholesale price spreads for poultry. For these reasons, I conclude that common methods and evidence establish that higher prices paid by direct purchasers were passed through to all or nearly all class members.

g) Econometric analysis can quantify the amount by which the challenged conduct inflated chicken prices and quantify the percent of those overcharges that were "passed through" to indirect purchaser class members. My overcharge model establishes the percentages by which whole bird and breast meat prices were inflated during the class period. My pass-through analysis then quantifies the rate at which wholesale price changes were reflected in retail prices paid by consumers. Because I calculate pass-through separately for different types of firms (e.g., retail grocers, club stores, distributors, etc.), I am able to specify a pass-through rate for fourteen separate sales channels (e.g., Processor-Grocer-End Purchaser, Processor-Distributor-Grocer-End Purchaser, Processor-Club Store-End Purchaser, etc.). Total pass-through rates for every channel are positive and statistically significant, and range from 44.1% to 87.4%.

h) I conclude that common methods and evidence can be used to quantify the damages to the class caused by defendants' collusion. Combining the results of my overcharge and pass-through models and based on an estimate of the total volume of commerce, my provisional estimate of damages suffered by class members is $3.916 billion. Exemplary damages by defendant are reflected in **Table 1** below.

Table 1: Exemplary Damages Estimate to Proposed Class

[redacted]

Sources:

(a)	Table 13
(b)	Table 13
(c)	(b) x (Overcharge estimate/(1+Overcharge estimate). Overcharge estimate from workpapers: Central_overcharge_results.xlsx; OC_regression_defendant_main.do
(d)	Processor-specific Retail Grocer channel pathway weighted average passthrough; See workpapers: [PROCESSOR NAME].xlsx; Tab: TABLE_CHANNELS.]
(e)	(c) x (d)
(f)	Table 13
(g)	(f) x (Overcharge estimate/(1+Overcharge estimate). Overcharge estimate from workpapers: Central_overcharge_results.xlsx; OC_regression_defendant_main.do
(h)	Processor-specific Club Store channel pathway weighted average passthrough; See workpapers: [PROCESSOR NAME].xlsx; Tab: TABLE_CHANNELS.]
(i)	(g) x (h)
(j)	(e) + (i)

II. A BRIEF BACKGROUND ON CHICKEN PRODUCTION AND CHICKEN PRODUCTION LEVELS OVER TIME

A. Chicken Production

9. The broiler chicken industry has achieved substantial efficiency improvements in the past 50 years, leading to price reductions and increased consumption of chicken for the typical American consumer from just half a pound in 1934 to over 95 pounds today.[5] That efficiency derives from a few elements: 1) bird genetics optimization, 2) vertical integration, and 3) scale of production. The chicken supply chain is a seven-part process, illustrated in **Figure 2** below, including primary breeder flocks, pullet farms, breeder farms, hatcheries, broiler grow-out farms, processing, and distribution. Chicken production is vertically integrated from the stage in which day-old chicks (called pullets and cockerels) are acquired by chicken processors from genetics companies such as Cobb-Vantress, to the final distribution of chicken products sold for consumption.[6]

[redacted]

Source: Tyson Foods, Inc. Fiscal 2013 Fact Book [redacted]

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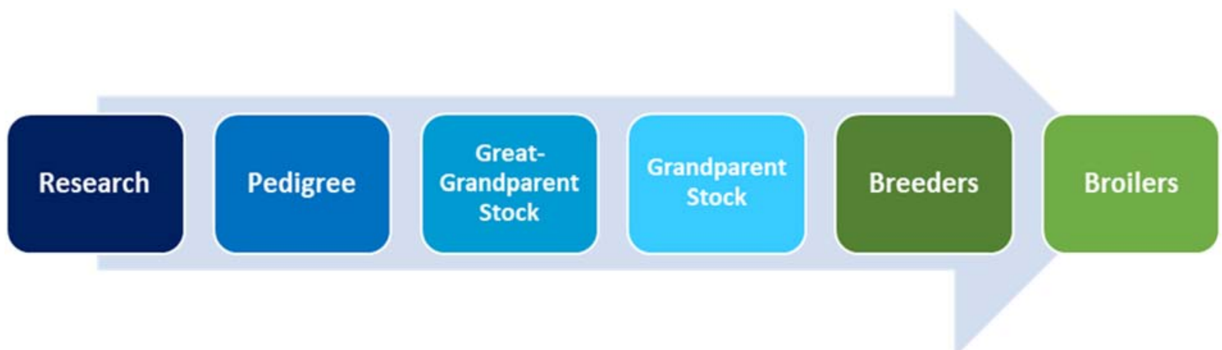
[5] Floyd A. Lasley, Harold B. Jones Jr, Edward Easterling, and Lee Christensen. "The US Broiler Industry," *Agricultural Economic Report* 591 (1988), p. 8; *Per Capita Consumption of Poultry Livestock, 1960 to Forecast 2012, in Pounds*, National Chicken Council (Sept. 16, 2020), https://www.nationalchickencouncil.org/about-the-industry/statistics/per-capita-consumption-of-poultry-and-livestock-1965-to-estimated-2012-in-pounds/.

[6] [redacted]

10. Broiler production begins at the genetics companies. [redacted][7] **Figure 3** illustrates the generations of chickens controlled by genetics companies (in blue) and chicken processors (in green). [redacted][10]

Figure 3: Generations of Chicken Breeding Stock



[redacted]

11. [redacted] (6

[7] [redacted] 579.

[8] As of 2014 [redacted] not valued outside of an industrial meat production context because their weak legs, heart issues, poor foraging ability, and poor heat tolerance (DPP0000000052-062 at 052).

[9] [redacted] "Cobb Grandparent Management Guide," *Cobb-Vantress* (2011), p. 4, https://www.cobb-vantress.com/assets/Cobb-Files/management-guides/5de5208454/3450c490-bbd7-11e6-bd5d-55bb08833e29.pdf.

[10] This creates a form of protection for intellectual property because broilers with the same profile cannot be obtained from the eggs of current broilers.

[redacted]

[11] Deposition of [redacted] t 579-580.

[12] For example, [redacted] "New Product Profile series for Cobb family of breeds," *The Poultry Site* (March 29, 2005) https://thepoultrysite.com/news/2005/03/new-product-profile-series-for-cobb-family-of-breeds.) [redacted] 60).

[13] [redacted]

[14] [redacted] arch 14, 2019, p. 42:3-6.

[15] Deposition of [redacted] March 14, 2019, pp. 314:11-315:4, 315:23-316:11.

[16] For example, see the Chart for the Cobb 500 "Cobb500 FF Parent Rearing Management Record," *Cobb Vantress*, https://www.cobb-vantress.com/assets/Cobb-Files/product-guides/9f122c1791/500-FF-GRAMS-1118.pdf.

[redacted]

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[17] [redacted]

[redacted] at 228.

[19] Deposition of [redacted] March 14, 2019, pp. 314:25-315:1.

[20] [redacted] (Deposition of Benny Bishop, Peco COO, March 21, 2019, pp. 231:11-17, 263:6-24). [redacted] Deposition of Robert Rosa, March 14, 2019, p. 316:15-17.

[21] [redacted] at 740 (Exhibit 1445).

[22] [redacted]

[23] [redacted] at 010.

[24] [redacted] at 172.

[25] Deposition of [redacted] November 7, 2018, pp. 50:20-51:2.

[26] [redacted] at 890.

[27] [redacted] 890.

[redacted]

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28 [redacted] 038. Threat of disease is a salient determinant in the structure of raising birds. Farms invest in bird and rodent control measures to prevent pathogen introduction. To reduce transmission between flocks on a farm, once a flock has been sent for processing, the barn in which it was raised is disinfected and kept empty for a period of time (James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014) pp. 18, 21). One benefit of raising birds on multiple farms as opposed to a single farm is the biosecurity benefit as this structure limits the spread of pathogen outbreaks (Tomislav Vukina, and Porametr Leegomonchai. "Oligopsony Power, Asset Specificity, and Hold-up: Evidence from the Broiler Industry," *American Journal of Agricultural Economics* 88, no. 3 (November 2006): 589-605, p. 592). The routine preventative use of antibiotics to stave off disease and improve growth has been curtailed in recent years as customers and fast food establishments have increasingly demanded antibiotic free chicken (James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014) pp. 21-22).

29 Tomislav Vukina and Porametr Leegomonchai, "Oligopsony Power, Asset Specificity, and Hold-up: Evidence from the Broiler Industry," *American Journal of Agricultural Economics* 88, no. 3 (November 2006): 589-605, p. 592.

30 [redacted] t 892. These contracts are helpful to growers in some respects, because they insulate farmers from overall market shock, weather, and disease (James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014) p. 27) and [redacted] at 038). Contract farming has also been the source of much controversy, as contract growers often have little ability to switch their relationship to another processor for more favorable pay because birds cannot be shipped over long distances to reach competitors (James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014), p. 29; Hamilton, S.F. and Sunding, D.L., "Joint Oligopsony-Oligopoly Power in Food Processing Industries: Application to the US Broiler Industry," *American Journal of Agricultural Economics* (2020), https://doi-org.ezproxy.library.wisc.edu/10.1111/ajae.12115).

31 Tomislav Vukina, and Porametr Leegomonchai. "Oligopsony Power, Asset Specificity, and Hold-Up: Evidence from the Broiler Industry." *American Journal of Agricultural Economics* 88, no. 3 (November 2006): 589-605, p. 592.

32 James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production, EIB-126*, U.S. Department of Agriculture Economic Research Service (2014), p. 20. [redacted] at 041).

33 [redacted] 012.

15. Birds are grown [redacted] Facilitating the trend [redacted] Once at the desired size, [redacted][36] [redacted]

16. At the slaughterhouse, birds must be promptly processed to minimize bird stress and loss. Birds that die before entering the slaughterhouse are not usable [redacted][41] As a result, uniformity is

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[34] [redacted] 039; Deposition of [redacted] November 7, 2018, p. 389:11-14.

[35] [redacted] 849.

[36] They are called young chickens because they are slaughtered before the females reach sexual maturity. Birds beyond sexual maturity are usually called stewing hens, spent hens, or spent fowl.

[37] [redacted] at 049.

[38] See 21 U.S.C. § 331 (prohibiting sale of "adulterated" meat); 9 C.F.R. § 301.2 (defining adulterated as "the product of an animal which has died otherwise than by slaughter").

[39] Deposition of [redacted] ovember 7, 2018, p. 401:3-6.

[40] Traditionally chickens ready for processing were retained and fed in a holding area at the processing plant. Georgia processors innovated by scheduling truck load deliveries to bypass the need for a holding area and by increasing volume and processing speeds. As a benchmark for low prices, Georgia became an industry standard for wholesalers and retailers. The Georgia dock price began as a live bird price in 1966, but as the industry became vertically integrated, the live price became mostly a transfer price and in 1972 the Georgia dock was changed to the price of finished whole birds (Larry Cole, *Communication in Poultry Grower Relations: A Blueprint to Success* (Ames, Iowa: Iowa State University Press, 2000), p. 6; [redacted] at 183).

[41] [redacted] at 042.

prized.[42] [redacted]

17. For these reasons a processing plant requires coordination of every element—breeder egg laying, chick placement, grain milling, grow-out schedule, and bird arrival at the processing dock—to minimize slaughter delays and maximize uniformity in size.[46]

18. A single bird produces many parts: breasts, tenders, wings, leg quarters that consist of drums and thighs, as well as less desirable parts such as trim, offal, paws (feet), and inedible parts. The front half of the bird—breasts, tenders, and wings—is white meat and fetches the highest market price, while the back half of the bird—leg quarters and derived parts—is dark meat and lower value. But a chicken grower does not have the option of only growing the most profitable parts. While a producer might, for example, like to grow 5 breasts for every 2 drumsticks, it cannot. The fixed proportions of the bird constrain the ratio of outputs. Supply will be based on the profitability of the whole bird. This will require the producer to undersupply high-demand parts and oversupply low-demand parts compared to a hypothetical world where each part could be grown in isolation. Traditionally, breast meat has had the highest demand and was the most expensive part in the United States. Because other parts had low demand, the breast meat price had to cover a disproportionate share of the cost of growing a full chicken.

19. Over time, producers have found ways to reduce the price pressure on breast meat. Chicken genetics have increased the share of breast meat on birds. This increases the supply (and decreases the price) of breast meat, without changing the supply of other parts.

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[42] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014), p. 11.

[43] [redacted] 051.

[44] [redacted] 039.

[45] [redacted] at 039-042.

[46] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014), p. 11.

Processors have also worked to increase demand for low-value parts. Domestically, the buffalo wing market has elevated the demand for wings and their price [redacted] In the long run, these taste and technology changes are often slow-moving but help to explain why part prices may follow different long run trajectories.

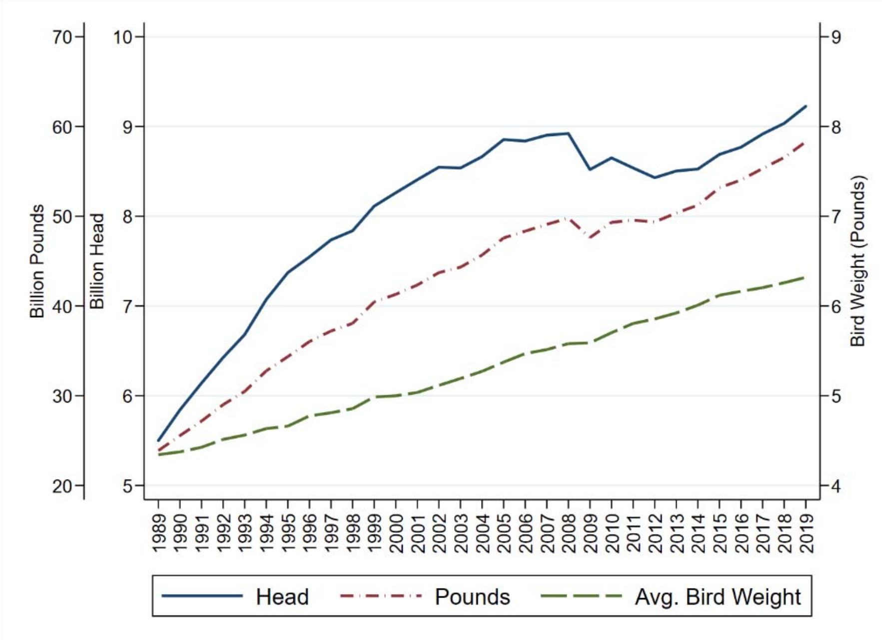
B. Chicken Production Levels Over Time

20. To understand the chicken processors' actions and the departure from increasing supply during the relevant periods in this case, it is illustrative to review the trend in broiler production over recent decades. **Figure 4** below shows the growth in broiler production between 1989 and 2019 in terms of the number of broilers slaughtered (head), the pounds of production, and the average bird weight from the USDA Poultry Slaughter report. Chicken processors grew more and heavier birds, dramatically increasing the pounds of chicken available to American consumers. Average bird weight increased by almost two pounds during this time. However, beginning in 2008, defendants made unprecedented cuts to both the number of chickens and the pounds of chicken produced.

[47] [redacted] at 341.

[48] [redacted] at 341.

Figure 4: Annual Broiler Production, 1989-2019



Source: USDA NASS Poultry Slaughtered Report, Young Chickens Series. Blue Line: Total Annual Head Slaughtered. Red Line: Total Annual Pounds of Slaughter. Green Line: Average Bird Weight of Chickens Slaughtered. See demonstratives_USDA.do in my backup.

21. On production growth trends, the USDA Economic Research Service's James MacDonald writes: "Between 1960 and 1995, U.S. broiler production grew by 5.6 percent per year, driven in part by rapid productivity growth, which led to falling real retail prices, and in part by the introduction of a wide range of new chicken products. However, annual growth was cut nearly in half during 1995-2008; production declined in 2009 and has grown very slowly since."[49] This report also indicates, "Production of broilers, measured in live-weight pounds, grew by 5.2 percent per year between 1960 and 2003, but growth since 2003 slowed to just 1.3 percent per year, and production declined in 2009 and 2012."[50] Mr. MacDonald also states: "Total live-weight production reached 49.8 billion pounds in 2008, but did not exceed that figure until 2013."[51]

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[49] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014), page iii.

[50] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014), page iii.

[51] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture Economic Research Service (2014), page 6.

III. QUALITATIVE AND QUANTITATIVE REVIEW OF EVIDENCE, COMMON TO THE CLASS, CONSISTENT WITH ALLEGATION OF COLLUSION

22. Economists are trained to study markets and evaluate factors that influence demand and supply and how prices and quantities are determined. Application of economic principles play an important role in identifying collusion. Applying my extensive expertise in this type of analysis, and as I will elaborate in the remainder of my report, I conclude that, using methods common to the class, there is common qualitative and quantitative economic evidence capable of demonstrating whether the alleged collusion had market-wide impact.

23. As part of that evaluation, particular features of the information directly and indirectly communicated among the defendants can be used to assist in determining whether there is evidence of collusion. In this section, I briefly review evidence, common to the class, of coordinated supply cuts leading up to the class period, defendants' efforts to stabilize the prices of chicken, defendants' monitoring of output, as well as quantitative evidence of supply cuts and the profitability of the defendants. From this review, I find that this common evidence is consistent with plaintiffs' allegation that defendants colluded to stabilize chicken production and price.

A. Evidence Common to the Class Is Consistent with Allegations of a Conspiracy Beginning in 2008 and Coordinated Supply Cuts in the Run-Up to the Class Period

24. In the early 2000s, the chicken industry was characterized by boom and bust cycles: as prices for chicken rose, chicken processors increased their output to earn more profits; then, as production expanded, supply outstripped demand, and chicken prices fell.[52]

25. Between 2000 and 2007, [redacted][53]

[52] TF-0004096756-790 at 770.

[53] Plaintiffs' Exhibit 2826 ([redacted] t 42.

26. In 2007, [redacted][54] Second, in the fall of 200[redacted]

27. When Tyson rejoined [redacted] Later that year, [redacted][57] By the end of 2007, [redacted][8]

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[54] Deposition of [redacted] October 2, 2018, pp. 19:12-20:9; 216:3-13; 246:10-16.

[55] [redacted]

[56] Deposition of [redacted] May 3, 2019, pp. 34:8-35:13. See also [redacted] 288-294.

[57] Deposition of Michael Donohue, May 3, 2019, pp. 37:22-38:25 and 41:9-49:15; Plaintiffs' Exhibits 2211 ([redacted]

[58] Fieldale Farms' Objs. & Resps. to DPPs, CIIPPs, and EUCPs' Second Interrogs. to All Defs. at 2-4, Feb. 27, 2018; Foster Farms Defs.' First Suppl. Answers & Objs. to All Pls.' Second Interrogs. at 12-15, 19-20, Aug. 3, 2018; George's Defs.' Suppl. Objs. & Resps. to DPPs, CIIPPs AND EUCPs' Interrog. Nos. 4, 5 & 7 to All Defs. at 1-5, Sept. 12, 2018; Claxton Poultry Farms' Objs. & Resps. to All Pls.' First Interrogs. to Claxton Poultry, Harrison Poultry, & Mar-Jac Poultry at 8-11, Apr. 30, 2018; House of Raeford Farms, Inc.'s Resps. & Objs. to DPPs, CIIPPs and EUCPs Second Interrogs., Attach. AP-4(1) at 16-18, Feb. 27, 2018; Koch Defs.' Objs. & Resps. to DPPs, CIIPPs, and EUCPs Second Interrogs. to all Defs. at 7-8, Feb. 27, 2018; Koch Defs.' Am. Objs. & Resps. to Interrog. No. 4 of DPPs, CIIPPs, and EUCPs' Second Interrogs. to All Defs. at 7-10, July 28, 2020; Mar-Jac Defs.' Resps. & Objs. to Pls.' First Interrogs. to Claxton, Mar-Jac & Harrison at 10-13, Apr. 30, 2018; Mountaire Defs.' Objs. & Resps. to DPPs, CIIPPs and EUCPs' Second Interrogs. to All Defs. at 5-7, Feb. 27, 2018; OK Food Defs.' Objs. & Resps. to DPPs, CIIPPs and EUCPs' Second Interrogs. to All Defs. at 8-9, Feb. 27, 2018. Peco Foods Inc.'s Resps. & Objs. to All Pls.' Second Interrogs. to All Defs. at 5-8, Mar. 2, 2018.Perdue Defs.' Objs. & Resps. to All Pls.' Second Interrogs. at 6-8, Feb. 27, 2018. Pilgrim's Pride Corp.'s Resps. & Objs. to DPPs, CIIPPs and EUCPs' Second Interrogs. to All Defs. at 3-8, Feb. 27, 2018. Sanderson Farms Defs.' Am. Objs. & Resps. to DPPs, CIIPPs, and EUCPs Second Interrogs. to All Defs. at 5, Feb. 18, 2020. Simmons Defs.' Suppl. Resps. & Objs. to All Pls.' Second Interrogs. to All Defs. at 4-7, Mar. 30, 2018.Tyson Defs.' Objs. & Resps. to All Pls.' Second Interrogs. to

28. [redacted]

29. At the beginning of 2008, rising grain prices and the onset of the Great Recession put significant pressure on the industry's profit margins. [redacted]

30. After [redacted] Pilgrim's announced that it would close facilities to reduce industry supply.[63] Fieldale—a privately held chicken processor—published a press release on April 3, 2008, announcing a 5% supply cut.[64] [redacted] later that same day, Amick announced a 7% production cut.[66] Other producers announced production cuts or cut production shortly thereafter, including Simmons

All Defs. at 4-8, Feb. 27, 2018. Wayne Farms LLC's Objs. & Resps. to All Pls.' Second Interrogs. at 9-13, Feb. 18, 2018.

[59] Deposition of [redacted] arch 18, 2019, Exhibits 1500, 1501, 1505, 1508, 1515.

[60] Deposition of [redacted] March 18, 2019, Exhibit 1501; Deposition of [redacted] arch 18, 2019, p. 86:11-17; Deposition [redacted] March 18, 2019, Exhibit 1500.

[redacted]

[62] Deposition of [redacted] une 19, 2019, pp. 109-112 and Exhibit 2952 [redacted] at 598).

[63] [redacted] at 145.

[64] AGSTAT-14585362-363 at 363.

[65] [redacted] at 362.

[redacted]

(6%), Cagle's (4%), Wayne Farms (2%), OK Foods (8%), and Peco (a "greater than industry" cut).[67]

31. Documents I have reviewed in this case suggest that [redacted] or example [redacted] 8 [redacted] 70

32. Documents I have reviewed in this case are consistent with plaintiffs' allegations that coordinated supply cuts by the chicken processors began in mid-2008. For example, in a May 2008 earnings call, [redacted] encouraged other chicken processors to restrict supply, noting that "[redacted] He continued, "[redacted] 71

33. One month later, on June 17, 2008, [redacted] 73

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[67] PILGRIMS-0009979434-436 at 435 (Simmons cut); PILGRIMS-0009979434-436 at 436 (Cagle's cut); TF-0002728778 at p. 2 (Wayne cut); WF-0000985366-87 at 87 (confirming Wayne cut); OKFoods_0000004086 (OK Foods cut); and PECO0000162795-814 at 799 (Peco cut).

[68] Deposition [redacted] October 2, 2018 [redacted] (Exhibit 23).

[69] Deposition [redacted] October 2, 2018, [redacted] xhibit 23).

[70] Depositio [redacted] October 2, 2018, [redacted] (Exhibit 23).

[71] [redacted] 494.

[72] [redacted]

[73] [redacted]

34. [redacted] After the presentation, [redacted] “[redacted] 6

35. In August 2008, [redacted] In an August 2008 email [redacted] “I [redacted].”[80]

36. As before, [redacted] On January 26, 2011, [redacted] *efforts to reduce production would have had little effect on volumes of meat available to the*

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[74] Deposition of [redacted] ol. 1, March 18, 2019, pp. 178:2-179:14.

[75] [redacted] 797, 852.

[76] Deposition of [redacted] 19, 2019, Exhibit 2959 [redacted] at 519).

[77] Deposition of [redacted] June 19, 2019, Exhibit 2959 [redacted] at 519).

[78] Deposition of [redacted] June 19, 2019, Exhibit 2959 [redacted] at 519).

[79] Deposition of [redacted] une 19, 2019, Exhibit 2960 [redacted] at 622).

[80] [redacted] at 1984.

[redacted] In his column, [redacted][83]

37. [redacted]

[81] Deposition of [redacted] May 3, 2019, Exhibit 2217 [redacted] t 246 and 248) [emphasis added].

[82] Deposition of [redacted] May 3, 2019, Exhibit 2217 [redacted] t 248).

[83] [redacted] at 254.

[84] Deposition of [redacted] une 19, 2019, pp. 251:14-252:4.

[85] Deposition of [redacted] une 19, 2019, pp. 264:12-265-2.

[redacted][86]

38. Chicken processors announced or implement deep production cuts in 2011. For example, Tyson indicated in an earnings calls that they were cutting production.[87] Sanderson announced the delay of construction on a second processing plant in North Carolina.[88] [redacted] [9]

39. Chicken processors also shared non-public information concerning planned cuts. For example, [redacted] [0] On February 11 or 12, 2011, [redacted][92]

40. Defendants also assured each other that they would not "cheat" on the agreement by increasing supply during this period. For example, [redacted][93] Three days later, [redacted] [4]

41. On April 13-14, 2011, [redacted]

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[86] Deposition of [redacted] June 19, 2019, p. 304:23-305:20.

[87] TF-0000033985-34008 at 993-994.

[88] Sanderson-0000404684-710 at 686.

[89] See, e.g., [redacted] at 241 [redacted]

[90] [redacted] 315.

[91] Deposition of [redacted] arch 21, 2019, pp. 155:20-156:15 and p. 158:13-22 also (Exhibit 720.)

[92] Deposition of [redacted] arch 21, 2019, p. 81:7-12. [redacted]

[93] [redacted]

[redacted] (Exhibit 1066); [redacted] xhibit 1067).

[redacted].[95] At the conference, it appears that at least one executive shared their non-public plans to further cut production.[96]

42. Other conferences and meetings gave the processor defendants the opportunity to meet in person and then plan further supply cuts. For example, on June 10, 2011, [redacted] ttended a conference in White Sulfur Springs, West Virginia.[97] Four days later, [redacted].[98]

43. Even producers who have characterized themselves as companies [redacted] On July 27, 2011, [redacted]”[100] Around the same [redacted][01]

44. Likewise, Sanderson announced plans to keep a production cut of 4% in place through at least January 2012.[102] Sanderson [redacted] monitor industry supply and provide information on how much supply cuts would increase prices.[103] [redacted]

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[95] 30(b)(6) Deposition of [redacted] ebruary 7, 2019, pp. 82:5- 83:6, 87:3-91:8; Ex. 1068 [redacted]

[96] [redacted]

[97] [redacted] 041 (Exhibit 725). Additional attendees included individuals from AJC International, a retiree from Gold Kist, and a USAPEEC representative.

[98] Deposition of [redacted] arch 21, 2019, pp. 225:24-228:25. Exhibit 724 ([redacted] 936) and Exhibit 1632 (P[redacted]

[99] Deposition of [redacted] January 25, 2019, 3179283-1, Vol. I, at 246:19.

[100] [redacted] [emphasis added].

[101] [redacted] t 579.

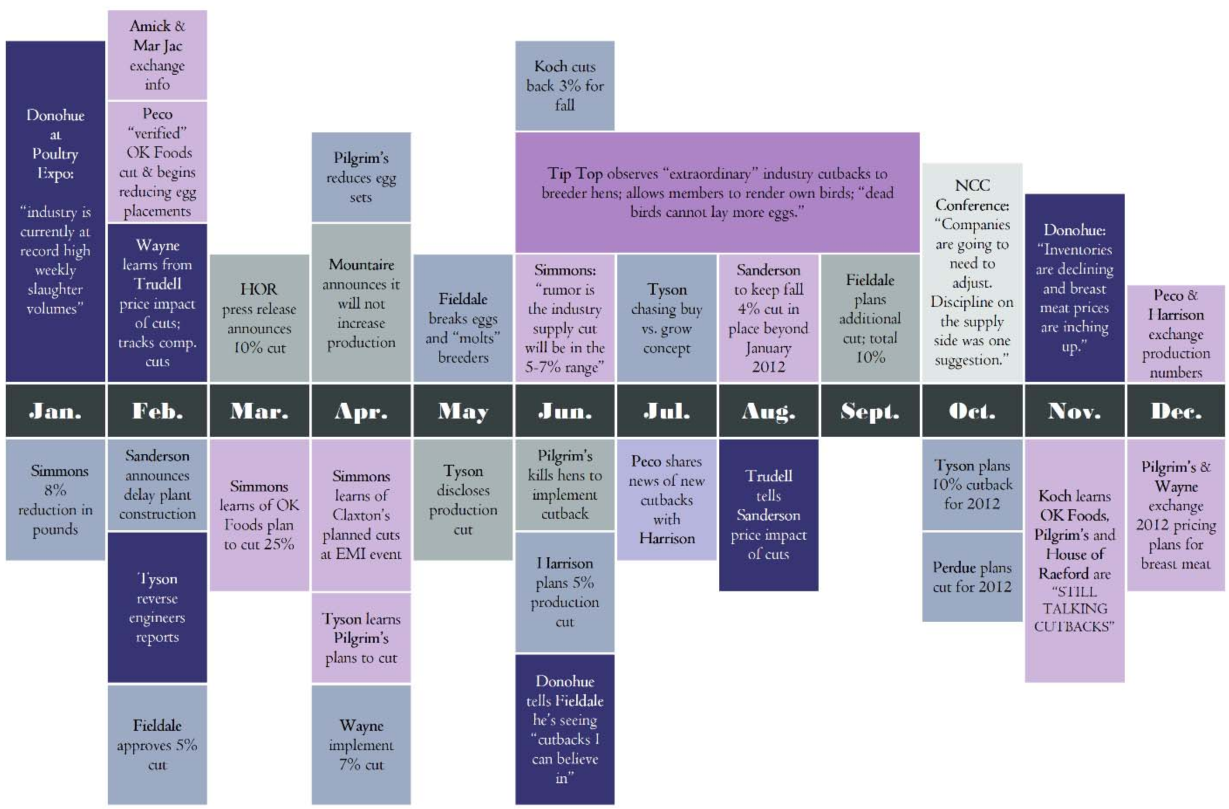
[102] DPP0000019275.

[103] 30(b)(1) and 30(b)(6) Deposition of [redacted] March 14, 2019, pp. 259:21-261:21, 262:13- 263:19, 267:1-270:23; Exhibits 1464 [redacted] and 1465 [redacted]

[redacted][104]

45. **Figure 5** below shows a rough timeline of the supply cuts, announcements, and information sharing seen across 2011.

Figure 5: Timeline of Key Events in 2011



Note: see **Appendix C** for additional descriptions and sourcing.

46. Defendants largely accomplished their 2011 production cuts through unprecedented restrictions in their breeder flocks. Breeder hens lay the eggs that grow into broiler chickens.[105]

47. [redacted]

[104] [redacted] at 979 (Exhibit 1465).

[105] FIELDALE_1359102-112 at 104; TF-0003964578-592 at 579-580.

[redacted][106] This apparently led the primary breeders to reduce the size of their grandparent and great-grandparent flocks. This action by primary breeders, in turn, had the effect of limiting the number of birds available across several generations of chickens, constraining the supply of chicken for years after the 2011 cuts.[107] As Bill Lovette explained during Pilgrim's Q2 2013 earnings call, [redacted] 08

B. By the End of 2011, Processor Defendants' Production Cuts Were Taking Effect

48. In November 2011, [redacted][109]

49. In the wake of the second production cut, defendants made statements consistent with an effort to escape the boom-and-bust cycle that had often characterized the chicken industry. As [redacted]

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[106] [redacted] at 624 (Exhibit 734), [redacted] [emphasis in original])

[107] A [redacted] at 647-648 (Sanderson earnings call (5/30/2013): [redacted]

[redacted] at 562 (Pilgrim's earnings call (May 1, 2014): [redacted]

[redacted] 099 [redacted]

[108] [redacted] at 882 (Pilgrim's Pride Q2 2013 Earnings Call, [redacted]

[109] Deposition of [redacted] ay 3, 2019, Exhibit 183 ([redacted] 400).

[redacted][110] In February 2013, [redacted] confirmed that there had been a [redacted] in the chicken industry away from a model where [redacted].”[113]

50. Other documents [redacted] As Defendants emerged from the second production cuts, they [redacted] expectation that the industry would remain disciplined—on earnings calls or in industry presentations that would be heard by their competitors.[114] Defendants implemented a robust and evolving set of strategies to maintain "production discipline" during the class period, including buying more chicken from competitors and cutting production in the face of high profit margins.

1. Buy vs. Grow

51. Between 2012 and 2019, several defendants decided to underproduce chicken, buying some supply from their competitors if they did not produce enough to fill customers' orders. Tyson called this strategy "buy versus grow" and publicly acknowledged it as early as 2012.[115] As then CEO Donnie Smith explained, this approach a [redacted] He later [redacted]

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[110] [redacted]

[redacted]

[112] [redacted]

[113] [redacted]

[114] [redacted] Deposition of [redacted] Vol. 1, March 18, [redacted]

[115] TF-0000034178-198 at 181, 186.

[116] [redacted] at 267.

[redacted] Tyson committed to its buy vs. grow program [redacted]"[118]

52. Other defendants pursued a similar strategy. In December 2012, [redacted]"[119] For example, [redacted][120] Moreover, a 201 [redacted] s."[121]

53. And while [redacted]."[122]

54. Records from defendant dressed meat purchases lend support for widespread buy vs. grow activity in the chicken market. For [redacted]

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[117] [redacted] 190 [emphasis added].

[118] Deposition of [redacted] October 25, 2018, Exhibit 97 [redacted]

[redacted]

[123] See describe_tyson_buyvsgrow.do in my backup. [redacted]

[redacted] to these records.[124] Records from [redacted]

55. Documents and testimony I have reviewed in this case are consistent with plaintiffs' allegation that defendants used buy vs. grow programs to redistribute the costs of some producers' production cuts so that the industry was benefitting more equally from its supply restrictions. Sometimes, defendants did this by selling chicken to competitors who were restraining output at a discounted price. For example, when [redacted] reminded his [redacted] His contac [redacted].[127]

56. There is also some evidence that Defendants used buy vs. grow programs to hold one another accountable for keeping output low and prices [redacted]"[128]

[124] Furthermore, [redacted]

[125] See describe_perdue_buyvsgrow.do in my backup. Records [redacted]

[126] Deposition of [redacted] April 4, 2019, Exhibit 1847 [redacted] 013).

[127] Deposition [redacted] April 4, 2019, Exhibit 1847 [redacted] 013).

[redacted]

2. Production Cuts Despite Profitability

57. By mid-2015, despite defendants' careful efforts, the expansion of chicken supply began to put downward pressure on chicken prices. Nonetheless, chicken prices and profit margins were still very high by historical standards—higher than they had ever been in a sustained way before 2012.

58. Despite these historically strong profit margins, chicken processors implemented a new round of production cuts in 2015. [redacted]"[129] Just one week later, representatives from nine defendants participated [redacted] [redacted][131] After the meeting, defendants accepted tha [redacted]"[134]

59. In addition to slaughtering more breeder hens, defendants implemented a variety of other strategies to curb current and future chicken [redacted] [redacted][136]

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[129] [redacted] at 198.

[130] [redacted] As explained further below, Tip Top Poultry is a company that slaughters breeders for Defendants, helping them manage the size of their breeder flocks. Many Defendants sat on Tip Top's Advisory Board.

[131] [redacted]

[132] [redacted]

[133] [redacted]

[134] [redacted]

[135] [redacted]

[136] [redacted] of [redacted] December 18, 2018, Exhibit 740 [redacted]

[redacted] These cuts allowed defendants to sustain their historically high profit margins.

60. By the middle of 2016, prices were once again on the rise, and profit margins expanded even further. But defendants did *not* expand production to take advantage of the industry's extraordinary conditions; rather, defendants continued to reduce the size of their breeder flocks from 2016 to 2017, leading to constrained chicken supply.

C. Common Evidence of Defendant Efforts to Achieve Supra-competitive Prices

61. Defendants recognized the basic economic relationship between supply and demand of chicken.[139] Thus, as explained below, defendants not only worked to keep the supply of chicken low—they also worked to keep prices high.

1. Processor Defendants Used the Term "Price Courage" to Describe Their Pricing Strategy

62. Documents I have reviewed in this matter are consistent with plaintiffs' allegation that processor defendants worked to maintain [redacted] Pilgrim's CEO Jayson Penn insisted that [redacted] or his

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137 Deposition of [redacted] December 18, 2018, Exhibit 740 [redacted]

138 [redacted] at 551-552.

139 For example, see Deposition of Neil Morgan, February 28, 2019, p. 65:16-17 (Sanderson executive explaining that, if [redacted]

140 See, e.g., Deposition of [redacted] ay 22, 2019, p. 155:10-14 [redacted] Deposition [redacted] p. 231:12-14 [redacted] See also Deposition of [redacted] June 13, 2019, p. 207 [redacted]; Deposition of [redacted] April 4, 2019, p. 112:3-8 [redacted] Deposition of Tim Price, December 4, 2018, p. 44:1-6 ([redacted]

company.[141] Similarly, [redacted] [42] Other defendants and co-conspirators used the term and encouraged [redacted] [143]

63. In the absence of a conspiracy, [redacted] would have been a dangerous strategy for any individual processor defendant. Keeping prices high would create a risk that the defendant's competitors would steal its customers (by offering customers a better deal). If all defendants exhibited [redacted] owever, the entire industry could increase its profits.

2. Throughout the Class Period, Chicken Processors Used Agri Stats Reports to Help Them Keep Prices High

64. Defendants used [redacted] [144] They also used [redacted] Similarly, [redacted].[146] And [redacted] [147]

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141 [redacted] *see also* [redacted] that Pilgrim's business [redacted]

[redacted] See, e.g., [redacted] (October 2010), [redacted] (June 2011), and [redacted] (August 2011).

143 See, e.g., [redacted]

144 [redacted]

145 Deposition of [redacted] May 16, 2019, pp. 110:23-111:4; [redacted] (using Agri Stats data to propose a [redacted]

146 Deposition of [redacted] September 29, 2020, pp. 102:7-119:23, Exhibit 3469, Exhibit 3470, Exhibit 3471; Deposition of [redacted] September 10, 2020, pp. 101:16-102: [redacted] Ex. 3182, Ex. 3185.

147 [redacted]

65. Efforts to increase prices to individual customers or prices for chicken products through use of the Agri Stat reports, if successful, could also have the effect of increasing the average market-wide price of chicken when incorporated into benchmark prices that are compiled and maintained by data aggregators who track average prices in the industry, including Georgia Dock, Urner Barry, Agri Stats, EMI, and USDA.[148] Two of these benchmark price indexes, Georgia Dock and Urner Barry, were frequently written within contracts for retail grocers as a basis for pricing.

D. Monitoring and Punishment

66. Without the ability to monitor and enforce a collusive agreement, each individual processor defendant would have an incentive to "cheat" by expanding output to take advantage of the higher market-wide prices achieved by their rivals' reductions in output.[149] As a result, monitoring and enforcement conduct can be consistent with the existence of collusion in an industry. There is substantial evidence in this case that is consistent with plaintiffs' allegations that the processor defendants carefully monitored competitors to verify they were doing their [redacted] to keep production low and punish those who were not.[150]

1. Defendants Used Data from [redacted] Monitor Each Other's Output

67. Defendants relied heavily on [redacted] to monitor competitors.

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[148] See for example, [redacted]

[149] George Stigler, "A Theory of Oligopoly," *Journal of Political Economy* 72, no. 1 (1964): 44–61 at 46 ("Let us assume that the collusion has been effected, and a price structure agreed upon. It is a well-established proposition that if any member of the agreement can secretly violate it, he will gain larger profits than by conforming to it."); Margaret C. Levenstein and Valerie Y. Suslow, "What Determines Cartel Success?" *Journal of Economic Literature* 44, no. 1 (2006): 43-95.

[150] [redacted]

a. Obtaining News of Production [redacted]

68. [redacted].[152]

b. [redacted] **eports**

69. In addition, several defendants relied on the [redacted] monitor competitors' profitability and output. The monthly [redacted][157] If a particular competitor's profit margin per pound declined (relative to the rest of the industry), that could

[151] Deposition of [redacted] March 19, 2019, p. 230:11-14 [redacted]

[152] Deposition of Sue Trudell, March 19, 2019, p. 230:11-14 [redacted] Exhibit 1521 ([redacted] Fieldale to Tyson); Exhibit [redacted] Exhibit 1509 [redacted] Exhibit 1516 [redacted] Exhibit 1517 [redacted]

signal that the competitor was expanding production to take advantage of high prices, and thus attempting to cheat on the conspiracy.

70. In addition to reporting chicken processors' profit per pound, [redacted][158] In the context of a supply restriction agreement, if a particular defendant's [redacted] that would be a sign that it was overproducing. [redacted].[159] [redacted] would be an effective way to gauge the success of an alleged supply restriction conspiracy and to discourage cheating, particularly during the periods after the 2011 and 2015 production cuts.

c. Defendants Exchange [redacted] Compare Sensitive Information

71. In addition to [redacted] n their own, defendants regularly exchanged their [redacted]

[redacted]

[redacted] Each chicken processor's [redacted]

72. By exchanging [redacted], however, chicken processors could easily verify information about specific competitors' output. For instance, in November 2010, a [redacted] These numbers would have allowed [redacted] verify the extent to which [redacted] as capable of increasing output and whether [redacted] was actually increasing output, which would provide crucial information about [redacted] adherence to the alleged conspiracy.

2. Plant Visits

73. In addition to exchanging [redacted] defendants regularly visited one another's facilities, giving them an opportunity to obtain and verify one another's output information, as well as an opportunity to share cost-saving strategies (again reducing the

[redacted]

temptation to cheat on the alleged conspiracy).[166] When [redacted] [168] Similarly, after [redacted] [170]

3. Tip Top/Southern Hens

74. According to documents I have reviewed in this case [redacted] ecause of their size, age, and because they may contain eggs, breeders cannot be slaughtered with ordinary chicken processing equipment. Most chicken processors therefore dispose of their breeders by selling them to specialized hen slaughtering companies, which extract and market the meat from the breeders. Breeder meat—often called fowl—is significantly tougher than ordinary chicken and is considered a distinct product.

75. In 2010 and 2011 (just before the chicken industry dramatically reduced its breeder flocks), there were significant shifts in the breeder processing industry that would have facilitated the alleged conspiracy. First, some breeder processing companies were consolidated,

[redacted]

leaving only three companies that processed breeders for the vast majority of the industry: Tip Top, Inc., Southern Hens, and Tyson (which had its own breeder processing operation). These three companies processed breeders for 15 of the 17 processor defendants.

76. [redacted] [172]

77. [redacted]

78. Crucially, three [redacted] In addition, [redacted] ommunicated with both [redacted] iving chicken processors ample opportunity to monitor their competitors.[175]

[171] *See* Deposition of [redacted] March 13, 2019, Exhibit 1264. [redacted]

[172] 30(b)(6) Deposition of [redacted] February 7, 2019, p. 164:12-19.

[17 [redacted] at 159.

[174] [redacted] The following Defendants served on the Southern Hens Board during the relevant time period: Pilgrim's, Sanderson, Koch, Peco, George's, and OK Foods.

[175] 30(b)(6) Deposition of [redacted] February 7, 2019, p. 172:3-9 ([redacted] Grannis, Arkansas."); 30(b)(6) Deposition [redacted] February 7, 2019, p. 170:7-170:20 (noting that " [redacted]

79. I understand from defendants' documents that they used [redacted][178]

80. [redacted] move that would have made little sense if [redacted] were genuinely interested in making money on fowl meat, rather than helping the chicken industry restrict output).

81. For instance, on June 10, 2011, [redacted]

[redacted]

[redacted][181] Six days later, [redacted][182] In [redacted][83]

82. By October 2011 [redacted][184] [redacted][85]

83. Similarly, when processor defendants [redacted].[186]

84. Processor defendants even used [redacted]

[redacted]

[redacted][189]

85. [redacted]

[redacted]

86. In sum, common evidence can be used to evaluate whether processor defendants regularly used their combined breeder slaughtering operations to monitor and implement the alleged supply restriction conspiracy.

18 [redacted]

188 [redacted].

189 [redacted]

190 30(b) (1) Deposition of [redacted] February 7, 2011, Exhibit 1073, p. 9 [emphasis added]; *see also* 30(b) (1) Deposition of [redacted] February 7, 2011, pp. 187:23-188:7 [redacted]

4. Punishing Deviation from Collusive Prices and Output

87. Finally, defendants acknowledged that they would punish competitors who did not do their part to keep chicken output low and prices high. For [redacted][191]

88. Similarly, when [redacted]"[192] On another occasion, [redacted] A few minutes later, [redacted][94]

E. Quantitative Evidence of Supply Cuts and Subsequent Profitability of the Chicken Industry

89. A robust set of data is available to evaluate whether the chicken industry collectively restricted chicken supply over the class period.

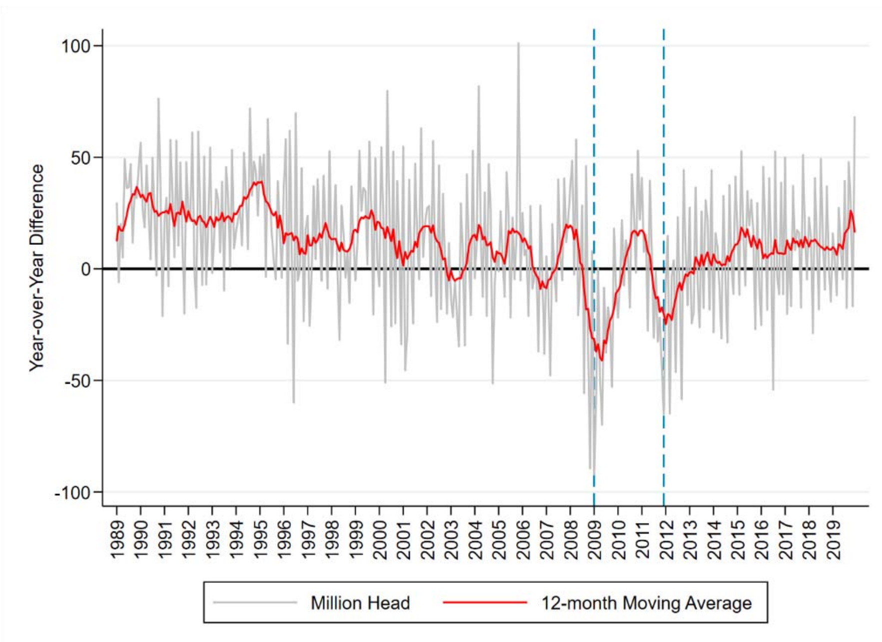
1. Unprecedented Supply Cuts in Chicken Production

90. **Figure 4**, presented above, showed that chicken production declined in 2008 and 2011, contrary to a long-term growth trend from 1989 to 2008. To illustrate the magnitude of changes in chicken production during 2008 and 2011, **Figure 6** shows the year-over-year

[redacted]

difference in broiler production from the USDA Poultry Slaughter report from 1989 through 2019. For most months during the period from 1989 through the early 2000s, there was year-over-year growth in production of around 20 million head (4%) on average. However, by January 2009 (indicated by the first blue dotted line), production had dropped sharply, declining by nearly 92 million head (12%) compared to January 2008. Moreover, this decline in production continued for over a year. Chicken production began to experience growth again in late 2010 through early 2011, but by the third quarter of 2011, production levels of chicken were rapidly declining again. In December 2011 (indicated by the second blue dotted line), production declined by 65 million head (9%) compared to December 2010, and these cuts continued for much of 2012.

Figure 6: Year-over-Year Difference in Monthly Chicken Production



Source: USDA NASS Poultry Slaughter Report, Young Chickens Series, Head Slaughtered. Grey line: Year-over-year difference in monthly head slaughtered series. Red line: Year-over-year difference in 12-month moving average of monthly head slaughtered. Vertical lines in January 2009 and December 2011. See demonstratives_USDA.do in my backup.

a. Pilgrim's and Tyson Made Dramatic Broiler Cuts

91. Next, I examine the chicken supply decisions of the two top chicken processors, Pilgrim's and Tyson, [redacted]

[redacted]

[195] According to its 2010 10-K filing, since 2008 Pilgrim's Pride had "closed, idled or sold ten plants and … reduced or consolidated production at other facilities." Pilgrim's Pride Corporation (2011) Form 10-K Fiscal Year Ended December 26, 2010, p. 11. See also [redacted] 923.

[redacted]

b. **Long-Term Reductions in Breeder Flocks Slow the Recovery of Chicken Supply**

93. Next, I examine the age that defendants sent breeder hens to be slaughtered using data from [redacted] the 2004-2019 period. As discussed above, one strategy to reduce broiler supply is to accelerate the slaughter of breeders, which involves slaughtering flocks at younger ages. As previously mentioned, processors typically slaughter breeder flocks between the ages of 63 and 65 weeks. **Figure 9** shows the weighted average age of defendant breeders at the time they are slaughtered. Prior to 2008, breeders were slaughtered at an age of 64 weeks on average. In 2008 and 2011, this average age [redacted]

[redacted]

94. **Figure 10** and **Figure 11** illustrate the breeder supply for Pilgrim's and Tyson using data from [redacted]

[redacted]

[redacted]

2. **Unprecedented Profits in the Chicken Industry**

96. A basic "gut check" for whether the challenged conduct increased profits is to examine the prices for whole birds and variable production costs. **Figure 12** below illustrates the industry price-variable cost margin by comparing USDA prices for WOGs (whole dressed birds without giblets) with variable costs derived from [redacted].[196] The figure does not account for all factors in my overcharge model detailed below in Section V and only examines whole birds, but it illustrates that defendants' margins increased well above historical levels in 2012 and stayed that way throughout the class period.

[196] Prior to 2004 I use back-casted [redacted] I used in my USDA overcharge regression in Section V.E.

[redacted]

97. Prior to 2009, price and cost separations were transitory. Prices would fall in the wake of profitability. In a competitive industry high margins induce producers to increase supply, taking advantage of the margins to increase individual profitability but driving down the price in the market as a whole. Broiler industry observers often characterize this behavior as a

[redacted],"[197] but to an economist it is the rational response of a supplier in a competitive industry.[198]

98. Around 2009, a spike in grain prices drove both costs and prices higher. In this period the processors experienced some modest success in preventing prices from collapsing to cost. These successes were short lived, however, as quickly rising grain prices eroded those margins in 2011 and 2012. After the second wave of supply cuts in 2011, illustrated in **Figure 6** above, broiler prices increased dramatically. Moreover, after 2012 grain prices decreased leading to larger profit margins than any time since 1989.

99. The same increase in margins can be seen using average profit margins calculated [redacted] on a per-pound basis in the [redacted] As illustrated by **Figure 13** below, chicken processors' production cuts were succeeded by an increase in profits per pound of production in 2009. In 2010, the combination of production growth and rising grain prices put severe pressure on chicken processors' profits which were negative for much of 2011. In response, the industry implemented a second set of deep production cuts in 2011, which led to a recovery of profit margins beginning in 2012 that continued through 2019.

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[19] [redacted] at 787 and [redacted] at 715.

[198] Although the data prior to 2004 is back-casted on grain prices, the general results of this figure are almost identical to [redacted]

[redacted]

100. [redacted] profitability during these two periods provides an additional indication that profits were large and sustained during the damages period. Although this comparison does not control for all the economic factors that my overcharge model will below, one strength of it is that it uses data [redacted] hat the defendants relied on to gauge their own performance.[199]

101. One possible explanation for this profit can be seen in a 2016 email from Sanderson's CFO and treasurer to a business financial advisory firm stating [redacted] [200] Sanderson noted that in the absence of additional supply to the grocery market [redacted]

[199] For average tray pack profitability, see profitability_analysis_two_period.do in my backup. See also [redacted]

[200] [redacted] at 072.

[redacted][201]

3. Comparison to the Table Egg Industry

102. Comparing broiler chicken processors' and table egg producers' differential reactions to supply shocks provides evidence that the supply decisions made by processors in the chicken industry were unusual and consistent with collusion during the relevant period. While there are important differences between the table egg and broiler chicken markets, they are comparable in that similar feed ingredients are required for the breeders that produce hatching eggs for the broiler and table egg industries. To the extent that grain price shocks are purported to be a key reason for supply cuts, the table-egg industry provides a useful comparison group.

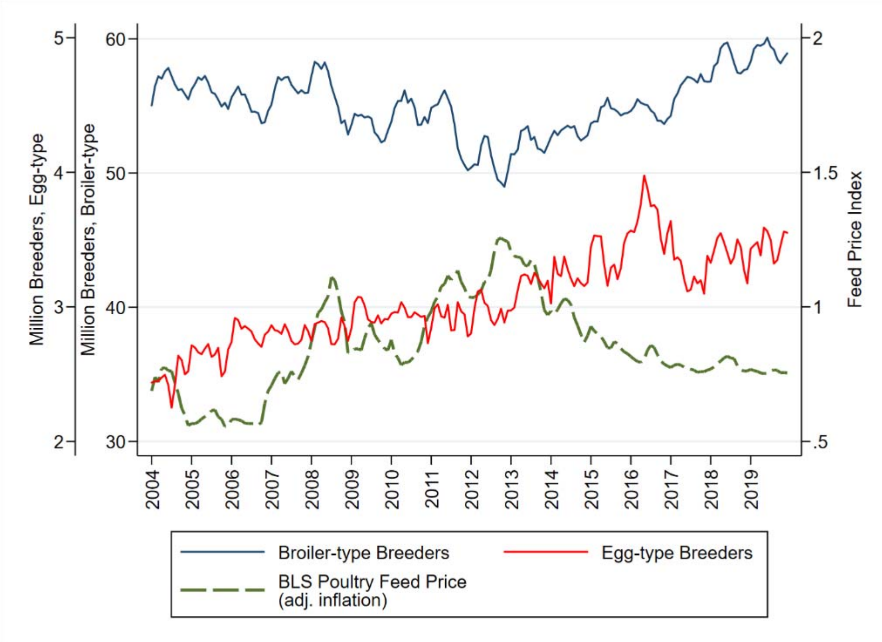
a. Differential Supply Decisions between the Chicken and Table Egg Industries

103. In the broiler industry, breeder hens produce hatching eggs that grow into broiler chickens for consumption. In the table egg industry, hatching eggs become table egg laying hens that produce eggs for consumption. Even though both types of hatching eggs are produced by hens that eat similar feed ingredients, the chicken industry made large cuts to breeder flocks when grain prices increased in 2008 and 2011, while the table egg industry did not. Moreover, the broiler chicken industry was quick to decrease production in response to increases in corn and soybean prices and slow to increase production after decreases in corn and soybean prices. The differential supply decisions between these two industries are suggestive of possible supply coordination in the chicken industry that was not present in the table egg industry.

104. **Figure 14** compares the breeder flocks for the chicken industry to those of the table egg industry from 2004 to 2019. The figure also depicts the grain price spikes of 2008 and 2011-2012, illustrated by the BLS poultry feed price index. While the chicken industry responded to these elevated grain prices by decreasing the number of hens they kept, the table egg industry did not cut supply. Moreover, when corn and soybean prices did fall, the chicken industry was slow to expand the size of their breeder flocks again, taking almost a decade to return to breeder flock supply levels from the beginning of 2008.

[201] [redacted] 468.

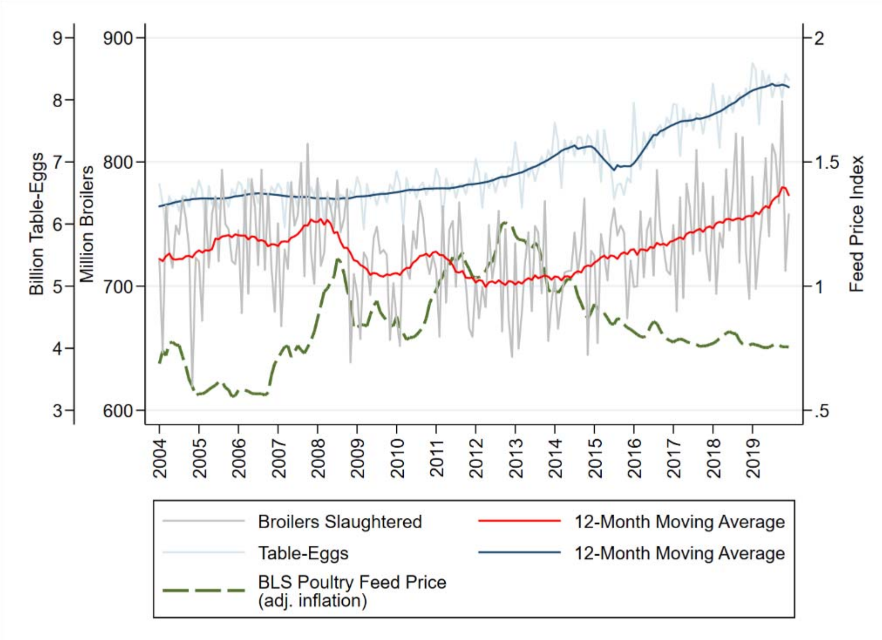
Figure 14: Feed Prices and Breeder Inventory, Broiler-type vs. Egg-type, 2004-2019



Source: USDA Monthly Chicken and Eggs Report, Broiler-Type and Egg-Type Hatching Egg Layers at the beginning of the month. Poultry Feed Price Index from the BLS divided by the BLS Consumer Price Index. See demonstratives_USDA.do in my backup.

105. These differences culminated in very different supply trajectories for each market. **Figure 15** illustrates chicken production and table egg production from 2004-2019. There are no reductions in egg supply in 2009 or 2011 when feed prices increase, while there are dramatic drops in the number of broilers slaughtered. The considerable drop in table egg supply in 2015 was a result of an avian influenza outbreak, which I discuss in the next section.

Figure 15: Feed Prices, Chicken Supply, and Table Egg Supply, 2004-2019



Source: USDA Monthly Chicken and Eggs Report, Table Egg Type, Million Eggs. USDA NASS Poultry Slaughter Report, Young Chickens Series. Poultry Feed Price Index from the BLS divided by the BLS Consumer Price Index. See demonstratives_USDA.do in my backup.

b. The Table Egg Industry's Recovery from Avian Influenza

106. The table-egg industry presents a helpful case study for examining how quickly poultry supply can rebuild supply after a dramatic decrease. The chicken and table egg industries have similar supply chains. In both industries, pullets (young breeder hens) are purchased from genetics companies. They are sent to farms to grow to the age of egg production, which is just over 20 weeks in the egg industry and around 25 weeks in the broiler industry, at which point they are moved to breeder farms. Breeders produce hatching eggs that must be incubated for 21 days. After the eggs hatch, they are sent to a farm to grow to the age of final production. In the chicken industry it takes 6 to 9 weeks from hatching to slaughter, while in the table egg industry it takes roughly 20 weeks before table egg laying hens begin producing table eggs.[202] Therefore, the table egg industry should take more time, if anything, to recover from a supply shock compared to the chicken industry.

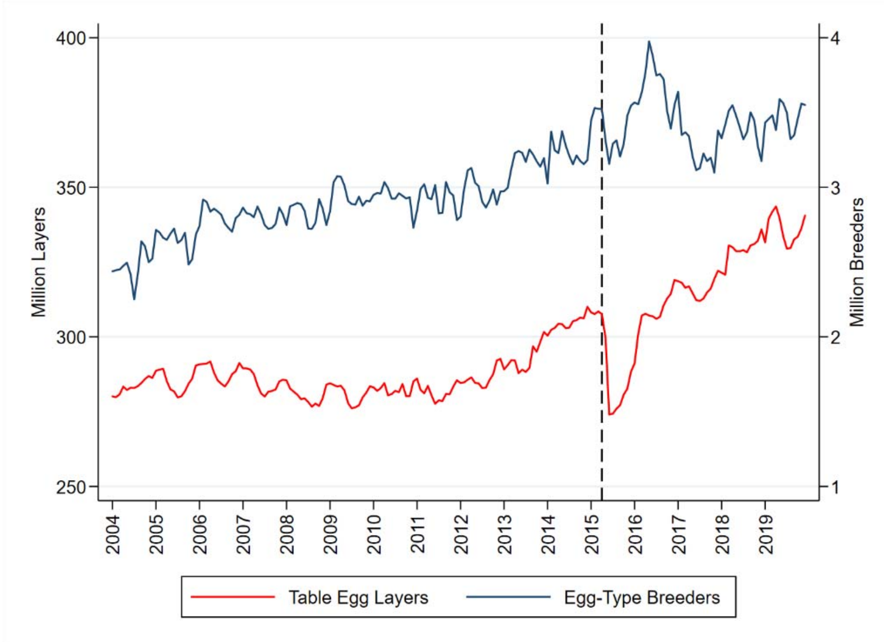
[202] Phillip Clauer, "Modern Egg Industry," Penn State Extension. (July 5, 2012). https://extension.psu.edu/modern-egg-industry.

107. The highly pathogenic avian influenza outbreak in the table egg industry was a genuine supply shock, causing the loss of 43 million table egg laying hens between April and June of 2015 and ultimately reducing table egg output by ten percent throughout the second half of 2015.[203] Nonetheless, the table egg industry recovered within nine months: egg-producers vying for market share quickly increased supply of breeder hens, and table egg layer flocks rebounded to pre-avian influenza outbreak levels by March 2016.[204] **Figure 16** below illustrates how table egg layer supply (the red line) and breeder supply (the blue line) responded to this supply shock (the dotted line). The dramatic drop in table egg layers was due to the destruction of infected hens to prevent further outbreak. Following this, the breeder supply significantly increased in 2015-2016, which led table egg layers to recover by March 2016. By contrast, after the grain price spikes in 2011, the chicken industry did not return breeder flocks to 2008 levels for at least seven years, suggesting that the industry was intentionally suppressing the growth of breeder flocks.

[203] See Sean Ramos, Matthew MacLachlan, and Alex Melton, "Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector," LDPM-282-0, USDA, Economic Research Service. (December 2017). p. 3. https://www.ers.usda.gov/webdocs/outlooks/86282/ldpm-282-02.pdf?v=4153. and AVIAN INFLUENZA: USDA Has Taken Actions to Reduce Risks but Needs a Plan to Evaluate Its Efforts, GAO-17-360: Published: Apr 13, 2017. Publicly Released: May 11, 2017. p. 15. https://www.gao.gov/products/GAO-17-360.

[204] Sean Ramos, Matthew MacLachlan, and Alex Melton, "Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector," LDPM-282-0, USDA, Economic Research Service. (December 2017). p. 7. https://www.ers.usda.gov/webdocs/outlooks/86282/ldpm-282-02.pdf?v=4153.

Figure 16: Breeders and Table Egg Layers for Egg Industry, 2004-2019



Source: USDA Monthly Chicken and Eggs Report, Egg-type Breeders (Hatching Egg-type Layers) and Table Egg Layers at the beginning of the month. See demonstratives_USDA.do in my backup.

108. The table egg industry's rapid recovery from the avian influenza outbreak is evidence that the long-term supply restraint by chicken processors during the conspiracy period cannot be explained by the short-term grain price spikes in 2008 and 2011. The broiler industry could have reestablished the breeder flocks in as little as six months, based on the time is takes for breeder pullets to reach maturity, and chicken supply would take up to an additional three months to reach slaughter weight. This is a striking contrast from the ten years that it took for breeder flocks in the chicken industry to return to 2008 levels.

IV. MARKET DEFINITION AND POWER

109. It is my understanding that the plaintiffs allege claims under both the *per se* and the rule of reason standards of the various state and federal antitrust laws. Pertinent to the rule of reason standard, I was asked to identify the relevant markets pertinent to analyzing the claims in this case and to determine whether the defendants collectively have market power in the relevant markets.

A. Industry Background

1. Chicken Processing Is Vertically Integrated

110. The chicken industry is vertically integrated in that the major broiler processors control every stage of production of a broiler, as described above, from one of the two genetics companies designing breeders through the sale of chicken products to direct purchasers like grocery stores, club stores, distributors, and food service. It is important to examine the level of vertical integration because economic studies have found that vertically integrated companies are better able to collude in that they can more easily monitor other companies' behavior, detect defections, and potentially punish those that "cheat" or undermine the collusive goals of raising prices or reducing supply.[205]

111. One defendant document described the [redacted] as these:

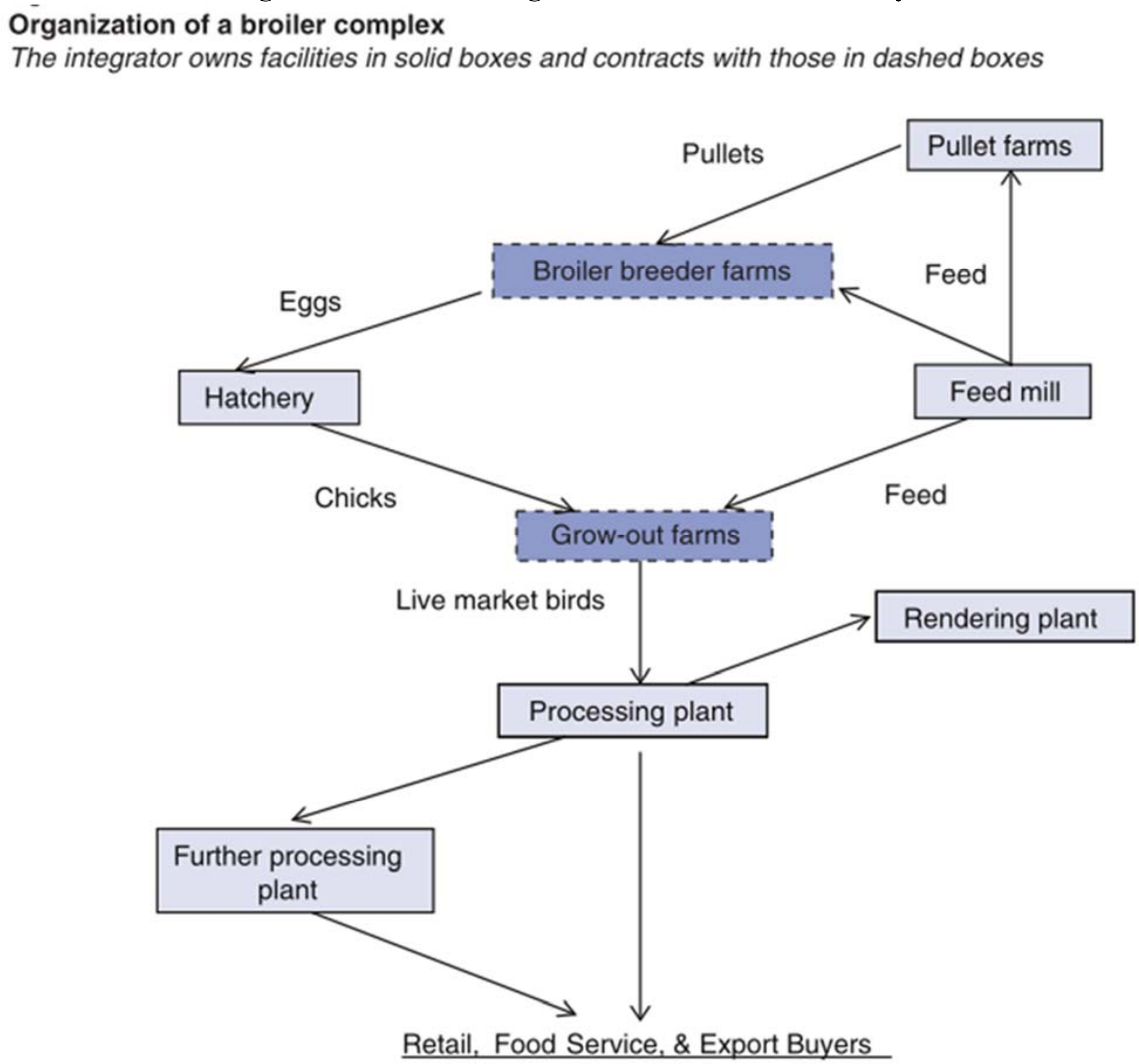
[redacted]

[205] The decision in Kleen Products (*Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)) determines that vertical integration is an important determinant of cartel success. This is supported in research by Biancini and Ettinger. See, Sara Biancini, and David Ettinger, "Vertical Integration and Downstream Collusion," *International Journal of Industrial Organization* 53 (2017): 99-113.

[206] [redacted]

112. **Figure 17** below, from the USDA Economic Research Service, captures many of the stages of vertical integration in the industry.

Figure 17: Vertical Integration in the Broiler Industry



Source: James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014. p. 5.

113. The broiler processors contract with breeder farms and grow-out farms. The broiler processors provide the breeder farms with pullets, feed from their mills, medications, and

veterinary and transportation services.[207] The broiler processors provide the broiler grow-out farms with broiler chicks from their hatcheries, feed from their mills, medications, and veterinary and transportation services.[208] In addition, Cobb-Vantress a US primary broiler breeder genetics company that produces 60% of primary breeder chicks for the pullet farms, has been a 100% Tyson owned company since 1994.[209] More than 90% of chickens raised in the US for human consumption are raised under contract with broiler processors.[210] Those broilers are then transported to the complexes and plants of the chicken processors before being processed into the final products sold to direct purchasers.

114. With this degree of vertical integration, broiler processors can actively affect supply at several stages in the broiler production process. This includes the genetics of the breeders, the pullets sent to flocks at breeder farms, eggs sent to the hatcheries, broiler chicks sent to grow-out farms, the number of days the broilers are allowed to grow before slaughter, and the number of days before the processor places a new flock at the broiler grow-out farms. Testimony from Defendants has described the ability to [redacted][211]

115. Defendants' documents contain numerous references to the high degree of vertical integration in the industry. The following are examples for various defendants:

116. *Tyson.* [redacted] [12] Tyson's genetics company, Cobb Vantress,

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[207] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014. p. 1.

[208] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014. p. 1.

[209] https://www.cobb-vantress.com/en_US/our-story/our-history/. [redacted]

[210] https://www.nationalchickencouncil.org/industry-issues/vertical-integration/.

[211] Deposition of [redacted] December 6, 2018, p. 122:23-123:3 [redacted] id. at p. 123:5-24 (reducing egg sets); id. at p. 124:9-14 [redacted] id. at p. 125:20-126:14 [redacted]

[212] [redacted] at 128.

describes [redacted][213]

117. *Pilgrim's.* A 2011 Pilgrim's internal email states, "[redacted][214] A 2011 Pilgrim's [redacted][216]

118. *Perdue.* A 2015 Perdue presentation states about Perdue, "[redacted] [217]

119. *Sanderson.* A Sanderson 2013 presentation describes its "[redacted]."[218]

120. *Koch.* A 2008 Koch presentation states under Koch Foods Overview, [redacted][219] A 2009 Koch memo states, [redacted][220]

[redacted]

121. Other defendants agree that they are vertically integrated.[221]

122. The USDA's Economic Research Service agrees that the broiler industry is vertically integrated, with broiler processors owning complexes consisting of feed mills, pullet farms, broiler hatcheries, processing, and further processing facilities.[222]

123. Studies have found that vertical integration facilitates collusion.[223] Nocke and White (2007) formalize the idea that vertical integration allows firms to reduce defections and punish them when they occur.[224] Riordan and Salop (1995) discuss how bids for upstream inputs from rival firms can help to monitor collusive agreements with rivals and that vertical integration serves as a conduit for such information exchange.[225] Chen and Riordan (2004) argue that upstream supply cartelization can facilitate downstream output restrictions.[226]

2. Tight Control over Genetics of Primary Input

124. Beyond the vertical integration of the chicken processors, there is also limited duopoly competition among primary breeding companies after significant consolidation over the past 20-30 years. Only two major companies remain as of 2017: Cobb-Vantress and Aviagen.[227] [redacted] hese two companies account fo [redacted] of primary

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[221] More examples follow. [redacted]

[222] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014, p. 5.

[223] Michael H. Riordan, "Competitive Effects of Vertical Mergers," in *Handbook of Antitrust Economics,* ed. Paolo Buccirossi (Cambridge, Mass.: MIT Press, 2008).

[224] Volker Nocke and Lucy White, "Do Vertical Mergers Facilitate Upstream Collusion?," *American Economic Review* 97, no. 4 (September 2007): 1321-1339.

[225] Michael H. Riordan and Steven C. Salop, "Evaluating Vertical Mergers: A Post-Chicago Approach," *Antitrust Law Journal* 63, no. 2 (Winter 1995): 513-568.

[226] Yongmin Chen and Michael H. Riordan, "Vertical Integration, Exclusive Dealing, and Expost Cartelization," *The RAND Journal of Economics* 38, no. 1 (Spring 2007): 1-21.

[227] With Aviagen's purchase of Hubbard Breeders https://thepoultrysite.com/news/2017/08/hubbard-to-become-a-subsidiary-of-aviagen-group.

broiler breeders.[228] Cobb-Vantress has [redacted]% share and has been a 100% Tyson-owned company since 1994.[229]

B. Market Definition

125. A given set of products (goods or services) constitutes a relevant antitrust market if an actual or hypothetical single seller controlling all the output of these products could profitably raise prices above the competitive level by a small but significant and nontransitory amount. The willingness of consumers to switch to other products, and the ability of other firms not currently selling that product to switch resources into the production of that product, are the factors that potentially limit the profitability of price increases by this hypothetical monopolist. If sufficiently close substitutes are available so as to make supracompetitive pricing unprofitable, then the particular products under consideration do not, on their own, constitute a relevant antitrust market.

126. The standard methodology for defining a relevant antitrust market,[230] which is reflected in the joint United States Department of Justice ("DOJ") and FTC Horizontal Merger Guidelines ("Merger Guidelines"),[231] reflects these principles. One begins by characterizing the products of the defendant firm or firms as a "provisional market," and asking whether a small but significant and nontransitory increase in price (SSNIP) by a hypothetical single seller of that product would be profitable. This test is commonly known as the SSNIP test. If so, the group of products for which that is true is a market potentially relevant to evaluating the claims in this case. If not, I assess the alternatives to which customers would switch, or the producers who would switch resources to the production of this product, and include the best of those in a revised provisional market. I then repeat the analysis, adding additional alternative products until a hypothetical monopolist that controlled all of their sales could profit from a significant price

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228 [redacted]

229 [redacted] at 761 and https://www.cobb-vantress.com/en_US/our-story/our-history/.

230 Joint DOJ and FTC, Horizontal Merger Guidelines ("Merger Guidelines") §§5C, 5D and 5E, at 149-277 (August 19, 2020).

231 Merger Guidelines §§2 and 4.

increase, so that the expanded set of products can constitute a relevant antitrust market. A similar SSNIP test can be applied to define a relevant geographic market.

127. Below I posit a provisional market defined as the market for chicken in the United States. First, I discuss the qualitative factors that support this provisional market as the relevant antitrust market for this case. Second, I test the market using the SSNIP test outlined above. This analysis reveals that the market for chicken in the United States is a relevant antitrust market.

1. Product Market Definition

a. Chicken Has No Close Demand Substitutes

128. Chicken is one of the major protein species in the US, along with beef and pork.[232] It is a distinctive protein from the others in many respects. The industry most commonly tracks pork and beef as competitor proteins. While these may be the closest substitutes, they are not close.[233] Cross-price elasticity is a measure of demand substitutability between two products, it measures the percent change in quantity demanded of one product in response to a percent change in the price of the other product. The USDA estimates that the cross-price elasticity between beef and chicken is [+0.018] and between pork and chicken is [+0.013].[234]

129. Consumers find chicken to be a distinct protein for numerous reasons. Chicken is attractive because it is cheaper per pound than pork or beef.[235] It is seen as a healthier protein choice than red meat.[236] Grocery stores recognize that consumers see these proteins as distinct and accordingly organize the stores to have separate locations for products of each protein (i.e., chicken, beef and pork) in the meat case.

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[232] TF-0003952286-317 at 294, 297.

[233] The decision in Kleen Products (*Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)) determines that having no close substitutes is an important determinant of cartel success. This is confirmed in the literature survey by Levenstein & Suslow (2006). See, Margaret C. Levenstein and Valerie Y. Suslow. "What Determines Cartel Success?, "*Journal of Economic Literature* 44, no. 1 (2006): 43-95.

[234] Sanderson-0003396150-159, at 152. There are numerous other studies that include the estimation of cross-price elasticities of demand between beef and chicken and between pork and chicken. See, Thomas L. Marsh, Ted C. Schroeder, and James Mintert, "Impacts of Meat Product Recalls on Consumer Demand in the USA," *Applied Economics* 36, no. 9 (2004): 897-909.

[235] KOCH_0001014877-913 at 892.

[236] KOCH_0001014877-913 at 883.

130. Its food safety concerns are also distinctive in that it suffers from salmonella and avian influenza. Unlike other proteins including fish, pork, and beef, chicken is always fully cooked and is never eaten rare, medium, or uncooked for food safety reasons. Pork tends to see threats from parasites such as trichinosis, while beef has recently seen health scares from bovine spongiform encephalopathy (BSE), commonly known as mad cow disease.

131. The closest potential livestock substitute is possibly turkey. While the structure of the industry has similarities with broilers, it has important differences. Broiler chickens reach market size in 4-6 weeks while turkeys take up to 18 weeks.[237] For consumers, turkey is distinct and largely used in a few contexts: holiday meals, ground, and in deli meat. The top three turkey products sold in 2010 were whole birds, cooked white meat (deli), and ground turkey.[238] Thirty-one percent of turkey is consumed during the holidays.[239] Turkey is rarely served at restaurants,[240] and bars do not serve buffalo turkey wings. Because of these factors, the estimates in the literature of the cross-price elasticity are low at 0.33.[241]

132. Demand factors can affect beef, pork, and chicken in opposite ways. For example, [redacted][242]

133. US Department of Agriculture research from 1978 to 2008 prior to the class period showed very different long-term consumption trends across proteins. Beef consumption fell, pork remained unchanged, and chicken consumption grew. Turkey and seafood both remained less popular, and steady.[243]

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[237] Mary K. Muth, Robert H. Beach, Shawn A. Karns, Justin L. Taylor, and Catherine L. Viator, *Poultry Slaughter and Processing Sector Facility-Level Model* (North Carolina: Research Triangle Institute, 2006).

[238] FMI-0003356-3417 at 385.

[239] FMI-0003357-3417 at 385.

[240] Sam Gazdziak, "2015: Pep in Poultry's Step," *National Provisioner* 229, no. 1 (January 2015): 44.

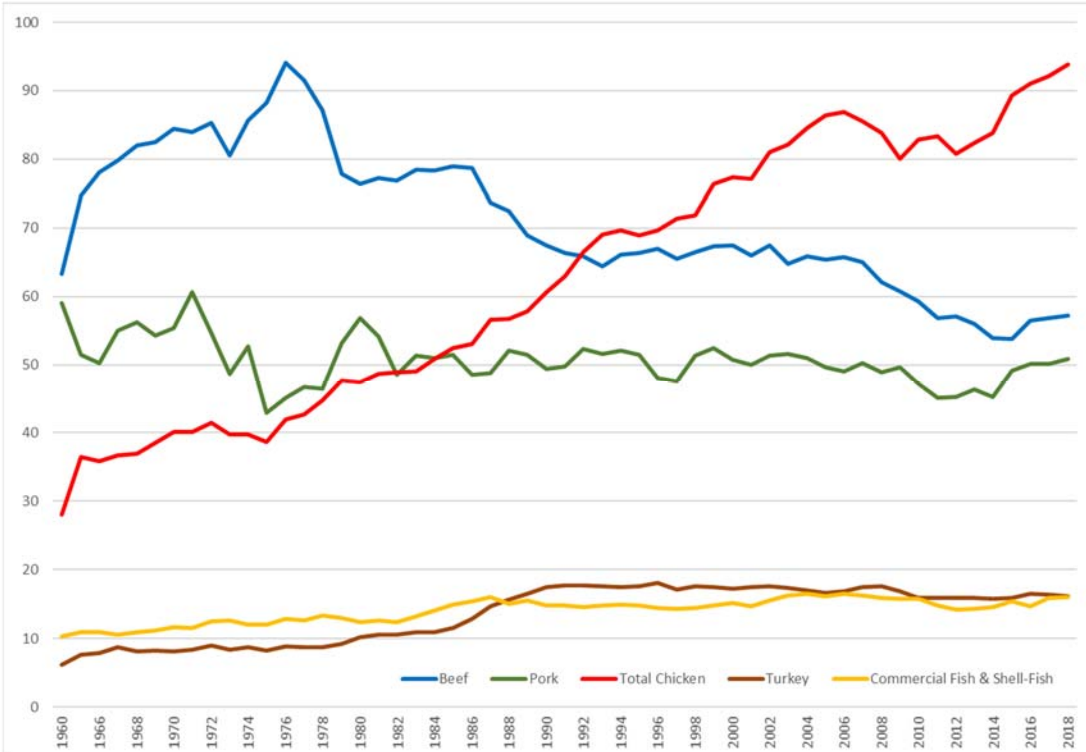
[241] Laura M. Cheney, A. Blake Brown, Takashi Yamano, and Michael Masterovsky, "Issues of Demand Specification and Industry Structure in Turkeys and Broiler Chickens," *Journal of Agricultural and Applied Economics* 11, no. 1 (April 2001): 25-34.

[242] [redacted]

[243] CASEFOODS0000189107-140 at 113.

134. The National Chicken Council website also shows a very different long-term consumption trend across proteins. See **Figure 18** below.[244]

FIGURE 18: US Per Capita Consumption of Poultry, Beef, Pork, and Seafood 1960 to 2018



Source: USDA and The National Marine Fisheries Service as cited by the National Chicken Council.

b. Industry Participants Recognize Chicken as a Unique Market

135. Defendants agree that chicken has no close substitutes and have described it as distinct from other proteins. A 2009 [redacted] report on the chicken market states: [redacted]

[244] https://www.nationalchickencouncil.org/about-the-industry/statistics/per-capita-consumption-of-poultry-and-livestock-1965-to-estimated-2012-in-pounds/. The URL is in error, and it presents actual US per capita consumption through 2019 for all but seafood, which stops in 2018.

[redacted][245]

136. The CEO of Sanderson has noted [redacted] Other experts in the field whose views are considered by the defendants agree. In a 2015 study entitled "How Meat Demand Elasticities Vary with Price, Income, and Product Category," two professors of Agricultural Economics found: "[redacted][47]

137. Defendants refer to the "chicken market" in public statements and reports. In 2012 earnings call, Bill Lovette, the CEO of Pilgrim's, referred to the chicken market and distinguished it from markets for other proteins: "[redacted] An internal [redacted]."[249]

138. Agri Stats, a vendor for companies making products from various types of proteins describes broilers as a separat [redacted] and specifically separate from beef and swine: [redacted]

[redacted]

[246] During a Sanderson Farms 12/8/2009 Q4 2009 earnings call, Ken Goldman, a J.P. Morgan analyst who covers the broiler industry asked, "Your competitor said he's never seen a time when the price of substitute proteins matters so much for chicken demand; meaning when por[k] and beef prices are high, chicken demand rises and vice versa... do you agree with this and if you do, shouldn't this be particularly good for chicken demand next year given that pork prices should be a lot higher?" Joe Sanderson of Sanderson responded, "Maybe a little bit. I think people eat some beef, some pork, some chicken and I'd guess if por[k]and beef were really sky high, it might benefit us some. But I don't believe people, you know when pork is really cheap, I don't believe consumers go in there and buy all pork. I believe they're going to eat some of everything. … I'm more comfortable when pork and beef are high, but I never have seen a direct hard correlation. And that's only true at the retail grocery store. That's not true at food service because there's not that much pork anywhere at food service." Sanderson-0002633942-966 at 961.

[247] [redacted] t 352 (study by Jayson L. Lusk and Glynn T. Tonsor, Professors of Agricultural Economics at Oklahoma State University and Kansas State University dated September 2, 2015).

[24 [redacted]453 at 438.

[24 [redacted] at 507.

[redacted] Their website on September 2, 2020 stated: "We service customers in the chicken, turkey, commercial egg, and swine industries …"[251]

139. Distributor customers of the defendants also recognize the [redacted] as a unique market. For example, an employee of one the nation's largest distributors, Sysco, noted in a 2014 email regarding Landry's August Pricing Forecast: [redacted][252]

140. Various companies that produces indexes of prices recognize chicken as a unique market. For example, Urner Barry puts out reports on prices in the [redacted][253]

141. The fact that the chicken, beef, pork, turkey, and seafood producers each have their own distinct industry groups also indicate that chicken is a separate market from other animal proteins.[254] The National Chicken Council states on the home page of its website: "The National Chicken Council is the trade association, based in Washington, DC, for the companies that raise broiler chickens and make and market chicken products. Member companies of NCC provide about 95 percent of the chicken products on America's table."[255]

c. Chicken Has Unique Production Facilities

142. Chicken processing plants are made to process chicken and not to do anything else. This is unsurprising since the production timelines and processes for chicken are distinct from those of the other major proteins. As a result, processors of other types of animal protein could not cheaply or easily shift to producing chicken in response to chicken price increases. The supply chain is structured differently and is far more vertically integrated than other livestock

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[250] [redacted] 399 citing www.agristats.com.

[251] https://www.agristats.com/partnership.

[252] [redacted]

[253] [redacted]

[254] National Chicken Council https://www.nationalchickencouncil.org/; National Cattlemen's Beef Association https://www.ncba.org/; National Pork Producers Council https://nppc.org/; National Turkey Federation https://www.eatturkey.org/; National Fisheries Institute identifying the Tuna, Salmond, Shrimp and Crab Councils https://aboutseafood.com/about/councils/.

[255] https://www.nationalchickencouncil.org/.

industries.[256] Compared to other proteins, chicken grows very quickly with a lower feed conversion factor.[257] See **Figure 19** below.

[redacted]

143. Chicken plants are not only specifically tailored to process chicken, but even particular sizes of chicken. [redacted]

[256] PILGRIMS-0009996230-279 at 237.

[257] GEO_0000410127-182 at 136.

[redacted]

144. Other defendant internal correspondence reflects that particular plants are commonly referred to in the industry by the size of chicken they process. A 2015 [redacted][260] A 2013 [redacted][261]

145. Defendants market their facilities to customers by referring to them as facilities to make specific types of chicken products. In a 2009 email, Tyson wrote to Kroger: [redacted] 62

[258] Deposition of [redacted] February 26, 2019, pp. 79:12-81:4.

[redacted]

[redacted] attachment [redacted]

146. The facilities used by the growers who contract with the defendant processors are also unique to the industry and typically have to meet specifications set by the processors themselves. A report by Auburn University Professor of Agriculture Robert Taylor states that [redacted][263]

2. Geographic Market Definition

a. The United States Is a Separate and Distinct Geographic Market

147. The relevant geographical chicken market is the United States. Most whole birds and white meat stay in the United States; exports are dominated by dark meat.[264] More importantly for market definition, imports into the United States are insignificant.[265] This lack of supply substitution means there are significant hurdle for foreign producers and they therefore could not prevent an increase in price among US producers.

b. Lack of Competition from Foreign Imports

148. The domestic chicken processors who are defendants and co-conspirators in this litigation face virtually no competition from outside the country in the form of imports.[266] A USDA report regarding poultry and eggs trade states: [redacted] A

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[263] [redacted] at 694 and 699.

[264] Sanderson 2013 Investor Day, JPMS-00004809-864, at 829.

[265] Sanderson 2013 Investor Day, JPMS-00004809-864, at 829.

[266] The decision in Kleen Products (*Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)) determines that lack of competition from foreign imports in an industry is an important determinant of cartel success. Lack of foreign competition in poultry is supported by the research of Lopez and Pagoulatos, who find an Armington elasticity of 0.70 in the poultry slaughter and processing industry. See, Elena Lopez, and Emilio Pagoulatos, "Estimates and Determinants of Armington Elasticities for the US Food Industry," *Journal of Agricultural & Food Industrial Organization* 15, no. 2 (2018).

[267] [redacted]

[redacted][268] A 2013 Sanderson presentation for investors noted: [redacted][269]

149. Analysts for the industry concur. A 2008 [redacted][270] A 2008 BMO Capital Markets report on Sanderson reads [redacted] A 2012 JP Morgan report states: "[redacted][272]

150. Federal food safety guidelines severely limit the countries that are allowed to export raw ready-to-cook chicken into the US. Imports are limited to those from certain facilities with equivalent food safety requirements to those of the US. Those imports must meet several requirements set by the USDA's Food Safety and Inspection Service (FSIS) Guidance for

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[268] [redacted] t 3012.

[269] [redacted] t 829; see also Office of Industries, *Poultry: Industry & Trade Summary*, US International Trade Commission, at 22 (Jan. 2014), https://www.usitc.gov/publications/332/poultry1.pdf ("Imports represented only about 0.3 percent of domestic consumption of both live poultry and poultry meat in 2006–12.").

[270] [redacted] t 054.

[271] [redacted] 373.

[272] [redacted] he US does not appear on this list of the top 15 fresh/frozen chicken importing countries. See Daniel Workman, "Top Fresh or Frozen Chicken Imports by Country, World's Top Exports," (May 1, 2020), http://www.worldstopexports.com/top-fresh-or-frozen-chicken-imports-by-country/.

Importing Meat, Poultry, and Egg Products.[273] For example, as of 2017, China could not import raw chicken into the US.[274] [275] [276]

151. However, meeting regulatory requirement all for importation into the US does not mean those ready-to-cook chicken could profitably be imported in large quantities compared to US domestic chicken production. In 2014, the United States International Trade Commissions' Poultry Industry & Trade Summary indicated, "Because the United States is one of the world's largest and most efficient poultry producers, its imports are negligible. Imports represented only about 0.3 percent of domestic consumption of both live poultry and poultry meat in 2006-12 …"[277]

3. SSNIP Test

152. To review, the SSNIP test asks whether a hypothetical monopolist in the candidate market could profitably implement a "significant," non-transitory increase in price, with 5% being the standard rule of thumb. If a hypothetical monopolist could profitably implement a SSNIP for at least one product, then the candidate market is a relevant antitrust market because the potential exists for firms colluding within that market to raise prices.

153. Determining whether the hypothetical monopolist could profitably raise prices involves comparing its profit at the competitive benchmark price with the profit it would earn at

[273] As set forth in 9 CFR 381, Subpart T on poultry. https://www.fsis.usda.gov/wps/wcm/connect/415278f6-9c67-4641-bf92-8aafb90e2ac0/Guidance-for-Importing-Meat-Poultry-Egg-Products-into-US.pdf?MOD=AJPERES , https://www.govinfo.gov/app/collection/cfr/2016/title9/chapterIII/subchapterA/part381/subpartT, and https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol2/pdf/CFR-2016-title9-vol2-part381-subpartT.pdf.

[274] https://foreignpolicy.com/2017/11/16/are-chinas-chickens-contaminating-americas-plates/.

[275] According to this regulation, except for small importations for consignee's personal use, display, or laboratory analysis as detailed in §381.207, slaughtered poultry and other poultry products may be imported only if they were processed solely in countries listed in §381.196(b). Slaughtered poultry may be imported only if it qualifies as ready-to-cook poultry. https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol2/pdf/CFR-2016-title9-vol2-sec381-195.pdf.

[276] Certain facilities within countries listed in §381.196(b) are to export raw ready-to-cook chicken into the US are Canada, Chile, France, Great Britain, Hong Kong, Israel, and the Republic of Korea provided the foreign inspection system "must maintain a program to assure that the requirements …, equivalent to those applicable to the Federal system in the United States, are being met." https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol2/pdf/CFR-2016-title9-vol2-sec381-196.pdf Mexico and the People's Republic of China "… [m]ay export to the United States only processed poultry products slaughtered under Federal inspection in the United States or in a country eligible to export slaughtered poultry products to the United States."

[277] Marin Weaver, *Poultry, Industry and Trade Summary*, Publication ITS-10. Washington, DC: US International Trade Commission, January 2014.https://www.usitc.gov/publications/332/poultry1.pdf p. 22.

a price 5% higher. For a producer with constant marginal costs, profit is just the quantity sold multiplied by the difference between price and cost. The question, then, is whether raising the price over the competitive level reduces the quantity demanded by so much that the net effect is to lower profits. The crucial economic measure for answering this question is the own-price demand elasticity, defined as the percentage decrease in quantity demanded that results from a 1% increase in price. [278] The smaller the own-price demand elasticity (specifically, the "market"-wide elasticity at the elevated price level), the easier it is to profitably raise prices. It is also more likely to be profitable to raise prices if the competitive margin is smaller, defined as the percentage by which the marginal cost is less than the price. Combining these two measures provides a mathematical criterion for the SSNIP test: it is profitable to raise the price by 5% if the competitive margin plus five percentage points all multiplied by the own-price demand elasticity is less than one. In that case, the market passes the SSNIP test and thus constitutes a relevant antitrust market.[279]

154. As a rough estimate of the competitive margin for chicken, I can use the USDA average whole bird price and the variable dressed meat cost during the period 2004-2008.[280] Using these measures, the monthly Lerner index ranges from 5% to 32% during that period, with an average of 23%.[281]

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[278] The decision in Kleen Products (*Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)) determines that a low own-price elasticity of demand is an important determinant of cartel success. This is confirmed in the survey by Levenstein & Suslow (2006). See, Margaret C. Levenstein and Valerie Y. Suslow, "What Determines Cartel Success?," *Journal of Economic Literature* 44, no. 1 (2006): 43-95.

Empirical research by Marsh et al (2004) and by Tonsor et al (2010) finds low own-price elasticities for poultry, while Mo (2013) finds low own-price elasticities of demand for chicken as well as other poultry types. See, Thomas L. Marsh, Ted C. Schroeder, and James Mintert, "Impacts of Meat Product Recalls on Consumer Demand in the USA," *Applied Economics* 36, no. 9 (2004): 897-909. Glynn T. Tonsor, James R. Mintert, and Ted C. Schroeder, "US Meat Demand: Household Dynamics and Media Information Impacts," *Journal of Agricultural and Resource Economics* (2010): 1-17. Lijia Mo, "Impact of Food Safety Information on US Poultry Demand," *Applied Economics* 45, no. 9 (2013): 1121-1131.

[279] See Jonathan B. Baker, "Market Definition: An Analytical Overview," *Antitrust Law Journal* 74.1 (2007): 142, A. 49. ("In consequence, a price increase is profitable for a hypothetical monopolist if and only if the inverse elasticity of demand exceeds the Lerner Index (1/e > L).")

[280] See **Figure 12** in Section III.E.2 above for a chart of these price and cost measures, with further details on them available earlier in that section.

[281] See margin_variable_vs_wholesale.do.

155. To be conservative then, I assume the Lerner index could be as high as 35% in the absence of collusion. Then an own-price elasticity less than 2.5 in magnitude would be sufficient to guarantee that a relevant market defined as chicken passes the SSNIP test.[282]

156. For a product like chicken, then, which common sense as well as the qualitative evidence surveyed above suggests has no perfect substitutes or anything particularly close to perfect, the SSNIP test is easily passed. Quantitatively speaking, its own-price elasticity is clearly below 2.5. A 2006 modeling study prepared for the USDA used 0.43 as the own-price demand elasticity for broiler meat, an average of 20 elasticity estimates from previous literature.[283] A more recent USDA summary of 16 different estimates of the own-price elasticity of chicken from nine different studies lists estimates ranging from 0.02 to 1.13, with an average of 0.68.[284]

157. Cross-price demand elasticities, which measure the extent of consumer substitution between chicken and other products, discussed in the section above, are only indirectly relevant to market definition. If a proposed market is determined to be insufficiently broad, cross-price elasticities can be used to inform the choice of how to expand the market definition. But for any given proposed market, the own-price demand elasticity, on its own, tells us whether the candidate market passes the SSNIP test and is thus a relevant antitrust market, or whether I must expand its boundaries to test other potential supply or demand substitutes.[285] My analysis here demonstrates that chicken in the United States is a relevant antitrust market; no substitutes are close enough to prevent a hypothetical monopolist (or cartel) from profitably implementing a SSNIP.

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[282] For a set of multiple products, none of which are complements, an analogous condition is sufficient to guarantee that that set of products passes the SSNIP test: the revenue-weighted average of the products' *inverse* own-price elasticities must be greater than the average profit margin plus five percentage points..

[283] Ronald Meekhof, et al, "Poultry Slaughter and Processing Sector Facility-Level Model," Research Triangle Institute, North Carolina, United States (2006), p. 2-14.

[284] See Sheet2 of ElasticityRP092111.xlsx, exported 10/28/2020 from https://data.ers.usda.gov/reports.aspx?ID=17825, selecting United States as the Country and Chicken as both the Commodity and Cross-Commodity. (The original url no longer works: http://www.ers.usda.gov/dataproducts/commodity-and-food-elasticities/demand-elasticities-from-literature.aspx, cited in James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014, p. 11, n. 5.)

[285] See Jonathan B. Baker, "Market Definition: An Analytical Overview," *Antitrust Law Journal* 74.1 (2007): 139, n. 38.

C. Market Power

158. Market power means that a firm (or in this case, collection of firms) faces a downward sloping demand curve and therefore has the ability to profitably price above the competitive level. I evaluate the Defendants' collective market power using two separate methods. First, I measure market power indirectly by assessing Defendants' collective market share in the relevant market and the whether there are barriers to entry.[286] Second, I evaluate the direct evidence that the Defendants' could exercise market power collectively, primarily the empirical evidence that the Defendants' collusion *in fact* reduced output and raised prices above the competitive level.

1. Dominant Collective Market Share

159. The defendants' collective market share in the market for chicken in the United States is overwhelming. The defendants and co-conspirators collectively produce between 96.0% to 98.0% of the market-wide ready-to-cook chicken pounds during the class period, depending on which year is being examined, according to **Table 2** below.

[286] The decision in Kleen Products (*Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)) determines that industry concentration and high barriers to entry (or high fixed costs) are important determinants of cartel success. These are long-established findings in the economics literature. See, for example, George A. Hay,and Daniel Kelley. "An Empirical Survey of Price Fixing Conspiracies," *The Journal of Law and Economics* 17, no. 1 (1974): 13-38. The findings continue to be confirmed. John M Connor, *The Food and Agricultural Global Cartels of the 1990s: Overview and Update*, No. 1239-2016-101535. 2002.

Table 2: Market Share Based on Watt Ready-to-Cook Pounds

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Defendant and Co-Conspirator Share of Market	92.7%	92.4%	92.4%	94.2%	96.1%	96.1%	96.5%	96.4%	96.0%	97.1%	98.0%	97.9%
Defendant and Co-Conspirator (with acquisitions) Share of Market	98.3%	98.1%	97.9%	98.1%	98.1%	98.1%	98.0%	98.2%	98.0%	98.1%	98.0%	97.9%

Class Period Company Market Shares (%)

Company	Processor	Cat.	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total Period
Tyson Foods	Tyson Foods	D	19.62	20.25	21.56	22.06	21.35	21.28	21.56	20.62	19.97	19.45	21.27	21.08	**20.8%**
	Keystone Foods	C/AD	2.68	2.74	2.41	2.69	2.55	2.33	2.40	2.44	2.70	2.65			**2.1%**
	MBA Poultry	AD	0.17	0.17	0.17	0.17	0.16	0.16	0.15	0.31	0.30	0.29			**0.2%**
Pilgrim's Pride	Pilgrim's Pride	D	22.02	18.73	16.94	17.40	19.00	17.52	16.92	16.64	16.29	17.15	17.26	16.92	**17.7%**
	Gold'n Plump Poultry	AD	0.84	0.91	0.92	1.02	0.99	1.02	1.03	1.03	0.99				**0.7%**
Sanderson Farms	Sanderson Farms	D	6.48	6.46	6.61	7.18	7.25	7.41	7.19	7.77	8.30	9.18	9.58	9.43	**7.8%**
Perdue Farms, Inc.	Perdue Farms, Inc.	D	7.57	7.48	7.18	7.12	6.97	7.12	6.91	7.25	7.15	6.99	7.13	6.63	**7.1%**
	Coleman Natural Foods	AD	0.42	0.40	0.42	0.65									**0.1%**
	Draper Valley Farms	AD	0.29	0.31	0.18										**0.1%**
Koch Foods	Koch Foods	D	2.57	4.56	4.71	4.68	6.12	6.08	5.87	5.64	5.73	5.56	5.53	6.39	**5.3%**
	Cagles	AD	0.99	0.99	1.00	0.88									**0.3%**
Mountaire Farms	Mountaire Farms	D	4.35	4.36	4.48	4.80	5.00	5.20	5.35	5.41	5.34	5.39	5.42	6.03	**5.1%**
Wayne Farms	Wayne Farms	D	4.78	4.53	4.65	4.97	4.67	5.43	5.55	5.60	5.41	5.24	5.29	5.19	**5.1%**
Peco Foods	Peco Foods	D	2.18	2.47	2.54	2.91	2.94	3.03	2.94	3.12	3.35	3.88	3.97	3.84	**3.1%**
	Townsends	AD	1.81	1.80	1.70										**0.4%**
House of Raeford Farms	House of Raeford Farms	D	3.18	3.02	3.13	2.85	2.79	2.97	3.23	3.23	3.13	3.07	3.00	2.89	**3.0%**
George's	George's	D	1.98	1.94	2.09	2.19	2.44	2.48	2.46	2.41	2.46	2.51	3.24	3.10	**2.5%**
	Ozark Mountain Poultry	AD							0.33	0.38	0.72	0.70			**0.2%**
Foster Farms	Foster Farms	D	2.38	2.63	2.67	2.71	2.67	2.66	2.46	2.44	2.26	2.35	2.72	2.95	**2.6%**
Case Foods	Case Foods	C	1.52	1.66	1.70	1.73	1.96	2.12	2.18	2.16	2.17	2.17	2.17	2.15	**2.0%**
	Park Farms	AC	0.13	0.14	0.13	0.13									**0.0%**
Amick Farms/OSI Group	Amick Farms/OSI Group	C	1.02	1.16	1.54	2.00	1.96	1.96	2.05	2.30	2.50	2.38	2.42	2.51	**2.0%**
Fieldale Farms	Fieldale Farms	D	2.06	2.17	2.10	2.09	1.86	1.65	1.83	1.87	1.83	1.78	1.77	1.71	**1.9%**
Mar-Jac Poultry, Inc.	Mar-Jac Poultry, Inc.	D	0.99	1.00	0.96	0.93	0.92	0.92	1.74	1.76	1.76	1.77	1.76	1.67	**1.4%**
	Marshall Durbin Companies	AD	0.88	0.99	1.00	1.02	0.91	0.83							**0.4%**
O.K. Foods	O.K. Foods	D	2.08	2.19	2.12	1.71	1.87	1.86	1.80	1.73	1.56	1.54	1.54	1.58	**1.8%**
Simmons Foods	Simmons Foods	D	1.98	1.99	2.18	1.81	1.59	1.68	1.62	1.62	1.53	1.52	1.51	1.47	**1.7%**
Allen Family Foods	Allen Family Foods	C	1.76	1.51	1.30	0.80	0.55	0.66	0.73	0.78	0.98	0.92	0.84	0.85	**1.0%**
Claxton Poultry Farms	Claxton Poultry Farms	D	0.86	0.90	0.86	0.94	0.94	1.01	1.01	0.99	0.99	0.98	1.00	0.92	**1.0%**
Harrison Poultry	Harrison Poultry	D	0.65	0.63	0.62	0.66	0.66	0.70	0.70	0.67	0.58	0.58	0.59	0.56	**0.6%**
Golden-Rod Broilers	Golden-Rod Broilers	N	0.47	0.47	0.46	0.42	0.40	0.40	0.46	0.41	0.40	0.39	0.39	0.37	**0.4%**
Farmers Pride	Farmers Pride	N	0.41	0.38	0.37	0.37	0.36	0.35	0.34	0.39	0.40	0.39	0.39	0.43	**0.4%**
Holmes Foods	Holmes Foods	N	0.23	0.30	0.29	0.29	0.28	0.28	0.31	0.28	0.27	0.29	0.30	0.30	**0.3%**
Hain Pure Protein	Hain Pure Protein	N	0.12	0.12	0.12	0.13	0.12	0.12	0.12	0.12	0.20	0.14	0.20	0.19	**0.1%**
	Empire Kosher Poultry	AN	0.07	0.08	0.08	0.08	0.08	0.11	0.10	0.10	0.14				**0.1%**
Miller Poultry	Miller Poultry	N		0.10	0.12	0.19	0.18	0.21	0.20	0.11	0.15	0.30	0.30	0.29	**0.2%**
Gerber's Poultry	Gerber's Poultry	N	0.15	0.15	0.15	0.15	0.18	0.19	0.19	0.19	0.17	0.20	0.20	0.23	**0.2%**
Jamaica Broilers	Gentry Poultry	AN	0.14	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.11	0.11	0.11		**0.1%**
	Jamaica Broilers	N												0.11	**0.0%**
Murray's Chickens/MB Food Proc.	Murray's Chickens/MB Food Proc	N			0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09	**0.1%**
Lady Forest Farms	Lady Forest Farms	N	0.15	0.15	0.14										**0.0%**
Agri Star Meat & Poultry, LLC	Agri Star Meat & Poultry, LLC	N			0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	**0.0%**
Shenandoah Valley Organic	Shenandoah Valley Organic	N												0.08	**0.0%**
Eberly Poultry, Inc.	Eberly Poultry, Inc.	N			0.04	0.01	0.01	0.01							**0.0%**
Vineland Kosher Poultry, Inc.	Vineland Kosher Poultry, Inc.	N			0.04										**0.0%**
Lincoln Premium Poultry	Lincoln Premium Poultry	N												0.03	**0.0%**
Grand Total			100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	**100.0%**

Notes: Base data on ready-to-cook pounds by broiler processor is from Watt Poultry News. Workpapers: all verticles.xlsm
Cat. (Category) Key: D = defendant, C = co-conspirator, AD = processor acquired by a listed defendant, AC = processor acquired by a listed co-conspirator, N = non-defendant or co-conspirator, AN = processor acquired by a non-defendant or co-conspirator, C/AD = co-conspirator later acquired by a listed defendant.

Notes: Base data on ready-to-cook pounds by broiler processor is from Watt Poultry News. Cat. (Category) Key: D = defendant, C = co-conspirator, AD = processor acquired by a listed defendant, AC = processor acquired by a listed co-conspirator.

160. The seven largest processors of class products are the following companies: Tyson [redacted] Pilgrim's Pride [redacted] anderson Farms [redacted] erdue [redacted] oster Farms [redacted] Wayne [redacted] and Mountaire [redacted]

161. The chicken industry has been subject to continued consolidation for several decades. A cogent explanation comes from Agri Stats:

[redacted]

[redacted]

2. Barriers to Entry

a. Barriers to New Entry Difficult to Overcome

162. The market for broiler processing has significant barriers to entry that would be very difficult for a new entrant to overcome. These barriers to entry include know-how limitations, economies of scale, and the cost and time associated with creating new broiler complexes.

163. Defendants' internal documents notes the substantial barriers to entry in the industry. [redacted][288]

164. Outside analysts examining barriers to entry for particular defendants also agree that they are substantial. A Lincoln International report [redacted]"[289]

165. These barriers to entry have been effective in the recent history of the industry. Industry publications stated that few companies had entered the chicken market since the 1970s, with the 10 largest chicken processors having entered, on average, in 1950: [redacted]

[redacted]

[redacted]

166. Defendants have also noted the lack of entry into the market given these barriers to entry. A 2016 [redacted][91]

b. Cost and Time of Broiler Complex Creation Makes New Entry into the Broiler Market Risky

167. Creation of new broiler complexes takes multiple years and requires hundreds of millions of dollars. These investments can be risky especially if a new entrant does not have the know-how of established processors and guaranteed customers.

168. Defendants and others have frequently commented on the high costs to build complexes and plants to process chicken. [redacted][92]

169. Sanderson also understood this as a high barrier of entry:

[redacted]

[redacted]

[redacted][293]

170. In an exception that proves the rule, only one non-conspirator built a chicken processing plant and entered the market in recent decades. Costco, one of the country's largest retailers of chicken began seeking approval in Spring 2016 to begin construction on a chicken processing plant in Nebraska.[294] It broke ground on its Fremont, Nebraska $300 million complex in 2017 and opened it in early September 2019 (after the class period).[295] It was expected to take 45 weeks to ramp up to full production.[296] It partnered with a former Pilgrim's Pride executive from and talent from an existing firm with know-how in constructing and operating its broiler complex.[297]

171. Costco's entry into the market is unique in that it was geared towards supplying its own narrow needs, in that it primarily focused on rotisserie chicken which is a specific size of

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[293] [redacted] at 372.

[294] "Costco Plans $180M Nebraska Poultry Process Plant; Farmers Learn About Contracts – DTN." June 27, 2016. https://agfax.com/2016/06/27/costco-plans-180m-nebraska-poultry-process-plant-farmers-learn-about-contracts-dtn/.

[295] "Costco Plans $180M Nebraska Poultry Process Plant; Farmers Learn About Contracts – DTN." June 27, 2016. https://agfax.com/2016/06/27/costco-plans-180m-nebraska-poultry-process-plant-farmers-learn-about-contracts-dtn/. "Costco invests $300m in feed mill, poultry production complex." June 22, 2017; https://www.feednavigator.com/Article/2017/06/20/Costco-invests-300m-in-feed-mill-poultry-production-complex; "Costco chicken plant to hold ribbon-cutting ceremony." October 16, 2019. https://fremonttribune.com/news/local/costco-chicken-plant-to-hold-ribbon-cutting-ceremony/article_8363b448-07d2-5de4-9149-c876455e1beb.html.

[296] "It's only $4.99. But Costco's rotisserie chicken comes at a huge price." October 11, 2019. https://www.cnn.com/2019/10/11/business/costco-5-dollar-chicken/index.html.

[297] "Walt Shafer, a longtime Pilgrim's Pride executive and broiler grower is leading the construction and operation of Costco's Lincoln Premium Poultry…." :https://lincoln.ne.gov/city/plan/boards/pc/minutes/2018/071818.pdf "Costco and Lincoln Premium Poultry in April identified themselves after The World-Herald traced proposal documents to Georgia-based Crider Foods, which has connections with Lincoln Premium Poultry." https://omaha.com/money/we-re-not-going-to-meet-with-a-lynch-mob/article_cd29ab5e-3da2-11e6-b357-cb5ec56ebaea.html. "Lincoln Premium Poultry is a newly formed company, currently owned by Bill Crider of Georgia, and supported by a long-term commitment from Costco. Bill is a longtime industry leader and operator. Bill is a shareholder and is involved with Crider Foods; however, at this time, Crider Foods is not directly associated with Project Rawhide in Nebraska.'" https://fremonttribune.com/clarifications-on-rawhide-revalations/article_78502ae7-f677-527a-b9c6-89b3550e1e8c.html " Lincoln Premium Poultry LLC will run the actual poultry production side of the operation, said Walt Shafer, project manager for Lincoln Premium." "Costco Plans $180M Nebraska Poultry Process Plant; Farmers Learn About Contracts – DTN." June 27, 2016. https://agfax.com/2016/06/27/costco-plans-180m-nebraska-poultry-process-plant-farmers-learn-about-contracts-dtn/.

chicken.[298] Therefore Costco, unlike any other hypothetical new entrant, does not need to acquire new customers or create a wide variety of chicken products to sell to those customers. Costco's primary focusing on supplying its own rotisserie needs means it does not need to have multiple processing plants to slaughter and process different sizes of birds, unlike other chicken processors that must have a wider variety of products. These factors meant it could narrowly enter the broiler processor market in a way that other hypothetical entrants with potential external customers could not do.

172. [redacted][299]

173. During the class period, there has been no entry into chicken processing from non-chicken poultry processors.[300] Between 1994 and 2006, there have been three cases of turkey plants being converted to chicken plants: Tyson Foods opened a broiler processing plant in Sedalia, Missouri, in 1994 on the same land that Oscar Mayer abandoned production of a turkey plant; WLR Foods converted its Marshville, North Carolina, turkey plant to chicken processing in 1999; and House of Raeford bought the Butterball turkey plant in Wallace, North

[298] "It's only $4.99. But Costco's rotisserie chicken comes at a huge price." October 11, 2019. https://www.cnn.com/2019/10/11/business/costco-5-dollar-chicken/index.html.

[299] [redacted] 711.

[300] Conceptually it would be a smaller jump, still hypothetical, within poultry of turkey to chicken than from beef or pork to chicken. Even with that hypothetical smaller jump there has been no new entry into the chicken processing industry by a turkey-only processor.

Carolina, in 2005 and converted it into a broiler processing facility.[301] None of these conversions are a turkey-only producer entering into the broiler market.

c. Know-How Limitations

174. Knowledge barriers lower the cost of expansion for incumbent processors, particularly the most successful, in ways that cannot easily be replicated by entrants. Raising a backyard chicken is not the same as raising a commodity chicken. To raise a chicken at minimum cost per pound, a high degree of specialized knowledge is required. From bird breeding and housing to how to open a plant, incumbents have a significant knowledge that keeps cost low and minimizes risk.

175. A modern poultry processing plant might pull from more than 60 farmers and hundreds of barns, and to minimize losses, birds must be processed promptly upon arrival.[302] This requires coordination of the delivery of chicks and feed to the farmer, and retrieval of the mature birds for processing at the plant. The scale and organization required to achieve this in a cost minimizing way is unusual in the livestock industry and a key factor in vertical integration.

176. Each component in this process involves specialized knowledge and training. [redacted]

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[301] "Tyson transforms industry with new plant," The Kansas City Star, June 17, 1993 (accessed October 26, 2020), https://www.postbulletin.com/tyson-transforms-industry-with-new-plant/article_97687239-df72-5c9c-b1e6-b5b9b73006f3.html: "Two years ago, the Oscar Mayer Foods Corp. spent $100 million to buy three parcels of land near Sedalia. It planned a turkey-processing factory. But the turkey industry slumped, and Oscar Mayer abandoned the plant before completing it. Tyson Foods came in and bought the half-finished plant, a feed mill and 750 acres of farmland for $15 million."

Reference for Business, "WLR Foods, Inc. - Company Profile, Information, Business Description, History, Background Information on WLR Foods, Inc.," accessed October 26, 2020, https://www.referenceforbusiness.com/history2/60/WLR-Foods-Inc.html.

"WLR goes cold on turkey," Charlotte Business Journal, January 27, 1998 (accessed October 26, 2020), https://www.bizjournals.com/charlotte/stories/1998/01/26/daily3.html: "Broadway, Va.-based WLR Foods Inc. will convert its Marshville turkey operation to chicken production…[b]y mid-1999, it plans to process 650,000 chickens per week. The company is asking its turkey producers near Marshville to switch to chickens."

SEC Edgar, https://www.sec.gov/Archives/edgar/data/760775/0000760775-99-000052.txt, accessed October 26, 2020: "Turkey revenues decreased … planned cutbacks that primarily resulted from the conversion of the Marshville complex from turkey to chicken in the first quarter of this fiscal year."

House of Raeford, "Company Milestones and Many More to Come," accessed October 26, 2020, https://www.houseofraeford.com/our-story/history/: "House of Raeford acquired the Butterball turkey processing facility in Wallace, NC and converted it into a state-of-the-art chicken processing plant."

[302] Deposition of Randy W. Pettus, November 7, 2018, p. 400:21-401:6.

[redacted][06] Contract growers receive training from the integrator not only to raise birds efficiently but also to prevent contamination and disease.[307] Mistakes can create substantial monetary and reputational costs.

177. Beyond the considerable institutional knowledge required to operate a plant successfully, opening a plant raises special challenges. Government food safety, worker safety, and environmental risks from concentrated chicken farming create obstacles that incumbents have navigated in the past that entrants would be unfamiliar with.[308] [redacted][309]

178. Burkenroad Reports in 2013 noted the necessity of industry expertise as a barrier to entry in 2013: [redacted][10]

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[303] [redacted] at 159.

[304] [redacted] at 163.

[305] Deposition of [redacted] November 7, 2018, p. 23:8-17.

[306] [redacted] at 890. Deposition of [redacted] November 7, 2018, p. 50:14-51:2.

[307] Tomislav Vukina, and Porametr Leegomonchai, “Oligopsony Power, Asset Specificity, and Hold-Up: Evidence from the Broiler Industry,” *American Journal of Agricultural Economics* 88, no. 3 (November 2006): 589-605, p. 592.

[308] PECO0000108843-878 at 860.

[309] [redacted]

[310] [redacted] 894 [emphasis added].

d. Economies of Scale

179. Economies of scale pose a barrier to new entry by a potential rival because of the high fixed costs necessary to produce chicken. Pre-established firms such as the Defendant processors are already producing at scale. Such production levels allow incumbents to spread their fixed costs, such as feed mill construction costs, over more units of output which result in them having lower average cost per unit of chicken than a potential new rival that could enter the industry at a smaller scale.

180. Chicken processing plants are characterized by industry analysts as having a high level of fixed costs.[311] Specialized equipment is used in killing and cleaning the birds and because these machines—and the plant more broadly—are fixed costs, profitability is maximized by running them at full capacity.[312] But plants are only one part of opening a chicken growing complex. Contract growers must be organized, feed mills established to formulate and distribute food, veterinarians hired, and breeder farmers must be contracted and trained before a complex can operate. Since many of these components are a fixed cost for a plant of any capacity, they are most efficient at large scale.

181. But even once a processing plant is established, an entrant with a single processing plant still faces scale disadvantages (or more accurately economies of scope disadvantages) compared to incumbent processors. Broiler processing plants are specific to bird size, implying that an entrant with a single plant will only be able to offer a limited subset of products.[313] An entrant that builds a large-bird plant designed to offered price-competitive cut-up parts would have to make further investments to offer the rotisserie chickens and further processed products that an incumbent could. A retailer purchasing from this hypothetical entrant would need to seek out incumbent processors to satisfy those demands and potentially lose out on volume discounts.

[311] JMPS-00003466-3647 at 3480.

[312] JMPS-00003466-3647 at 3480.

[313] James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, pp. 1, 8.

182. Defendants note the economies of scale in the industry that benefit incumbent processors. [redacted][314]

3. Direct Evidence of Market Power

183. In addition to demonstrating that Defendants have collective market power indirectly by showing they have a dominant market share in the relevant market along with barriers to entry in that market, direct evidence of defendants' collective power to raise prices above the competitive level also confirms their collective market power. My overcharge regression, described below, demonstrates that during the class period the Defendants raised prices for Broilers above competitive levels by showing that prices were higher than the levels that can be explained by competitive supply and demand factors such as chicken feed costs.

V. OVERVIEW OF OVERCHARGE MODEL THEORY AND EVIDENCE

A. Description

184. The purpose of my overcharge analysis is to provide an example of a common method that can be used to evaluate and quantify the impact of the challenged conduct on the price of class products sold by the defendants. Using methods and evidence common to the class, this exemplary analysis suggests that the challenged conduct had a strong and statistically significant effect on chicken prices. That is, my analysis indicates that the challenged conduct caused prices for the class products to be significantly higher than they would have been absent collusion. I refer to the percentage of price inflation caused by the challenged conduct as the "overcharge percentage." This overcharge percentage is used later in my calculation of damages to the class.

185. I implement my overcharge analysis using an econometric technique called multiple regression analysis. Multiple regression analysis is a statistical tool for understanding the relationship between or among two or more variables.[315] It is perhaps the most commonly employed empirical technique in the field of economics, and is taught to every first-year

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[314] [redacted] t 709.

[315] Daniel L. Rubinfeld, "Reference Guide on Multiple Regression," in Reference Manual on Scientific Evidence: Third Edition (Washington, DC: The National Academies Press, 2011), p. 305.

graduate student in the field. Multiple regression analysis is commonly used in litigation, including the measurement of antitrust damages.[316] For example, I have used multiple regression analysis in prior testimony to measure the overcharges resulting from price-fixing conspiracies in the markets for fluid milk and packaged seafood.[317]

186. The specific type of multiple regression model I implement in this report is known as a "reduced form price equation." The model is termed "reduced form" because the price equation is derived from more basic, structural relationships such as supply and demand. In the reduced form price equation, observed market prices are explained by fundamental factors affecting the supply and demand relationships.

187. The use of a reduced form price equation to measure monopoly overcharge is "the most common statistical method employed in antitrust litigation."[318] I estimate the overcharge from the challenged conduct in the chicken industry in the customary way. I first estimate the relationship between observed market prices and supply and demand fundamentals during a competitive (or "benchmark") period. Then during the period of challenged conduct, I predict a competitive price based on observed values of the fundamental factors during that period of time. I then test to see whether the actual market prices and the predicted competitive prices are statistically different during the period of challenged conduct and, if so, what is the magnitude of the overcharge.

188. I disaggregate the estimated overcharge by part estimating separate overcharges for whole birds and breast meat. I also estimate an alternative model specification of the reduced for price equations where I allow the estimated overcharge to vary by year during the class period in section VI.B.4.c. I note that I also take account of price variation within the chicken market by including a series of "fixed effects" in the reduced form price models. These fixed effects account for systematic differences in prices by customer, processor, and season.

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[316] Daniel L. Rubinfeld, "Quantitative Methods in Antitrust," in *Issues in Competition Policy*, ed. by Wayne D. Collins (Chicago: ABA Section of Antitrust Law, 2008), p. 723.

[317] *Matthew Edwards, et al. v. National Milk Producers Federation, aka Cooperative Working Together, et al.*, No. C 11-04766 JSW, Order Regarding Motion for Class Certification, September 16, 2014 and *In RE: Packaged Seafood Products Antitrust Litigation*, Case No.: 15-MD-2670 JLS (MDD), Order Granting Motions for Class Certification, July 30, 2019.

[318] "The most common statistical method employed in antitrust litigation involves the estimation of 'reduced-form' price equations." Daniel L. Rubinfeld, "Quantitative Methods in Antitrust," in *Issues in Competition Policy*, ed. by Wayne D. Collins (Chicago: ABA Section of Antitrust Law, 2008), p. 724.

189. In mathematical terms, using *i* to denote a product, *c* a cut of meat (breast or whole bird), *y* a year, and *m* a month, I estimate models of the form:

$$\ln(P_{iym}) = \sum_{c}\sum_{p} \theta_{cp} CLASS_{iymcp} + \sum_{c} \pi_c \ln(v_{ym}) + \sum_{c} X_{ym}\beta_c + \eta_i + \eta_{cm} + \varepsilon_{iym}$$

where $\ln(P_{iym})$ is the log of price of a product, $\ln(v_{ym})$ is the log variable cost, and X_{cym} is a vector of control variables further described below.

190. The control variables fall into the following categories: (1) variables designed to capture changes in supply conditions over time; (2) variables designed to capture changes in demand conditions over time; and (3) other miscellaneous control variables. In my primary regression specification, the independent variable is the price per pound of breast and whole birds (P_{iym}). The control variables related to supply conditions include the variable cost of production, and breast meat yield. The control variables related to demand conditions include red meat (beef and pork) prices, income, seasonality, an index tracking interest in the Atkins diet, and food safety recalls for red meat and chicken.

191. The regression also controls for all product-processor-customer-specific characteristics that remain constant over time by using fixed effects, represented by η_i. It is a unique pairing of a product sold to a customer from a processor where a product is the most detailed level of product description, product code in the data or Agri Stats classification code which reflects characteristics such as packaging, grade, frozen or fresh status, and marination/injection status. Cut-by-month fixed effects (η_{cm}) are also included to account for part-level seasonality.

192. Whenever possible, I include interactions between the control variables and the type of chicken cut which allows for the possibility that the control variables have differential effects on the price of different cuts of chicken. For example, this means the model allows for a different relationship between red meat prices and breast meat, than between red meat prices and whole bird.

193. The "dummy" variables whose coefficients represent the effect of the challenged conduct are $CLASS_{iymcp}$. These indicators are 1 if a product *i* is a member of cut, *c* (meaning that the product is in the class definition), and if *ym* is in period *p* (meaning that the transaction occurred during the period, rather than in the benchmark period). In my main specification I use three different "treatment" periods outside of the benchmark period: January 2009 to December

2011, January 2012 to July 2019, and August 2019 to December 2020. The second period, January 2012 to July 2019 is the class period. I treat the first period as a ramp-up period, and the third period as a cool off period, which means I do not assume that prices during those periods were competitive and do not include them in the competitive benchmark.[319] The main question targeted by this empirical exercise is the degree to which prices were elevated during the class period beyond the level that can be explained by the control variables. To measure this, I examine the coefficient on the dummy variables, θ_{cp}, which estimates the overcharge on products sold in the class period estimated separately for each category of cut during the class period. In addition, this regression also tests the confidence with which I can reject the hypothesis that the challenged conduct had *no* measurable effect on chicken prices (sometimes referred to as the "null hypothesis"). The overcharge analysis allows me to reject that hypothesis with a high degree of confidence. See Section V.E., Overcharge Regression Results.

194. One particular challenge of predicting prices in this setting is that, for the controls detailed below that only vary across time (for example GDP and commodity prices), there is a limited amount of variation during the analysis period. Though there are millions of observations in the regression, there are only 192 year-months. To reduce the potential for overfitting, I keep the model as parsimonious as possible while controlling for the first-order determinants of price, keeping second-order determinants as sensitivity controls. I also cluster standard errors on time (in addition to clustering on major cuts of meat as tracked by Agri Stats' form codes (EMPTCODE)) to allow for correlation of errors with time periods, and this method accounts for the limited number of year-months when testing the significance of the estimated coefficients.

B. Choice of Dummy Variable Start and End Dates

195. The start and end dates for my class period dummy variable are determined by the class period, because the purpose of the regression is to measure the effect of the conduct on class purchases. However, I have seen substantial evidence to support the hypothesis that the challenged conduct may have also had an effect on prices starting in January of 2009. Because the challenged conduct appears to have resulted in record reductions in output levels near these dates, I use January 2009 and the start of the class, January 2012, as break points for my dummy

[319] In Section VI.B.4.c I also consider an annual model which presents overcharges for each cut for each year.

variables to separately measure the effect of this conduct during these two periods. I have also seen additional record evidence suggesting that the challenged conduct could have had a larger impact during the class period than the ramp up period, which I describe below. Because it can take substantial time for prices to return to competitive levels even after collusion has ended, I treat the cool off period, starting in August 2019, as a separate period without assuming that prices have dropped to the competitive level.

196. During 2011 the defendants slaughtered their breeding stock early. As of early 2011 there were two processors primarily dedicated to the slaughter of heavy fowl (breeder hens and roosters) Tip Top and Southern Hens.[320]

197. [redacted]

[320] Some broiler processors had their own fowl processing plants. For example, [redacted] eposition of [redacted] March 19, 2019, p. 167:3-7.

[321] Deposition of [redacted], March 19, 2019, pp. 23:6-8; 100:16-23; 103:9-12. [redacted]. Deposition of [redacted], March 19, 2019, pp. 233:23-234:6.

[322] [redacted] at 840. Deposition of [redacted] March 19, 2019, pp. 160:1-7; 167:16-18; 329:13-330:16. See also, [redacted] t 171 (Ex. 1424); [redacted] at 786 (Ex. 1428). [redacted]

[323] Deposition of [redacted] March 19, 2019, pp. 22:24-23:3; 111:14-17.

[redacted][324] The report goes on to say, [redacted] By October 2011, [redacted][7]

198. The early slaughter at Tip Top and the defendants rendering of hens were not the only mechanisms that were used to shrink the breeding flock. Southern Hens also assisted in slaughtering breeders more quickly. A June 2011 PowerPoint presentation [redacted][328] This same presentation slide continue [redacted][29]

199. These efforts to reduce the breeder stock were successful. A Bloomberg news article, [redacted] n December 7, 2011, titled "[redacted]

[redacted][330]

200. This reduction in the breeder stock reduced the number of chickens in the growout farms in the following months.[331] This reduction in supply of chicken increased prices and restored profitability. A November 23, 2011 emai[redacted]

201. Because these actions were taken to reduce the number of birds, I examine USDA data on heads of young chicken (broiler meat birds) slaughtered each month as the cleanest way of gauging the timing of these cuts. These data are plotted below in **Figure 20**.

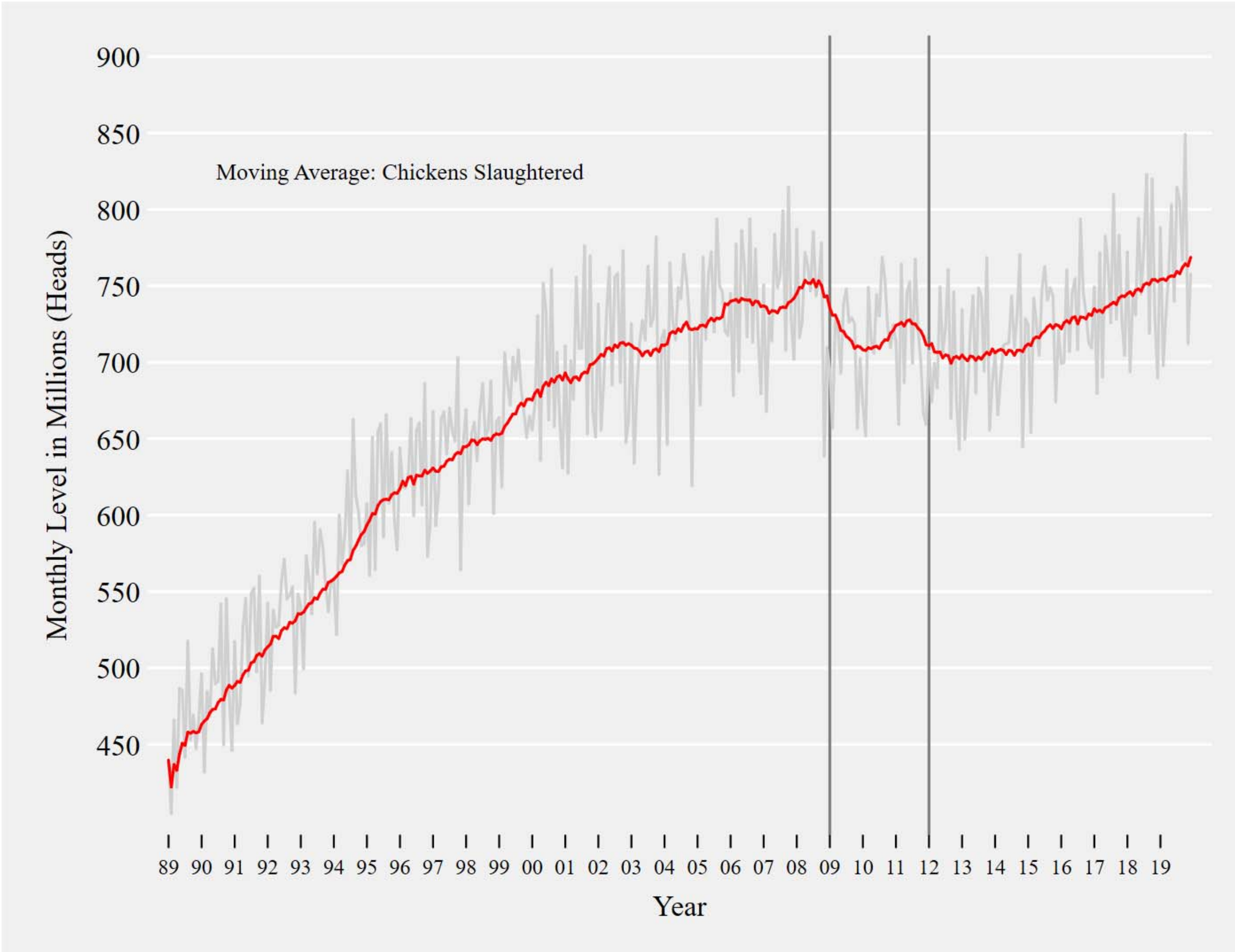
[330] [redacted] 935.

[331] [redacted] (TF-0003952286-317 at 293). [redacted] i [redacted]

[332] [redacted] at 400 (Exhibit 183).

[333] [redacted] 770 [emphasis added].

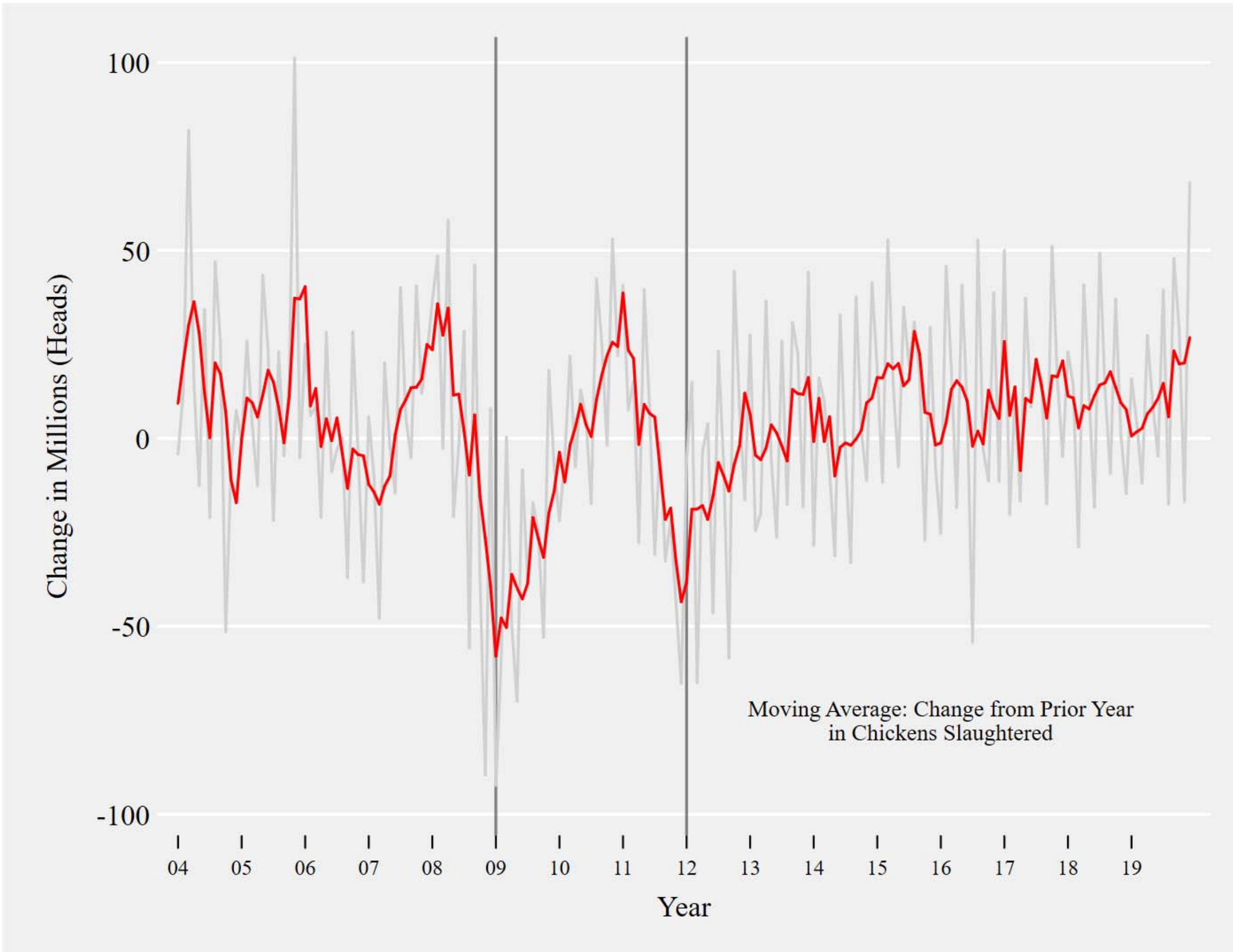
Figure 20: Monthly Broilers Slaughtered, 1989 to 2019



Source: USDA NASS Young Chicken Slaughtered measured in heads. Red line: 12-month trailing average. Gray line: unsmoothed monthly values. See figure_young_chicken_YY.do.

202. There are two clearly discernable dips in slaughter levels. I calculate year-over-year changes in and find the maximum decrease in each wave. These occur on January 2009 and December 2011. See **Figure 21** below. This confirms January 2009 and January 2012 are suitable dates to separate the competitive baseline from the early conspiracy ramp-up period and to separate the ramp-up period from the class period. (My overcharge estimates are robust to the use of December 2011 as the start of dummy variable for the class period, as opposed to January 2012, but the later date is more conservative in measuring damages.) Cuts in supply will increase prices. Whether and to what extent the price increases driven by these cuts can be explained by economic fundamentals is tested in my overcharge regression.

Figure 21: Year over Year Changes in Monthly Slaughter



Source: USDA NASS Young Chicken Slaughtered measured in heads. Red line: Year-over-Year 3-month trailing average. Gray line: unsmoothed monthly values. See figure_young_chicken_YY.do.

C. Price Data

203. I use price data from a combination of defendant-produced structured data and EMI data. A detailed description of the processing of these data is provided in **Appendix D**.

204. As a robustness check, I apply my model to a panel of monthly prices from 1989 to 2019 collected by the USDA on whole birds and breast meat.[334] Whole bird prices are for broilers and fryers on a delivered-to-first-receiver basis, including birds with and without giblets,

[334] In 2012 the USDA changed its methodology for collecting prices for its WOG series from a population weighted 12-city average to a volume poundage weighted aggregation method to represent the market more accurately. USDA0000000047-054 at 048.

fresh and chilled, and for all grades.[335] Breast meat prices are a panel for wholesale boneless skinless breast, chicken breast with rib meat, and line-run chicken breasts for the Northeast.

D. Control Variables

205. This section describes the process I used to select the control variables used in my overcharge analysis and in robustness checks. I primarily look to industry analysis to help me choose which control variables to use. Some supply or demand factors may be important to the structure of the industry, but if they do not change during the relevant time period, they will not impact my analysis because of the product fixed effects. Thus, I focus attention on controls that vary during the time of the study, giving particular weight to those frequently discussed by impartial observers such as USDA researchers, forward-looking market publications, and profitability risk factors noted in financial documents filed with the SEC. However, my analysis differs from these contexts in a few respects, most importantly in that I omit any controls that were likely to have also been *manipulated* by or as a result of the defendants' conduct as inclusion of such variables would bias my analysis by confusing the challenged conduct with the control variable. By focusing on widely used, time-varying controls for demand and supply that are plausibly free from the alleged manipulation, the before-during analysis estimates the impact of the overcharge resulting from the alleged manipulation.

1. Control Variables to Account for Supply Factors

206. In order to control for changes in supply factors that could affect the price of chicken, I include control variables for the variable cost of production and for chicken breast yield. As noted above my specification also includes a rich set of product-processor-customer fixed effects that control for changes in product mix offered over time. Below I describe the basic data used to construct the variables included in my primary overcharge regression specification and robustness checks with further detail provided in **Appendix D**.

a. Cost of Chicken Production

207. The ideal cost measure that economic theory predicts will determine firm price and output decisions would be the marginal cost of producing a pound of chicken. However,

[335] USDA0000000047-054 at 048.

because data on marginal cost is difficult to calculate, it is rarely available, and this market is no exception. Therefore, as is typical in this type of analysis, I use average variable cost as a proxy for the marginal cost.

208. There are two possible approaches to control for the variable cost of chicken. The first is to separately control for input costs such as corn, soy meal, energy, and others. A second method is to combine these into a single cost index used to estimate the variable cost of producing a pound of chicken. Often it is difficult to obtain detailed cost shares that allow for the second method to be used, but Agri Stats collects extremely detailed data [redacted] that allows an average cost index to be constructed.

209. Therefore, in my primary specification, I use Agri Stats data to construct a variable cost index. [redacted] I use this

[336] I use the decision to increase production by a flock of broilers as my delineation between fixed and variable cost. (See **Appendix D** and variable_cost.do for further details.)

national variable cost measure specific to tray pack plants. [redacted]

210. As a robustness check on this variable cost measure I use disaggregated controls for individual input costs from public data sources. A poultry feed price index is tracked by the Bureau of Labor Statistics (BLS). For energy prices, I use West Texas Intermediate oil prices as tracked by the Energy Information Administration (EIA).

b. Yield Measures and Technology Change

211. My cost variable reflects the cost of growing and processing a complete bird but does not capture the technological progress that has allowed processors to increase the profitable breast meat portion as a share of the total bird weight. **Figure 22** below plots the price of

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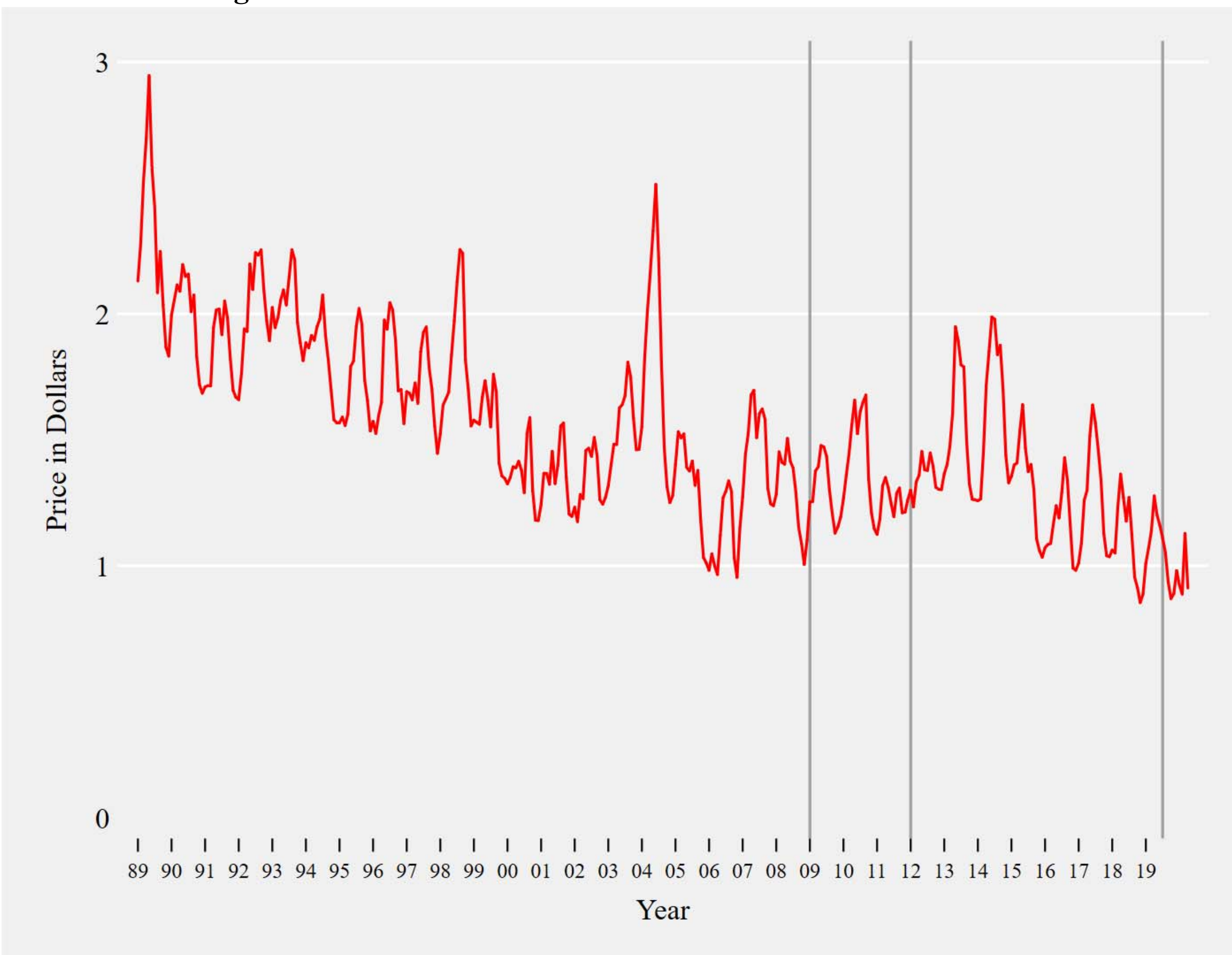
[337] The monthly Agri Stats data on cost have been made available to me beginning in January 2004. For some purposes, such as **Figure 12** in Section III.E.2 above and sensitivity checks that use USDA price back to 1989, I require a measure of variable [redacted] before 2004. I "back cast" these costs using the relationship between variable cost and corn and soymeal prices from 2004 to 2019 [redacted]

This back casting procedure is sound because, [redacted]

The centrality of grain costs is unsurprising because [redacted] nd are widely recognized as important in forecasting chicken prices. Grain costs are used in forecast models by the USDA (30(b)(6) Deposition of Shayle Shagam, USDA Economist, October 23, 2019, p. 260:17-24), frequently discussed in company 10-Ks as profitability risk factors Sanderson Farms, Inc., 10-K Annual Report for Fiscal Year ending October 31, 2012 (filed December 18, 2012), p. 14, from SEC EDGAR. https://www.sec.gov/edgar.shtml accessed November 7, 2019; Tyson Foods, Inc., 10-K Annual Report for Fiscal Year ending September 29, 2012 (filed November 19, 2012), p. 7, from SEC EDGAR. https://www.sec.gov/edgar.shtml accessed November 15, 2019; Pilgrim's Pride Corporation, 10-K Annual Report for Fiscal Year ending December 30, 2012 (filed February 15, 2013), p. 12, from SEC EDGAR. https://www.sec.gov/edgar.shtml accessed November 4, 2019, and industry analysis [redacted] boneless-skinless breast yield collected by the USDA after 1989. It depicts a downward trend in prices that lasted for several decades prior to the start of the class period.

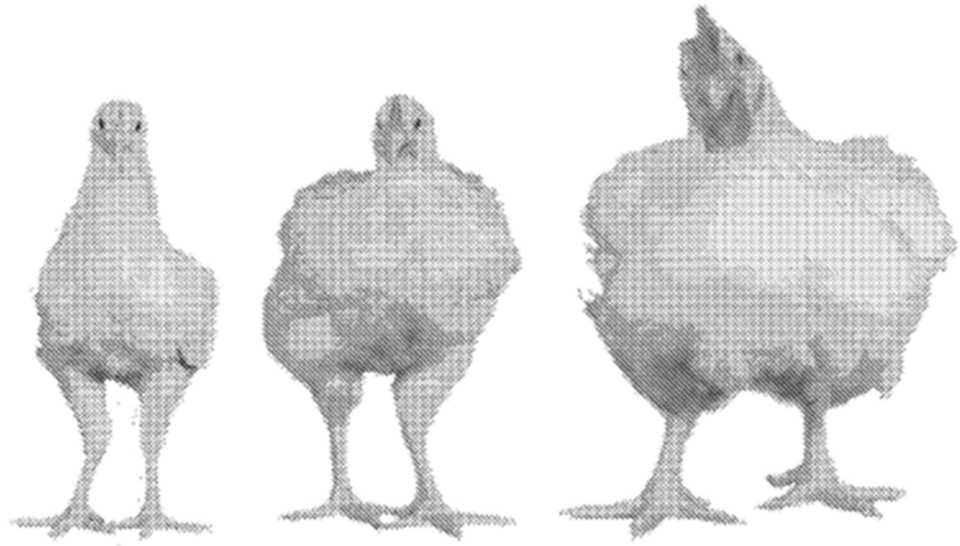
Figure 22: USDA Boneless-Skinless Breast Price 1989 to 2019



Sources: USDA wholesale price for boneless, skinless in the Northeast as collected by the Agricultural Marketing Service. See figure_BS_breast_price.do.

212. Processors have achieved this price decrease through "technology change" specifically in the form of advances in genetics and processing. The result has been that over time the supply of breast meat has increased disproportionately compared to other forms of chicken. As the share of breast meat has increased, it has reduced price pressure on breast meat to cover the cost of growing the entire bird. See **Figure 23** below.

Figure 23: Broiler Changes from 1957 to 2005



Notes/Sources: 56-day-old broilers in 1957, 1978, and 2005. See KF_0378393. Originally from M. J. Zuidhof, B. L. Schneider, V. L. Carney, D. R. Korver, and F. E. Robinson, "Growth, Efficiency, and Yield of Commercial Broilers from 1957, 1978, and 2005." *Poultry Science* 93, no. 12 (2014): 2970-2982.

213. [redacted] ummarized this succinctly [redacted]

[redacted][338]

214. These comments are corroborated by the [redacted] While boneless skinless breast yield rose from [redacted] other cuts changed little. Leg yields remain at roughly [redacted] roughout the period.[339] See **Figure 24** below.

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[338] [redacted] at 854.

[339] [redacted]

[redacted]

215. On a per-pound basis, breast meat is higher priced than other parts because white meat is highly preferred by US customers.[340] As breast yields have increased, that has allowed processors to increase the supply of breast meat relative to the supply of other parts. This causes breast meat prices to decline relative to the prices of other parts. Because breast meat is priced differently from other chicken parts, in order to explain chicken prices, it makes sense to include a variable to control for this technology change that shifts the supply of breast meat relative to other forms of chicken over time.

[340] PECO0000108843-878 at 854.

216. Thus, I include a control variable to capture the effect of this technology change. The ideal control for this technology change would measure the steadily increasing ability of firms to produce more breast meat, over time, using the same set of inputs. I control for this effect using [redacted][41]

c. Frozen Storage

217. One potential source of chicken supply is frozen inventory. However, my overcharge model omits frozen storage because it is not an *exogenous* shifter of supply, meaning that the decision about how much chicken to sell versus how much to freeze is made by the processors themselves, and thus could be affected by the challenged conduct.[342]

218. One general reason a firm would freeze inventory for domestic consumption would be a belief that the future price-cost margin will be higher than the current margin. Such a belief may arise from seasonal effects (e.g. although not a class product, freezing wings in advance of the Super Bowl). In general, absent effects from the challenged conduct, the decision to store chicken would be an outcome of other supply and demand factors that I have already controlled for, such as seasonality.

219. There are also some limitations on how much meat processors will freeze. Frozen meat must be used within a year.[343] Physically, there is limited freezer space, and as an asset, frozen meat dries out, making it lower quality; and longer freezing time accumulates refrigeration cost.[344] This implies that firms face incentives to sell freezer storage promptly.

2. Control Variables for Demand Factors

220. Because prices are jointly determined by supply and demand, I also include a number of control variables designed to capture shifts in demand for chicken over time. In my primary specification these controls include a red meat price index that captures competition

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[redacted]

[redacted]

[343] See 30(b)(6) Deposition of Shayle Shagam, USDA Economist, October 23, 2019, p. 272:9-14; GEO_0000410127-182 at 142.

[344] SYS-BR-0000022873-899 at 886.

from pork and beef, income captured by GDP, seasonality controls, an index tracking interest in the Atkins diet, and food safety recall indexes for chicken and red meat. Robustness checks address demand from exports, a wider array of alternative proteins, other food safety concerns, dietary trends, and restaurant demand.

a. Substitution from Alternative Proteins

221. I include a control for the price of beef and pork to capture any increase in demand for chicken that could result from increases in the price of beef or pork, because beef and pork are widely recognized as the primary sources of protein competing with chicken from the perspective of consumers.[345] I generate a red-meat price index from the BLS series for beef and pork using the analytical weights given by the BLS. This represents the relative prices paid by consumers for these alternative proteins.

222. Industry analysis suggests that, to the extent that customers substitute between proteins, beef and pork prices are the most relevant, while other animal proteins such as turkey, table eggs, or seafood are rarely considered. Financial statements note the importance of beef and pork prices. For example, Pilgrims' Pride notes in its 2012 10-K (pg. 3) that [redacted] is a key pricing determinant. Financial analysts such at BB&T Capital Markets,[346] JPMorgan[347] and KeyBanc Capital Markets[348] compare chicken prices with beef and pork prices. FarmEcon LLC, in a presentation [redacted] In a presentation [redacted]

[345] While the inclusion of this variable accounts for any potential substitution from beef and pork to chicken, the existence of such substitution effects does not undermine my market definition analysis because such substitution effects are too weak to justify expanding the size of the relevant market according to the SSNIP test. In other words, the substitution that occurs does not affect the elasticity of demand for chicken sufficiently to defeat a small but significant price increase by a hypothetical monopolist, which is the relevant question for market definition.

[34[redacted] 050.

[347] JPMS-00003195-290 at 218.

[348] KBCM002852-916 at 861-862.

[349] [redacted] at 578, 589, 594. See also [redacted] at 710.

[350] [redacted] 539, 549.

[redacted] and details the price and supply of these proteins but never discusses other proteins as important in predicting demand for chicken in the domestic market.[351] Internally, companies [redacted][352]

223. Some analysts modeling multiple proteins will consider turkey prices, such as Shayle Shagam at the USDA,[353] but he notes that, to the extent substitution occurs, beef and pork are the primary drivers of the market price of chicken with turkey having a lesser role.[354] Some such as Sanderson's analysts will discuss general turkey trends in addition to beef and pork.[355] While fish has some of the perceived health benefits of chicken, it is rarely compared and usually only in a qualitative fashion.[356]

224. Beyond a handful of such examples, the industry does not discuss turkey or egg prices as a first order concern when analyzing chicken demand, but I consider the prices of these items in an alternative protein specification below. That specification also disaggregates the red meat price index into pork and beef indexes, and I find that my results are not sensitive to these changes.

b. Income

225. I include a control variable to capture changes in consumer income because demand for most goods rises as income increases. To control for the potential effect of income changes on demand for chicken, I include GDP per capita as a control variable in my overcharge regression. However, the relationship between income and demand for chicken may not follow the usual correlation, due to the fact that chicken is the one of the cheapest protein options available. For example, analysts at Deutsche Bank noted in March 2009 that the recession was boosting demand for chicken as shoppers were looking for cheaper protein options.[357]

351 [redacted] at 507.

352 [redacted]

353 30(b)(6) Deposition of Shayle Shagam, USDA Economist, October 23, 2019, p. 155:3-6.

354 30(b)(6) Deposition of Shayle Shagam, USDA Economist, October 23, 2019, p. 271:5-8.

355 PILGRIMS-0000027563-716 at 676.

356 GEO_0000410127-182 at 136.

357 PILGRIMS-0010253133-152 at 144.

c. Seasonality

226. Chicken demand is also known to have a strong seasonal component. As demand changes seasonally for grilling of breast meat in summer, or wings during football season, prices fluctuate accordingly.[358] In general, demand for chicken is lower in November and December, likely due to alternative meats being culturally preferred during the holidays.[359] Whole birds are most commonly sold on the shoulders of the holiday season in October and January.[360] I include cut-by-month fixed effects (η_{cm}) to account for part-level seasonal demand fluctuations.

d. Atkins

227. As can be noted in the graph of boneless-skinless breast meat prices as depicted above in **Figure 22**, there was a large increase in prices in 2004. While a modest increase in grain prices may partially be responsible for this price increase, this increase was particularly large for breast meat compared to whole bird prices.[361] A widely discussed explanation is that the Atkins diet may have affected demand for chicken.[362] Atkins generated an interest in high protein diets that would partially be controlled for by my red meat price index, but this demand shock may have been particularly pronounced for chicken breast meat. Due to its magnitude and occurrence near the start of the baseline period in the chicken processor structured sales data, I include a Google Trends index of searches for "Atkins" as an additional demand variable.[363]

e. USDA Food Safety and Inspection Service Index

228. General food safety is another concern that could directly affect demand for chicken in the class. I developed indexes to control for these demand shocks following the

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358 CASEFOODS0000169149-191 at 156.

359 PERDUE0001065362-392 at 366.

360 PERDUE0001065362-392 at 370.

361 For comparison, see **Figure 12** in Section III.E.2 above.

362 [redacted] address in my Demand Factors model. See also Thomas L. Marsh, Ted C. Schroeder, and James Mintert, "Impacts of Meat Product Recalls on Consumer Demand in the USA," *Applied Economics* 36, no. 9 (February 2004): 897-909.

363 Google Trends data do not exist before 2004. Therefore, I cannot include this control in my USDA sensitivity check. This is, however, a minor concern in this regression because it has a significantly longer baseline timeframe.

methodology of Marsh, Schroeder, and Mindert (2004).[364] These indexes count the number of product recalls recorded by the USDA Food Safety Inspection Service. I create separate indexes for red meat and chicken recalls to capture possible substitution and avoidance associated with food safety concerns.[365] Consistent with prior research, I limit these to class I and class II recalls.[366]

f. Exports

229. As discussed in section IV.B.2.b, it is rare for the United States to import chicken for because of safety concerns and the relatively low cost of US produced meat.[367] But the US does export a share of chicken that has increased over time. Nearly all chicken exported is in product categories excluded from the class such as leg quarters, paws, and other edible offals.[368] Nevertheless, it is possible that export demand levels could have a secondary effect on the price of parts in the class. By increasing the value of dark meat and paws, the overall profitability of the bird may be altered. Exported dark meat allows the domestic production to expand, allowing for more white meat production and lower white meat prices. Conversely, when exports of broilers are lower, pricing pressure on white meat will rise.[369]

230. In my overcharge model I control for these effects using variable cost of production. As discussed above, the primary input cost that varies over time when producing a

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[364] Thomas L. Marsh, Ted C. Schroeder, and James Mintert, "Impacts of Meat Product Recalls on Consumer Demand in the USA," *Applied Economics* 36, no. 9 (February 2004): 897-909.

[365] Recalls from other poultry are omitted. Some recalls can involve both red meat and chicken. This measure is omitted from my USDA regressions because it was not available back to 1989.

[366] Glynn T. Tonsor, James R. Mintert, and Ted C. Schroeder, "US Meat Demand: Household Dynamics and Media Information Impacts," *Journal of Agricultural and Resource Economics* 35, no. 1 (April 2010): 1-17.

[367] In 2014, the United States International Trade Commissions' Poultry Industry & Trade Summary indicated, "Because the United States is one of the world's largest and most efficient poultry producers, its imports are negligible. Imports represented only about 0.3 percent of domestic consumption of both live poultry and poultry meat in 2006–12…" Marin Weaver, *Poultry Industry and Trade Summary*, Publication ITS-10. Washington, DC: US International Trade Commission, January 2014. https://www.usitc.gov/publications/332/poultry1.pdf p. 22.

[368] AGSTAT-00360251-255 at 254.

[369] [redacted]

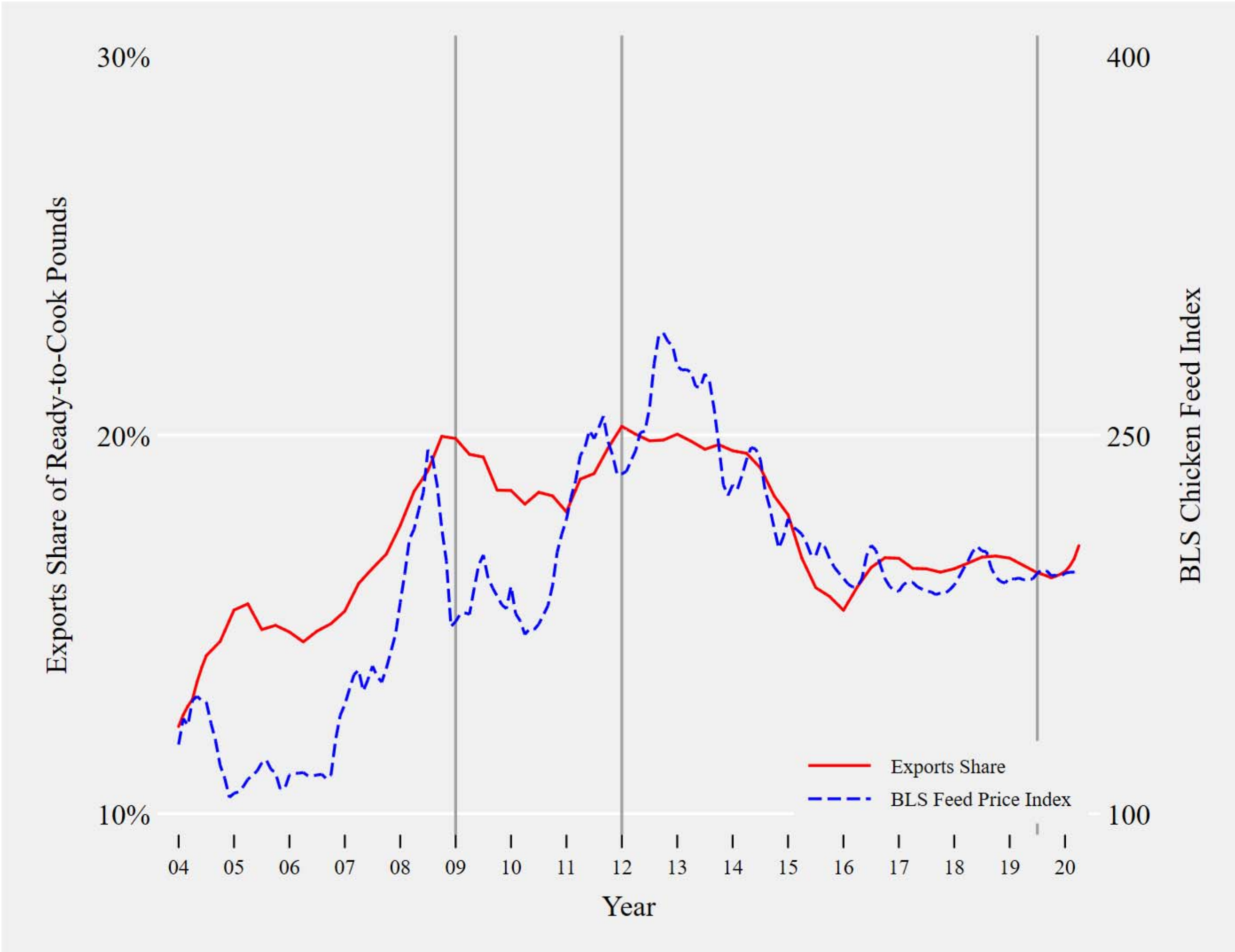
chicken is grain. Grains are international commodities with worldwide prices. Because the United States is relatively more efficient at converting feed to chicken than most other countries, the demand for US chicken exports rise as the price of grain rises.[370] As a result, my variable feed cost variable serves as a proxy for export level effects.

231. To demonstrate this, **Figure 25** below demonstrates the relationship between export levels and feed costs. The figure plots the percent of pounds exported each quarter from 2004 to 2020. Exports rise dramatically, from about 13% of all chicken, to nearly 20% of all chicken in 2009 Q1.[371] For reference, **Figure 25** also plots the BLS chicken feed index. Export percentages and feed prices are highly correlated, with a correlation coefficient of 0.79. The implication is that, during the period of analysis, when grain prices increased cost for the chicken processors, the export market provided an offsetting effect that would also be captured by my variable cost measure.

[370] One plausible reason for this correlation is that the US is relatively more efficient at converting grain into chicken. Marin Weaver, *Poultry Industry and Trade Summary,* Publication ITS-10. Washington, DC: U.S. International Trade Commission, January 2014. https://www.usitc.gov/publications/332/poultry1.pdf p. 22. Thus, as grain prices rise, countries may find it more advantageous to import chicken rather than importing grain and growing the chicken locally. See, for example, [redacted] at 460. Source for correlation: figure_USDA_exports_vs_grain.do.

[redacted] 252.

Figure 25: Exported Share of RTC Pounds vs. Feed Prices



Source: USDA (https://www.ers.usda.gov/webdocs/DataFiles/51875/MeatSDFull.xlsx?v=4084.5) and BLS (WPU02930102). Quarterly pounds exported over total quarterly ready-to-cook pounds smoothed using a 12-month moving average. See figure_USDA_exports_vs_grain.do.

232. In an export sensitivity analysis, I include several explicit controls for the relative price advantage of US chicken. The first is the exchange rate with the Brazilian Real. Brazil is the other large exporter of broilers,[372] and the Real is closely watched by industry analysts.[373] The second is the exchange rate of destination countries. I create this index by averaging the exchange rates of the top 10 importing nations countries based on their relative share in the

[372] Mount Morris, "Why Brazil's Top Poultry Companies Dominate the Industry," *WATT Poultry International* September 2016. https://www.proquest.com/docview/2112908696.

[373] AGSTAT-00000170-174 at 171.

period from 2004 to 2008.[374] A final control for these exports is the Urner Barry Northeast Frozen Export Leg Quarter price.[375]

3. Shocks from Avian Influenza

233. Outbreaks of avian influenza have the potential to disrupt both the supply and the demand for broilers in several ways. First, I examine the plausibility that avian influenza removed enough birds from production to affect the supply of broilers and then I turn to the implications for demand.

234. The United States has seen outbreaks of avian influenza since 1924; however, some of the largest events in recent history did not affect chicken raised for meat.[376] For example, a 2014-2015 outbreak of H5N2/H5N8 condemned millions of turkey and table egg layers, but less than 0.01% of broiler chickens were affected.[377] Other outbreaks have also killed birds but of limited total magnitude. A 2017 outbreak of H7N9 in Tennessee condemned 129,000 broiler breeders, about 0.2% of the estimated breeders in the US according to the USDA.[378] A 2004 outbreak of H7N2 in Maryland and Delaware resulted in the condemnation of 412,000 broilers. The US processed more than 8.7 billion broilers that year.[379] Thus, avian influenza has

[374] While trade disputes are frequently discussed by analysts. [redacted] at 53-55). There also exist methods of circumventing import bans from large importers of broiler meat. For example, [redacted] Soviet Republic countries served a similar conduit to Russia after it blocked US imports [redacted] at 603).

[375] One particular benefit of this series is that it can capture some chicken-specific shocks better than exchange rates. In 2015 there was an outbreak of Avian Influenza in the US. The number of broilers affected was small, but some imports from the U.S. were restricted. Most bans were highly targeted to at-risk states or counties leaving large shares of production unaffected. (see Sean Ramos, Matthew MacLachlan, and Alex Melton, "Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector," LDPM-282-0, USDA, Economic Research Service. (December 2017). p. 9. https://www.ers.usda.gov/webdocs/outlooks/86282/ldpm-282-02.pdf?v=4153.) I rely on the frozen export leg quarter price to capture shocks of this nature.

[376] AVIAN INFLUENZA: USDA Has Taken Actions to Reduce Risks but Needs a Plan to Evaluate Its Efforts, GAO-17-360: Published: Apr 13, 2017. Publicly Released: May 11, 2017. p. 15, 19. https://www.gao.gov/products/GAO-17-360.

[377] Sean Ramos, Matthew MacLachlan, and Alex Melton, "Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector," LDPM-282-0, USDA, Economic Research Service. (December 2017). p. 3. https://www.ers.usda.gov/webdocs/outlooks/86282/ldpm-282-02.pdf?v=4153.

[378] The USDA Chicken and Egg report in March 2017 indicates there were more than 54 million breeders on hand for context.

[379] National Chicken Council, accessed March 2020 https://www.nationalchickencouncil.org/about-the-industry/statistics/chicken-broiler-and-other-production-head-and-live-weight/.

had a minimal effect on the supply of broilers in the United States and does not require a separate control variable.

235. On the demand side, avian influenza could affect perceptions of broiler food safety or international outbreaks could affect broiler export demand. Although the broiler market was minimally affected by events such as those in 2014-2015, many countries used the opportunity to restrict imports of dark meat from the United States. Conversely, importers might increase demand for US grown meat if they suffer from their own outbreaks of avian influenza . In order to account for both possibilities, my sensitivity analysis focused on exports includes a control for exported leg meat prices.

236. Despite the rapid response and large expenditures by APHIS and the USDA to contain avian influenza outbreaks, it is possible that domestic consumers perceived the supply of poultry as unsafe.[380] If so, the desire to avoid potentially infected products would depress demand, lowering prices. Omitting such a control from my model produces a conservative bias[381] but, this effect is very likely to be small. For example, [redacted] Thus, I do not include a control for avian influenza outbreaks.

4. Other Demand Controls

237. While the demand variables in my primary specification are sufficient to explain the price movements of chicken within the class that vary between the benchmark period and the conspiracy period, I also perform additional sensitivity checks on my results. In my "Demand Factors" model I examine variables discussed that might have a second order effect on prices of class products.[383] Three demand drivers merit discussion either because they occasionally appear

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[380] Sean Ramos, Matthew MacLachlan, and Alex Melton, "Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector," LDPM-282-0, USDA, Economic Research Service. p. 4. https://www.ers.usda.gov/webdocs/outlooks/86282/ldpm-282-02.pdf?v=4153

[381] If there were some effect on consumer demand, because the effect of this scare would be to reduce demand and suppress prices during the conspiracy period. Omitting such a control biases my overcharge in favor of finding no overcharge.

[382] [redacted] at 313.

[383] Glynn T. Tonsor, James R. Mintert, and Ted C. Schroeder, "US Meat Demand: Household Dynamics and Media Information Impacts," *Journal of Agricultural and Resource Economics* 35, no. 1 (April 2010): 1-17.

in chicken market forecasts or because they were notable during the period: mad cow disease, the development of the chicken wing market, and demand from restaurants.

238. On December 23, 2003, a case of bovine spongiform encephalopathy (mad cow disease) was discovered in the US.[384] While this may have raised concerns about meat safety in general, some sources indicate that consumers may have shifted from beef to chicken.[385] To the extent that this substitution is not captured by my red meat index, I include a Google Trends index of searches for "mad cow" and another index of searches for "Atkins".

239. One notable change to the broiler market over the last few decades has been a growth in the value of chicken wings. Historically, chicken wings either remained with the whole chicken or were sold for use in soups or other residual recovery channels. The buffalo wing phenomenon has gradually increased their value.[386] Much like the export market increased the value of dark meat, allowing for higher product profitability, the wing market has helped to increase the overall profitability of the bird. To capture this potential second-order effect I consider a Google Trends index for searches of "chicken wings" as a measure of interest in this product.

240. Finally, I consider restaurant spending. Shocks to restaurant spending will largely be captured by income measures such as GDP. To ensure that these effects are adequately captured I also examine food services and drinking establishment spending per capita from the Federal Reserve.

5. Georgia Dock Manipulation

241. The record indicates that the second wave of supply cuts was implemented before the manipulation of the Georgia Dock. To examine the sensitivity of the estimated overcharge resulting from the supply restrictions to the effect of potential Georgia Dock manipulation on prices, I can include a Georgia Dock indicator variable from August 2012 until November 2016. After an [redacted]

[384] https://www.cdc.gov/prions/bse/case-us.html accessed March 13, 2020.

[385] AGSTAT-14683391-417 at 413.

[386] AGSTAT-14624295-341 at 329.

[redacted][387] Georgia Dock ceased publication after November 2016.

E. Overcharge Regression Results

242. The following tables shows the results from my primary regression specification, as well as a number of the robustness checks which modify certain parameters of the regression to test whether those choices materially change the result. In all specifications, both the primary specification and robustness checks, I find a strong statistically significant overcharge on each cut of meat.

[387] Greg Pilewicz, the director of Poultry Market News died on June 16, 2012 [redacted] at 230.). On August 14, 201[redacted] (Ex. 1798)). [redacted] (Ex. 1796).) [redacted] (Ex. 2500)) Arty Schronce was appointed in October 2012. (Deposition of Arty Gordon Schronce, Employee Poultry Marketing News Georgia Department of Agriculture, December 13, 2018, pp. 37:20-25 and 38:1-4).

Table 3: Overcharge Model Results

	(1)
VARIABLES	Central Model
Breast Overcharge	0.157***
	(0.034)
Whole Bird Overcharge	0.126***
	(0.026)
Observations	2,774,849
R-squared	0.947
Monthly Effects	YES
Processor-Product-Customer F.E.	YES
Cost	A.S. Var. Cost
Alt. Protein	Red Meat Index
Income Measure	GDP
Breast Yield	A.S. BS Breast Yield
Atkins	YES
FSIS Recalls	YES
Weighted Overcharge as Percent	16.2%

Standard errors, clustered by year-month and EMPTCODE, in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Source: see OC_regression_defendant_main.do.

243. **Table 3**, above, summarizes the results from my primary specification. The numbers at the top of the table reflect the coefficients on the conspiracy dummy variables, θ_{cp}, which represents the overcharge estimated by the model. The asterisks next to the number reflect the statistical significance of those estimates which is a measure of my confidence that the true value of the overcharge is greater than zero. Three asterisks mean that I am more than 99% confident, one asterisk means I am 90% confident.

244. My model calculates separate overcharges for breast meat and whole bird. I disaggregate to this level because it is common practice for industry analysts to discuss the chicken market at this level using a representative breast or whole bird price series.[388] This disaggregation confirms, as expected by the economic theory discussed above, that the challenged conduct has a statistically significant effect on each major cut of chicken in the class.

[388] See for example BB&T's pricing analysis (BBT-000048-070 at 053 and 054).

Because the regression uses the log of price, the coefficient is in log-points which will be slightly smaller than the overcharge expressed as a percentage.[389] The estimated breast meat coefficient of 0.157 indicates breast meat was 17.0% overcharged, while the whole bird estimated overcharge of 0.126 indicates whole birds were overcharged 13.5%.[390] The last row of the table averages these estimates using the observed dollar volumes in the data as weights. This indicates the average class product was 16.2% overcharged.

245. R-squared is a measure of how well the actual variation of prices in the data is predicted by the parameters in the model. Here, my primary model specification is able to explain 94.7% of the variation in prices based on variation in the control variables in the model.

246. I discussed above a number of controls I consider in robustness checks that I present in **Table 4** below. Each specification represents a change to the primary model. In column 1 I include and examine a fuller set of demand controls including wing and 'mad cow' search indexes and restaurant spending per capita. Column 2 includes controls to capture the export market including frozen export leg prices, the Brazilian exchange rate, and a weighted basket of export market currencies. Column 3 explores the sensitivity of the result to competitor proteins by separating the red meat index into separate beef and pork price indexes and adding turkey and egg price indexes. Column 4 examines the robustness of our cost measure, the variable cost components of Agri Stats' dressed meat cost, replacing it with a BLS chicken feed index and oil prices. Finally, column 5 adds an indicator for the time period where Georgia Dock was manipulated to our base specification. This provides separate estimates for the impact of the Georgia Dock manipulation as compared to the rest of the challenged conduct. None of these sensitivity checks materially change the results, which provides strong evidence that the decisions regarding my primary specification are sound because the results are not sensitive to changes in those decisions.

[389] The formula to convert the coefficient to a percentage is (exp(coefficient in log points)-1)*100.

[390] In Section VI.B.4.c, I also consider an annual model which presents overcharges for each cut for each year.

Table 4: Overcharge Model Sensitivity Analyses

VARIABLES	(1) Demand Factors	(2) Exports	(3) Alternative Protein	(4) Disag. Cost	(5) Georgia Dock
Breast Overcharge	0.173***	0.154***	0.240***	0.159***	0.153***
	(0.032)	(0.030)	(0.035)	(0.033)	(0.036)
Whole Bird Overcharge	0.119***	0.101***	0.108***	0.110***	0.112***
	(0.028)	(0.029)	(0.034)	(0.027)	(0.029)
Breast Georgia Dock					0.005
					(0.013)
Whole Bird Georgia Dock					0.016
					(0.013)
Observations	2,774,849	2,774,849	2,774,849	2,774,849	2,774,849
R-squared	0.947	0.948	0.947	0.947	0.947
Monthly Effects	YES	YES	YES	YES	YES
Processor-Product-Customer F.E.	YES	YES	YES	YES	YES
Cost	A.S. Var. Cost	A.S. Var. Cost	A.S. Var. Cost	BLS Feed, WTI Oil	A.S. Var. Cost
Alternative Protein	Red Meat Index	Red Meat Index	Beef, Pork, Turkey, Eggs	Red Meat Index	Red Meat Index
Income Measure	GDP	GDP	GDP	GDP	GDP
Breast Yield	A.S. BS Breast Yield	A.S. BS Breast Yield	A.S. BS Breast Yield	A.S. BS Breast Yield	A.S. BS Breast Yield
Atkins	YES	YES	YES	YES	YES
FSIS Recalls	YES	YES	YES	YES	YES
Wings and Mad Cow	YES	NO	NO	NO	NO
Restaurant Spending	YES	NO	NO	NO	NO
Export Controls	NO	YES	NO	NO	NO
Weighted Overcharge as Percent	17.4%	15.2%	23.3%	15.9%	15.4%

Standard errors, clustered by year-month and EMPTCODE, in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Source: see OC_regression_defendant_main.do.

247. To examine the sensitivity of the regression to the amount of competitive benchmark data, I must rely on USDA price data that provide prices for whole bird and breast meat back to 1989. This provides 20 years of pre-period data.[391] The results of this estimation, presented in **Table 5**, indicate that additional years of benchmark data do not reduce the magnitude of the overcharge.

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[391] This regression substitutes a trend for yield because yield data is only available starting in 2004, and as discussed above, omits the Atkins index and FSIS recalls because they also do not start in 1989.

Table 5: Sensitivity Analysis Using USDA Price Data

	(1)
VARIABLES	USDA
Breast Overcharge	0.276***
	(0.044)
Whole Bird Overcharge	0.163***
	(0.036)
Observations	1,488
R-squared	0.866
Monthly Effects	YES
Product F.E.	YES
Cost	Fitted A.S. Var. Cost
Alt. Protein	Red Meat Index
Income Measure	GDP
Breast Yield	Trend

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: see OC_regression_USDA.do.

VI. MY ANALYSIS SHOWS COMMON IMPACT OF ELEVATED PRICES

248. My opinion that common evidence can demonstrate that all or nearly all class members were impacted by the alleged antitrust violations is based on the following three major logical steps: (1) aggregate effect; (2) widespread impact; and (3) pass-through. First, I analyze the common evidence, including economic theory and empirical analysis on the aggregate price effect of the challenged conduct. I explain why the structure of the chicken market makes it likely that anticompetitive conduct would have widespread price effects across all products purchased by class members. I explain why defendants' agreement to exchange information via Agri Stats led to higher aggregate prices. I then explain how defendants conduct led to reduced supply in the market, and why that reduced supply led to higher prices charged by the defendants. Finally, my overcharge regression directly quantifies the aggregate effect of the challenged conduct on the prices of two different categories of chicken products in the class: whole chickens and chicken breasts.

249. Second, I analyze whether the aggregate price increases caused by the challenged conduct would have widespread affects across the different types of products purchased by class members rather than isolated to certain subsets. I explain that economic theory predicts that

reductions in the supply of chicken will lead to price increases on *all* products that are produced from chicken. I also review defendants' own analysis which confirms the applicability of this economic theory in this market. I then perform a series of empirical analyses which independently demonstrate that the challenged conduct resulted in higher prices across all of the chicken products purchased by class members.

250. Third, I analyze whether the price increases caused by the challenged conduct would have been passed through to class members. I evaluate the theoretical literature and empirical research documenting pass-through in a variety of industries, as well as the documentary evidence of pass-through that has been developed through the extensive record in this case. Then I present a number of statistical analyses measuring pass-through individually at a selection of companies operating at each stage in the chicken supply chain, representing 54.1% of grocery stores sales and 88.7% of club store sales in class states. Consistent with the economic theory and record evidence, I calculate a positive and statistically significant pass-through rate for each company for which I have sufficient cost and price data. Each of these sources support my conclusion that at least *some amount* of the overcharge would be passed through to all or nearly all class members.[392]

A. The Challenged Conduct Led to Higher Aggregate Prices

1. Market Structure Makes Anticompetitive Conduct Likely to Produce Class-Wide Injury

a. Market Power and Barriers to Entry

251. As described above, the defendants collectively had market power in the relevant antitrust market—the market for chicken in the US.[393] This means that defendants had the *ability* to cause higher prices due to the challenged conduct. Because there are substantial barriers to entry in this market, defendants could maintain supracompetitive prices without having those prices attract new entrants.[394] Similarly, because there is limited competition from foreign

[392] The precise pass-through rate is only relevant for my proposed method to calculate class-wide damages.

[393] See Section IV.B. on market definition.

[394] See Section IV.C.2 on barriers to entry.

chicken imports in the United States, a supracompetitive price increase could not be defeated by increased output from foreign non-conspirator producers.[395]

b. Chicken is Homogenous Commodity Product

252. A commodity is a good that is undifferentiable and interchangeable with any other good of the same type.[396] Much like oil is the commodity that underlies various final goods, chicken is a commodity that underlies a variety of final goods. Chicken from one processor is usually a nearly perfect substitute for those produced by other chicken processors. A breast from one processor's tray pack of boneless skinless breasts would be indistinguishable from such a breast from another processor. Thus, retailers can substitute between class products from different broiler processors. Because chicken is a commodity product, economic theory predicts that conduct that would increase the price of the chicken products by certain producers would have similar effects across all producers.[397] The lack of strong brand preference means that substitution between different processors will lead to all chicken prices being interconnected. As stated by [redacted][398]

253. The chicken grown in the United States almost perfectly fits the description of a commodity product. Modern broilers grown by the major processors are all Cornish and White Rock cross breeds.[399] They are, moreover, dominated by just two lines of birds: the Cobb 500

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[395] See section IV.B.2.b. Lack of Competition from Foreign Imports.

[396] Robert S. Pindyck, "The Dynamics of Commodity Spot and Futures Markets: A Primer," *The Energy Journal* 22, no. 3 (2001) p. 27.

[397] The decision in Kleen Products (*Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)) determines that a standardized, homogeneous product is an important determinant of cartel success. This is supported in the economic research by Smyth, who finds that low product innovation can be related to higher average prices. See, Andrew Smyth, "An Experiment on Innovation and Collusion," *Economic Inquiry* 57, no. 3 (2019): 1526-1546.

[398] Deposition of [redacted] December 11, 2018, p. 447:4-1 [redacted] Deposition of Robert Costner, April 4, 2019, p. 102:25-103:6; Deposition of John LaCour, May 15, 2019, p. 74:21-75:10; Deposition of Tim Price, December 4, 2018, p. 149:13-19. [redacted]

[399] DPP0000000052-63 at 52.

and the Ross 708.[400] This level of uniformity is prized because specialized machines process up to 120 birds a minute and to process at this speed it is crucial that there be as little variation in the birds as possible.[401]

254. There is substantial evidence in the record that industry participants viewed chicken as a commodity product. For example, industry reports refer to chicken as a commodity product.[402] A February 18, 200 [redacted] presentation notes that [redacted] [403] Another [redacted].”[404] Furthermore, [redacted]”[405]

255. [redacted]

[400] William A. Dozier and Curran K. Gehring, "Growth Performance of Hubbard × Cobb 500 and Ross × Ross 708 Male Broilers Fed Diets Varying in Apparent Metabolizable Energy from 14 to 28 Days of Age," *Journal of Applied Poultry Research* 23, no. 3 (2014): 494-500. [redacted] (TF-0007626008-180 at 039) [redacted]

[redacted] *Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014, at 11.

[402] AGSTAT-14571418-441 at 420; GEO_0000381956-965 at 956; BMO_00022113-226 at 119.

[403] [redacted]

[404] [redacted] 709, 711.

[405] Deposition of [redacted] une 19, 2019, p. 265:19-20.

[redacted]

256. In addition, the widespread use of the Georgia Dock, which (until it was discontinued as a result of alleged manipulation by the defendants) published a single whole-bird price for commodity chicken, is evidence that processors and retailers both view chicken as a commodity product. If the price movements of whole birds sold in Georgia were not linked to other companies and regions via a commodity market, Georgia Dock would not have been used. Instead, for example, the Georgia Dock index is referenced in contracts for retailers [redacted] While the price levels might vary by part and region,[410] the use of a single price series to index these sales suggests that industry participants view the market as nationwide and subject to common market fundamentals.

257. In recent years, processors have attempted to increase their production of further-processed products because additional processing reduces the price sensitivity of the final good to the price fluctuations of the commodity that underlies it. As the product requires more capital and labor input, the product will still fluctuate with the commodity input but to a lesser degree.

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[406] Deposition of [redacted] eptember 10, 2020, p. 23:15-24:5.

[407] [redacted]

[408] [redacted]

[409] [redacted]

[410] Many sources including the USDA and Urner Barry have part and region-specific prices but Georgia Dock was widely perceived to be the industry standard for retail contracts (JPMS-00003466-647 at 496). Sanderson's CFO stated in an email to an investor: [redacted] at 75.

Raw chicken profit margins have historically been sensitive to input costs, specifically grain prices, but the more this raw product is processed the more differentiated it becomes, allowing for increased market power and higher margins. Much like other commodities,[411] the processed-product market can be fragmented through product differentiation, allowing integrators to command higher margins on a processed product.[412] Processors' attempt to move away from selling fresh chicken products to further processed products indicates the commodity nature of the fundamental input: raw chicken.[413] The class excludes highly processed products that are differentiated sufficiently such that they no longer behave like a commodity.

c. Chicken has Low Demand Elasticity

258. As described above in Section IV.B.3, chicken has a low own-price elasticity. This is a measure of how sensitive customer demand is to price increases or decreases. My finding of low demand elasticity for chicken provides direct empirical evidence that collusion among the defendants could successfully raise the price of chicken for a significant period of time to supracompetitive levels because customers would engage in limited substitution to other products in response to such price increases.

2. Supply Reductions Lead to Higher Aggregate Prices

259. As discussed above (Section III.B.), there is substantial support for the hypothesis that the challenged conduct led to a reduction in the supply of chicken.[414] Basic economic theory says that a decrease in the market-wide quantity of a product supplied leads to an increase in the

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[411] For example, profit margins for gasoline over the oil commodity input are higher when the product is refined to be tailored to a specific market. Jennifer Brown, Justine Hastings, Erin T. Mansur, and Sofia B. Villas-Boas, "Reformulating Competition? Gasoline Content Regulation and Wholesale Gasoline Prices," *Journal of Environmental Economics and Management* 55, no. 1 (2008): 1-19.

[412] [redacted] 155 ("[redacted]

[413] [redacted] 236 (Deposition of [redacted] October 2, 2018, Exhibit 23) [redacted]

[414] My analysis in Section V.E above demonstrates that defendants' price-cost margins during the class period cannot be explained by supply and demand factors such as chicken feed costs alone, providing further evidence that the challenged conduct decreased the supply of chicken.

market-clearing price.[415] Because the defendants collectively had market power (because they controlled the vast majority of the market), a coordinated reduction in supply by the defendants would be expected to lead to higher market-clearing prices.

260. This basic economic theory is accepted as a truism by defendants and other market participants, [redacted]

[415] The exceptions to this rule, such as perfectly elastic demand, clearly do not apply here.

[416] Deposition of [redacted] May 30, 2019, p. 68:21-69:2.

[417] Deposition of [redacted] February 28, 2019, p. 65:12-19.

[418] Deposition of [redacted] une 19, 2019, p. 209:22-210:1.

[419] Rule 30(b)(6) Deposition [redacted] ebruary 6, 2019, p. 210:17-18.

[420] Deposition of [redacted] May 3, 2019, p. 146:2-14.

[421] Deposition of [redacted] eptember 10, 2020, p. 19:18-20:1.

261. Defendants' own empirical analyses indicate that this basic economic theory is true in this market. [redacted] See **Figure 26** below.

[redacted]

422 [redacted] 3004.

263. The same presentation also studies the effects of output reductions in other industries, including the containerboard and aluminum industry. [redacted][423] See **Figure 27** below.

[redacted]

[423] [redacted] at 3006.

[424] [redacted] ep. Ex. 1152 [redacted]

[redacted][25] An example of this analysis [redacted] reproduced in **Figure 28** below.

[redacted]

265. Commenting on this relationship during Sanderson's 2009 earnings call, [redacted][26]

266. Third-party industry observers also recognize these basic economic dynamics apply in the chicken market. For example, a Credit Suisse Equity Research report notes that

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425 [redacted] Dep. Ex. 1152 [redacted] 653).

426 T[redacted] at 911.

[redacted].”[428]

267. The way this economic theory is reflected on the ground is via sales staff at defendants justifying price increases with customers on the basis of limited supply. For example, [redacted][429] Based on that insight, he [redacted] 30

268. Industry observers also noted that actions the defendants took to reduce supply would lead to higher prices [redacted]

3. The Overcharge Regression Confirms that Defendants' Collusion Enabled Price Increases that *Cannot be Explained by Natural Supply and Demand Factors*

269. The empirical analysis in the form of my Overcharge Regression confirms that defendants' collusion enabled price increases that cannot be explained by natural supply and demand factors, such as feed costs and consumer demand for chicken. I performed a regression analysis that can quantify the amount of aggregate class-wide overcharge that is attributable to the challenged conduct in this case. The overcharge regression studies the relationship between price (the dependent variable), and a variety of explanatory variables that can explain the price of chicken. The model quantifies the relationship between feed cost, for example, and the price of chicken by looking at a benchmark period before the alleged collusion began. The model then

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427 [redacted] 239.

428 [redacted] at 711.

42 [redacted]

[redacted] [redacted] eposition of [redacted] ecember 4, 2019, p. 98:21-23.

431 [redacted] t 9069.

examines how prices deviate from those predicted by the variables used to explain prices under competitive conditions. The extent to which prices cannot be explained by the variables that would be expected to determine price under competitive conditions can be attributed to the alleged conspiracy. The overcharge regression is described in more technical detail in Section V, above.

270. According to the overcharge regression, the challenged conduct caused aggregate prices to be inflated 16.2% above competitive levels. This provides direct empirical evidence that the challenged conduct had the effect of raising aggregate chicken prices, just as the theory discussed above predicts.

B. Higher Prices Would Have Widespread Impact Across the Chicken Products Purchased by the Class

271. The prior section demonstrates that common evidence can show that the challenged conduct led to inflated aggregate prices for chicken produced by the processor defendants. In particular, the class-wide overcharge regression presented in Section V, above, demonstrates that the challenged conduct inflated prices across two separate categories of chicken products contained in the class and throughout the class period and quantifies the amount of this inflation by product type. The second part of my proof of common impact is to show that this aggregate price inflation would have had widespread impact across all of the Direct Purchasers who purchased products included in the class definition.

1. Economic Theory Predicts that Reductions in the Supply of Chicken Will Lead to Class-Wide Price Increases

272. Each of the products contained in the class is derived directly from chicken. In other words, because the class excludes highly processed products, each of the products in the class contains only a single material input: chicken produced by the defendants. And, other than the gradual trend towards breeding chickens that produce a higher ratio of breast meat to other

meat, at any given point in time, each chicken produced by the defendants creates a fixed ratio of derivative products: breasts, legs, wings, etc.[432]

273. Given this fixed relationship between the supply of chickens and the supply of constituent chicken parts, a reduction in the number of chickens produced will reduce the production of all of the derivative products that are included in the class. This reduction in supply will translate into higher prices for the products derived from them. This is analogous to how a reduction in oil production by OPEC would be expected to lead to higher prices across all of the differentiated products that are derived from oil, including refined gasoline and other petroleum products, despite the fact that demand for those differentiated products may vary.

274. There is no reason to believe, as a matter of economic theory, that the price of any product directly derived from chickens and produced by the defendants would not be impacted by a reduction in supply of the only material input, chicken. A [redacted] Or, to elaborate: [redacted][434] [435]

2. Defendants' Own Analysis Confirms that a Reduction in the Quantity of Chicken Produced Will Lead to Higher Prices for Chicken Products [redacted]

275. This fundamental economic intuition that reductions in commodity chicken supply will impact the price of all chicken products in the class is confirmed by defendants' own

[redacted]

internal statements and analyses [redacted]

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[436] [redacted] mphasis added].

[437] [redacted] t 652 [emphasis added]; MTA-PL0001253654.

[43 [redacted] at 654, 58-59.

[439] [redacted] t 379 [emphasis added].

[440] [redacted] t 188 (Ex. 1410) [emphasis added].

[redacted]

3. Widespread Use of Pricing Benchmarks Leads to Market-Wide Price Effects

277. Price increases were also spread across the entire market via pricing determined by formulas based on benchmarks such as Agri Stats, Urner Barry, EMI, and the Georgia Dock, which are used as the "spot" market price. Defendants' contracts with retailers, such as grocery stores, often used these benchmarks to set the price for chicken products. For example [redacted][444]

[441] [redacted] at 29999 [emphasis added]

[442] [redacted] t 457 [emphasis added].

[443] Deposition of [redacted] eptember 10, 2020, p. 38:22-39:11 [emphasis added].

[444] Pl [redacted] 5 at 990-991.

278. A significant majority of products contained in the class sold to the retail channel were sold under contracts that linked prices to one or more of these benchmarks. For example, in 2008, BB&T reported that "[f]resh retail pricing is typically contract for volume, but pricing is market based, typically based on the Georgia Dock price."[445] Similarly, [redacted][449] And more generally, the defendants benchmarked their prices [redacted][450]

279. Because the benchmarks tend to move up and down together as market pricing changed, contracts would usually link to a particular benchmark price with a fixed dollar amount added or subtracted based on the benchmark used and particular chicken product being

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[445] PILGRIMS-0009996230-279 at 238.

[446] Deposition of [redacted] February 7, 2019, p. 185:4-185:11; Exhibit 1137 (Sanderson-0003363863-64 at 63).

[447] [redacted] 075 (Exhibit 1139).

[448] [redacted] t 974.

[449] [redacted] t 415; [redacted] (Exhibit PLF3238A); [redacted] 606.

[450] [redacted] at 915.

contracted for.[451] The widespread use of benchmarks as a tool to set chicken prices among the defendants meant that as the challenged conduct increased average prices, those increases were incorporated into market-based benchmarks which then ensured that price inflation was spread widely across the class.

280. [redacted] [2] [redacted].[453] In fact [redacted]

[45] [redacted] November 1, 2018, p. 34:13-18; *see* also Deposition of [redacted]" Deposition of [redacted] September 10, 2020, p. 34:18-22. Indeed, to the extent that the benchmarks diverged from each other, that was at least in part due to the defendants' own manipulation of the Georgia Dock.

[452] Deposition of [redacted] May 3, 2019, pp. 34:8-35:13, 37:22-38:25. See also [redacted] at 288-294.

[453] Deposition of [redacted] August 11, 2020, p. 59:24-60:1 [redacted], Tyson, May 16, 2019, p. 34:9-14 [redacted] June 13, 2019, p. 74:1-6 [redacted] Deposition of [redacted], December 6, 2018, p. 112:2-7 [redacted] Deposition of [redacted], November 7, 2018, p. 407:17-18 [redacted] Deposition of [redacted] 30(b)(6), Feb. 6, 2019, p. 121:12-1 [redacted] Deposition [redacted], June 20, 2019, p. 166:14-16 ("[Agri Stats] was used as a benchmark."); Deposition [redacted] Foods, April 2, 2019, p. 39:25-40:5 (Agri Stats [redacted] 279:8-24 [redacted] including Agri Stats and EMI); Deposition of [redacted], April 4, 2019, p. 128:14-16 [redacted]."); Deposition of [redacted], September 29, 2020, p. 38:6-25 [redacted]; Deposition o [redacted], November 20, 2018, p. 104:7-1 [redacted]

[redacted].”[457] If a particular defendant was [redacted].[458] This regular and consistent benchmarkin [redacted] provides an additional mechanism for price increases resulting from the challenged conduct to have widespread impact throughout the marketplace.

45 [redacted] at 632 (Agri Stats [redacted].”); (Deposition of Michael Donohue, Agri Stats, May 3, 2019, pp. 42:7-44:3 [redacted] Deposition of [redacted] tember 4, 2020, p. 78:6-17 [redacted] at 879 (In Agri Stats Express Sales Analysis, [redacted]”).

455 [redacted] 515.

456 [redacted] at 517-519.

457 [redacted] at 878; see also Deposition of [redacted] September 29, 2020, p. 38:6-25 [redacted]

458 Deposition [redacted] May 16, 2019, pp. 111:3-4 (explaining that Tyson used Agri Stats reports to identify [redacted] (describing Sanderson’s [redacted] Deposition of [redacted] September 29, 2020, pp. 102:7-119:23 [redacted] Exhibit 3473 ([redacted] Exhibit 3182 [redacted]

4. Empirical Analysis Confirms Economic Theory that a Supply Restriction Conspiracy Would Result in Higher Prices Across *All* Class Products

281. As the sections above explain, based on economic theory one would expect that the challenged conduct would have had widespread impact across the entire chicken market. I also ran a series of empirical tests to confirm these expectations.

a. Overcharge Regression Itself Indicates Widespread Impact

282. My opinion of common impact is informed by my overcharge regression itself. The absolute size of the overcharges measured by my overcharge regression, 17% for breasts and 13% for whole chickens makes it implausible that any class members could have avoided impact.[459] My overcharge regression uses "fixed effects" to control for differences between individual products and customers that do not change over time and still finds a strong impact after controlling for these differences. The overcharge regression finds positive and statistically significant effects from the challenged conduct on each separate category of chicken cuts. While the overcharge regression measures a separate aggregate effect on these groups, the large magnitude of the effect makes it unlikely that any fraction of these groups would not experience at least some of this effect. In the next section I provide additional support for this belief by examining how often average price changes of the magnitude estimated here translate to movements in the same direction for individual prices.

b. Direct Comparison of Transaction Prices Before and After a Price Shock

283. To support the idea that movements in aggregate price will be broadly shared by all products, I performed a price movement analysis examining specific episodes in which there is a change in the average price of breasts or whole chickens of the same magnitude as the overcharge measured by my Overcharge Regression. If a change in average chicken prices of the same magnitude as the overcharge percentage is shared across the majority of class products, that provides further evidence that the class products would all be impacted by the price shock caused by the defendants' collusive supply restriction, just as economic theory predicts.

[459] The coefficients from the regression, 0.157 and 0.126, estimated in log-points, here are converted to percentages.

284. In order to perform this analysis, I compare the prices of the exact same products, sold before and after a price shock. I selected the price shocks by, first, filtering for changes in average prices that occurred between the same month of two consecutive years, and which involved a price change that is as close as possible to the overcharge estimate (0.126 for whole birds, 0.157 for breasts). Specifically, I included price changes within 10% of the overcharge magnitude itself. I examined the same months in consecutive years to avoid selecting price shocks that were due solely to predictable seasonal shifts in the demand for chicken. Secondly, I require that the month prior to the start month also differs from the end month by at least the overcharge estimate minus 10%, and that the month prior to the end month likewise differs sufficiently from the start month. This second filter ensures that the price shocks I study are not merely transient but are at least somewhat durable, as the overcharge from the challenged conduct is.

285. These filters identify three different price shocks for whole birds: a price drop between May 2005 and May 2006 and the price increases from June 2006 to June 2007 and from July 2006 to July 2007. The same filters identify just two price shocks for chicken breasts: the price drop between May 2005 and May 2006 and the price increase from June 2006 to June 2007.

286. For each of these price shocks, I matched all of the transactions for the same product purchased by the same direct purchaser in the same month of the year before and after the shock. For those product-customer pairs that had transactions both before and after any of these price shocks, I find that products representing 92% of volume of chicken sold moved in the same direction as the price shock.[460]

287. This analysis indicates that, just as expected by basic economic theory and intuition, when there is a significant average price shock, there are corresponding widespread changes in price across all of the products derived from chicken that are included in the class. The same effect would apply to a restriction in supply caused by defendants' collusion. Thus,

[460] It would be incorrect to infer from this analysis that 8% of sales volume would be unimpacted by the challenged conduct. This is because I am using price changes *over time* as an analogy for the price impact of the alleged conspiracy. I have filtered for price shocks that are as closely analogous as possible to the type of shock that was caused by the defendants' conspiracy, but nevertheless other factors such as promotions or demand for specific types of chicken products can change over time, whereas only the challenged conduct differs between the but-for and actual worlds. In other words, changes in price over time, particularly without controlling for other variables, are only an imperfect analogy to the differences between the actual and but-for worlds.

this analysis further supports my opinion that a significant restriction in the production levels of chicken by the defendants, such as one caused by the challenged conduct, would be expected to result in widespread price increases across the products purchased by the class.[461]

c. Annual Overcharges

288. Finally, I also perform another empirical test to determine whether the effect of the challenged conduct varied over the class period. To do so I interact the year with the overcharge dummy variables, which can be used to estimate the overcharge effect separately by year. **Table 6** below presents these annual overcharge estimates.

[461] An analogous analysis was found to support common impact in *Kleen Products LLC v. International Paper Company*, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016) ("On the subject of damages, Purchasers' expert Dwyer examined price movements. For example, he compared the actual prices paid by a sample of class members before and after the defendants' price increases and found that in 92% of cases those prices increased.").

Table 6: Annual Overcharges

	Central Model: Annual Overcharges	
VARIABLES	Breast Overcharge	Whole Bird Overcharge
2012	0.133**	0.026
	(0.062)	(0.028)
2013	0.224***	0.120***
	(0.070)	(0.036)
2014	0.190**	0.120***
	(0.076)	(0.039)
2015	0.112	0.133***
	(0.085)	(0.035)
2016	0.183*	0.169***
	(0.092)	(0.040)
2017	0.268**	0.235***
	(0.104)	(0.048)
2018	0.249**	0.264***
	(0.110)	(0.050)
1/2019 to 7/2019	0.281**	0.268***
	(0.117)	(0.051)
Observations	2,774,849	
R-squared	0.949	
Monthly Effects	YES	
Processor-Product-Customer F.E.	YES	
Cost	A.S. Var. Cost	
Alt. Protein	Red Meat Index	
Income Measure	GDP	
Breast Yield	A.S. BS Breast Yield	
Atkins	YES	
FSIS Recalls	YES	
Weighted Overcharge as Percent	21.3%	

Standard errors, clustered by year-month and EMPTCODE, in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Source: see OC_regression_defendant_annual.do.

289. All years show positive coefficients, indicating that the challenged conduct had widespread impact across the entire class period. While two years have coefficients which are not statistically significant at conventional levels (whole bird in 2012 and breast in 2015) that is because standard errors are large when disaggregating overcharges in this model to an annual

level. For this reason, lack of statistical significance at conventional levels is not a reasonable basis to conclude that the conspiracy had no impact on these parts in these years. On the contrary, the model estimates substantial overcharges in those years (albeit with larger error bars due to estimation uncertainty when disaggregating by year). However, even if one adopted that conclusion, it would be very unlikely that any class members would be able to avoid impact entirely [redacted] The perishable nature of chicken combined with a high prevalence of statistically significant effects when disaggregated on an annual basis suggests that only a negligible number of end consumers, if any, would have *only* purchased whole birds in 2012 or breasts in 2015 and no other chicken at any other period during the class period.

C. Those Higher Prices Would Have Been Passed Through to End-User Consumers

290. In addition to demonstrating an overcharge to the direct purchasers as a result of the challenged conduct, I calculate a "pass-through" rate of the overcharges from direct purchasers to indirect purchasers. The pass-through rate is the percentage of wholesale price changes that appear in the retail price.[463] Depending on the product and market, the product may pass through several hands before finally arriving to the end-user, indirect purchasers. Hence, a pass-through analysis necessitates examination of the institutional details of the supply chain and the market structure of each of its levels.

291. I present a variety of empirical analyses quantifying how changes in prices charged by chicken processors make their way through the supply chain to impact retail prices. My empirical examination of pass-through is based on a large volume of commerce for chickens. These analyses strongly support the conclusion that elevation in chicken prices led to a market-wide increase in the price of chicken products sold to consumers and support common, class-wide impact. They also allow me to quantify the rate of pass-through, which can be used to calculate class-wide damages.

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462 [redacted].

463 Armando Levy and David Sunding, "An Economic Treatment of Pass Through in Indirect Antitrust Litigation," *Competition* 30, no. 1 (Spring 2020).

1. Economic Theory Supports a Conclusion of Positive Pass-Through to Retail Prices

292. As a matter of economic principle, retailers must recover their short-run variable costs when they price their products for the market. Hence, in deciding the retail price, a retailer must cover the wholesale cost of the goods from their supplier and the costs of stocking and tracking the inventory before it is sold to customers. On top of the short-run variable costs of the good in question, the retailer must also cover a portion of their fixed costs (such as rent) and allow for (accounting) profit. The pass-through rate can be related to the markups that retailers use. The ratio of retail price to the retailer's variable cost is the markup ratio.[464] The markup ratio minus one gives the proportion by which the retail price exceeds variable cost. For example, if a retailer pays $1 for a product wholesale and then sells it for $1.50, the markup ratio is 150% and the markup is 50%. The pass-through rate is the proportion of a wholesale cost increase that the retailer passes on to its customers. Because a retailer knows what the wholesale price of the good is and has a less precise sense of the per-unit stocking and inventory costs, retailers may adopt a simple constant markup over wholesale cost as a pricing rule.[465] With constant markup, the pass-through rate and the markup ratio coincide with each other.

293. In a perfectly competitive market, firms price at marginal cost and when marginal costs increase, the cost increases are passed through to the consumer 1:1 or at a 100% pass-through rate.[466] The grocery retail business is known to be highly competitive and to be characterized by thin profit margins.[467] Hence, from a purely theoretical perspective, a 100%

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[464] In practice, there are many markups that appear in GAAP financials, but I am defining the markup from an economist's perspective.

[465] "In the retail trades, a conventional pricing rule is to seek some standard percentage margin—for example 40%—of price less cost over price. Knowing the wholesale price W of an item, one finds the retail price by calculating W/(1-.4). The 40% margin must cover all selling and overhead expenses." Frederic M. Scherer and David R. Ross, *Industrial Market Structure and Economic Performance*, 3rd ed. (Houghton Mifflin, 1990), 262.

[466] Pierpaolo Benigno and Ester Faia, "Globalization, Pass-Through and Inflation Dynamic," (Mar. 2010), available at http://www.nber.org/papers/w15842 (last accessed Feb. 14, 2020); Frank Verboven and Theon van Dijk, "Cartel Damages Claims and the Passing-On Defense," *J. Indus. Econ.* 57, (Sept. 2009): 457; Gregory J. Werden, Luke M. Froeb, and Steven Tschantz, "The Effects of Merger Efficiencies on Consumers of Differentiated Products," *European Comp. J.* 1, (Oct. 2005): 245-264.

[467] *See* CNBC, *What's Behind the Rush into the Low-Margin Grocery Business* (June 6, 2013), *available at* https://www.cnbc.com/id/100794988; Porte Brown Grocery & Food Service Quarterly Industry Report (March 2018).

pass-through rate is a reasonable starting point for grocery retail. The general retail business is also known to be competitive.

294. When a market is characterized by imperfect competition where retailers have some market power and face downward sloping demand, the pass-through rate may be different from 100%. As a general matter, the pass-through rate will be determined by the relative elasticities of supply and demand for the firm.[468]

295. For purposes of establishing that a wholesale overcharge resulted in class-wide impact, it is necessary that the pass-through rate is greater than zero. If the rate is greater than zero, any overcharge in wholesale prices will impact indirect purchasers. This is the key hurdle for class certification. From the point of view of economic theory, although different market structures imply different rates of pass-through, a positive rate of pass-through is a general finding.

a. There Is Extensive Documentary Evidence of Pass-Through in the Chicken Supply Chain

296. There is extensive documentary evidence demonstrating that the theoretical economic prediction of pass-through holds true in the retail chicken supply chain. The two primary types of intermediaries in the chicken supply chain to the end consumers are distributors and the retailers themselves. Collectively, 95.5% of the total volume of class products sold by retail grocers passes directly from a chicken processor to the grocer or passes through a distributor on the way to that grocer. Similarly, 98.3% of total volume of class products sold by retail club stores passes directly from a chicken processor to the club store or passes through a distributor on the way to that club store. Therefore, my review of the documentary evidence is focused on retailers and distributors. The record demonstrates that both types of intermediaries in the distribution chain passed through chicken cost increases in the form of higher prices.

297. The basic business model of a distributor is that they purchase chicken from a producer and then resell it, usually to a retail outlet such as a supermarket. Distributors make their profit by adding a markup above their cost when they resell the product. Neal Yoder, an executive at Troyer, a distributor, explained this basic approach:

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[468] For example, in a simple symmetric Cournot environment with n firms. The pass-through rate would be n/(n+1) x 100%. *See* Jean Tirole, *The Theory of Industrial Organization*, (MIT Press 1988), Chapter 5.

[redacted]

300. [redacted]

> [redacted]

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[469] Deposition [redacted] August 22, 2019, p. 72:4-9.

[470] Deposition of [redacted] ugust 22, 2019, p. 85:14-17.

[471] Deposition [redacted] August 28, 2019, p. 122:7-17.

[redacted]

301. Consistent with the theoretical literature described above, the basic business model of distributors means that higher costs will generally be passed through at an overshifted rate, leading to pass-through rates above 100%. To take the example of [redacted]

302. Because a distributor's profitability depends on their ability to pass on changes in product costs, their business model necessarily focuses on passing through cost changes in the form of higher prices. Thus, distributors repeatedly confirmed at depositions that they passed through cost increases in the form of higher prices. For example [redacted]

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[472] Deposition of [redacted] December 4, 2019, pp. 37:12-38:10, 44:17-45:2.

[redacted]

303. Indeed, as can be expected based on their business model, distributors testified that they regularly revised their prices in response to cost changes, which ensures that changes in cost would be rapidly passed through in the form of higher prices. For example, [redacted]:

[redacted]

[473] Rule 30(b)(6) Deposition of [redacted] October 31, 2019, p. 65:8-24 [emphasis added].

[redacted]

304. Grocers also generally set prices for their products based off a margin markup approach by which they set the price as a specific percentage above the purchase cost. The percentage above cost is sometimes called the [redacted]

305. Supermarkets set target margins for their chicken products. For example, [redacted]

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[474] Deposition of [redacted] August 15, 2019, pp. 164:13-165:19 [emphasis added].

[475] Rule 30(b)(1) and Rule 30(b)(6) Deposition of [redacted] ctober 23, 2019, p. 55:2-12.

[redacted]

306. Just like distributors, in order to maintain their profit margins, supermarkets must pass on higher costs in the form of higher prices to their customers. For example, [redacted]

[redacted]

307. Similarly, [redacted]

[redacted]

[redacted]

[476] Rule 30(b)(6) Deposition of [redacted] eptember 17, 2019, pp. 21:13-22:4.

[477] Rule 30(b)(6) Deposition of [redacted] eptember 17, 2019, p. 37:5-13.

[redacted]

308. Therefore, supermarket retailers were rigorously focused on protecting their profit margins by ensuring that cost increases were passed through in the form of higher retail prices For example, in order to ensure it was maintaining its profit margins, [redacted] [479]

309. Retailers repeatedly discussed both their overall strategy of passing through cost increases in the form of higher prices and specific processes that they were undertaking to ensure that cost increases were passed through in the form of retail price inflation.

310. [redacted]

311. Retailers testified at deposition that they passed their costs onto consumers. For example [redacted]

[redacted]

[redacted]

[redacted]

[478] Deposition of [redacted] eptember 12, 2019, p. 174:3-16.

[479] Rule 30(b)(6) Deposition of [redacted] September 17, 2019, p. 28:19-25.

[480] [redacted] at 786.

A. Correct.[481]

312. Kroger, another significant supermarket chain, also regularly emphasized in its investment calls throughout the class period that its strategy was to pass through cost increases in the form of higher prices:

[redacted][482]

313. On December 2, 2010, David Dillon, CEO of Kroger, stated that "when it comes to grocery branded products, it is fairly clear what we are doing and how we are approaching this, is that *as we have cost increases to us, whether it is list cost or promotional -- reduction in promotional spending, we are passing that through to our customers, as the vendors give it to us* …. our view is that the decision of the retail price in that regard is up to them, up to the vendor. And we think we are going to be able to pass through those, and have so far shown the success in doing that."[483]

314. On December 1, 2011, Rodney McMullen of Kroger emphasized the importance of Kroger, and the retail market as a whole, passing through cost increases: "we certainly see the market being very rational out there. Now, tomorrow that could change, but so far what we're seeing is very rational. I wouldn't say it's so much of a Kroger change**,** *as it's the whole market needing to continue to make sure that the costs we get, we go ahead and pass those through.*"[484]

315. On March 7, 2012, Mike Schlotman, CFO of Kroger, stated that [redacted]

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[481] Deposition of [redacted] eptember 27, 2019, p. 185:21-25.

[482] [redacted]

[483] Kroger Co., Q3 2010 Earnings Conference Call (December 2, 2010) at 8 [emphasis added].

[484] Kroger Co., Q3 2011 Earnings Conference Call (December 1, 2011) at 13 [emphasis added].

[redacted]

316. Consistent with Kroger's publicly announced strategy, [redacted]. See **Figures 29-31** below.

[redacted]

[485] Bank of America Merrill Lynch, 2012 Consumer and Retail Conference - Comments by Mike Schlotman (March 7, 2012) at 5-6 [emphasis added].

[redacted]

317. Supervalu, a large supermarket chain, also stated on investor calls throughout the class period that it was passing through price increases to its consumer customers. On January 11, 2011, Craig Herkert, CEO of Supervalu, stated that "The price increases from our suppliers range from 3% to 4% in the low end and 14% in the high end and we are passing these along to our consumers."[486]

318. On a July 26, 2011 earnings call, Supervalu emphasized to its investors that it passed through price increases on meat products. Craig Herkert, Supervalu's CEO, stated that "In the fresh categories, we also passed through inflation, but we might have done so in particular need to make sure we're watching price points. *In no case did we not pass through inflation. I want to be very clear about that*." Herkert gave the following specific example: "We've seen huge increases in beef costs. To run rib eyes in one of our banners, last year we ran them at $3.98 a pound. This year, we passed through inflation, which meant they were going to be $5.98 a pound." Herkert emphasized again that "We are in fact passing inflation," explaining that Supervalu used a combination of the penny profit and margin markup approaches "maybe we would look at some penny pass through versus rate pass through, but we're managing it market by market and category or item by item."[487]

319. On an October 6, 2014 earnings call, Supervalu specifically reassured investors that it was able to pass through cost increases on its products. Bruce Besanko, Supervalu CFO,

[486] Supervalu Inc., Q3 2011 Earnings Conference Call (January 11, 2011) at 3.

[487] Supervalu Inc., Q1 2011 Earnings Conference Call (July 26, 2011) at 7 [emphasis added].

stated that "from our vantage point it looks like inflation was call it 2.5 points for the quarter. Certainly higher in the perishables and in particular in meat but from our vantage point from what we see, we don't see that the increase in inflation is impacting unfavorably our gross margins. *In fact the data that I've been shown suggests that the opposite that we're able to pass it through.*"[488]

320. On an April 28, 2015 earnings call, Sam Duncan, Supervalu CEO, specifically stated that "Not unlike Q3, we, again, experienced elevated levels of inflation in certain meat and produce categories but were able to pass through such cost changes." [489]

321. [redacted][90] See **Figure 32** below.

[488] Supervalu Inc., Q2 2014 Earnings Call (October 6, 2014) at 9 [emphasis added].

[489] Supervalu Inc., Q4 2015 Earnings Call (April 28, 2015) at 3.

[490] [redacted] at 157.

Figure 32: [redacted] Goal to Pass Through All Cost Increases

[redacted]

322. In an internal presentation, [redacted][491] See **Figure 33** below.

[491] [redacted] at 160.

Figure 33: [redacted] oal to Pass Through All Cost Increases

[redacted]

323. [redacted]

324. For example, this [redacted] See **Figure 34** below.

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492 [redacted]

[redacted]

493 [redacted] at 037.

[redacted]

327. Retailers made detailed, systematic efforts to quickly pass through even the most minimal price increases on poultry. For example, on June 3, 2011, [redacted]

[redacted]

[redacted]

328. Retailers also explained during negotiations with chicken processors that higher prices would be passed onto consumers. For [redacted] t deposition, [redacted]

[redacted]

329. During the class period, prices on chicken steadily increased, including a significant rise in 2012-2013, after the second round of coordinated supply cuts. I [redacted][498]

330. Documentary evidence indicates that defendants themselves understood that higher chicken costs for retailers would lead to higher retail prices for consumers. [redacted]

49 [redacted] 0 at 360.

496 [redacted] at 359.

497 Rule 30(b)(1) and 30(b)(6) Deposition of [redacted] October 23, 2019, pp. 131.25-132.8.

498 K [redacted].

[redacted]

[redacted]

[redacted] [redacted]

[redacted]

332. [redacted] executives also understood that rising chicken prices would be passed on to the consumer. For example [redacted]."[503]

333. Defendant executives themselves confirmed this documentary evidence through testimony at deposition that retailers passed on price increases. [redacted]

[redacted]

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[500] [redacted] 512 [emphasis added].

[501] [redacted] 513 [emphasis added].

[502] [redacted] 513 [emphasis added].

[503] [redacted]

[redacted].[506] See **Figure 37** below.

[504] Deposition of [redacted] eptember 10, 2020, p. 149.14-23.

[505] [redacted] 634.

[redacted] 136.

[redacted]

336. In a separate analysis, [redacted] a detailed analysis, [redacted]

337. Industry analysts that defendants relied upon also recognized the existence of a consistent retail strategy of passing along cost increases in the form of higher prices.[508] For example, [redacted] ublished reports on food inflation both before and during the class period that confirmed that retailers, as a matter of course, passed on cost increases.[509]

338. Cleveland Research produced a report on food inflation in 2007 in response to rising costs. The report did an extensive survey of retailers, including meetings with Kroger,

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[redacted] 1032.

[508] Mike Cockrell of Sanderson Farms stated in an email that Cleveland Research, an independent research firm, "[redacted] 256.

[509] [redacted]

Safeway, and Supervalu, and reported that [redacted][10]

339. Cleveland Research did a subsequent report on food inflation in 2011. The report stated that "[redacted] that "[redacted] and that Wal-Mart, the retailer most resistant to price increases, was [redacted][511]

340. In sum, there is extensive documentary evidence in the record from market participants that both distributors and retailers passed through cost increases in the form of increased prices. The wide-spread use of a margin markup approach also indicates, consistent with theoretical literature, that a pass-through rate higher than 100% may be expected to occur in response to cost increases.

2. Empirical Analysis of the Chicken Supply Chain Indicates Pass-Through in Every Distribution Channel

341. As described above, economic theory predicts that price increases in the retail food sector should be passed on to final consumers, and documentary evidence from this case demonstrates that theory applies to the chicken supply chain. I have also performed empirical analyses of multiple companies throughout the chicken distribution chain to quantify the pass-through of wholesale price changes.

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[510] [redacted] 920.

[511] [redacted] 51, 72.

a. **Overview of the Channels that Broilers Take to the Final Consumers Represented by the End-User Consumer Plaintiffs**

342. The National Chicken Council has conducted surveys of broiler processors, distributors, trader/brokers,[512] and further processors[513] [redacted] The result includes an estimate of the processed pounds of chicken that are sold by the broiler processors directly and via intermediaries (distributors, trader/brokers, and further processors) to retail grocers and club stores, which are the two channels through which chicken was purchased by the class.[515] **Figure 38** below provides [redacted] 16

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[512] "A [redacted] Deposition of [redacted] April 4, 2019, pp. 57:23-25, 235:16-18.

[513] A further processor is described [redacted] or the purposes of damages to the end user class plaintiffs, the further processors of interest are limited to parts processors.

[514] See for example, A[redacted] 772. Per its website, "The National Chicken Council is the trade association … for the companies that raise broiler chickens and make and market chicken products. Member companies of the NCC provide about 95 percent of the chicken products on America's table … NCC member companies include chicken producer/processors, poultry distributors, and allied industry firms." https://www.nationalchickencouncil.org/; https://www.nationalchickencouncil.org/about-ncc/overview/ [reviewed 10/1/2020].

[515] Described on the survey form as [redacted] respectively. See, for example, [redacted]. The NCC survey includes other market channels noted above that aren't relevant to the end-user consumer plaintiffs such as Fast Food restaurants, Other Food Service (restaurants other than fast food), Institutions (such as schools and hospitals), Government (such as USDA school lunch and military), Export, and Other Outlets. Other outlets are described on the survey form as "direct sales to consumers and similar (please specify)" and thus do not appear to reflect sales that would be included in the EUCP class although to the extent sales would be made by processors directly to consumers pass-through would not be an issue.

[516] [redacted] Final Book Copy.xls; Tab: Flow Chart). The figure has been modified to include only those channels through which the relevant chicken products reach the EUCP class. The figure retains only the NCC values indicated for the percent of the volume passing through the channel, not the data on total pounds or percent of total pounds.

[redacted]

Source: [redacted] Final Book Copy.xls; Tab: Flow Chart].
1. Further Processor has been changed to Parts Processor for this analysis. 2. Percentages displayed on figure do not sum to 100% due to rounding.

343. The path a broiler travels from the broiler processor to the final consumer is called a channel. I am calling each portion of the path a broiler passes through to a different company a stage. As shown by the detail of the National Chicken Council slide, chicken purchased by final consumers can (but need not) travel through the following five stages: retail stores (including both (1) retail grocers and (2) club stores), (3) distributors, (4) trader/brokers, or (5) parts processor stages. At each of these stages, there is the possibility that all or some portion of the overcharge may be passed on, ultimately to the end user.

344. As indicated in **Figure 38** above, only a very small amount of the chicken produced by defendants passes through the trader/broker and parts processor channel to retail grocers and club stores. An even smaller proportion of the *in-class* chicken products pass through these channels. Retail grocers and club stores purchase chicken products primarily from processor defendants and distributors, and to a much lesser extent traders/brokers, and parts

processors.[517] However, to account for all possible channels through which the class could have purchased chicken, I measure broiler pass-through at each of these stages. The pass-through estimates for each stage in a channel are then multiplied together to determine the total overcharge passed through that channel as a sale from the processor defendant makes its way to class members.

b. Industry-Wide Pass-Through for Fresh Chicken

345. In this section, I examine federal data on meat price spreads to examine the aggregate pass-through relationship for chicken. Utilizing a reduced form pass-through model similar to my reduced form model of overcharges, I find that wholesale and retail prices for chicken move together over time. This finding indicates that retailers respond to industry-wide shocks in the cost of chicken by altering their prices charged to consumers.

346. The USDA's Economic Research Service (USDA ERS) calculates monthly average price values at the wholesale and retail stages of production for broilers.[518] The wholesale price calculation is based upon USDA Agricultural Marketing Service (USDA AMS) data, while the retail price calculation is based upon the Bureau of Labor Statistics (BLS) retail data.[519] The composite prices are a weighted average of whole chicken prices and prices for parts with weights based on estimates of the percentage of chicken sold as parts versus whole (80% parts and 20% whole).[520] **Figure 39** below illustrates the nominal USDA ERS wholesale and retail broiler composite prices going back to 1990.

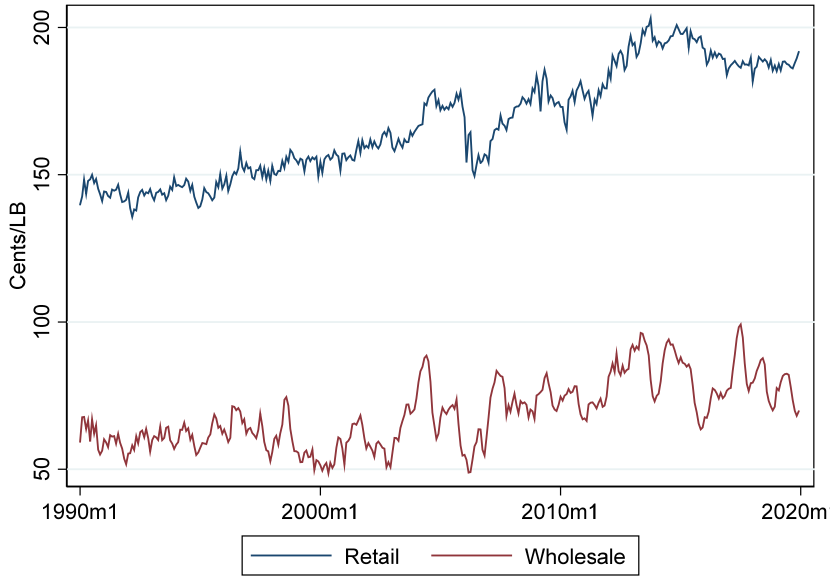
[517] Further processed chicken products, which are usually cooked or have ingredients other than chicken, water, and salt added, are excluded from the class, but to account for all possibilities, I have also evaluated pass-through in the parts processor stage to account for the possibility that a small number of in-class products, such as those which are not modified other than by specialized trimming or packaging, may have been processed by third-party parts processors.

[518] Economic Research Service, United States Department of Agriculture, Meat Price Spreads, https://www.ers.usda.gov/data-products/meat-price-spreads/.

[519] The wholesale price includes the USDA AMS series for WOG, whole birds, breast-line run, wings (whole), drumsticks, thighs, and backs & necks (stripped). The retail price includes the BLS series for whole, bone-in breast, and leg/drumstick. The bone-in breast is indexed off of the BLS chicken parts CPI for years when missing. All dark meat retail prices are indexed off of the BLS leg/drumstick.

[520] The wholesale price composite for parts is comprised of the following with weights in parentheses: breast-line run (37.1%), whole wings (12.7%), drumsticks (17.5%), thighs (29.5%), and stripped backs & necks (3.2%).

Figure 39: USDA ERS National Wholesale-Retail Price Spread



Source: Economic Research Service, United States Department of Agriculture, Meat Price Spreads. See USDA_pt_regression.do

347. I estimate the national wholesale to retail pass-through rate of broilers using the USDA ERS time series data of wholesale and retail composite price spreads. The following regression specification is used to capture the amount wholesale price changes are passed through to retail prices:

$$Ln(Retail\_Price_t) = \alpha + \beta Ln(Wholesale\_Price_t) + \gamma_t + \epsilon_t$$

where subscript *t* indicates the time period and γ_t indicates monthly fixed effects to control for seasonal variation.[521] In the log-log functional form, the coefficient β measures the pass-through elasticity of the wholesale price, $\left(\frac{\partial Retail\_Price}{\partial Wholesale\_Price}\right) \times \left(\frac{Wholesale\_Price}{Retail\_Price}\right)$.[522] Therefore, the pass-through rate is calculated by multiplying the pass-through elasticity estimate by the retail-wholesale price ratio.

[521] The time period includes 2000-2019.

[522] See, e.g., David Besanko, Jean-Pierre Dubé, and Sachin Gupta, "Own-Brand and Cross-Brand Retail Pass-Through," *Marketing Science* 24, no. 1 (February 2005): 123-137.

348. **Table 7**, below, provides a summary of regression results for estimating pass-through of chicken products at the national level, including coefficient estimates with standard errors in parentheses.[523] The pass-through elasticity is statistically significant and indicates that a one percent increase in the wholesale price results in 38.9% increase in the retail price. The pass-through elasticity combined with average retail/wholesale price ratio results in a pass-through of 96%.

Table 7: National Wholesale to Retail Pass-through

Variable	**Ln(Retail_Price)**
Ln(Wholesale_Price)	0.389***
	(0.022)
Constant	3.516***
	(0.095)
Observations	240
Avg Retail/Wholesale Price	2.47
Monthly FE	Yes
Pass-Through	**96%**

Newey-West HAC standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: USDA Pass-through Results.xlsx

349. These results demonstrate that wholesale price changes are passed through to retail prices for chicken products at a national level. In the next section, I take a disaggregated approach by evaluating the pass-through for a sample of companies within the retailer and distributor supply chain. I provide methodology and empirical evidence that support the results of pass-through at the national level.

c. Individual Company Pass-Through Regression Methodology

350. In this section, I examine company specific wholesale and retail price data to evaluate the pass-through at each stage of the chicken distribution chain. Similar to my econometric model of overcharges, I estimate a reduced form model of pass-through in the

[523] The Newey-West estimator is used with a one-period lag to product heteroskedasticity and autocorrelation consistent (HAC) standard errors in the presence of autocorrelation. *E.g.,* Whitney K. Newey and Kenneth D. West, "A Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix," *Econometrica* 55, no. 3 (May 1987): 703-708.

chicken industry. Firm-specific reduced form pass-through models have been widely applied in antitrust litigation, perhaps most prominently in the Federal Trade Commission's Stales litigation.[524] I have estimated similar reduced form models of pass-through in my testimony in the fluid milk and packaged seafood products price fixing cases.

351. I use a fixed effects model, including time and product fixed effects, to calculate the pass-through rate of individual firms operating at each stage. This specification controls for defendant and product level unobserved heterogeneity. The regression equation is given by

$$Ln(Retail\_Price_{it}) = \alpha + \beta Ln(Wholesale\_Price_{it}) + \delta_i + \gamma_t + \epsilon_{it}$$

where subscripts *i* and *t* represent the product and time period, respectively.[525] The parameter δ_i represents product fixed effects,[526] γ_t characterizes time fixed effects,[527] and ϵ_{it} captures the unexplained variance.[528] The coefficient of interest, β, in a double-log specification measures the percentage change in the retail sales price a company makes with respect to a one percent

[524] *FTC v. Staples, Inc.*, 970 F. Supp. 1066 (D.D.C. 1997); see also ABA Section of Antitrust Law, Econometrics (John Harkrider and Daniel Rubinfeld, eds., 2005); Ronald Cotterill, Leonard Egan, and William Buckhold, "Beyond Illinois Brick: The Law and Economics of Cost Pass-Through in the ADM Price Fixing Case," *Review of Industrial Organization* 18, no. 1 (February 2001): 45-52; Robert Taylor, "Indirect Damages from Price Fixing: The Alabama Lysine Case," *Review of Industrial Organization* 18, no. 1, 33-43 (2001).

[525] The period of time is either monthly or quarterly and depends on the granularity of the data provided by each company. Specifically, the product wholesale and retail prices are calculated as quantity weighted averages at the monthly level for companies that provided monthly data or at a more granular level than monthly (*e.g.*, weekly, daily, transactional), whereas quarterly averages are used for companies that provided less granular data than monthly. Before quantity weighted average are calculated, product prices that are five times more, or less, than the median value in a given period are considered outliers and removed.

[526] The product fixed effects controls for unobserved heterogeneity between products, such as quality factors. Where applicable, the product definition incorporates differences in units of measurements between similar chicken products (*e.g.*, per pound, case).

[527] The time fixed effects controls for unobserved heterogeneity between time periods, such as seasonality or annual differences. The time fixed effect depends on the product aggregation in the dataset, either monthly or quarterly.

[528] Standard errors are clustered at the product level to account for the panel nature of the data. Identical products repeated over time biases standard errors downward, resulting in smaller confidence intervals of coefficient estimates. Clustering the standard errors corrects for this downward bias.

increase in the wholesale price, therefore providing a measure of pass-through.[529] For example, if a retailer increased its sales price by $1.50 from $1.00 to $2.50, in response to a wholesale price increase of $1 from a processor, then the model would calculate a pass-through rate of 150% for that transaction.

352. At each stage of the distribution chain, I estimate separate pass-through regressions for individual companies for which I received sufficient data to perform the analysis. The minimum data required to perform a pass-through analysis on class products include actual wholesale and retail price series that can be linked by product and time period, expressed in a common unit of measurement.[530] Some amount of wholesale price variation within products over time is also required to allow pass-through to be estimated.

353. It is preferable to receive these product-specific wholesale and retail prices within the same dataset. [redacted] Wholesale and retail prices not contained within the same dataset require a process of matching by product identifier (*e.g.*, item number or SKU) and time period (*e.g.*, monthly or quarterly). Matching increases the amount of noise contained within the wholesale and retail price, which can result in an underestimate of the true pass-through relationship.[531] In this case, however, it is common to receive a company's purchase orders of products containing the wholesale price, and a separate sales dataset containing the retail price.[532] I calculate the quantity-weighted average monthly (or quarterly)

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[529] The percentage change in price with respect to a percentage change in cost can also be referred to as the pass-through price elasticity of cost. The pass-through rate with respect to a unit change in cost is calculated by multiplying the pass-through elasticity by the ratio of price and cost. For example, if a company has a $1.00 cost increase from $1.00 to $2.00 and increases its sales price by $1.50, from $2.50 to $4.00, then the pass-through price elasticity of cost is 90% while the pass-through rate is 150% (90% X ($2.50/$1.50)).

53[redacted] prevents the typical estimation of pass-through.

[531] For example, different quantities used to calculate the wholesale and retail prices indicates the products purchased are not exactly the same as those sold. This relationship, assuming price variation, contains more noise than if the comparison was between the wholesale and retail prices of the exact same units.

[532] Retail companies were more likely to provide separate purchase order and sales datasets, while it was more common that distributors provided the wholesale and retail prices within the same dataset.

prices and subsequently match these datasets together using unique product identifiers (*e.g.*, item number, SKU) that exist in both datasets.[533]

354. In some instances, the unit of measurement for the wholesale and retail price differs between the purchase order data and the sales data. For instance, purchase orders may contain the wholesale price per case of chicken, while the sales order may contain the retail price per pound. In this example, the wholesale price per case could be converted to price per pound if the company provided sufficient detail by including total pounds per case.[534] Unless specified, I only include products where the wholesale and retail prices were provided in the same units of measurement (or when possible to convert price to the same unit of measurement based on the detail provided).[535] Non-class products are removed from the analysis using product descriptions.[536]

355. In the following sections I describe the common methodology I use to estimate the pass-through rates in each stage and channel which can then be used to quantify damages to the class.

d. Calculation of Pass-Through for Each Stage in the Chicken Retail Sales Channels

356. The first step to determine the pass-through for each channel is to calculate the pass-through rate at each stage. I do this by combining the pass-through rates at a sample of individual companies that operate in that stage. I then combine the measured individual company

[533] Products that do not have equivalent product identifiers within the specified period are dropped from the analysis. In the absence of reliable quantity information, simple average prices are computed.

[534] For example, [redacted] this case, product description strings were used to identify the product weight, which was then applied to the unit price to calculate price per pound.

[535] For this reason, I include a screen to remove product observations that may have wholesale and retail prices in different units of measurement. Specifically, I restrict the retail and wholesale price ratio to be between 1/e and e.

[536] Non-class products are removed by the analysis by identifying if product description strings contain terms that indicate a non-class product. For example, a chicken thigh product would be removed if "thigh" (or the abbreviation "thgh") is part of the product description.

pass-through rates together (weighting by retail market share in class states or company revenues) to calculate the pass-through for each stage of the channel.[537]

357. **Table 8**, below, provides summary details, including pass-through rates, for each stage. The pass-through estimates are provided by the separate stages of Grocery, Club Store, Distributor, Trader/Broker, and Parts Processor. As mentioned previously, only a very small amount of the chicken produced by defendants passes through the trader/broker and parts processor channel to retail grocers and club stores, 4.5% and 1.7%, respectively. The market-share weighted pass-through rate for the grocery store stage is 80% based on my individual company pass-through analysis of nine companies that cover 54.1% of the grocery store market in class states (reflected by the "Coverage" column). The market-share weighted pass-through rate for the club store stage is 98% based on my individual company pass-through analysis of two companies that cover 88.7% of the club store market in class states. The revenue weighted pass-through for distributors is around 83%, based on my individual company pass-through analysis of fifteen distributor companies. The pass-through rate for the trader/broker and parts processor stages is 81% and 68%, respectively. Overall, the estimation of pass-through rates covers 10,576 class products sold by 28 companies totaling more than $25 billion in revenue.[538]

Table 8: Pass-through Summary by Stage

Stage	Pass-Through	# Companies	Products	Revenue ($M)	Coverage
I. Grocery	80%	9	3,260	20,055	54.1%
II. Club Store	98%	2	81	2,952	88.7%
III. Distributor	83%	15	6,767	2,696	NA
IV. Trader/Broker	81%	1	252	77	NA
V. Parts Processor	68%	1	216	16	NA

Source: Company Pass-through Results.xlsx.

358. **Table 9**, below, provides the regression results for each individual company pass-through analysis in the retail grocery and club store stages. The pass-through coefficient,

[537] I weight the individual retail grocers' and club store's pass-through rates by their sales within class states using data from the Grocery Industry Market Share Report (GIMS). I weight pass-through rates of companies in the distributor, trader/broker, and parts processor stages by total revenues of products used in the estimation of pass-through.

[538] A product is defined as each companies' unique product identifier (*e.g.*, item number, SKU) and unit of measurement (*e.g.*, lb, unit, case).

standard error, and R^2 are estimated via the pass-through regression described above in Section VI.C.2.c. Observations, products, revenue, number of years, and price-cost ratio provide additional details regarding the data sample used in the regression for each retailer. [redacted] d indicates the company market share of sales in class states.[539] The pass-through rate is calculated by multiplying the pass-through elasticity coefficient by the price cost ratio. The pass-through rate and elasticity are estimated separately for each company. The pass-through elasticity estimates are statistically significant for each of the retail grocers and club stores.[540]

[redacted]

359. To calculate the pass-through rate for the retail grocers and club stages, retail grocers' and club store's pass-through rates by their sales within class states using data from GIMS.[541] I use total sales over the years 2009, 2011, 2012, 2015, and 2018 to account for retail grocery and club store market share changes, store openings and closures, and grocery chains

[539] Class states are California, Florida, Hawaii, Illinois, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, and Wisconsin with the District of Columbia also being represented.

[540] A standard convention in statistical applications is to represent statistical significance with asterisks (*) next to the coefficient, where *** indicates statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

[541] [redacted] Total sales are not limited to class products.

selling stores to other grocers.[542] Company subsidiaries are combined under its banner company name where applicable.[543] The total sales between these years are used to calculate the grocery and club store retail market shares within class states. Subsequently, the class state market shares are used as weights for pass-through estimates to calculate a total pass-through rate for retail grocers and club store stages. The market share weighted average pass-through rate is 80% and 98% for the grocery and club store stages, respectively, as shown in **Table 9** above.

360. [redacted]

361. To determine the pass-through for the distributors stage I ran the pass-through regression on a sample of distributors to estimate a separate pass-through rate for each distributor. I then weighted the individual distributor's pass-throughs using their revenue shares.

362. **Table 10**, below, provides pass-through for each distributor company. The pass-through estimates range from 61 to 103% and are all statistically significant. The revenue-weighted pass-through for the distributors is 83%.

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[542] Broiler Processors also use this data. [redacted]

[543] *E.g.,* Albertsons/Safeway subsidiaries include Acme, Amigos, Carrs, El Rancho, Haggen, Jewel-Osco, Lucky, Market Street, Pak 'N Save, Pavilions, Randalls, Shaw's, Star, Tom Thumb, United, Vons. Kroger subsidiary includes Roundy. Ahold/Delhaize subsidiaries include Stop & Shop, Giant, Peapod, Food Lion, and Hannaford.

[544] Total retail sales and wholesale purchases may provide a suitable proxy for a retail-wholesale price ratio. However, it is difficult to ascertain if these values are aggregations over the same units. For instance, a mismatch between the stores for which the wholesale purchases and retail sales are provided could lead to large differences between the total retail sales/wholesale purchases ratio and the per unit of measure retail/wholesale price ratio.

[redacted]

363. To determine the Trader / Brokers stage pass-through, I estimate a pass-through regression for the distributor company [redacted] using only sales that go through their trading division.[545] **Table 11**, below, shows that the pass-through estimate for the Trader / Broker stage is 81% and statistically significant. To determine the Parts Processors stage pass-through, I estimate a pass-through regression f [redacted], a parts processor. **Table 11** shows that the pass-through for the Parts Processors stage is 69%.

[redacted]

364. As predicted by the economic theory and record evidence discussed above, I find positive and statistically significant pass-through rates at each stage of each channel. In addition, each company-specific pass-through regression measures a positive and statistically significant pass-through rate for that company individually. These results strongly support my conclusion that *some amount* of the overcharge was passed through to all or nearly all class members, resulting in common impact across the entire class. Given that economic theory and virtually all

[redacted]

existing empirical studies strongly predict pass-through on chicken products bought and sold by intermediaries, I have seen no reason to conclude that other companies operating in these same stages whose data I was not able to obtain would not also have a positive rate of pass-through.

VII. ESTIMATION OF THE VOLUME OF COMMERCE AND DAMAGE TO THE EUCP CLASS

365. In this section, I describe an economic methodology, common to the class, that can be used to estimate class-wide damages to the EUCP class. First, I calculate the total volume of purchases by class members of products included in the class. Second, I multiply that by the applicable overcharge for each product category derived from the overcharge regression. Finally, I multiply by the applicable pass-through rate for each processor defendant weighted by channel volume.

A. Volume of Class Purchases

366. My estimate of the volume of commerce that is ultimately purchased by an end user begins with measuring each defendants' production. The calculation begins with the USDA's total annual US Broiler Production based on ready-to-cook (RTC) pounds from the National Chicken Counsel website (US RTC Broiler Production).[546] For each year, I allocate the annual US RTC Broiler Production pounds among all processors annually based on the chicken processor structured sales data and the RTC volumes reported in the annual "Top Poultry Companies" rankings published in the Watt Poultry USA magazine for the remaining processors

[546] https://www.nationalchickencouncil.org/about-the-industry/statistics/u-s-broiler-production/ According to the NCC website, these statistics are "USDA data." The NCC website indicates that the production pertains to "Federally inspected plus non-federally inspected/less condemnation."

(those not included in the structured sales data).[547] The result is an annual estimate of each processors' US RTC broiler production that sums to the USDA's US RTC broiler production.

367. I next apportion each defendant processor's US RTC broiler production down to those RTC pounds that flows through to the retail grocer and club store channels (Processor Retail RTC pounds) using data from the NCC surveys on the broiler industry's marketing channels. This limitation is accomplished by multiplying each processor's annual US RTC broiler production by an estimate of processor's retail share ("weighted retail share") of RTC pounds. The weighted retail share is calculated by using an adjusted annual NCC retail share

[547] Each year the Watt Poultry USA publication surveys the top poultry companies in the United States and reports the annual results in its publication, typically at the beginning of each year for results pertaining to the year prior. These results include production data such as the number of heads slaughtered, total live weight (in pounds), average live weight, and RTC (ready to cook) weight (in pounds).The Watt Poultry USA rankings are widely cited and relied upon by [redacted] In addition to production data, Watt Poultry USA rankings also track other company information, including sales information such as the percent of sales to different channels (retail, food service, institutional, export, etc.).

weighted by the processors' US RTC broiler production.[548] The weighted retail share is then apportioned between the retail grocer and chain store channels based on NCC survey responses.

368. I next apportion the Processor Retail RTC pounds down to Class RTC pounds in a two-step process. First, using the NCC surveys "market forms" information which has various product characteristics, I eliminate all market forms are inconsistent with the definition of class products.[549] For the remaining market forms, I apportion those categories that may contain class parts and non-class parts using the chicken processor structured sales data to estimate the portion of the products in the class.[550] This is done separately for the retail grocer channel and the club

[548] AGSTAT-15391090-171 (NCC survey, multiple years).

[redacted]

[redacted]

[redacted]

[redacted]

[redacted] For these three processors, I use estimates of the retail channel volume of their business during the damages period (for all the years available based on a review of defendant's document production) weighted by their annual RTC volumes to calculate their weighted retail shares.

[549] For example, I exclude volumes for products that are ground, breaded, cooked, sausages, and uncut WOGs for rotisserie.

[550] Using the chicken processor structured sales data, and restricting to customers that are either retail grocers, club stores, or distributors that primarily sell to them, I calculate the net amount (in dollars) and the quantity (in pounds) for different categories of parts. I use these data to estimate the portion of the breast parts included in the class (for example, excluding products that are free range, organic and halal) as a percentage of all parts within the corresponding NCC "market forms." I also use the data to estimate the portion of whole bird "market forms" included in the class. Finally, I calculate an average price per pound for breast and whole birds (cut up and uncut) that are included in the class.

store channel. **Table 12** below shows which of the NCC survey Market Forms do not contain class products and the class product percentages for the Market Forms that do contain class products.

[redacted]

Source: Market forms are from NCC Survey forms; for example, see processor survey compilations at [redacted] Percent Class Products and Avg Price per Lb. are based on chicken processor structured sales data. CUT-UP WOGs, (8 and 9 piece/quarters/similar), marinated/unmarinated Percent Class Products are further adjusted for each defendant by ratio UNCUT WOGS other than for rotisserie to all UNCUT WOGS. See workpapers: Passthrough links.xlsx; class_prop_by_part.do, [PROCESSOR NAME].xlsx.

369. To estimate the damages base, I take the RTC Class pounds in the retail grocer and club store channels and I multiply them by a weighted average wholesale channel price. I

calculate the weighted average wholesale price using the chicken processor structured sales data to calculate average prices per pound for class products weighted by the shares of the different class products in each channel. This base is then adjusted downward to remove sales that are attributable to non-class states.[551]

370. **Table 13** is the summary of the overall volume of commerce for class products that is ultimately sold to EUCPs by defendant processor.

[551] The adjustment for class states is based on class states' resident populations as a percentage of the total census resident population data from 2012 through July 2019. See workpapers: State Population Shares.xlsx.

[redacted]

Sources:

(a) Processors RTC annual shares of total RTC production from processor structured sales data and Watt Poultry USA annual survey weighted by the annual U.S. USDA RTC Broiler Production from NCC website. See workpapers: Watts RTC production.xlsx; Tab: annual; Processor share is multiplied by the USDA RTC Broiler Production (m lbs) from NCC website. See workpapers: [PROCESSOR NAME].xlsx; Tab: RTC Million lbs; Watts RTC production.xlsx; Tab: annual adjusted to NCC.

(b) Average weighted retail share for each processor. See workpapers: [PROCESSOR NAME].xlsx; Tab: RTC Million lbs.

(c) Portion of weighted retail share (c) that is sold through retail grocer. See workpapers: [PROCESSOR NAME].xlsx; Tab: Flow Chart All years Weigh.

(d) (a) x (c)

(e) % of class products in Retail Grocer RTC lbs . See workpapers: [PROCESSOR NAME].xlsx; Tab: Class Parts Analysis.

(f) (d) x (e)

(g) WHOLESALE weighted average class product price per pound for Retail Grocer from processor structured sales data. See workpapers: [PROCESSOR NAME].xlsx; Tab: Class Parts Analysis.

(h) (f) x (g) x Class state percentage (54.2%). The class state percentage based on population from Census Bureau data). See workpapers: State Population Shares.xlsx.

(i) Portion of weighted retail share (c) that is sold through club store. See workpapers: [PROCESSOR NAME].xlsx; Tab: Flow Chart All years Weigh.

(j) (a) x (i)

(k) % of class products in Club Store RTC lbs . See workpapers: [PROCESSOR NAME].xlsx; Tab: Class Parts Analysis.

(l) (j) x (k)

(m) WHOLESALE weighted average class product price per pound for Club Store from processor structured sales data. See workpapers: [PROCESSOR NAME].xlsx; Tab: Class Parts Analysis.

(n) (l) x (m) x Class state percentage (54.2%). The class state percentage based on population from Census Bureau data). See workpapers: State Population Shares.xlsx.

(o) (h) + (n)

371. The estimated volume of commerce from January 1, 2012 through the July 31, 2019 in class states for class products that is ultimately sold to EUCPs is $37.143 billion dollars.

B. Damages to Indirect Purchaser Class Members

372. The measure of damages attributable to each processor can be calculated by multiplying the volume of commerce for class products sold in class states by the overcharge and the amount of the overcharge that has been passed through to the end user purchaser class.[552] The overcharge rate charged by the processor defendants is calculated by the overcharge regression. The amount of the overcharge that is passed on to the EUCP class depends on the path the product takes once it leave the processor's plant.

1. Estimating Pass-Through for Each Channel

373. As I discussed above, chicken can pass through various combinations of the stages on its way to the final consumer. As previously noted, the National Chicken Council has conducted surveys of broiler processors as well as distributors, trader/brokers, and further processors. I rely on those surveys to determine the potential channels through which class members could purchase the relevant chicken products. They include the following fourteen potential channels:[553]

For Retail Grocer Channel:

- Processor—Grocer—End Purchaser
- Processor—Distributor—Grocer—End Purchaser
- Processor—Distributor—Distributor—Grocer—End Purchaser
- Processor—Distributor—Trader/Broker—Grocer—End Purchaser
- Processor—Distributor—Parts Processor—Grocer—End Purchaser
- Processor—Trader/Broker—Grocer—End Purchaser

[552] I present a damages calculation based on the single period overcharge model discussed above as a conservative measure of damages. The data are sufficient that should a damages presentation based on annual overcharges be desired, calculating such damages would be possible.

[553] The NCC survey analysis shows that in addition to purchasing chickens from processors, distributors also buy chicken from other distributors and broker/traders. Similarly, broker/traders buy chicken from other broker/traders and distributors in addition to purchases directly from processors. In addition, parts processors buy chicken from processors, but also from distributors and broker/traders. I therefore calculate pass-through rates for channels representing each of these possibilities.

- Processor—Trader/Broker—Distributor—Grocer—End Purchaser
- Processor—Trader/Broker—Parts Processor—Grocer—End Purchaser
- Processor—Trader/Broker—Trader/Broker—Grocer—End Purchaser
- Processor—Parts Processor—Grocer—End Purchaser

For Club Stores Channel:

- Processor—Club Store—End Purchaser
- Processor—Distributor—Club Store—End Purchaser
- Processor—Distributor—Distributor—Club Store—End Purchaser
- Processor—Trader/Broker—Distributor—Club Store—End Purchaser

374. The pass-through rate for each channel is the product of all the stages within that channel.[554] For example, the pass-through rate for the Processor -> Distributor -> Retail Grocery -> End Purchaser channel, is the Distributor stage pass-through of 82.6% multiplied by the retail grocer stage pass-through of 80.1%—resulting in a pass-through rate of 66.1% for this channel. **Table 14** below shows the calculation of the pass-through rate for each of the fourteen potential channels.

[554] In order to be conservative in my estimate of class-wide damages, in calculating the pass-through for each channel, I cap the pass-through estimate for each entity in all stages at 100%.

Table 14: Pass-Through Estimates by Channel

	Distributor (a)	Trader/ Broker (b)	Parts Processor (c)	Retail Outlet (d)	Total Pass-through rate	Calculation
Pass-through rates by channel segment	82.6%	81.4%	67.7%			
Retail Grocer				80.1%		
Processor--Grocer--End Purchaser				80.1%	80.1%	(d)
Processor--Distributor--Grocer--End Purchaser	82.6%			80.1%	66.1%	(a) x (d)
Processor--Distributor--Distributor--Grocer--End Purchaser	82.6%			80.1%	54.6%	(a) x (a) x (d)
Processor--Distributor--Trader/Broker--Grocer--End Purchaser	82.6%	81.4%		80.1%	53.8%	(a) x (b) x (d)
Processor--Distributor--Parts Processor--Grocer--End Purchaser	82.6%		67.7%	80.1%	44.8%	(a) x (c) x (d)
Processor--Trader/Broker--Grocer--End Purchaser		81.4%		80.1%	65.2%	(b) x (d)
Processor--Trader/Broker--Distributor--Grocer--End Purchaser	82.6%	81.4%		80.1%	53.8%	(a) x (b) x (d)
Processor--Trader/Broker--Parts Processor--Grocer--End Purchaser		81.4%	67.7%	80.1%	44.1%	(b) x (c) x (d)
Processor--Trader/Broker--Trader/Broker--Grocer--End Purchaser		81.4%		80.1%	53.0%	(b) x (b) x (d)
Processor--Parts Processor--Grocer--End Purchaser			67.7%	80.1%	54.2%	(c) x (d)
				Unweighted Average:	57.0%	
Club Store				87.4%		
Processor--Club Store--End Purchaser				87.4%	87.4%	(d)
Processor--Distributor--Club Store--End Purchaser	82.6%			87.4%	72.2%	(a) x (d)
Processor--Distributor--Distributor--Club Store--End Purchaser	82.6%			87.4%	59.6%	(a) x (a) x (d)
Processor--Trader/Broker--Distributor--Club Store--End Purchaser	82.6%	81.4%		87.4%	58.7%	(a) x (b) x (d)
				Unweighted Average:	69.5%	

Source: Company Pass-through Results.xlsx. Pass-through estimate for each entity in all stages is capped at 100%.

2. Calculating Weighted Pass-Through Rates for Each Defendant by Channel Volume of Commerce

375. As noted above, the vast majority of relevant purchases by class members flow through only a small subset of these potential channels. Therefore, in order to estimate a weighted pass-through rate to be used to calculate aggregate class-wide damages, I weight each channel's pass-through rate by the estimated share of RTC pounds that pass through that channel. I use the National Chicken Council survey detail to estimate, on a defendant by defendant basis, the share of the RTC pounds traveling through each of these fourteen channels. In this way, the pass-through rates for the more common channels are properly given more weight than the less common channels.

376. A summary of the processor defendant volume of commerce allocation to each channel can be seen in **Table 15** below.

Table 15: Summary of Volume of Commerce Allocation to Each Channel by Processor

		Total Pass-through rate	Combined Processor Channel Weights*
Retail Grocer (Damage Period All RTC lbs. m)			81,903
Channel Share of Retail Grocer	Processor--Grocer--End Purchaser	80.1%	69.9%
	Processor--Distributor--Grocer--End Purchaser	66.1%	18.1%
	Processor--Distributor--Distributor--Grocer--End Purchaser	54.6%	7.5%
	Processor--Distributor--Trader/Broker--Grocer--End Purchaser	53.8%	0.0%
	Processor--Distributor--Parts Processor--Grocer--End Purchaser	44.8%	0.1%
	Processor--Trader/Broker--Grocer--End Purchaser	65.2%	1.8%
	Processor--Trader/Broker--Distributor--Grocer--End Purchaser	53.8%	1.2%
	Processor--Trader/Broker--Parts Processor--Grocer--End Purchaser	44.1%	0.0%
	Processor--Trader/Broker--Trader/Broker--Grocer--End Purchaser	53.0%	0.1%
	Processor--Parts Processor--Grocer--End Purchaser	54.2%	1.4%
	Retail Grocer Channel Weighted Pass-through Rate	74.7%	
Club Store (Damage Period All RTC lbs. m)			23,455
Channel Share of Club Store	Processor--Club Store--End Purchaser	87.4%	62.0%
	Processor--Distributor--Club Store--End Purchaser	72.2%	25.7%
	Processor--Distributor--Distributor--Club Store--End Purchaser	59.6%	10.6%
	Processor--Trader/Broker--Distributor--Club Store--End Purchaser	58.7%	1.7%
	Club Store Channel Weighted Pass-through Rate	80.1%	

Source: **Table 14**; Workpapers: [PROCESSOR NAME].xlsx; Tab: TABLE_CHANNELS; "Combined Processor Channel Weights*" is the pass-through for each channel for each processor weighted together by the total RTC lbs. for each processor over the damages period.

377. I use these allocations to determine a channel weighted average pass-through by processor for the retail grocer and club store channels. **Table 15** above also shows the average pass-through across all processors for each channel weighted by the defendants' estimated RTC pounds in the channel during the damages period.

378. Damages to the Indirect Purchaser class are calculated as the Volume of Commerce in Class States for Class Products Ultimately Sold to EUCPs times the Overcharge times the Channel-weighted Pass-Through as seen in **Table 16** below.

[redacted]

(a)	Table 13
(b)	Table 13
(c)	(b) x (Overcharge estimate/(1+Overcharge estimate). Overcharge estimate from workpapers: Central_overcharge_results.xlsx; OC_regression_defendant_main.do
(d)	Processor-specific Retail Grocer channel pathway weighted average passthrough; See workpapers: [PROCESSOR NAME].xlsx; Tab: TABLE_CHANNELS.]
(e)	(c) x (d)
(f)	Table 13
(g)	(f) x (Overcharge estimate/(1+Overcharge estimate). Overcharge estimate from workpapers: Central_overcharge_results.xlsx; OC_regression_defendant_main.do
(h)	Processor-specific Club Store channel pathway weighted average passthrough; See workpapers: [PROCESSOR NAME].xlsx; Tab: TABLE_CHANNELS.]
(i)	(g) x (h)
(j)	(e) + (i)

379. The estimated class damages are $3.916 billion dollars.

VIII. CONCLUSION

380. I presented a variety of analyses examining the issues in the chickens market as related to this case. These analyses strongly support the conclusion that elevation in the chickens prices led to a market-wide increase in the price of chicken products sold to consumers and overwhelmingly support common, class-wide damage.

381. I have provided the following analyses:

a. An approach to calculation of an overcharge model and related evidence; and
b. A method to determine the amount of pass-through and related evidence;
c. A quantification of pass-through through the sales channels from which class products pass to the class purchasers.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed this 30th day of October, 2020 at San Francisco, California.

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David L. Sunding

APPENDIX A

CURRICULUM VITAE

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EMPLOYMENT

University of California, Berkeley
Thomas J. Graff Professor of Natural Resource Economics, 2009 – Present
Professor of the Graduate School, 2020 – Present

Professor, Agricultural and Resource Economics, 2002 – 2019
Affiliated Faculty, Energy and Resources Group, 2013 – 2019
Department Chair, Agricultural and Resource Economics, 2013 – 2019
Berkeley Water Center, Founder and Director, 2005 – 2013
Associate Professor, Agricultural and Resource Economics, 2000 – 2002
Center for Sustainable Resource Development, Director, 1997 – 2004
College of Natural Resources, Specialist, 1997 – 2015
Visiting Assistant Professor, 1992 - 1996

The Brattle Group
President, 2020 – Present
Board of Directors, 2019 – Present
Principal, 2011 – Present
San Francisco, CA and Boston, MA

Stanford University
Woods Institute of the Environment
Visiting Professor, 2010 – 2011

The White House
President's Council of Economic Advisers
Senior Economist, 1996 – 1997

Boston College
Department of Economics and School of Law
Assistant Professor, 1989 – 1992

U.S. Department of State
Freetown, Sierra Leone, 1984

EDUCATION

University of California, Berkeley
Ph.D. in Agricultural and Resource Economics, 1989

University of California, Los Angeles
M.A. in African Area Studies, 1986

Claremont McKenna College
B.A. in Economics, 1983

UNIVERSITY SERVICE

Chair, Department of Agricultural and Resource Economics, 2013 – 2019

Vice Chair, Department of Agricultural and Resource Economics, 2010 – 2013

Co-Director and Founder, Berkeley Water Center, 2005 – 2013

Member, Academic Senate Committee on Faculty Welfare, 2010-2012

Member, UC Division of Agricultural and Natural Resources Strategic Planning Committee, 2008

Reviewer, California Policy Research Center, UC Office of the President, 2007

Member, Search Committee, Ecosystem Sciences Division, Department of Environmental Science, Policy and Management, 2005-2006

Member, Giannini Hall Seismic Retrofit Design Committee, 2005 – 2006

Member, Academic Senate Committee on Amrican Cultures Requirements, 2004-2005

Member, CNR Executive Committee, 2003-2005

Member, CNR Committee on Directions, Opportunities and Initiatives, 2003

Co-Director, Center for Sustainable Resource Development, College of Natural Resources, UC Berkeley, 1997 – 2004

Faculty, Beahrs Environmental Leadership Program, 2001-2005

Member, CNR Dean Search Committee, 2001-2002

Chair, Specialist Search Committee, Department of Agricultural and Resource Economics, 2001-2002

Member, CNR Advisory Board Development Committee, 2001-2002

Member, Faculty Search Committee, Department of Agricultural and Resource Economics, 1999-2000

Member, CNR Dean Search Committee, 1999–2000

Member, Workgroup Review Committee, University of California Division of Agriculture and Natural Resources, 1999–2002

UC Berkeley Representative, Academic Assembly Council, University of California Division of Agriculture and Natural Resources, 1999–2001

Departmental Affirmative Action Representative, 1999–2000

Member, Faculty Search Committee (Environmental Health), Department of Agricultural and Resource Economics, 1998–2000

PROFESSIONAL SERVICE

Chief Economic Adviser, California WaterFix/Bay Delta Conservation Plan, California Natural Resources Agency, 2012 – 2019

Research Thrust Leader for Urban Water Systems, National Science Foundation Research Center on Urban Water Infrastructure (ReNUWIt), 2011 – 2013

National Science Foundation Workshop on Engineering and Economics, 2011

Academic Affiliate, Natural Heritage Institute, 2009 – 2014

Advisory Board, Water Policy Institute, 2008 – 2013

Advisory Board, American Groundwater Trust, 2008 – 2013

Board of Trustees, Bay Area Council Economic Institute, 2008 – 2013

Reviewer, Delta Risk Management Study (DRMS), California Department of Water Resources, 2007-2008

Member, Economic Advisory Committee on North of Delta Offstream Storage, California Department of Water Resources, 2006-2007

Member, Panel on Illegal Competitive Advantage Economic Benefit, Science Advisory Board, U.S. Environmental Protection Agency, 2004-2005

Mentor, American Economic Association Pipeline Project for Minority Graduate Students, 2004 – 2005

President, International Water Resource Economics Consortium, 2003-2009

Member, Science Advisory Board, National Center for Housing and the Environment. 2003 – 2005

Member, Expert Panel on Cost Allocation, CalFed Bay-Delta Program, 2001-2002

Member, National Academy of Sciences Panel on Water Conservation and Reuse, 2001-2002

Member, Technical Advisory Committee on Water Use Efficiency, CalFed Bay-Delta Program, 1997–1998

Referee: *Agricultural Economics, American Journal of Agricultural Economics, California Agriculture, Contemporary Economic Policy, Environmental and Resource Economics, Journal of Agricultural and Resource Economics, Journal of Business and Economic Strategy, Journal of Environmental Economics and Management, Journal of Political Economy, Journal of Public Economics, Journal of Regulatory Economics, Journal of Law and Economics, Land Economics, Natural Resources Modeling, Resource and Energy Economics, Review of Economics and Statistics, Social Choice and Welfare, Water Resources Research*

Reviewer: University of Chicago Press, Kluwer Academic Publishers

WORKING PAPERS

"Regional Economic Impacts of SGMA and Anticipated Surface Water Reductions in the San Joaquin Valley." With David Roland-Holst.

"Regulation by Permits." With Stephen Hamilton and Cyrus Ramezani.

"Incentive Effects and the Certainty of Environmental Permits: An Economic Analysis of *Arch Coal*." With Steve Hamilton.

"Willingness to Pay to Avoid Fish Consumption Advisories in the Presence of Multiple Contaminants," with Patrick Holder and Oliver Browne.

"A Revealed Preference Approach to Valuing Changes in Salinity in Irrigated Agriculture: Evidence from Western Texas." With Oliver Browne.

PAPERS UNDER REVIEW

"Economic Consequences of California's Drought Conservation Mandate." With Steven Buck and Mehdi Nemati. *Applied Economic Perspectives and Policy*, revise and resubmit.

"Optimal Deterrence of Environmental Accidents under Asymmetric Information." With Stephen Hamilton.

"A Structural Model of Leakage from Climate Regulations: The Impact of Cap and Trade on California's Tomato Processing Industry." With Stephen Hamilton, Aric Shaffran and Ethan Ligon.

"Fixed or Mixed? Farm-Level Hererogeneity in Agricultural Supply Response." With Stephen Buck and Dilek Uz.

PUBLICATIONS

"An Economic Treatment of Pass Through in Indirect Purchaser Antitrust Litigation." With Armando Levy, *Competition*, 20, 1(2020).

"Joint Oligopsony-Oligopoly Power in Food Processing Industries: Application to the US Broiler Industry." With Steve Hamilton. *American Journal of Agricultural Economics* July 2020, DOI: 10.1111/ajae.12115.

"Daubert Motions for Class Certification vs. Proceedings on the Merits," *Antitrust Daubert Handbook*, American Bar Association, 2020.

"Adverse Reproductive Outcomes in a Population Exposed to High Levels of Perfluorinated Compounds in Drinking Water," with Gina Waterfield, Martha Rogers, Philippe Grandjean and Max Auffhammer, *Environmental Health*, 19, 42(May 2020), DOI: 10.1186/s12940-020-00591-0.

“Economic Impacts of Critical Habitat Designation: Evidence from the Market for Vacant Land.” With Maximillian Auffhammer, Maya Duru and Edward Rubin, *Land Economics* 96(May 2020): 188-206.

“Forecasting Urban Water Demand: Rethinking Model Selection.” With Hilary Soldati, Maximillian Auffhammer and Steven Buck, *Water Resources Research* (November 2019), DOI: 10.1029/2018WR023965.

“The Cost of California’s Drought Water Conservation Mandate,” with Mehdi Nemati and Steven Buck, *ARE Update* 21(2018): 9-11.

Economic Analysis of the California WaterFix, September 2018.

“The Value of Urban Water Supply Reliability.” With Maximillian Auffhammer, Steven Buck and Stephen Hamilton. *Journal of the Association of Environmental and Resource Economists* (2016), DOI: 10.1086/687761.

“Marketing the Sustainable Groundwater Management Act: Applying Economics to Solve California’s Groundwater Management Problems.” With David Aladjem. *Natural Resources & Environment* 20(2015): 16-21.

“The Impact of Water Price Uncertainty on the Adoption of Precision Irrigation Systems.” With Karina Schoengold. *Agricultural Economics* (2014), DOI: 10.1111/agec.12118.

“Optimal Recycling Policy for Used Lubricating Oil: The Case of California’s Used Oil Management Policy.” With Stephen Hamilton. *Environmental and Resource Economics* (2015), DOI: 10.1007/s10640-014-9812-x.

“Potential Economic Impacts of Environmental Flows Following a Potential Listing of Endangered Texas Freshwater Mussels,” With Brad Wolaver, Cassandra Cook, Stephen Hamilton, Bridget Scanlon, Michael Young, Xianli Xu and Robert Reedy. *Journal of the American Water Resources Association* (2014), DOI: 10.1111/jawr.12171.

“Land Markets and the Value of Water Supply: Hedonic Analysis using Panel Data.” With Steven Buck and Maximillian Auffhammer. *American Journal of Agricultural Economics* 96(2014): 953-969.

“Conserving Endangeed Species through Regulation of Urban Development: The Case of California Vernal Pools.” With Jonathan Terhorst. *Land Economics* 90(2014): 290-305.

“Environmental Policy with Collective Waste Disposal.” With Stephen Hamilton, Thomas Sproul and David Zilberman. *Journal of Environmental Economics and Management* 66(2013): 337-346.

Water and the California Economy. With Ellen Hanak, Jay Lund, Barton Thompson, et al., Public Policy Institute of California, 2012.

"Hedonic Analysis with Locally Weighted Regression: Measuring the Shadow Value of Housing Regulation in Southern California." With Aaron Swoboda. *Regional Science and Urban Economics* 40(2011): 550-573.

"On the Spatial Nature of the Groundwater Pumping Externality." With Nicholas Brozovic and David Zilberman. *Resource and Energy Economics* 32(2010): 154-164.

Economic Impacts of Water Supply Disruptions Caused by Seismic Events in the Bay-Delta Estuary. September 2010.

"Improving Groundwater Management to Cope with Reduced Surface Water Imports: The Case of Los Angeles County." With Steve Hamilton and Newsha Ajami. In A. Findikakis, ed., *Groundwater Management Practices*, Leiden: CRC Press, 2010.

Economic Impacts of Residential Water Shortages in California. With Steve Hamilton. April 2010.

"The Economics of Federal Land Use Controls." *Rebuilding the Ark: Strategies for Reforming the Endangered Species Act*. Jonathan Adler, ed., Washington, DC: AEI-Brookings Joint Center for Regulation, 2009.

Economic Impacts of Flow Requirements for Delta-Dependent Species. With Newsha Ajami, David Mitchell, Steve Hatchett and David Zilberman. December 2008.

The Economics of Stormwater Regulation. June 2008.

Strategies to Reduce the Economic Impacts of Drought-Induced Water Shortage in the San Francisco Bay Area. April 2007.

"Sustainable Management of Water Resources under Hydrologic Uncertainty." With Newsha Ajami and George Hornberger. *Water Resources Research* 44(2008): W11406, doi:10.1029/2007WR006736.

"Estimating Business and Residential Water Supply Interruption Losses from Catastrophic Events." With Nicholas Brozovic and David Zilberman. *Water Resources Research* 43(2007): 418-428.

Management of Saline Wastewater Discharges in the San Joaquin Valley. Report to the Central Valley Regional Water Quality Control Board. With Yoram Rubin, Gretchen Miller, Pascual Benito, Ulrich Meyer, Michael Kavanaugh, Todd Anderson, Mark Berkman, David Zilberman, and Steve Hamilton. September 2007.

“Consideration of Economics under the California Porter-Cologne Act.” With David Zilberman. *Hastings West-Northwest Journal of Environmental Law & Policy* (2007): 73-116.

“Water Markets and Trading.” With Howard Chong. *Annual Review of Environment and Resources* 31(2006): 239-264.

“Panel Estimation of an Agricultural Water Demand Function.” With Karina Schoengold and Georgina Moreno. *Water Resources Research* 42(2006): 411-421.

“Fat Taxes and Thin Subsidies: Prices, Diet and Health Outcomes.” With Sean Cash and David Zilberman. *Acta Agriculturae Scand. C* 2(2006): 167-174.

“Economic Impacts.” *The Endangered Species Act at Thirty*. M. Scott, D. Goble and F. Davis, eds. Washington, DC: Island Press, 2006.

“The Economics of Environmental Regulation of Housing Development.” *Housing and Society* 32(2005): 23-38.

“Joint Estimation of Technology Adoption and Land Allocation with Implications for the Design of Conservation Policy.” With Georgina Moreno. *American Journal of Agricutural Economics* 87(2005): 1009-1019.

“Factor Price Risk and the Adoption of Conservation Technology.” With Georgina Moreno. *Frontiers in Water Resource Economics*. D. Berga and R. Goetz, eds. New York: Springer-Verlag, 2005.

“Optimal Management of Groundwater over Space and Time.” With Nicholas Brozovic and David Zilberman. *Frontiers in Water Resource Economics*. D. Berga and R. Goetz, eds. New York: Springer-Verlag, 2005.

“Response to ‘Environmental Regulation and the Housing Market: A Review of the Literature’ by Katherine Kiel.” *Cityscapes* 8(2005): 277-282.

A Guide to Consideration of Economics under the California Porter-Cologne Act. With David Zilberman. March 2005.

“Water Allocation and Water Market Activity in California.” With Richard Howitt. *California Agriculture: Dimensions and Trends*. Jerome Siebert, ed. Giannini Foundation, 2004.

“The Economics of Climate Change in Agriculture.” With Xuemei Liu, David Roland-Holst and David Zilberman. *Mitigation and Adaptation Strategies for Global Change* 9(2004): 365-382.

"Wetlands Regulation … An Opening for Meaningful Reform?" *Regulation* 26(2003): 30-35.

"Government Regulation of Product Quality in Markets with Differentiated Products: Looking to Economic Theory." *American Journal of Agricultural Economics* 85(2003): 720-724.

Fiscal Costs and Economic Impacts of Recovering the Coho Salmon in California. With Alix Peterson Zwane. California Department of Fish and Game. October 2003.

Economic Impacts of Critical Habitat Designation for the Coastal California Gnatcatcher. July 2003.

The Economic Impacts of Critical Habitat Designation: Framework and Application to the Case of California Vernal Pools. With Aaron Swoboda and David Zilberman. January 2003.

Non-Federal and Non-Regulatory Approaches to Wetland Conservation: A Post-SWANCC Evaluation of Conservation Alternatives. National Center for Housing and the Environment. December 2002.

Economic Impacts of Earthquake-Induced Water Supply Shortages in the San Francisco Bay Area. With Nicholas Brozovic and David Zilberman. Bay Area Economic Forum. October 2002.

Economic Impacts of Organophosphate Use in California Agriculture, Parts 1 and 2. With Mark Metcalfe, Bruce McWilliams, Brent Hueth, Robert Van Steenwyk and David Zilberman. California Department of Food and Agriculture. February 2002.

"The Economics of Environmental Regulation by Licensing: Observations on Recent Changes to the Federal Wetland Permitting Program." With David Zilberman. *Natural Resources Journal* 42(Winter 2002): 59-90.

> * Cited in the U.S. Supreme Court's plurality and dissenting opinions in the consolidated cases of *Rapanos v. United States* and *Carabell v. United States*.

"Trading Patterns in an Agricultural Water Market." With Nicholas Brozovic and Janis Carey. *Water Resources Update* (2002): 3-16.

"Public Goods and the Value of Product Quality Regulations: The Case of Food Safety." With Stephen Hamilton and David Zilberman. *Journal of Public Economics* 87(2003): 799-817.

"Regulating Pollution with Endogenous Monitoring." With Katrin Millock and David Zilberman. *Journal of Environmental Economics and Management* 44(2002): 221-241.

“Transactions Costs and Trading Behavior in an Immature Water Market.” With Janis Carey and David Zilberman. *Environment and Development Economics* 7(2002): 733-750.

“Measuring the Costs of Reallocating Water from Agriculture: A Multi-Model Approach.” With David Zilberman, Richard Howitt, Ariel Dinar and Neal MacDougall. *Natural Resource Modeling* 15(Summer 2002): 201-225.

“Voluntary Development Restrictions and the Cost of Habitat Preservation.” With Sabrina Lovell. *Real Estate Economics* 29(March 2001): 191–206.

“Emerging Markets in Water: A Comparative Institutional Analysis of the Central Valley and Colorado-Big Thompson Projects.” With Janis Carey. *Natural Resources Journal* 41(2001): 283–328.

“Risk Management and the Environment.” With Mark Metcalfe and David Zilberman. In Richard Just and Rulon Pope (eds.). *A Comprehensive Assessment of the Role of Risk in U.S. Agriculture*. Norwell, MA: Kluwer Academic Publishers, 2002.

“A Comparison of Policies to Reduce Pesticide Poisoning Combining Economic and Toxicological Data.” With Joshua Zivin. In: Joe Moffitt (ed.). *Advances in the Economics of Environmental Resources: Volume 4*. Greenwich: JAI Press, 2001.

“The Impact of Climate Change on Agriculture: A Global Perspective.” With David Zilberman and Xuemei Liu. In: Charles Moss, Gordon Rausser, Andrew Schmitz, Tim Taylor and David Zilberman (eds.), *Agricultural Globalization, Trade, and the Environment*. New York: Kluwer, 2001.

“The Agricultural Innovation Process: Research and Technology Adoption in a Changing Agricultural Sector.” With David Zilberman. In: Bruce Gardner and Gordon Rausser (eds.), *Handbook of Agricultural and Resource Economics*. Amsterdam: North Holland, 2001, 207-261.

Water Pricing and Water Use Efficiency. U.S. Department of the Interior, Bureau of Reclamation. January 2001.

Economic Impacts of Critical Habitat Designation for the California Red-Legged Frog. Home Builders Association of Northern California. With David Zilberman. January 2001.

A Proposal for Management of the Confined Aquifer in the Western San Joaquin Valley. With David Purkey. July 2000.

Analysis of the Army Corps of Engineers’ NWP 26 Replacement Permit Proposal. Foundation for Economic and Environmental Progress. With David Zilberman. February 2000.

"Insect Population Dynamics, Pesticide Use and Farmworker Health." With Joshua Zivin. *American Journal of Agricultural Economics* 82(August 2000): 527–540.

* Winner of the AAEA Outstanding Journal Article Award.

"Product Liability, Entry Incentives and Market Structure." With Stephen Hamilton. *International Review of Law and Economics* 20(September 2000): 269–283.

"Climate Change Policy and the Agricultural Sector." With David Zilberman. In: R. Lal, J.M. Kimble, R.F. Follett and B.A. Stewart (eds.), *Assessment Methods for Soil Carbon*. Boca Raton, FL: CRC Press, 2000, 629–643.

"Methyl Iodide as an Alternative to Methyl Bromide." With Brent Hueth, Bruce McWilliams and David Zilberman. *Review of Agricultural Economics* (Spring/Summer 2000): 43–54.

"Using Water Markets to Improve Environmental Quality: Two Innovative Programs in Nevada." With Sabrina Ise Lovell and Katrin Millock. *Journal of Soil and Water Conservation* 55(First Quarter 2000): 19–26.

"The Price of Water…Market-Based Strategies are Needed to Cope wth Scarcity." *California Agriculture* 54(March-April 2000): 56–63.

"Designing Environmental Regulations with Empirical Microparameter Distributions: The Case of Seawater Intrusion." With Gareth Green. *Resource and Energy Economics* 22(January 2000): 63–78.

"The Economics of Inter-District Water Transfers in California." In *Proceedings of the American Society of Civil Engineers*. New York: ASCE, 1999.

Economic Valuation of Increased Water Supply Reliability and Trading Opportunities in Westside Agriculture. With Georgina Moreno, Daniel Osgood and David Zilberman. CalFed Bay-Delta Program. December 1999.

Costs of Implementing the Food Quality Protection Act of 1996 on California Agriculture. With Bruce McWilliams, Yuria Tanimichi and David Zilberman. September 1999.

Economic Impact of Restricting Use of Compound 1080 in California's Intermountain Region. With Brent Hueth and Michelle McGregor. California Department of Pesticide Regulation. April 1999.

Downstream Economic Impacts of Reducing Federal Water Subsidies: The Case of Alfalfa and Dairy. With Gergina Moreno. Natural Resources Defense Councl. August 1998.

Economic Importance of Organophosphates in California Agriculture. With Brent Hueth, Grazyna Michalska, and David Zilberman. California Department of Food and Agriculture. August 1998.

An Environmentally Optimal Alternative for the San Francisco Bay-Delta. With John Cain, David Fullerton, David Purkey and Greg Thomas. Natural Heritage Institute. July 1998.

Water Trading and Environmental Quality in the Western United States. With David Zilberman. U.S. Environmental; Protection Agency. April 1998.

Impact of Endangered Species Legislation on California Agriculture. With David Zilberman, Jerome B. Siebert, Joshua Zivin, Sabrina Isé and Brent Hueth. California Resources Agency. January 1998.

Economic Impact on California Agriculture of Banning Methyl Bromide Use. With Bruce McWilliams, Brent Hueth, Lori Lynch, David Zilberman and Jerome Siebert. California Department of Food and Agriculture. January 1998.

"Returns to Public Investment in Agriculture with Imperfect Downstream Competition." With Stephen Hamilton. *American Journal of Agricultural Economics* 80(November 1998): 830–838.

"Reallocating Water from Agriculture to the Environment under a Voluntary Purchase Program." With Sabrina Ise. *Review of Agricultural Economics* 20(Summer 1998): 214–226.

"Allocating Product Liability in a Multimarket Setting." With David Zilberman. *International Review of Law and Economics* 18(March 1998): 1–11.

"Resolving Trans-Boundary Water Disputes: Economists' Influence on Policy Choices in the United States." In: Richard Just and Sinaia Netanyahu (eds.), *Conflict and Cooperation on Trans-Boundary Water Resources*. Norwell: Kluwer, 1998.

"Economics and Pesticide Regulation." With Erik Lichtenberg, Douglas Parker and David Zilberman. *Choices* (Fourth Quarter 1997): 26–29.

"The Effect of Farm Supply Shifts on Concentration and Market Power in the Food Processing Sector." With Stephen Hamilton. *American Journal of Agricultural Economics* 79(May 1997): 524–531.

"Land Allocation, Soil Quality and the Demand for Irrigation Technology." With Gareth Green. *Journal of Agricultural and Resource Economics* 22(November 1997): 367–375.

"Water Marketing in the '90s: Entering the Electronic Age." With Janis Carey, David Zilberman and Douglas Parker. *Choices* (Third Quarter 1997): 15–19.

"Modeling the Impacts of Reducing Agricultural Water Supplies: Lessons from California's Bay/Delta Problem." With David Zilberman, Neal MacDougall, Richard Howitt and Ariel Dinar. In: Doug Parker and Yacov Tsur (eds.), *Decentralization and Coordination of Water Resource Management*. New York: Kluwer, 1997.

"The Changing Nature of Agricultural Markets: Implications for Privatization of Technology, Information Transfer and Land Grant Research and Extension." With David Zilberman and Madhu Khanna. In: Stephen Wolf (ed.), *Privatization of Information and Agricultural Industrialization*. Boca Raton: CRC Press, 1997.

"Changes in Irrigation Technology and the Impact of Reducing Agricultural Water Supplies." With Ariel Dinar and David Zilberman. In: Darwin Hall (ed.), *Advances in the Economics of Environmental Resources: Volume 1*. Greenwich: JAI Press, 1996.

"Measuring the Marginal Cost of Nonuniform Environmental Regulations." *American Journal of Agricultural Economics* 78(November 1996): 1098–1107.

"Explaining Irrigation Technology Choices: A Microparameter Approach." With Gareth Green, David Zilberman and Douglas Parker. *American Journal of Agricultural Economics* 78(November 1996): 1064–1072.

"How Does Water Price Affect Irrigation Technology Adoption?" With Gareth Green, David Zilberman, Douglas Parker, Cliff Trotter and Steve Collup. *California Agriculture* 50(March-April 1996): 36–40.

"Strategic Participation and the Median Voter Result." *Economic Design* 1(April 1996): 355–363.

Economic Incentives for ImprovingWater Quality in Nevada's Truckee River Basin. With Sabrina Ise and Katrin Millock. U.S. Environmental Protection Agency. October 1996.

"Social Choice by Majority Rule with Rational Participation." *Social Choice and Welfare* 12(December 1995): 3–12.

"Water Markets and the Cost of Improving Water Quality in the San Francisco Bay/Delta Estuary." With David Zilberman and Neal MacDougall. *Hastings West-Northwest Journal of Environmental Law & Policy* 2(Spring 1995): 159–165.

"Flexible Technology and the Cost of Improving Groundwater Quality." With David Zilberman, Gordon Rausser and Alan Marco. *Natural Resource Modeling* 9(April 1995): 177–192.

Managing Seawater Intrusion in Monterey County through Agricultural Water Conservation. With Gareth Green and Larry Dale. Monterey County Water Resources Agency. May 1995.

"Water for California Agriculture: Lessons from the Drought and New Water Market Reform." With David Zilberman, Richard Howitt, Ariel Dinar and Neal MacDougall. *Choices* (Fourth Quarter 1994): 25–28.

"Methyl Bromide Regulation…All Crops Should Not Be Treated Equally." With Cherisa Yarkin, David Zilberman and Jerry Siebert. *California Agriculture* 48(May-June 1994): 10–15.

"Cancelling Methyl Bromide for Postharvest Use to Trigger Mixed Economic Results." With Cherisa Yarkin, David Zilberman and Jerry Siebert. *California Agriculture* 48(May-June 1994): 16–21.

"Who Makes Pesticide Use Decisions? Implications for Policymakers." With David Zilberman, Michael Dobler, Mark Campbell and Andrew Manale. In: Walter Armbruster (ed.), *Pesticide Use and Product Quality*. Glenbrook: Farm Foundation, 1994.

Conclusions and Recommendations on a Framework for Comparative Cost Effectiveness Assessment of CVP Yield Augmentation Alternatives. With Greg Thomas. U.S. Department of the Interior, Bureau of Reclamation. December 1994.

Economic Impacts of USFWS' Water Rights Acquisition Program for Lahontan Valley Wetlands. U.S. Department of the Interior, Fish and Wildlife Service. June 1994.

Market Implementation of Bay/Delta Water Quality Standards. U.S. Environmental Protection Agency. March 1994.

Economic Impacts of Mevinphos Cancellation in California. California Department of Pesticide Regulation. March 1994.

Economic Impacts of Federal Worker Protection Standards. With Cheryl Brown, Valerie Brown and Bob Chavez. California Department of Food and Agriculture. October 1993.

Water Quality Regulation in the San Francisco Bay and Delta. With David Zilberman, Richard Howitt, Neal MacDougall and Linda Fernandez. U.S. Environmental Protection Agency. May 1993.

The Economic Consequences of Enforcing the Delaney Clause. With Alan Marco. U.S. Environmental Protection Agency. March 1993.

Economic Impacts of Cancelling Methyl Bromide in California. With Cherisa Yarkin, David Zilberman, Jerome Siebert and Alan Marco. California Department of Food and Agriculture. February 1993.

Economic Impact of the Silverleaf Whitefly. With Jerome Siebert, David Zilberman and Michael Roberts. California Department of Food and Agriculture. January 1993.

"Managing Groundwater Quality under Uncertainty." With David Zilberman and Gordon Rausser. In: Michelle Marra (ed.), *Quantifying Long-Run Agricultural Risks*. Orono: University of Maine, 1993.

"Natural Resource Cartels." With David Teece and Elaine Mosakowski. In: Allen Kneese and James Sweeney (eds.), *Handbook of Natural Resource and Energy Economics*, Volume III. Amsterdam: Elsevier, 1993.

"Joan Robinson as a Development Economist." With Irma Adelman. In: George Feiwel (ed.), *Joan Robinson and Modern Economic Theory*. London: Basil Blackwell, 1988.

"Economic Policy and Income Distribution in China." With Irma Adelman. *Journal of Comparative Economics* 11(September 1987): 444–461. Reprinted in Bruce Reynolds (ed*.), China's Economic Development: How Far, How Fast?* New York: Academic Press, 1989. Reprinted in Joseph C. H. Chai (ed.), The Economic Development of Modern China. London: Edward Elgar, 1999.

EXPERT TESTIMONY

Expert report concerning the economics of the development, adoption and diffusion of an herbicide used in no-till farming. Hoffman v. Syngenta Crop Protection LLC, Syngenta AG, Chevron Phillips Chemical Company LP and Growmark Inc., No. 17-L-517, Circuit Court, Twentieth Judicial District, St. Clair County, IL (Chevron).

Rebuttal report, deposition testimony and trial testimony on alleged land value diminution resulting from changes in federal flood operations on the Missouri River. Ideker Farms et al. v. United States, No. 14-183L, U.S. Court of Federal Claims (U.S. Department of Justice).

Expert report on analysis of fish consumption survey data from the Lower Duwamish Waterway. City of Seattle v. Monsanto Company, Solutia, Inc. and Pharmacia Corporation, Case No.: 2:16-cv-00107-RSL, U.S. District Court for the Western District of Washington (Monsanto Company).

Expert report on the historic economic benefits from the use of 1,3-D soil fumigants in Riverside County, CA as part of a product liability matter. City of Hemet v. Dow Chemical Company and Shell Oil, Case: 5:18-cv-02022, U.S. District Court for the Central District of California (Dow Chemical Company and Shell Oil).

Authored an expert report on property value impacts of groundwater contamination adjacent to the Willow Grove Naval Air Station in Horsham Township, Pennsylvania.

Penna v. U.S. Department of the Navy, Case 1:16-cv-01571, U.S. Court of Federal Claims (U.S. Department of Justice).

Filed written testimony regarding fish consumption and recreational participation along the Spokane River. City of Spokane v. Monsanto Company, Solutia, Inc. and Pharmacia Corporation, Case No. 2:15-cv-00201-SMJ, U.S. District Court for the Eastern District of Washington (Monsanto Company).

Filed expert reports and testified at deposition concerning the injury to the State of Texas resulting from New Mexico's non-compliance with the Rio Grande Compact. Texas v. New Mexico and Colorado, No. 141 Orig., U.S. Supreme Court (State of Texas).

Filed written testimony and testified at deposition regarding fish consumption and angling rates in San Diego Bay. San Diego Unified Port District and City of San Diego v. Monsanto Company, Solutia, Inc. and Pharmacia Corporation, CL-05285, U.S. District Court for the Southern District of California (Monsanto Company).

Filed testimony with the Federal Energy Regulatory Commission relating to the economic impacts of license conditions imposed on the Don Pedro Project. Don Pedro Relicensing Project, No. 2299, Federal Energy Regulatory Commission, 2013 (San Francisco Public Utilities Commission).

Testified in deposition and at trial on product liability for the 1,3-D class of soil fumigants in a case involving groundwater contamination. City of Atwater v. Shell Oil and Dow Chemical, No. SCVSS-120627, Fresno County Superior Court (Dow Chemical, Shell Oil, Western Farm Service).

Filed expert reports and testified at deposition and trial on matters relating to class certification in a case concerning an alleged price fixing conspiracy in the packaged seafood products industry. In Re. Packaged Seafood Products Antitrust Litigation, MDL No. 15-MD-2670 JLS MDD, U.S. District Court for the Southern District of California (Class of End Payer Plaintiffs).

Authored a report and testified in deposition in a matter regarding a takings claim brought by a chemical company as the result of a stop sale order issued against products containing the pesticide PCNB. American Vanguard v. United States, No. 16-694 C, U.S. Court of Federal Claims (U.S. Department of Justice).

Testified in a matter concerning alleged collusion among haulers and recyclers in the market for reformulated and recycled architectural paint products. GreenCycle Paint, Inc. v. PaintCare, Inc., et al., No. 3:15-cv-04059-MEJ, U.S. District Court for the Northern District of California.

Analyzed the allocation of costs for construction and operating a regional wastewater treatment facility City of Riverside v. Rubidoux Community Services District, et al., Case

No. CIV DS 1310520, San Bernardino County Superior Court, 2015 (Rubidoux Community Service District).

Developed and implemented a model of the cost of relicensing proposals for the Don Pedro Project under consideration by the Federal Energy Regulatory Commission and the State of California. Don Pedro Relicensing Project, No. 2299, Federal Energy Regulatory Commission, 2013 (San Francisco Public Utilities Commission).

Developed econometric and microeconomic models to measure the natural resource damages resulting from PFC contamination of groundwater and surface water resources in the eastern Minneapolis-St. Paul metro region. Assessed the human health impacts of exposure to PFCs in drinking water. Conducted surveys of homeowners and anglers in the State of Minnesota. State of Minnesota, et al. v. 3M Company, No. 27-CV-10-28862, Hennepin County District Court, 2010 (State of Minnesota).

Authored testimony concerning the proper penalty to be paid by a manufacturing company as a result of alleged violations of its permit to discharge wastewater into the Columbia River, Columbia Riverkeeper v. Sandvik Special Metals, No. 4:15-CV-05118-LRS, U.S. District Court, Eastern District of Washington, 2015 (Sandvik Special Metals).

Examined the economic impacts of a cap on Georgia's consumptive use of the Flint and Chattachoochee Rivers for urban and agricultural water supplies. Assessed public support for various policy interventions to enhance instream flows using a survey of households in Florida, Georgia and Alabama. Florida v. Georgia, No. 142 Original, U.S. Supreme Court, 2013 (State of Florida).

Conducted an econometric analysis of defendant's sales efforts as part of a breach of contract claim. Conducted other analyses concerning equipment leasing, prices paid for certain commodities, allocation of joint costs, and other issues. Testified on several occasions before the arbitration panel. The Paramount Group, et al. v. SP Group, et al., Commercial Arbitration Tribunal, 2016 (Paramount Group).

Developed an econometric reduced-form price equation for the fluid milk industry in 16 states to quantify the price increase resulting from a program to cull dairy cows. Edwards, et al. v. National Milk Producers Federation, et al., U.S. District Court for the Northern District of California, No. 3:11-CV-04766-JSW [consolidated with 11-CV-04791-JSW and 11-CV-05253-JSW], 2015 (Class of indirect purchasers).

Testified regarding the penalty to be paid by an investor-owned utility resulting from alleged violations of the Clean Water Act. Congaree Riverkeeper v. Carolina Water Service, Inc., No. 3:15-CV-00194-MBS, U.S. District Court for the District of South Carolina, Columbia Division, 2016 (Carolina Water Service).

Submitted a declaration as part of an amicus brief filed with the U.S. Supreme Court concerning the immediate economic consequences of environmental permitting requirements. U.S. Army Corps of Engineers v. Hawkes Co., Inc., No. 15-290, U.S.

Supreme Court, 2016 (Cargill, The Irvine Company, Port Blakely Companies, Utility Water Act Group, et al.).

Testimony regarding the proper civil penalty to be paid by a non-operating investor in an offshore oil and gas well. U.S. v. BP Exploration & Prod. Co., No. 2:10-cv-04536, U.S. District Court for the Eastern District of Louisiana, 2015 (Anadarko Petroleum).

Testified regarding the measurement of natural resource damages associated with air emissions and groundwater contamination from a landfill site in the St. Louis, MO region that was undergoing a subsurface reaction. State of Missouri v. Republic Services, Inc., Allied Services, Inc., and Bridgeton Landfill, LLC, Case No. 13SL-CC01088, Circuit Court of St. Louis County, State of Missouri, 2015 (Republic Services).

Determined just compensation for takings and presented testimony. Klamath Irrigation District v. United States, No. 01-591 L, U.S. Court of Federal Claims, 2014 (U.S. Department of Justice).

Testified on behalf of a public agency regarding whether certain charges violated California's Proposition 218. City of Cerritos, et al. v. Water Replenishment District of Southern California, No. BS128136, Los Angeles County Superior Court, 2014 (Water Replenishment District of Southern California).

Valued certain land and farming assets held by debtor and developed a plan for optimal disposal of inventory. In re Cocopah Nurseries of Arizona Inc., Case No. 12-15292, U.S. Bankruptcy Court for the District of Arizona, 2013 (Wells Fargo).

Testified regarding the foreseeable economic consequences of several operating requirements proposed by FERC. Don Pedro Relicensing Project, No. 2299, Federal Energy Regulatory Commission, 2013. (San Francisco Public Utilities Commission).

Testified on damages and related issues in a breach of contract matter. Stockton East Water District and Central San Joaquin Water District v. United States, No. 04-541L, U.S. Court of Federal Claims, 2012. (U.S. Department of Justice).

Authored an economic study of the incentive effects of EPA's ex post veto authority under the Clean Water Act. Mingo Logan Coal Company v. United States Environmental Protection Agency, No. 1:10-cv-00541, U.S. District Court for the District of Columbia, 2012 (Arch Coal).

Prepared testimony on the consequences of invalidating a water storage project in Kern County. Central Delta Water Agency, et al. v. California Department of Water Resources, et al., No. 34-2010-80000561, Sacramento County Superior Court, 2012 (Kern Water Bank Authority).

Testified regarding damages and unjust enrichment resulting from the State of Nebraska's alleged violation of the Republican River Compact. Kansas v. Nebraska, No. 126 Original, U.S. Supreme Court, 2012 (State of Nebraska).

Testified on behalf of an investor-owned utility regarding alleged violations of the California Public Utilities Code. Primex LLC v. Roll International Corporation, No. 10CECG01114, Fresno County Superior Court, 2012 (Westside Mutual).

Testified on behalf of the State of Texas regarding the economic impacts on the electricity and water sectors of endangered species-related modifications to the State's water permitting system. The Aransas Project v. Shaw, et al., No. 2:10-cv-00075, U.S. District Court for the Southern District of Texas, 2011 (Guadalupe-Blanco River Authority).

Authored testimony on the economic impacts of outflow criteria to protect salmonid species in the Sacramento-San Joaquin Delta. San Luis & Delta-Mendota Water Authority v. Locke, et al., No. 1:09-cv-1053, U.S. District Court for the Eastern District of California, 2011 (San Luis & Delta-Mendota Water Authority).

Developed testimony regarding damages from breach of contract. Casitas Municipal Water District v. United States, No. 05-168L, U.S. Court of Federal Claims, 2010. (U.S. Department of Justice).

Assessed the allocation of economic benefits of a proposed set of amendments to a groundwater adjudication in the Los Angeles Basin. Central Basin Municipal Water District, et al. v. Water Replenishment District of Southern California, No. BS132202, Los Angeles County Superior Court, 2010 (Water Replenishment District of Southern California).

Assessed the benefits to ratepayers and the public of a proposed desalination project in Monterey County. California Public Utilities Commission, Application of California American Water Company (U 210 W) for a Certificate of Convenience and Necessity to Construct and Operate its Coastal Water Supply Project to Resolve the Long-Term Water Supply Deficit in its Monterey District and to Recover all Present and Future Costs in Connection Therewith in Rates, Application 04009-019, 2009. (Marina Coast Water District)

Testified in a product liability case involving the chemical TCP. Research concerned a variety of issues including the demand for the products at issue, the distribution of benefits from use of the products, and the role of public institutions in developing and promoting the products. City of Redlands v. Shell Oil Company, et al., No. SCVSS 120627, San Bernardino County Superior Court, 2009 (Shell Oil and Dow Chemical).

Developed testimony on groundwater allocation and the prevention of seawater intrusion on the Monterey Peninsula. California-American Water v. City of Seaside, et al., and

Monterey Peninsula Water Management District, No. H034335, Monterey County Superior Court, 2010 (Monterey Peninsula Water Management District).

Testimony regarding the civil penalty to be paid by a major food processing company for alleged violations of its wastewater discharge permit. California Regional Water Quality Control Board, Central Valley Region, ACL Complaint No. R5-2005-0501, 2010 (Hilmar Cheese).

CONSULTING REPORTS

Analyzed the economic impacts of the Sustainable Groundwater Management Act (SGMA) and possible future reductions in surface water deliveries to San Joauqin Valley agriculture (Blueprint for the San Joaquin Valley).

Working on behalf of the major producer of asphalt in Southern California, authored a study concerning the potential anticompetitive effects of Marathon Petroleum's control of asphalt terminals through its proposed acquisition of Andeavor (World Oil).

Developed an econometric model to measure the diminution in value of a large coastal property in the State of Louisiana as a result of oil contamination (ConocoPhilips).

On behalf of a mining company developing a copper-nickel deposit in northern Minnesota, assessed a proposed valuation of ecosystem services of the St. Louis River watershed in Minnesota (PolyMet Mining).

Chief economic adviser to the State of California for the $15-billion Bay Delta Conservation Plan/California WaterFix project (California Natural Resources Agency).

Developed a conceptual model and conducted an empirical analysis of emissions leakage potential associated with California's implementation of AB32. Results of the analysis used in part to make the State's initial direct allocation of emissions credits under its cap and trade program (California Air Resources Board).

Working on behalf of a group of trade associations, assessed the federal government's economic analysis of the Waters of the United States Rule, and offered guidance on how to improve the analysis. Briefed Congress and OMB. (American Petroleum Institute, Farm Bureau, National Association of Home Builders, Utility Water Act Group, others).

Conducted a fish consumption survey and other empirical analyses to quantify the public health benefits of proposed remediation alternatives for the Portland Harbor Superfund site (Schnitzer Steel, Vigor Industrial, Greenbrier Companies).

On behalf of the largest oil recycler in California, conducted an analysis of public policies to encourage collection and re-use of lubricating oil. Demonstrated that

California's existing deposit-refund system for motor oil is highly beneficial to the industry and the public (Demenno/Kerdoon).

Conceived and implemented an integrated, econometric land use-water demand forecasting model of Southern California. Results form the basis of MWD's 2015 Integrated Resources Plan (Metropolitan Water District of Southern California).

Examined the economic benefits of excluding certain commercial forestlands and areas slated for future residential development from federal critical habitat for the Canada lynx. Report filed with U.S. Department of the Interior (Plum Creek Timber).

Assessed the economic costs and benefits of proposed designation of critical habitat for the polar bear. Analysis focused on impacts to oil and gas exploration and production on the North Slope of Alaska, and on the prevention of accidental discharges of hydrocarbons in areas of critical habitat (ExxonMobil).

Conducted an economic analysis of remediation costs and benefits to public health and the environment of proposed water quality and sediment standards for PCBs and Mercury (General Electric).

Measured economic impacts of environmental permitting requirements affecting two toll road projects in Southern California (Transportation Corridor Agencies).

Developed an approach for measuring the economic costs of critical habitat designation. Applied the method to the case of critical habitat for the red-legged frog and the coastal California gnatcatcher (California Building Industry Association).

Member of the team negotiating the Quantification Settlement Agreement for the Colorado River. The Revised Fourth Amendment to the QSA resulted in the Imperial Irrigation District – San Diego water transfer, the largest water transfer arrangement in U.S. history (San Diego County Water Authority).

LEGISLATIVE AND ADMINISTRATIVE TESTIMONY

"Statewide Economic Benefits of the Bay Delta Conservation Plan," California State Senate, Committee on Natural Resources and Water. August 2013.

"The Economic Implications of EPA's After the Fact Veto of a Discharge Permit." Subcommittee on Water and Energy, Committee on Transportation & Infrastructure, U.S. House of Representatives. June 2011.

"Cost Benefit Analysis as a Tool for Regulation of Once Through Cooling." State of California Water Resources Control Board. May 2010.

"Economic Impacts of the Proposed Construction General Permit for Stormwater Discharges." State of California Water Resources Control Board. June 2008.

"Climate Change, Energy Prices and Commodity Markets." Subcommittee on Energy and Environment, Committee on Science and Technology, U.S. House of Representatives, May 2008.

"Consideration of Economic Impacts of TMDL for PCBs in th San Francisco Bay." San Francisco Regional Water Quality Control Board. February 2008.

"Economic Impacts of Sediment Quality Objectives for Enclosed Bays and Estuaries." State of California Water Resources Control Board. February 2008.

"Economic Aspects of the Proposed TMDL for PCBs in the San Francisco Bay." San Francisco Regional Water Quality Control Board. September 2007.

"Economic Impacts of Drought-Induced Water Shortage in the San Francisco Bay Area." San Francisco Public Utilities Commission. June 2007.

"Economic Considerations Relating to the Designation of Critical Habitat." Committee on Resources, U.S. House of Representatives, April 2004.

"Fiscal and Socioeconomic Impacts of of Implementing the California Coho Salmon Recovery Plan." California Fish and Game Commission, February 2004.

"Economic Impacts of Critical Habitat Designation." Subcommittee on Fisheries, Wildlife and Water, Committee on Environment and Public Works, U.S. Senate, April 2003.

"Performance of the Federal Wetlands Permitting Program." Subcommittee on Water and Wetlands, Committee on Transportation and Infrastructure, U.S. House of Representatives. September 2001.

"Economic Observations on Water Infrastructure Investment in California." Subcommittee on Water and Power, Committee on Transportation and Infrastructure, U.S. House of Representatives. July 2001.

"Economic Impacts of Reduced Water Supplies on Westside Agriculture." Bay-Delta Advisory Committee. June 1998.

"Economic Impacts of the Central Valley Project Improvement Act." Subcommittee on Water and Power, Committee on Transportation and Infrastructure, U.S. House of Representatives. April 1998.

"Forest Service Losses on Below-Cost Timber Sales." Committee on Energy and Natural Resources, U.S. Senate. February 1997.

"Benefits and Costs of Enhanced Flood Protection in the American River Valley." Committee on Transportation and Infrastructure, U.S. House of Representatives. February 1996.

"Economic Impacts of Banning Methyl Bromide Use in California." Committee on Appropriations, California Senate. February 1996.

"Economic Impacts on Leeward Agriculture of Eliminating Waiahole Ditch Diversions." Hawaii Water Commission. January 1996.

"Least-Cost Implementation of Bay/Delta Water Quality Standards." State of California Water Resources Control Board. July 1994.

"The Potential for Agricultural Water Conservation." State of California Water Resources Control Board. June 1992.

"Economic Impacts of the Central Valley Project Improvement Act." Committee on Energy and Natural Resources, U.S. Senate. April 1992.

GOVERNMENT BRIEFINGS

"Innovative Approaches to Infrastructure Finance." California Water Commission. April 2020.

"Economic Impacts of the Sustainable Groundwater Management Act." California Governor's Office. February 2020.

"Review of the Waters of the United States Regulatory Impact Analysis." Sponsored by Edison Electric Institute, American Farm Bureau, National Association of Manufacturers, American Petroleum Institute, INGAA, American Gas Association, National Association of Home Builders. February 2019.

"Economic Analysis of Draft Guidance for Defining Waters of the United States," Briefings for U.S. House of Representatives and Senate Staff. February 2014.

"Assessment of the Government's Economic Analysis of the Waters of the United States Rule." White House Office of Management and Budget. December 2013.

"Economic Benefits Analysis of the Bay-Delta Conservation Plan," BDCP Finance Committee Meeting. Sacramento, CA. July 2012.

"Employment Impacts of Constructing an Isolated Conveyance Facility," California State Senate Town Hall Meeting. Fresno, CA. November 2011.

"System Integration and California Water Management." California Assembly and Senate Members and Staff. Sacramento, CA. August 2006.

"The Endangered Species Act at 30: Lessons for Reform." Organized with U.S. Senate Committee on Energy and Natural Resources. Washington, DC. December 2004.

"Non-Federal and Non-Regulatory Approaches to Wetland Conservation." House Transportation and Infrastructure Committee Staff. Washington, DC. February 2003.

"Removing Barriers to Water Marketing." California Senate Committee on Agriculture and Water and the California Foundation for Environment and Economy. Berkeley, CA. January 2003.

"Agricultural Water Pricing and Water Use Efficiency." U.S. Bureau of Reclamation. Sacramento, CA. May 2002.

"Assessing Recent Changes to the Wetlands Permitting Process." Congressional Real Estate Caucus. Washington, DC. September 2000.

"Water Markets in California." California Assembly and Senate Staff. Sacramento, CA. May 2000.

"Economic Analysis of Proposed Changes in Wetlands Permitting Policies." U.S. House of Representatives and Senate Staff. Washington, DC. March 2000.

"Groundwater Implications of Water Trading." California Assembly Water Parks and Wildlife Committee and Senate Agriculture and Water Committee. Sacramento, CA. November 1999.

"Economic Aspects of the 1996 Food Quality Protection Act." Office of Policy, U.S. Environmental Protection Agency. Washington, DC. October 1998.

"Innovative Approaches to Water Conservation: The Westside Case." Joint U.S. Bureau of Reclamation and the California Department of Water Resources Water Conservation Information Committee. San Diego, CA. August 1998.

"Climate Variability and U.S. Agriculture: Mitigating the Impacts." U.S. Environmental Protection Agency. Washington, DC. May 1998.

"New Approaches to Agricultural Water Conservation." Congressional Water Caucus. Washington, DC. February 1996.

CONFERENCES ORGANIZED

Finding the Right Balance: Tradeoffs in the Water-Energy Nexus. Water Policy Institute – Berkeley Water Center. Washington, DC. February 2011.

International Water Resource Economics Consortium. Berkeley, CA. November 2009.

"Water and Economics." Water Policy Institute – Berkeley Water Center. Washington, DC. October 2009.

"Mixing Water and Oil: Biofuels and their Implications for California's Natural Resources." Parlier, CA. May 2008.

"Assessing Investments in Clean Water and Hygiene in Developing Countries." Sponsored by the Bill & Melinda Gates Foundation. Berkeley, CA. November 2006.

"The Endangered Species Act at 30: Lessons for Reform." Washington, DC. December 2004.

"A Decade of Water Policy Reform: The Central Valley Project Improvement Act in 2003." San Francisco, CA. September 2003.

"The Future of the San Joaquin Valley." Parlier, CA. March 2002.

"Pest Management Strategies and Policies." Berkeley, CA. May 2001.

INVITED PRESENTATIONS

"Water Trade in General Equilibrium: Discussant," American Economic Association Meeting, San Diego, January 2020.

"Water Rights: Basics," Water Asset Management Investor Meeting, San Francisco, CA, October 2019.

"Electric Utilities and Wildfire: Optimal Allocation of Liability," LSI Conference on Utility Planning, San Francisco, September 2019.

"Effects of Critical Habitat Designation," Conference on Incentives for Wildlife Conservation, Political Economy Research Center, Bozeman, MT, August 2019.

"Machine Learning Methods for Urban Water Demand Forecasting," International Conference on Water Futures, University of Padua, July 2019.

"Just Compensation for Takings," American Bar Association, Orlando, FL, April 2018.

"Use of Big Data in Water Resource Management," WaterNow Annual Conference, University of Utah School of Law, March 2018.

"Economic Incentives and Efficiency," Southern California Water Committee, Los Angeles, June 2017.

"Innovative Water Financing," Woods Institute of the Environment, Stanford University, June 2017.

"Trends in California Agriculture," Kern County Economic Summitt, March 2017.

"Climate Change and California's Urban Areas," Swig Family Foundation, February 2017.

"Rethinking Model Selection for Forecasting," ASSA Meetings, Chicago, January 2017.

"Economic Analysis of California WaterFix," San Diego County Water Authority, San Diego, October 2016.

"Fluid State of Water," Public Policy Institute of California, San Francisco, September 2016.

"Recent Developments in Environmental Regulation," UC Redwood Symposium, Eureka, CA, September 2016.

"Economic Losses from a Water Consevation Mandate." American Agricultural Economic Association, Boston, MA, August 2016.

"Economics of Water Infrastructure Investment." Water Law Forum, Portland, OR, May 2016.

"California's Water Future." UC Berkeley Trustees' Meeting, Los Angeles, CA, March 2016.

"Economic Impacts of the Waters of the United States Rule." ABA Water Law Conference, Austin, TX, March 2016.

"Lessons from Utility Rate Reform." UC Conference on Water Pricing, UC Riverside, February 2016.

"Financing Large-Scale Infrastructure Projects." Hoover Institution, Stanford University, January 2016.

"Environmental Finance." Goldman Sachs Conference on Environmental Finance, New York, NY, November 2015.

"Blue Skies for the Golden State: California's Water Future." Discover Cal Lecture Series, Los Angeles, Orange County and San Francisco, CA, October-November 2015.

"Water Challenges in the Arid West." South by Southwest, Austin, TX, October 2015.

"Financing Innovation in the Water Sector," Milken Innovation Center – Jerusalem Institute for Israel Studies, Jerusalem, Israel, July 2015.

"Welfare Impacts of Urban Water Shortages," Agricultural and Applied Economic Association Meetings, San Francisco, July 2015.

Forecasting Urban Water Demand," Agricultural and Applied Economic Association Meetings, San Francisco, July 2015.

"Impacts of the Drought on California's Economy," Water Scarcity Conference, NSF-IGERT Program, UC Davis, April 2015.

"Economics of Drought Response," San Gabriel Valley Water Forum, October 2014.

"An Econometric Model of Water Availability and Land Use Change," International Water Resorce Economics Consortium, Washington, DC, September 2014.

"A Forecasting Model for Urban Water Demand," Metropolitan Water District of Southern California, July 2014.

"Effects of Climate Change on California's Water Supply," Giannini Foundation Conference on Climate Change, Sacramento, CA, April 2014.

"Economic Consequences of the Drought," UC Drought Science Summit, Sacramento, CA, April 2014.

"Labor Market Effects of Water Shortages," UC Davis School of Law Conference on Labor and Water, April 2014.

"The Once and Future Delta," Commonwealth Club, San Francisco, CA, September 2013.

"Examining Bay-Delta Alternatives," Southern California Water Committee, Los Angeles, July 2013.

"Water: Debunking the Myths," Goldman Sachs-GE-World Resources Institute, New York, NY, February 2013.

"Financing California's Water Infrastructure," California Foundation for Environment and the Economy, Half Moon Bay, CA, December 2012.

"Economic Impacts of the Bay Delta Conservation Program," Association of California Water Agencies, San Diego, CA, December 2012.

"Overview of Current Issues in the Delta," UCANR Statewide Conference, Davis, CA, November 2012.

"Optimal Management of a Groundwater Storage Bank," Stockholm International Water Week, Stockholm, Sweden, August 2012.

"Economic Reform of America's Water Systems." Water Resources Law Forum, Las Vegas, NV, May 2012.

"Employment Impacts of Water Infrastructure Investment." Association of California Water Agencies, March 2012.

"Novel Approaches to Infrastructure Finance," California Foundation for the Environment and the Economy, Palos Verdes, CA, October 2011.

"The Economics of Bay-Delta Restoration," California Foundation for the Environment and the Economy, Sonoma, CA, Sonoma 2011.

"The Economics of Water Reuse," From Used to Useful, Riyadh, Saudi Arabia, April 2011.

"The Economics of Isolated Conveyance in the Delta," California Water Policy Conference, Santa Barbra, April 2011.

"Managing a Groundwater Storage Bank." American Groundwater Trust, New York, NY, March 2011.

"The Economics of Future Water Supplies." California Water Association. Monterey, CA. November 2010.

"Vulnerability of Water Infrastructure to Seismic Events." Southern California Water Committee. September 2010.

"Economics of Water Allocation." American Bar Association. Orlando, FL. May 2010.

"Expanding the Role of the Private Sector in Water: Opportunities and Challenges." General Electric. Los Angeles, CA. May 2010.

"Adapting to Unreliable Water Supplies." University of the Pacific McGeorge School of Law, Sacramento, CA, February 2010.

"The Economics of Water Exports from the Delta," American Society of Agronomy, Tulare, CA, January 2010.

"Long Term Contracts, Storage Incentives and Conjunctive Use: The Case of the Central and West Coast Basins in Los Angeles County." International Water Resource Economics Consortium Meetings. Berkeley, CA. November 2009.

"Economic Barriers to Recycled Water." General Electric Corporation Leadership Summit, Crotonville, NY. November 2009.

"Habitat Protection in a Dynamic Landscape." California HCP/NCCP Conference. Vacaville, CA. November 2009.

"New Approaches to Financing Water Infrastructure." Water Policy Institute – Berkeley Water Center Conference on Water and Economics. Washington, DC. October 2009.

"The Economics of Federal Land Use Regulation." AEI-Brookings Joint Center on Regulation. Washington, DC. September 2009.

"Water Policy in the United States." New York Bar Association. New York, NY. June 2009.

"The Role of the Private Sector in Water Resource Management." American Law Institute – American Bar Association. Denver, CO. March 2009.

"Economic Analysis of Water Resources." American Bar Association Annual Water Law Conference. San Diego, CA. February 2009.

"Benefits of Drought-Resistant Seed Varieties." Conference on Biotechnology and Water Use. Gates Foundation and Giannini Foundation. Berkeley, CA. January 2009.

"U.S. Agriculture in Transiton." Northwest Food Processing Association. Portland, OR. January 2009.

"Economic Perspectives on Water Resources." Water Policy Institute. Washington, DC. October 2008.

"Climate Change and Groundwater Resources." Groundwater Resource Association. Sacramento, CA. August 2008.

"Climate Change, Energy Prices and California's Water Resources." BWC Conference on Biofuels and California Agriculture. Parlier, CA. May 2008.

"Sustainability and the Role of Private Investment in the Water Sector." American Groundwater Trust. New York, NY. April 2008.

"Recent Development in Designating Critical Habitat." Endangered Species Law. American Law Institute-American Bar Association. San Diego, CA. June 2008.

"Assessing Risks to California's Water Systems." Discover Cal. Redwood City, CA. November 2007.

"New Settings for HCPs and New Approaches to ESA Compliance." CLE International. San Francisco, CA. November 2007.

"Policies to Control Point Source Discharges of Salts in the San Joaquin Valley." Regional Water Quality Control Board. Modesto, CA. October 2007.

"Federal Land Use Controls." Pacific Rivers Council. San Francisco, CA. October 2007.

"The Economic Implications of Conjunctve Use and Groundwater Banking." Theis Conference, National Groundwater Association. Park City, UT. September 2007.

"Evaluating Investments in Groundwater: Hard Science or Black Art?" Groundwater Resource Association. San Francisco, CA. June 2007.

"Delta Futures and California's Water Economy." Public Policy Institute of California. San Francisco, CA. February 2007.

"California's Water Infrastructure Needs." Bay Area Economic Forum. San Francisco, CA. February 2007.

"Management of a Coastal Aquifer under Multiple Uncertainty." Association of Environmental and Resource Economists. Chicago, IL. January 2007.

"Growth, Environment & Efficiency: California's Water Future." UC Berkeley Homecoming. Berkeley, CA. October 2006.

"Water Supply and the Bay Area Economy." League of Women Voters Know Your Bay Area Day. San Francisco, CA. September 2006.

"Economics of Water Quality Regulation." Interational Agricultural Economics Association Pre-Conference Workshop on Water Resources. Brisbane, Australia. August 2006.

"Measuring the Groundwater Pumping Externality." American Agricultural Economics Association. Long Beach, CA. July 2006.

"Costs and Benefits of Wetland Regulation." American Law Institute – American Bar Association Wetlands Conference. Washington, DC. June 2006.

"Economics of Water Resource Management in California." University-Industry Consortium. Oakland, CA. May 2006.

"Regulating Water Quality in California." University of California Water Resources Center Continuing Conference. Davis, CA. May 2006.

"Natural Disasters and the Resilience of the Urban Economy." Symposium on Real Estate, Catastrophic Risk and Public Policy. Berkeley, CA. March 2006.

"Economics and the Endangered Species Act: The Role of Critical Habitat." Annual Conference on the Endangered Species Act and Habitat Conservation Planning. San Francisco, CA. December 2005.

"Economics of Groundwater Management." Groundwater Resources Association. Pasadena, CA. September 2005.

"The Economics of Waer Quality Regulation." Central Valley Clean Water Association. Sacramento, CA. May 2005.

"Economics of Technology Adoption and Diffusion." Conference on Sustainable Energy Futures. Berkeley, CA. April 2005.

"Consideration of Economics under Porter-Cologne." Urban Water Institute. Newport Beach, CA. April 2005.

"Tools for a New Era of Sustainable Water Management." Barcelona, Spain. March 2005.

"Bad Neighbors: The Economics of Conflict over New Housing." Conference on Urban Policy. Berkeley, CA. January 2005.

"Economic Analysis of Water Quality Regulations: When is It Worth the Trouble?" Industrial Environmental Association. San Diego, CA. November, 2004.

"Measuring the Cost of Conservation by Permitting." Association of Environmental and Resource Economists. Denver, CO. August 2004.

"Panel Estimation of Agricultural Water Demand Based on an Episode of Rate Reform." American Agricultural Economics Association. Denver, CO. August 2004.

"Local Public Goods and Ethnic Diversity." American Agricultural Economics Association. Denver, CO. August 2004.

"Prices vs. Quantities Revisited." American Agricultural Economics Association. Denver, CO. August 2004.

"Managing Groundwater with Localized Externalities." American Agricultural Economics Association. Denver, CO. August 2004.

"Fat Taxes and Thin Subsidies." American Agricultural Economics Association. Denver, CO. August 2004.

"Environmental Regulation and California Agriculture: Focus on ESA and the Clean Water Act." Western Growers' Association. Sacramento, CA. June 2004.

"Endangered Species Regulation and California Agriculture." Giannini Foundation Conference on the Future of California Agriculture. Sacramento, CA. May 2004.

"Environmental Regulation and Housing Affordability." U.S. Department of Housing and Urban Development Conference on Regulatory Barriers to Housing Affordability. Washington, DC. April 2004.

"Economic Analysis of Evironmental Regulation." Clean Water Act Summit Meeting. Irvine, CA. March 2004.

"Economic Impacts of Endangered Species Regulation: A Project-Level Perspective Focusing on the Housing Industry." Conference on the Endangered Species Act at 30. Santa Barbara, CA. November 2003.

"Whither Reclamation Reform? Looking to the Next 100 Years of Reclamation Law." Berkeley Conference on Water Policy Reform. San Francisco, CA. September 2003.

"Simultaneous Estimation of Technology Choice and Land Allocation." American Agricultural Economics Association. Montreal, Canada. July 2003.

"Advertising in Markets with Product Differentiation and Imperfect Competition." Food Systems Research Group, University of Wisconsin. June 2003.

"Wetlands Protection Beyond Section 404." American Law Institute – American Bar Association Wetlands Conference. Washington, DC. May 2003.

"Prioritizing Habitat Conservation." Conference on the Endangered Species Act. Land Use Research Foundation of Hawaii and the Hawaii State Bar Association Section on Real Property and Finance. May 2003.

"Government Regulation of Product Quality in Markets with Differentiated Products: Looking to Economic Theory." Allied Social Science Association. Washington, DC. January 2003.

"Non-Regulatory and Non-Federal Approaches to Wetland Protection." National Association of Home Builders. Las Vegas, NV. January 2003.

"Agricultural Water Use and the Role of Prices." Joint Meeting of the U.S. and Iranian Academies of Sciences. Tunis, Tunisia. December 2002.

"Economic Megatrends and Water Use in the United States." National Academy of Sciences. Washington, DC. September 2002.

"Pesticide Regulation and Changes in Human Health." World Congress of Environmental Economics. Monterey, CA. June 2002.

"Mechanisms for Risk Trading." World Congress of Environmental Economics. Monterey, CA. June 2002.

"Economic Damage from Water Supply Disruptions Following an Earthquake in the San Francisco Bay Area." Bay Area Water Users' Association. Foster City, CA. June 2002.

"Economic Perspectives on Federal Wetland Regulation." American Law Institute – American Bar Association. Washington, DC. May 2002.

"Reconciling Competing Interests in the West Side." CSRD Conference on the Future of the West Side. Parlier, CA. March 2002.

"Protecting Public Interests on Private Land." Center for Sustainable Resource Development, UC Berkeley. February 2002.

"Cost-Shifting and Environmental Quality." POWER Annual Conference. Los Angeles, CA. December 2001.

"Factor Price Risk and the Diffusion of Conservation Technology." California Conference on Environmental and Resource Economics. UC Santa Barbara. November 2001.

"Valuation of Water Supply Reliability." American Agricultural Economics Association. Chicago, IL. August 2001.

"Allocating Water by Markets." American Society of Horticultural Sciences. Sacramento, CA. July 2001.

"The Farm Bill and Resource Conservation: Success Stories." CSRD Conference on Agriculture and the Environment. Washington, DC. June 2001.

"Does Factor Price Risk Encourage Conservation?" International Water Resource Economics Consortium. Girona, Spain. June 2001.

"Optimal Control of Groundwater Over Space and Time." International Water Resource Economics Consortium. Girona, Spain. June 2001.

"Trading Behavior in an Informal Market." International Water Resource Economics Consortium. Girona, Spain. June 2001.

"Economics of Pesticide Cancellation: The Food Quality Protection Act of 1986." University of California Agricultural Economics and Management Workgroup. UC Davis. May 2001.

"Economic Aspects of Biological Control." University of California Conference on Urban Pest Management. UC Riverside. October 2000.

"Price Volatility and Resource Conservation." American Agricultural Economics Association. Tampa, FL. July 2000.

"Economics of Water Trading in California." UC Berkeley Water Working Group. Berkeley, CA. March 2000.

"Reforming Public Lands Policy." Painting the White House Green: Economics and Environmental Policy-Making in the Clinton Administration. Laramie, WY. September 1999.

"Transaction Costs and Trading Behavior in a Permit Market." American Agricultural Economics Association. Nashville, TN. August 1999.

"Facilitating Water Transfers with the *WaterLink* System." American Society of Civil Engineers. Seattle, WA. August 1999.

"Valuing Agricultural Water Supply Reliability." International Water Resource Economics Consortium. Waikoloa, HI. July 1999.

"Economics of Inter-District Water Transfers." Western Economics Association. San Diego, CA. June 1999.

"The Value of Water Supply Reliability in Westside Agriculture." CalFed Economics Workgroup. Sacramento, CA. June 1999.

"Economic Impacts of Pesticide Regulation." Center for Sustainable Resource Development Conference on Pest Management. UC Berkeley. May 1999.

"Water Marketing within Irrigated Agriculture." American Agricultural Economics Association. Salt Lake City, UT. August 1998.

"Welfare Impacts of Climate Change: Focus on Pest Problems and Water Resources." American Agricultural Economics Association. Salt Lake City, UT. August 1998.

"Water Trading and the Costs of Bay/Delta Protection." Water Education Foundation. San Diego, CA. July 1998.

"Federal Public Land Policy: Litmus Test Issues." Berkeley Commons Club. Berkeley, CA. June 1998.

"Recent Developments in American Agricultural Policy." Commonwealth Club. San Francisco, CA. October 1997.

"Performance of a Voluntary Water Purchase Program." Western Regional Water Economics Conference. Lihue, HI. October 1997.

"Water Marketing for the Environment: The Clinton Administration's Perspective." Conference on Regional Water Markets. Berkeley, CA. July 1997.

"Returns to Public Investment in Agriculture with Imperfect Downstream Competition." American Agricultural Economics Association. Toronto, Canada. July 1997.

"Markets for Crop Germplasm." Invited Paper, American Agricultural Economics Association. Toronto, Canada. July 1997.

"Land Allocation, Soil Quality and Irrigation Technology Choice." Western Agricultural Economics Association. Reno, NV. July 1997.

"Product Liability and Entry Incentives." Western Agricultural Economics Association. Reno, NV. July 1997.

"Agricultural Policy in the Post-1996 Farm Act World." Signature Lecture, USDA Economic Research Service. Washington, DC. May 1997.

"Federal Water Policy in the United States." International Conference on Coordination and Decentralization in Water Resources Management. Annapolis, MD. April 1997.

"Non-Uniform Regulation of Groundwater Quality." American Agricultural Economics Association. San Antonio, TX. July 1996.

"The Effect of Farm Supply Shifts on Concentration and Market Power in the Food Processing Industry." American Agricultural Economics Association. San Antonio, TX. July 1996.

"Differential Property Tax Assessment, Land Allocation and Land Values at the Urban Fringe." American Agricultural Economics Association. San Antonio, TX. July 1996.

"Efficient Strategies for Acquiring Agricultural Water Rights." Invited Paper, Australian Agricultural and Resource Economics Society. Melbourne, Australia. February 1996.

"Strategies for Agricultural Water Conservation." U.S. Bureau of Reclamation Water Users Conference. Concord, CA. January 1996.

"Voting on Environmental Health Risks." American Agricultural Economics Association. Indianapolis, IN. August 1995.

"Explaining Irrigation Technology Choice: A Microparameter Approach." American Agricultural Economics Association. Indianapolis, IN. August 1995.

"The Economics of United States Environmental Laws." Symposium at Far Eastern State University. Vladivostok, Russia. March-April 1995.

"The Endangered Species Act: Impact on California Agriculture and Policy Options." University of California Executive Seminar on Agricultural Issues. Sacramento, CA. December 1994.

"Economics of Tort Liability Rules for Pesticide Damage." Second Occasional California Conference on Environmental and Resource Economics. Santa Barbara, CA. October 1994.

"Water Law as a Regulating Mechanism." International Conference on Coordination and Decentralization in Water Resources Management. Rehovot, Israel. September 1994.

"Contaminant Dynamics and the Cost of Groundwater Quality Regulations." Conference on Pesticide Economics and Policy in Memory of Carolyn Harper. Amherst, MA. April 1994.

"Water Markets and Water Quality." University of California Conference on Regional Water Constraints. Berkeley, CA. October 1993.

"Irreversibility, Contaminant Dynamics and the Cost of Groundwater Quality Regulations." American Agricultural Economics Association. Orlando, FL. August 1993.

"Methodological Issues in Pesticide Regulation." First Occasional California Conference on Environmental and Resource Economics. Santa Barbara, CA. May 1993.

"Economic Impacts of the Central Valley Project Improvement Act." First Occasional California Conference on Environmental and Resource Economics. Santa Barbara, CA. May 1993.

"Majority Rule with Rational Abstention is Globally Transitive." Sixth World Congress of the Econometric Society. Barcelona, Spain. August 1990.

COURSES TAUGHT

Advanced Topics in Environmental and Resource Economics (Graduate)
Risk, Technology and the Environment (Graduate)
Environmental and Resource Economics (Graduate)
Economics of Water Resources (Undergraduate)
Natural Resource Economics (Undergraduate)

Economics of Public Law (UC Berkeley School of Law)
Environmental Policy (Undergraduate)
Public Finance (Graduate)
Microeconomic Theory (Graduate and Undergraduate, UC Berkeley and Boston College)
Law and Economics (Boston College School of Law)

ACADEMIC SEMINARS

University of Arizona, Boston College, Boston University, UC Berkeley, UC Davis, UC Irvine, UCLA, UC Riverside, UC Santa Barbara, University of Colorado, Harvard University, Hebrew University of Jerusalem, Johns Hopkins University, Kansas State University, University of Maryland, Massachusetts Institute of Technology, University of Massachussetts, Montana State University, Ohio State University, University of Pennsylvania, Purdue University, Stanford University, U.S. Department of Agriculture, U.S. Department of the Interior, U.S. Environmental Protection Agency, U.S. Department of Housing and Urban Development, University of Wisconsin, University of Wyoming.

GRADUATE STUDENTS AND POSTDOCTORAL RESEARCHERS SUPERVISED

Molly VanDop
In progress

David McLaughlin
Environmental Defense Fund

Dina Gorenshteyn
Amazon

Andrew Stevens
University of Wisconsin

Hilary Soldati
Cal Poly San Luis Obispo

Steven Buck
University of Kentucky

Howard Chong
Cornell University

Sarah Dobson
University of Alberta

Deepak Rajagopal
UCLA

Brian Gross
University of British Columbia

Karina Schoengold
University of Nebraska

Aaron Swoboda
University of Pittsburgh

Nicholas Brozovic
University of Illinois

Sean Cash
University of Alberta

Georgina Moreno
Scripps College

Daniel Osgood
University of Arizona

Mark Metcalf
University of Wisconsin - Madison

Janis Carey
Colorado School of Mines

Joshua Zivin
Columbia University

Katrin Millock
EUREQua, CNRS and Université Paris I

Sabrina Ise
U.S. Environmental Protection Agency

Steven Hamilton
University of Arizona

Gareth Green
Washington State University

PROFESSIONAL ASSOCIATIONS

American Economic Association
American Law and Economics Association
Association of Environmental and Resource Economists
Econometric Society

Appendix B
Documents Relied Upon

Court Documents
Claxton Poultry Farms' Objs. & Resps. to All Pls.' First Interrogs. to Claxton Poultry, Harrison Poultry, & Mar-Jac Poultry at 8-11, Apr. 30, 2018
Fieldale Farms' Objs. & Resps. to DPPs, CIIPPs, and EUCPs' Second Interrogs. to All Defs. at 2-4, Feb. 27, 2018
Foster Farms Defs.' First Suppl. Answers & Objs. to All Pls.' Second Interrogs. at 12-15, 19-20, Aug. 3, 2018
FTC v. Staples, Inc., 970 F. Supp. 1066 (D.D.C. 1997)
George's Defs.' Suppl. Objs. & Resps. to DPPs, CIIPPs AND EUCPs' Interrog. Nos. 4, 5 & 7 to All Defs. at 1-5, Sept. 12, 2018
House of Raeford Farms, Inc.'s Resps. & Objs. to DPPs, CIIPPs and EUCPs Second Interrogs., Attach. AP-4(1) at 16-18, Feb. 27, 2018
Illinois Brick Co. v. Illinois, 431 U.S. 720 (1977)
In RE: Packaged Seafood Products Antitrust Litigation, Case No.: 15-MD-2670 JLS (MDD), Order Granting Motions for Class Certification, July 30, 2019.
Kleen Products LLC v. International Paper Company, 831 F.3d 919, 924, 95 Fed.R.Serv.3d 154 (7th Cir. 2016)
Koch Defs.' Am. Objs. & Resps. to Interrog. No. 4 of DPPs, CIIPPs, and EUCPs' Second Interrogs. to All Defs. at 7-10, July 28, 2020
Koch Defs.' Objs. & Resps. to DPPs, CIIPPs, and EUCPs Second Interrogs. to all Defs. at 7-8, Feb. 27, 2018
Mar-Jac Defs.' Resps. & Objs. to Pls.' First Interrogs. to Claxton, Mar-Jac & Harrison at 10-13, Apr. 30, 2018
Matthew Edwards, et al. v. National Milk Producers Federation, aka Cooperative Working Together, et al., No. C 11-04766 JSW, Order Regarding Motion for Class Certification, September 16, 2014
Mountaire Defs.' Objs. & Resps. to DPPs, CIIPPs and EUCPs' Second Interrogs. to All Defs. at 5-7, Feb. 27, 2018
OK Food Defs.' Objs. & Resps. to DPPs, CIIPPs and EUCPs' Second Interrogs. to All Defs. at 8-9, Feb. 27, 2018
Peco Foods Inc.'s Resps. & Objs. to All Pls.' Second Interrogs. to All Defs. at 5-8, Mar. 2, 2018
Perdue Defs.' Objs. & Resps. to All Pls.' Second Interrogs. at 6-8, Feb. 27, 2018
Pilgrim's Pride Corp.'s Resps. & Objs. to DPPs, CIIPPs and EUCPs' Second Interrogs. to All Defs. at 3-8, Feb. 27, 2018
Sanderson Farms Defs.' Am. Objs. & Resps. to DPPs, CIIPPs, and EUCPs Second Interrogs. to All Defs. at 5, Feb. 18, 2020
Simmons Defs.' Suppl. Resps. & Objs. to All Pls.' Second Interrogs. to All Defs. at 4-7, Mar. 30, 2018
Tyson Defs.' Objs. & Resps. to All Pls.' Second Interrogs. to All Defs. at 4-8, Feb. 27, 2018
Wayne Farms LLC's Objs. & Resps. to All Pls.' Second Interrogs. at 9-13, Feb. 18, 2018

Appendix B
Documents Relied Upon

Articles
Andrew Smyth, "An Experiment on Innovation and Collusion," *Economic Inquiry* 57, no. 3 (2019): 1526-1546
Armando Levy and David Sunding, "An Economic Treatment of Pass Through in Indirect Antitrust Litigation," *Competition* 30, no. 1 (Spring 2020)
AVIAN INFLUENZA: USDA Has Taken Actions to Reduce Risks but Needs a Plan to Evaluate Its Efforts, GAO-17-360: Published: Apr 13, 2017. Publicly Released: May 11, 2017. p. 15. https://www.gao.gov/products/GAO-17-360.
Bank of America Merrill Lynch, 2012 Consumer and Retail Conference - Comments by Mike Schlotman (March 7, 2012)
Daniel L. Rubinfeld, "Quantitative Methods in Antitrust," in *Issues in Competition Policy*, ed. by Wayne D. Collins (Chicago: ABA Section of Antitrust Law, 2008)
Daniel L. Rubinfeld, "Reference Guide on Multiple Regression," in Reference Manual on Scientific Evidence: Third Edition (Washington, DC: The National Academies Press, 2011)
David Besanko, Jean-Pierre Dubé, and Sachin Gupta, "Own-Brand and Cross-Brand Retail Pass-Through," *Marketing Science* 24, no. 1 (February 2005): 123-137.
"Cobb Grandparent Management Guide," Cobb-Vantress (2011), p. 4, https://www.cobb-vantress.com/assets/Cobb-Files/management-guides/5de5208454/3450c490-bbd7-11e6-bd5d-55bb08833e29.pdf
"Cobb500 FF Parent Rearing Management Record," Cobb Vantress, https://www.cobb-vantress.com/assets/Cobb-Files/product-guides/9f122c1791/500-FF-GRAMS-1118.pdf
"New Product Profile series for Cobb family of breeds," The Poultry Site (March 29, 2005) https://thepoultrysite.com/news/2005/03/new-product-profile-series-for-cobb-family-of-breeds
"Tyson transforms industry with new plant," The Kansas City Star, June 17, 1993 https://www.postbulletin.com/tyson-transforms-industry-with-new-plant/article_97687239-df72-5c9c-b1e6-b5b9b73006f3.html
"WLR goes cold on turkey," Charlotte Business Journal, January 27, 1998 (accessed October 26, 2020), https://www.bizjournals.com/charlotte/stories/1998/01/26/daily3.html
21 U.S.C. § 331
9 C.F.R. § 301.2
ABA Section of Antitrust Law, Econometrics (John Harkrider and Daniel Rubinfeld, eds., (2005)
Elena Lopez, and Emilio Pagoulatos, "Estimates and Determinants of Armington Elasticities for the US Food Industry," *Journal of Agricultural & Food Industrial Organization* 15, no. 2 (2018)
Floyd A. Lasley, Harold B. Jones Jr, Edward Easterling, and Lee Christensen. "The US Broiler Industry," *Agricultural Economic Report* 591 (1988), p. 8; *Per Capita Consumption of Poultry Livestock, 1960 to Forecast 2012, in Pounds*, National Chicken Council (Sept. 16, 2020), https://www.nationalchickencouncil.org/about-the-industry/statistics/per-capita-consumption-of-poultry-and-livestock-1965-to-estimated-2012-in-pounds/
Frank Verboven and Theon van Dijk, "Cartel Damages Claims and the Passing-On Defense," *J. Indus. Econ.* 57, (Sept. 2009): 457
Frederic M. Scherer and David R. Ross, *Industrial Market Structure and Economic Performance*, 3rd ed. (Houghton Mifflin, 1990)
George A. Hay,and Daniel Kelley. "An Empirical Survey of Price Fixing Conspiracies," *The Journal of Law and Economics* 17, no. 1 (1974): 13-38
George Stigler, "A Theory of Oligopoly," *Journal of Political Economy* 72, no. 1 (1964): 44–61 at 46
Glynn T. Tonsor, James R. Mintert, and Ted C. Schroeder, "US Meat Demand: Household Dynamics and Media Information Impacts," *Journal of Agricultural and Resource Economics* (2010): 1-17
Gregory J. Werden, Luke M. Froeb, and Steven Tschantz, "The Effects of Merger Efficiencies on Consumers of Differentiated Products," *European Comp. J.* 1, (Oct. 2005): 245-264

Appendix B
Documents Relied Upon

James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, EIB-126, U.S. Department of Agriculture, Economic Research Service, June 2014
Jean Tirole, *The Theory of Industrial Organization*, (MIT Press 1988), Chapter 5
Jennifer Brown, Justine Hastings, Erin T. Mansur, and Sofia B. Villas-Boas, "Reformulating Competition? Gasoline Content Regulation and Wholesale Gasoline Prices," *Journal of Environmental Economics and Management* 55, no. 1 (2008): 1-19
John M Connor, *The Food and Agricultural Global Cartels of the 1990s: Overview and Update*, No. 1239-2016-101535. 2002
Joint DOJ and FTC, Horizontal Merger Guidelines ("Merger Guidelines") §§5C, 5D and 5E, at 149-277 (August 19, 2020).
Jonathan B. Baker, "Market Definition: An Analytical Overview," *Antitrust Law Journal* 74.1 (2007)
Kroger Co., Q3 2010 Earnings Conference Call (December 2, 2010)
Kroger Co., Q3 2011 Earnings Conference Call (December 1, 2011)
Larry Cole, *Communication in Poultry Grower Relations: A Blueprint to Success* (Ames, Iowa: Iowa State University Press, 2000)
Laura M. Cheney, A. Blake Brown, Takashi Yamano, and Michael Masterovsky, "Issues of Demand Specification and Industry Structure in Turkeys and Broiler Chickens," *Journal of Agricultural and Applied Economics* 11, no. 1 (April 2001): 25-34
Lijia Mo, "Impact of Food Safety Information on US Poultry Demand," *Applied Economics* 45, no. 9 (2013): 1121-1131
Margaret C. Levenstein and Valerie Y. Suslow, "What Determines Cartel Success?," *Journal of Economic Literature* 44, no. 1 (2006): 43-95
Marin Weaver, Poultry, Industry and Trade Summary, Publication ITS-10. Washington, DC: US International Trade Commission, January 2014.https://www.usitc.gov/publications/332/poultry1.pdf
Mary K. Muth, Robert H. Beach, Shawn A. Karns, Justin L. Taylor, and Catherine L. Viator, *Poultry Slaughter and Processing Sector Facility-Level Model* (North Carolina: Research Triangle Institute, 2006)
Merger Guidelines §§2 and 4.
Michael H. Riordan and Steven C. Salop, "Evaluating Vertical Mergers: A Post-Chicago Approach," *Antitrust Law Journal* 63, no. 2 (Winter 1995): 513-568
Michael H. Riordan, "Competitive Effects of Vertical Mergers," in *Handbook of Antitrust Economics,* ed. Paolo Buccirossi (Cambridge, Mass.: MIT Press, 2008)
Mount Morris, "Why Brazil's Top Poultry Companies Dominate the Industry," *WATT Poultry International* September 2016. https://www.proquest.com/docview/2112908696
Office of Industries, *Poultry: Industry & Trade Summary*, US International Trade Commission, at 22 (Jan. 2014) https://www.usitc.gov/publications/332/poultry1.pdf
Pilgrim's Pride Corporation, FY10-K Annual Report for Fiscal Year ending December 30, 2012 from SEC EDGAR. https://www.sec.gov/edgar.shtml
Pilgrim's Pride Corporation, FY10-K Annual Report for Fiscal Year ending December 30, 2010 from SEC EDGAR. https://www.sec.gov/edgar.shtml
Reference for Business, "WLR Foods, Inc. - Company Profile, Information, Business Description, History, Background Information on WLR Foods, Inc.," https://www.referenceforbusiness.com/history2/60/WLR-Foods-Inc.html.
Robert S. Pindyck, "The Dynamics of Commodity Spot and Futures Markets: A Primer," *The Energy Journal* 22, no. 3 (2001)
Robert Taylor, "Indirect Damages from Price Fixing: The Alabama Lysine Case," *Review of Industrial Organization* 18, no. 1, 33-43 (2001)

Appendix B
Documents Relied Upon

Ronald Cotterill, Leonard Egan, and William Buckhold, "Beyond Illinois Brick: The Law and Economics of Cost Pass-Through in the ADM Price Fixing Case," *Review of Industrial Organization* 18, no. 1 (February 2001): 45-52
Ronald Meekhof, et al, "Poultry Slaughter and Processing Sector Facility-Level Model," Research Triangle Institute, North Carolina, United States (2006)
S. F. Hamilton, and D. L. Sunding, "Joint Oligopsony-Oligopoly Power in Food Processing Industries: Application to the US Broiler Industry," *American Journal of Agricultural Economics* (2020), https://doi-org.ezproxy.library.wisc.edu/10.1111/ajae.12115).
Sam Gazdziak, "2015: Pep in Poultry's Step," *National Provisioner* 229, no. 1 (January 2015): 44
Sanderson Farms, Inc., FY10-K Annual Report for Fiscal Year ending October 31, 2012 from SEC EDGAR. https://www.sec.gov/edgar.shtml
Sara Biancini, and David Ettinger, "Vertical Integration and Downstream Collusion," *International Journal of Industrial Organization* 53 (2017): 99-113
Sean Ramos, Matthew MacLachlan, and Alex Melton, "Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector," LDPM-282-0, USDA, Economic Research Service. (December 2017). p. 7. https://www.ers.usda.gov/webdocs/outlooks/86282/ldpm-282-02.pdf?v=4153
Supervalu Inc., Q1 2011 Earnings Conference Call (July 26, 2011)
Supervalu Inc., Q2 2014 Earnings Call (October 6, 2014)
Supervalu Inc., Q3 2011 Earnings Conference Call (January 11, 2011)
Supervalu Inc., Q4 2015 Earnings Call (April 28, 2015)
Thomas L. Marsh, Ted C. Schroeder, and James Mintert, "Impacts of Meat Product Recalls on Consumer Demand in the USA," *Applied Economics* 36, no. 9 (2004): 897-909
Tomislav Vukina, and Porametr Leegomonchai. "Oligopsony Power, Asset Specificity, and Hold-Up: Evidence from the Broiler Industry." *American Journal of Agricultural Economics* 88, no. 3 (November 2006): 589-605
Tyson Foods, Inc., FY10-K Annual Report for Fiscal Year ending September 29, 2012 from SEC EDGAR. https://www.sec.gov/edgar.shtml
Volker Nocke and Lucy White, "Do Vertical Mergers Facilitate Upstream Collusion?," *American Economic Review* 97, no. 4 (September 2007): 1321-1339
Whitney K. Newey and Kenneth D. West, "A Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix," *Econometrica* 55, no. 3 (May 1987): 703-708.
William A. Dozier and Curran K. Gehring, "Growth Performance of Hubbard × Cobb 500 and Ross × Ross 708 Male Broilers Fed Diets Varying in Apparent Metabolizable Energy from 14 to 28 Days of Age," *Journal of Applied Poultry Research* 23, no. 3 (2014): 494-500
Yongmin Chen and Michael H. Riordan, "Vertical Integration, Exclusive Dealing, and Expost Cartelization," *The RAND Journal of Economics* 38, no. 1 (Spring 2007): 1-21

Appendix B
Documents Relied Upon

Depositions
30(b) (1) Deposition of Ken Qualls, February 7, 2011
30(b)(1) and 30(b)(6) Deposition of Robert Rosa, March 14, 2019
30(b)(6) Deposition of Ken Qualls, February 7, 2019
30(b)(6) Deposition of Shayle Shagam, USDA Economist, October 23, 2019
Deposition of Adriaan Weststrate, June 19, 2019
Deposition of Arty Gordon Schronce, Employee Poultry Marketing News Georgia Department of Agriculture, December 13, 2018
Deposition & Exhibits of Benny Bishop, March 21, 2019
Deposition of Brian Baker, May 16, 2019
Deposition & Exhibits of Bryan Reese, September 10, 2020
Deposition of Chalton Jerome Lane, Jr., Claxton, April 4, 2019
Deposition of Dana Weatherford (Agri Stats), September 4, 2020
Deposition of Daniel Pope, November 13, 2018
Deposition of David M. Cockrell, February 7, 2019
Deposition of Donald W. Jackson, December 6, 2018
Deposition of Douglas Brent Simpson, December 4, 2019
Deposition of Dustin Cannaday, June 19, 2019
Deposition of E. Bradley Respess, March 19, 2019
Deposition of Edward Bradley Respess, March 13, 2019
Deposition of Gaston Lebois, September 29, 2020
Deposition of Jason McGuire, May 22, 2019
Deposition of Jay Moss, October 3, 2018
Deposition of Jeffrey Cramer, October 25, 2018
Deposition of Jim Shepard, Wayne Farms, November 20, 2018
Deposition of John LaCour, May 15, 2019
Deposition of Joseph Grendys, December 11, 2018
Deposition of Josh Monfredini, August 28, 2019
Deposition of Ken Qualls, House of Raeford 30(b)(6), Feb. 6, 2019
Deposition of Lampkin Butts, May 2, 2019
Deposition of Larry Pate, Pilgrim's, June 13, 2019
Deposition of Lawrence Eugene Saywell, January 25, 2019, 3179283-1, Vol. I
Deposition of Mark Hickman, December 18, 2018
Deposition of Michael Donohue, Agri Stats, May 3, 2019
Deposition of Michael Donohue, May 3, 2019
Deposition of Michael H. Hambright, September 12, 2019
Deposition of Neal F. Yoder, August 22, 2019
Deposition of Neil Morgan, February 28, 2019
Deposition of Paul Christianson, September 27, 2019
Deposition of Paul Downes, May 30, 2019
Deposition of Phillip Kevin Turner, March 28, 2019
Deposition of Randall Trenton Goins, OK Foods, April 2, 2019
Deposition of Randy W. Pettus, November 7, 2018
Deposition of Robert Costner, April 4, 2019
Deposition of Robert Rosa, March 14, 2019
Deposition of Sammy Franklin, November 1, 2018
Deposition of Stewart Stevens, August 15, 2019
Deposition of Sue Trudell, March 18, 2019
Deposition of Sue Trudell, March 19, 2019
Deposition of Terry Thompson, November 14, 2018
Deposition of Tim Price, December 4, 2018

Appendix B
Documents Relied Upon

Deposition of Todd Wilson, October 2, 2018
Deposition of Tony Maturo, Fieldale, June 20, 2019, p. 166:14-16
Deposition of Wes Morris, Tyson, August 11, 2020
Deposition of William Snyder, February 26, 2019
Rule (30)(b)(6) Deposition of Steve Barkurn, September 23, 2020
Rule 30(b)(1) and Rule 30(b)(6) Deposition of Jeff Cook and Fareway Stores, October 23, 2019
Rule 30(b)(6) Deposition of Basha (Al Macaraeg), September 17, 2019
Rule 30(b)(6) Deposition of Certco (Daniel. R. Drake), October 31, 2019
Rule 30(b)(6) Deposition of Tyson (George Bernard Adcock), September 16, 2020
Rule 30(b)(6) Deposition of United Supermarkets (Richard Norman), February. 11, 2020
Rule 30(b)(6) Deposition of Urner Barry (Russell Whitman), February 6, 2019
Rule 30(b)(6) Deposition of William Matthews, Pilgrim's September 23, 2020

Appendix B
Documents Relied Upon

Websites

http://porky.com/our-company-history/

http://www.ers.usda.gov/dataproducts/commodity-and-food-elasticities/demand-elasticities-from-literature.aspx

http://www.worldstopexports.com/top-fresh-or-frozen-chicken-imports-by-country/

https://aboutseafood.com/about/councils/

https://agfax.com/2016/06/27/costco-plans-180m-nebraska-poultry-process-plant-farmers-learn-about-contracts-dtn/

https://data.ers.usda.gov/reports.aspx?ID=17825, selecting United States as the Country and Chicken as both the Commodity and Cross-Commodity. (The original url no longer works:

https://foreignpolicy.com/2017/11/16/are-chinas-chickens-contaminating-americas-plates/

https://fremonttribune.com/clarifications-on-rawhide-revalations/article_78502ae7-f677-527a-b9c6-89b3550e1e8c.html

https://fremonttribune.com/news/local/costco-chicken-plant-to-hold-ribbon-cutting-ceremony/article_8363b448-07d2-5de4-9149-c876455e1beb.html.

https://lincoln.ne.gov/city/plan/boards/pc/minutes/2018/071818.pdf

https://nppc.org/

https://omaha.com/money/we-re-not-going-to-meet-with-a-lynch-mob/article_cd29ab5e-3da2-11e6-b357-cb5ec56ebaea.html

https://thepoultrysite.com/news/2017/08/hubbard-to-become-a-subsidiary-of-aviagen-group

https://www.cdc.gov/prions/bse/case-us.html

https://www.cnn.com/2019/10/11/business/costco-5-dollar-chicken/index.html.

https://www.cobb-vantress.com/en_US/our-story/our-history/

https://www.eatturkey.org/

https://www.ers.usda.gov/data-products/meat-price-spreads/

https://www.feednavigator.com/Article/2017/06/20/Costco-invests-300m-in-feed-mill-poultry-production-complex

https://www.fsis.usda.gov/wps/wcm/connect/415278f6-9c67-4641-bf92-8aafb90e2ac0/Guidance-for-Importing-Meat-Poultry-Egg-Products-into-US.pdf?MOD=AJPERES

https://www.gao.gov/products/GAO-17-360.

https://www.govinfo.gov/app/collection/cfr/2016/title9/chapterIII/subchapterA/part381/subpartT

https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol2/pdf/CFR-2016-title9-vol2-part381-subpartT.pdf

Appendix B
Documents Relied Upon

https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol2/pdf/CFR-2016-title9-vol2-sec381-195.pdf

https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol2/pdf/CFR-2016-title9-vol2-sec381-196.pdf

https://www.houseofraeford.com/our-story/history/

https://www.nationalchickencouncil.org

https://www.nationalchickencouncil.org/; https://www.nationalchickencouncil.org/about-ncc/overview/

https://www.nationalchickencouncil.org/about-the-industry/statistics/chicken-broiler-and-other-production-head-and-live-weight/.

https://www.nationalchickencouncil.org/about-the-industry/statistics/per-capita-consumption-of-poultry-and-livestock-1965-to-estimated-2012-in-pounds/

https://www.nationalchickencouncil.org/about-the-industry/statistics/u-s-broiler-production/

https://www.nationalchickencouncil.org/industry-issues/vertical-integration/

https://www.ncba.org/

Phillip Clauer, "Modern Egg Industry," Penn State Extension. (July 5, 2012). https://extension.psu.edu/modern-egg-industry.

Pierpaolo Benigno and Ester Faia, "Globalization, Pass-Through and Inflation Dynamic," (Mar. 2010), available at http://www.nber.org/papers/w15842 (last accessed Feb. 14, 2020)

What's Behind the Rush into the Low-Margin Grocery Business (June 6, 2013), available at https://www.cnbc.com/id/100794988; Porte Brown Grocery & Food Service Quarterly Industry Report (March 2018).

SEC Edgar, https://www.sec.gov/Archives/edgar/data/760775/0000760775-99-000052.txt

Appendix B
Documents Relied Upon

Bates Numbered Documents
AD0000815786-787
AGSTAT-00000165-169
AGSTAT-00000170-174
AGSTAT-00000228-233
AGSTAT-00000246-253
AGSTAT-00020141-171
AGSTAT-00228691-722
AGSTAT-00360251-255
AGSTAT-00366394-425
AGSTAT-00384384-385
AGSTAT-09353757-882
AGSTAT-09371816-818
AGSTAT-09375524-549
AGSTAT-09376156-176
AGSTAT-09531198-203
AGSTAT-14571418-441
AGSTAT-14572013-070
AGSTAT-14576498
AGSTAT-14579417-491
AGSTAT-14585362-363
AGSTAT-14611797-853
AGSTAT-14611984-2009
AGSTAT-14614699-727
AGSTAT-14624295-341
AGSTAT-14625257-275
AGSTAT-14646830-870
AGSTAT-14683391-417
AGSTAT-14687400-401
AGSTAT-14714879
AGSTAT-14728634-635
AGSTAT-14967629-633
AGSTAT-15302503-504
AGSTAT-15391090-171
AGSTAT-15391161
AGSTAT-15391769-785
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ALBCHKED0000067027-041
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CASEFOODS0000189107-140
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JPMS-00003466-647
JPMS-00004809-864
JPMS-00014085
JPMS-00039069-9076

Appendix B
Documents Relied Upon

KBCM002852-916
KOCH_0000076390
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KOCH_0000254421-421_010
KOCH_0000269984-988
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PILGRIMS-0005346894-907

Appendix B
Documents Relied Upon

PILGRIMS-0005362739
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PILGRIMS-0005678220
PILGRIMS-0005739024-26
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PILGRIMS-0005902091
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Appendix B
Documents Relied Upon

TF-0000029870
TF-0000033985-34008
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TF-0002767323-371
TF-0002795864
TF-0002830905
TF-0002832480
TF-0002866821-864
TF-0002895424-472
TF-0002896069
TF-0002898591-639
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TF-0002909286-329
TF-0002951162
TF-0002960805
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TF-0007424939-942
TF-0007431460-461
TF-0007468144-145
TF-0007484968-978
TF-0007485375
TF-0007485467-514
TF-0007485537-559
TF-0007487322
TF-0007488404-405
TF-0007493027-055
TF-0007497007-050
TF-0007500109-148
TF-0007525312-360
TF-0007626008-180
TF-0007860236-237
TF-0007879741
TF-0007881275-79
TF-0007882142-190
TF-0007893402
TF-007493027-055
TIPTOP00002837-850
TRUDELL000306-392
Tyson 10-K 2012
UB0000166337-338
USDA0000000047-054
USF-BR-0001224081
USF-BR-0002070050-98
USF-BR-0003369565-613
USPOULTRY0000023246-265
WF-0000010717-741
WF-0000669291-317
WF-0000969779-894
WF-0000985366-87
WF-0001190674-721
WF-0001213892-900
WF-0001238362
WF-0001277294-310

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Documents Relied Upon

Data Documents

AGSTAT-00795872-85

adusa_bcca_eucp_data_ventures_prod.mdf
adusa_bcca_eucp_data_ventures_prod_log.ldf
[HIGHLY CONFIDENTIAL] UPC_Details1.csv
[HIGHLY CONFIDENTIAL] UPC_Details2.csv
[HIGHLY CONFIDENTIAL] UPC_Details3.csv
2020-Aug ADUSA Store Locations-c.xlsx
adusa_biceps_purch_sys_data_y2007_y2016.txt
DA_PO_LN_ALW_A.txt
DA_PO_LN_FDLN_A.txt
DA_PO_LN_HAN_A.txt
HIGHLY CONFIDENTIAL mv_d_upc.txt
HIGHLY CONFIDENTIAL posth_item_trans_detail_2012_2015.txt
HIGHLY CONFIDENTIAL posth_item_trans_detail_2016.txt
Feb 14 2020 email from Emily K. Bolles to Alison Deich Subject: Ahold Delhaize Subpoena
"[HIGHLY CONFIDENTIAL] posth_item_trans_detail_2014.txt"

DM-#537595-v2-Broilers_-_Summary_of_John_Comino_Deposition (confirmed that Tip Top does spent hens and rendering)
AGSTAT-09413867
AGSTAT-09346376
AGSTAT-09346378
CASEFOODS0000062692.
FF-BC-00419213
FF-BC-00203909
KOCH_0001014895
KOCH_0001831795
PERDUE0001038718
PERDUE0001050828
PERDUE0001540066
PERDUE0000957305
TF-0003773473
TF-0003772867
TF-0007624307

*Pork
SeriesReport-20200520121937_272440.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>CUUR0000SEFD
accessed: 5/20/2020

*Beef
SeriesReport-20200520122055_bd88ed.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>CUUR0000SEFC
accessed: 5/20/2020

*Unemployment
SeriesReport-20200520122345_1e4c33.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>LNS14000000
accessed: 5/20/2020

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Documents Relied Upon

*CPI
SeriesReport-20200520122247_df17cf.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>CUUR0000SA0
accessed: 5/20/2020

*Turkey
SeriesReport-20200520120312_64d8ad.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>APU0000706311
accessed: 5/20/2020

*Eggs
SeriesReport-20200520120133_467db5.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>APU0000708111
accessed: 5/20/2020

*Feed
SeriesReport-20200520115943_d3e12d.xlsx
source: https://data.bls.gov/cgi-bin/srgate
>WPU02930102
accessed: 5/20/2020

*Oil prices
RWTCm.xls
source: https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RWTC&f=M
accessed: 5/20/2020

*Real GDP
A939RX0Q048SBEA.xls
source: https://fred.stlouisfed.org/series/A939RX0Q048SBEA
accessed: 5/12/2020

*Retail Spending
MRTSSM722USS.xls
source: https://fred.stlouisfed.org/series/MRTSSM722USS
accessed: 5/20/2020

*Population
POPTHM.xls
source: https://fred.stlouisfed.org/series/POPTHM
accessed: 5/19/2020

*Google search indexes
source: https://trends.google.com/trends/?geo=US
terms
"Atkins" google_atkins.csv
"chicken wings" google_chicken_wings.csv
"mad cow" google_mad_cow.csv
accessed 9/23/30

Selected series from IHS Markit
M614REXD.M
M223REXD.M
M156REXD.M

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M924REXD.M
M928REXD.M
M532REXD.M
M946REXUSDED.M
M273REXD.M
M922REXD.M
M186REXD.M
M926REXD.M
file: Workbook__03_09_2020.xlsx
accessed 3/9/2020

*AMS price series
Files report.xls, report (1).xls-report (10).xls
source: https://marketnews.usda.gov/mnp/py-report-config

table0093.xls
source: https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0093.xls
accessed 5/8/2019

table0095.xls
source: https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0095.xls
accessed 3/16/2020

table0096.xls
source: https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0096.xls
accessed 3/16/2020

table0097.xls
source: https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0097.xls
accessed 3/16/2020

*ERS data
Broilers Pivot.xlsx
source: https://www.ers.usda.gov/data-products/livestock-meat-domestic-data/livestock-meat-domestic-data/#Broilers
accessed: 3/10/202

WholesalePrices.xlsx
source: www.ers.usda.gov/webdocs/DataFiles/51875/WholesalePrices.xls?v=6021.4
accessed: 5/12/2020

history (2).xls
source: https://www.ers.usda.gov/webdocs/DataFiles/52160/history.xls?v=954.2
accessed: 9/1/2020

Feed_Grains_Excel (sm).xls
source: https://data.ers.usda.gov/FEED-GRAINS-custom-query.aspx
Prices>Soybean meal, high protein>U.S. - Central IL>Monthly>All years
accessed: 5/13/2020

Feed_Grains_Excel (c2).xls
https://data.ers.usda.gov/FEED-GRAINS-custom-query.aspx
Prices>Corn, No. 2 yellow>U.S. - Chicago, IL>Monthly>All years
accessed: 5/13/2020

MeatSDFull.xls

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Documents Relied Upon

source: https://www.ers.usda.gov/webdocs/DataFiles/51875/MeatSDFull.xlsx?v=4084.5
accessed 9/3/2020

BroilerTurkey_MonthlyFull
https://www.ers.usda.gov/data-products/livestock-and-meat-international-trade-data/livestock-and-meat-international-trade-data/
Pulled on: 20191107

ElasticityRP092111.xlsx
https://data.ers.usda.gov/reports.aspx?ID=17825
Exported 10/28/2020, selecting United States as the Country and Chicken as both the Commodity and Cross-Commodity

FSIS recalls
Hand entry
https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/recall-case-archive-2000
https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/recall-case-archive-2001
https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/recall-case-archive-2002
https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/recall-case-archive-2003
https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/recall-case-archive-2004
accessed 2/5/2020

https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive
1994.txt
1995.txt
1996.txt
1997.txt
1998.txt
1999.txt
FSIS_Recall_Summary_2005-2009.xls
FSIS_Recall_Summary_2010_2.xls
FSIS_Recall_Summary_2011_1.xls
FSIS_Recall_Summary_2012_3.xls
FSIS-Recall-Summary-2013.xlsx
FSIS-Recall-Summary-2014.xlsx
FSIS-Recall-Summary-2015.xlsx
FSIS-Recall-Summary-2016.xlsx
FSIS-Recall-Summary-2017.xlsx
FSIS-Recall-Summary-2018.xlsx
Accessed 1/24/2020
FSIS-Recall-Summary-2019.xlsx
Acessed 9/4/2020

NASS young chicken slaughtered
F2AC0B6E-3228-3BB6-AE63-8F9F56C7C81C.csv
https://quickstats.nass.usda.gov/
Survey>Poultry>Chickens>Slaughtered>CHICKENS, YOUNG, SLAUGHTER, FI - SLAUGHTERED, MEASURED IN HEAD
Survey>Poultry>Chickens>Slaughtered>CHICKENS, YOUNG, SLAUGHTER, FI - SLAUGHTERED, MEASURED IN LB, LIVE BASIS
Accessed: Oct 16, 2020

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Documents Relied Upon

UB Chicken, EC Fz Exp Legs, Jumbo, Layer Pkd.csv
USDA Chicken and Egg reports data downloaded from https://usda.library.cornell.edu/concern/publications/fb494842n?locale=en (individual zip files for each month were downloaded from May 2001 through September 2020)

Letter to Plaintiffs re Agri Stats Data Questions
2019-06-19 Bobby Pouya - Justin Burnick re Response to Plaintiff's Agri Stats' Data Production
4.20.20
7.30.2020
3.16.20

From Agri Stats:
dim_clmn_addendum_HIGHLY CONFIDENTIAL.csv
AGSTAT-15546479_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546454_HIGHLYCONFIDENTIAL.csv
dim_clmn_HIGHLY CONFIDENTIAL.csv
live_mm_fact_200401_201712_Brdr_1-9_1-24.csv
Region Codes.xlsx
AGSTAT-15546440_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546309.txt
AGSTAT-15546300_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546307_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546308_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546299_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546302_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546303_HIGHLYCONFIDENTIAL.csv
AGSTAT-15546305_HIGHLYCONFIDENTIAL.csv
From Tyson:
TF-0002403413_Tyson Growout Information System Data_HIGHLY CONFIDENTIAL.xlsx
TF-0002403414_Tyson Hatchery Information System Data_HIGHLY CONFIDENTIAL.xlsx
TF-0007917747 - HIGHLY CONFIDENTIAL.xlsx
TF-0007917748 - HIGHLY CONFIDENTIAL.xlsx
TF-0007917749 - HIGHLY CONFIDENTIAL.xlsx
TF-0007917750 - HIGHLY CONFIDENTIAL.xlsx
TF-0002243442_101211.xlsx
TF-0002244385_110402.xlsx
TF-0002439142_110430u.xlsx
TF-0002439144_110430u.xlsx
TF-0002453964_120217.xlsx
TF-0002457403_120331.xlsx
TF-0002457557_120331.xlsx
TF-0002457564_120331.xlsx
TF-0002457566_120331.xlsx
TF-0003907319_100821.xlsx
TF-0007901900_120721u.xlsx
TF-0007901902_120714.xlsx
TF-0007901953_120630u.xlsx
TF-0007901967_120623.xlsx
TF-0007902005_120616.xlsx
TF-0007902010_120602u.xlsx
TF-0007902028_120609.xlsx
TF-0007902060_120526u.xlsx
TF-0007902084_120519u.xlsx
TF-0007902101_120512u.xlsx

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TF-0007902145_120505u.xlsx
TF-0007902172_120428.xlsx
TF-0007902194_120421u.xlsx
TF-0007902229_120414.xlsx
TF-0007902240_120407u.xlsx
TF-0007902277_120331u.xlsx
TF-0007902281_120331u.xlsx
TF-0007902302_120324u.xlsx
TF-0007902325_120317u.xlsx
TF-0007902359_120310u.xlsx
TF-0007902381_120303.xlsx
TF-0007902400_120225u.xlsx
TF-0007902450_120210.xlsx
TF-0007902462_120204u.xlsx
TF-0007902472_120128.xlsx
TF-0007902502_111231.xlsx
TF-0007902520_111224.xlsx
TF-0007902541_111217.xlsx
TF-0007902615_111210.xlsx
TF-0007902636_111203u.xlsx
TF-0007902698_111119.xlsx
TF-0007902712_111112u.xlsx
TF-0007902732_111105.xlsx
TF-0007902778_111029u.xlsx
TF-0007902797_111015.xlsx
TF-0007902820_111008.xlsx
TF-0007902872_111001.xlsx
TF-0007902898_110924.xlsx
TF-0007902900_110917f.xlsx
TF-0007902981_110910.xlsx
TF-0007902986_110903u.xlsx
TF-0007903000_110827.xlsx
TF-0007903067_110819.xlsx
TF-0007903273_110613.xlsx
TF-0007903394_110416u.xlsx
TF-0007903398_110409u.xlsx
From Perdue:
ALL FINS
MTECH Field Names
P2P Documents 01012102 to 12312105 _Part 1
P2P Documents 01012106 to 12312117 _Part 2
From Peco:
PECO0000915851
PECO0000915984

USDA ERS Data Response.pdf
Nicholas Co. Data Response.pdf
Kroger Data Response.pdf
Albertsons Data Response.pdf
Albertsons Data Response_2.pdf
ALDI Data Response.pdf
Delhaize Data Response.pdf
history.xls
ZIP_CBSA_032020.xlsx
Sanderson-0001738678
Sanderson-0001738679

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Sanderson-0001738680
GIMS 2011 Final.xls
Sanderson-0001774983
Sanderson-0001774984
Sanderson-0001774987
GIMS 2012 FINAL COPY.xls
GIMS 2009.xlsx
GIMS 2015.xlsx
GIMS 2018 by CBSA.xlsx
READ ME FIRST_CSG License Agreement.pdf
AFI_SALESDATA_01 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_02 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_03 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_04 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_05 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_06 HIGHLY CONFIDENTIAL.xlsx
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AFI_SALESDATA_09 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_10 HIGHLY CONFIDENTIAL.xlsx
AFI_SALESDATA_11 HIGHLY CONFIDENTIAL.xlsx
AGBR_CHICKENS_SALESDATA_001 HIGHLY CONFIDENTIAL.xlsx
AGNE_SALES DATA001 HIGHLY CONFIDENTIAL.xlsx
AGNE_SALES DATA002 HIGHLY CONFIDENTIAL.xlsx
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AGNE_SALES DATA006 HIGHLY CONFIDENTIAL.xlsx
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BUR000082_HIGHLY CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER.xls
BUR000083_HIGHLY CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER.xls
PRODUCTION INDEX.xlsx

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Documents Relied Upon

CERTCO.CHICKENS.000001.xlsx
CERTCO.CHICKENS.000002.xlsx
CertcoSubp_Salesdata00001 HIGHLY CONFIDENTIAL.xlsx
CertcoSubp_Salesdata00002 HIGHLY CONFIDENTIAL.xlsx
CertcoSubp_Salesdata00003 HIGHLY CONFIDENTIAL.xlsx
CertcoSubp_Salesdata00004 HIGHLY CONFIDENTIAL.xlsx
CertcoSubp_Salesdata00005 HIGHLY CONFIDENTIAL.xlsx
CertcoSubp_Salesdata00006 HIGHLY CONFIDENTIAL.xlsx
CertcoSubp_Salesdata00007 HIGHLY CONFIDENTIAL.xlsx
CHENEY0000001.XLS
CHENEY0000002.XLSX
CHENEY0000003.XLSX
CHENEY0000004.XLSX
CHENEY0000005.CSV
CHENEY0000006.CSV
CHENEY0000007.CSV
CHENEY0000008.CSV
CBB_SALESDATA_01 HIGHLY CONFIDENTIAL.xlsb
CBB_SALESDATA_01.0 HIGHLY CONFIDENTIAL.xlsb
CBB_SALESDATA_02 HIGHLY CONFIDENTIAL.xlsb
CBB_SALESDATA_03 HIGHLY CONFIDENTIAL.xlsb
CBB_SALESDATA_04 HIGHLY CONFIDENTIAL.xlsb
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CBB_SALESDATA_06 HIGHLY CONFIDENTIAL.xlsb
CBB_SALESDATA_07 HIGHLY CONFIDENTIAL.xlsb
CBB_SALESDATA_08 HIGHLY CONFIDENTIAL.xlsb
DOT_BROILTD001.xlsx
DOT_BROILTD002.xlsx
Product Usage Report 2016 January - Sample for Atty.xls
ProductUsageReport 2006 Q1.xls
ProductUsageReport 2006 Q2.xls
ProductUsageReport 2006 Q3.xls
ProductUsageReport 2006 Q4.xls
ProductUsageReport 2007 Q1.xls
ProductUsageReport 2007 Q2.xls
ProductUsageReport 2007 Q3.xls
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ProductUsageReport 2009 Q3.xls
ProductUsageReport 2009 Q4.xls
ProductUsageReport 2010 Q1.xls
ProductUsageReport 2010 Q2.xls
ProductUsageReport 2010 Q3.xls
ProductUsageReport 2010 Q4.xls
ProductUsageReport 2011 Q1.xls
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ProductUsageReport 2011 Q4.xls
ProductUsageReport 2012 Q1.xls
ProductUsageReport 2012 Q2.xls
ProductUsageReport 2012 Q3.xls

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ProductUsageReport 2012 Q4.xls
ProductUsageReport 2013 Q1.xls
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ProductUsageReport 2013 Q3.xls
ProductUsageReport 2013 Q4.xls
ProductUsageReport 2014 Q1.xls
ProductUsageReport 2014 Q2.xls
ProductUsageReport 2014 Q3.xls
ProductUsageReport 2014 Q4.xls
ProductUsageReport 2015 Q1.xls
ProductUsageReport 2015 Q2.xls
ProductUsageReport 2015 Q3.xls
ProductUsageReport 2015 Q4.xls
ProductUsageReport 2016 Q1.xls
ProductUsageReport 2016 Q2.xls
ProductUsageReport 2016 Q3.xls
ProductUsageReport 2016 Q4.xls
ProductUsageReport 2017 Q1.xls
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ProductUsageReport 2018 Q1.xls
ProductUsageReport 2018 Q2.xls
ProductUsageReport 2018 Q3.xls
ProductUsageReport 2018 Q4.xls
ProductUsageReport 2019 Q1.xls
ProductUsageReport 2019 Q2.xls
ProductUsageReport 2019 Q3.xls
ProductUsageReport 2019 Q4 to date 2019 12 29.xls
Purchasing G-L Summary Report 2006.xls
Purchasing G-L Summary Report 2007.xls
Purchasing G-L Summary Report 2008.xls
Purchasing G-L Summary Report 2009.xls
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Purchasing G-L Summary Report 2011.xls
Purchasing G-L Summary Report 2012.xls
Purchasing G-L Summary Report 2013.xls
Purchasing G-L Summary Report 2014.xls
Purchasing G-L Summary Report 2015.xls
Purchasing G-L Summary Report 2016 9 02.xls
Purchasing G-L Summary Report 2016.xls
NICHOLAS_SALES DATA_001 HIGHLY CONFIDENTIAL.csv
NICHOLAS_SALES DATA_002 HIGHLY CONFIDENTIAL.csv
NICHOLAS_SALES DATA_003 HIGHLY CONFIDENTIAL.csv
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SUBPO2015.xlsx
SUBPO2016.xlsx
SUBPO2017.xlsx
SUBPO2018.xlsx
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SubSOPorkyTrading.csv
File Column Legend.xlsx

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2020-03-05 - response to data questions.pdf
QUIRCH0856022_HIGHLY CONFIDENTIAL.csv
QUIRCH0856023_HIGHLY CONFIDENTIAL.csv
QUIRCH0856024_HIGHLY CONFIDENTIAL.csv
QUIRCH0856025_HIGHLY CONFIDENTIAL.csv
QUIRCH0856026_HIGHLY CONFIDENTIAL.csv
QUIRCH0856027_HIGHLY CONFIDENTIAL.csv
QUIRCH0856028_HIGHLY CONFIDENTIAL.csv
Quirch Sales and Purchase Data Questions (Quirch Responses 10022020).DOCX
19.05.30_SubpoenaChickenData.xlsx
SGA_CKN_032034818-HIGHLY CONFIDENTIAL.xlsx
SGA_CKN_032034824_HIGHLY CONFIDENTIAL- SUBJECT TO PROTECTIVE ORDER.xlsx
SGA_CKN_032034825_HIGHLY CONFIDENTIAL- SUBJECT TO PROTECTIVE ORDER.xlsx
SGA_CKN_032034826_HIGHLY CONFIDENTIAL- SUBJECT TO PROTECTIVE ORDER.xlsx
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SYS-BR-0000165.txt
SYS-BR-0000166.txt
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USF-BR-0000272.txt
USF-BR-0000273.txt
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USF-BR-0000275.txt
2020-Aug ADUSA Store Locations-c.xlsx
adusa_biceps_purch_sys_data_y2007_y2016.txt
DA_PO_LN_ALW_A.txt
DA_PO_LN_FDLN_A.txt
DA_PO_LN_HAN_A.txt
HIGHLY CONFIDENTIAL mv_d_upc.txt
HIGHLY CONFIDENTIAL posth_item_trans_detail_2012_2015.txt
HIGHLY CONFIDENTIAL posth_item_trans_detail_2016.txt
[HIGHLY CONFIDENTIAL] UPC_Details1.csv

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[HIGHLY CONFIDENTIAL] UPC_Details2.csv
[HIGHLY CONFIDENTIAL] UPC_Details3.csv
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COSTCO_000007_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_COST_OT.xlsx
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COSTCO_000009_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_COST_SE.xlsx

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COSTCO_000010_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_COST_TE.xlsx
COSTCO_000136_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_BA.xlsx
COSTCO_000137_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_BD.xlsx
COSTCO_000138_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_SD.xlsx
COSTCO_000139_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_NW.xlsx
COSTCO_000140_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_OT.xlsx
COSTCO_000141_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_MW.xlsx
COSTCO_000142_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_NE.xlsx
COSTCO_000143_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_LA.xlsx
COSTCO_000144_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_COST_SE.xlsx
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COSTCO_000400_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_COST_NW.xlsx
COSTCO_000401_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_COST_OT.xlsx

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COSTCO_000402_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_COST_SD.xlsx
COSTCO_000403_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_COST_SE.xlsx
COSTCO_000404_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_COST_TE.xlsx
COSTCO_000525_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2010_COST_BA.xlsx
COSTCO_000526_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2010_COST_BD.xlsx
COSTCO_000527_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2010_COST_LA.xlsx
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COSTCO_000785_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2012_COST_NE.xlsx

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COSTCO_000787_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2012_COST_OT.xlsx
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COSTCO_001169_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_COST_MW.xlsx

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COSTCO_001171_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_COST_NE.xlsx
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COSTCO_001173_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_COST_OT.xlsx
COSTCO_001174_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_COST_SD.xlsx
COSTCO_001175_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_COST_SE.xlsx
COSTCO_001176_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_COST_TE.xlsx
COSTCO_001299_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_BA.xlsx
COSTCO_001300_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_BD.xlsx
COSTCO_001301_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_LA.xlsx
COSTCO_001302_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_MW.xlsx
COSTCO_001303_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_NE.xlsx
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COSTCO_001307_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_SE.xlsx
COSTCO_001308_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_COST_TE.xlsx
COSTCO_001406_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_BA.xlsx
COSTCO_001407_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_BD.xlsx
COSTCO_001408_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_LA.xlsx
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COSTCO_001411_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_NE_P2.xlsx
COSTCO_001412_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_NW.xlsx
COSTCO_001413_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_SD.xlsx
COSTCO_001414_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_SE.xlsx
COSTCO_001415_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2009 _COUPON_TE.xlsx
COSTCO_001417_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2010 _COUPON_BD.xlsx

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COSTCO_001418_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2010 _COUPON_LA.xlsx
COSTCO_001419_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2010 _COUPON_MW.xlsx
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COSTCO_001424_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2010 _COUPON_SE.xlsx
COSTCO_001425_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2010 _COUPON_TE.xlsx
COSTCO_001426_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2011 _COUPON_BA.xlsx
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COSTCO_001434_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2011 _COUPON_SE.xlsx
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COSTCO_001442_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2012 _COUPON_NW.xlsx
COSTCO_001443_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2012 _COUPON_SD.xlsx
COSTCO_001444_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2012 _COUPON_SE.xlsx
COSTCO_001445_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2012 _COUPON_TE.xlsx

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COSTCO_001446_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2013 _COUPON_BA.xlsx
COSTCO_001447_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2013 _COUPON_BD.xlsx
COSTCO_001448_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2013 _COUPON_LA.xlsx
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COSTCO_001455_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2013 _COUPON_TE.xlsx
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COSTCO_001457_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2014 _COUPON_BD.xlsx
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COSTCO_001464_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2014 _COUPON_SE.xlsx
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COSTCO_001472_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2015 _COUPON_NW.xlsx
COSTCO_001473_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2015 _COUPON_SD.xlsx

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COSTCO_001474_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2015 _COUPON_SE.xlsx
COSTCO_001475_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2015 _COUPON_TE.xlsx
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COSTCO_001485_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P12_ 2016 _COUPON_TE.xlsx
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COSTCO_000053_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_SALES_FEB_NE_P1.xlsx
COSTCO_000054_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_SALES_FEB_NE_P2.xlsx
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COSTCO_000084_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_SALES_JUN_NE_P2.xlsx
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COSTCO_000104_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2006_SALES_MAY_NE_P2.xlsx
COSTCO_000205_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_SALES_JUL_NE_P1.xlsx
COSTCO_000206_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_SALES_JUL_NE_P2.xlsx

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COSTCO_000220_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_SALES_MAR_BA_P1.xlsx
COSTCO_000221_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_SALES_MAR_BA_P2.xlsx
COSTCO_000225_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_SALES_MAR_NE_P1.xlsx
COSTCO_000226_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2007_SALES_MAR_NE_P2.xlsx
COSTCO_000456_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_SALES_JAN_NE_P1.xlsx
COSTCO_000457_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_SALES_JAN_NE_P2.xlsx
COSTCO_000942_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2013_SALES_AUG_NE_P1.xlsx
COSTCO_000943_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2013_SALES_AUG_NE_P2.xlsx
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COSTCO_001228_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_SALES_JAN_NE_P1.xlsx
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COSTCO_001230_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_SALES_JAN_NW_P1.xlsx
COSTCO_001231_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_SALES_JAN_NW_P2.xlsx
COSTCO_001266_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2015_SALES_MAY_NE_P1.xlsx
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COSTCO_000363_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2008_SALES_MAY_NE.xlsx
COSTCO_001344_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_SALES_FEB_OT.xlsx
COSTCO_001355_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_SALES_JAN_OT.xlsx

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COSTCO_001393_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2016_SALES_MAY_OT.xlsx
COSTCO_000454_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2009_SALES_JAN_NE.xslx
COSTCO_000327a_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2008_SALES_JAN_NE_P1_Revised.xlsx
COSTCO_000327b_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2008_SALES_JAN_NE_P2_Revised.xlsx
COSTCO_000363a_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2008_SALES_MAY_NE_P1_Revised.xlsx
COSTCO_000363b_HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER_P10_2008_SALES_MAY_NE_P2_Revised.xlsx
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COSTCO_000042_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_DEC_LA.xlsx
COSTCO_000043_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_DEC_MW.xlsx
COSTCO_000044_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_DEC_NE.xlsx

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COSTCO_000045_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_DEC_NW.xlsx
COSTCO_000046_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_DEC_SD.xlsx
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COSTCO_000077_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUL_SE.xlsx
COSTCO_000078_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUL_TE.xlsx

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Documents Relied Upon

COSTCO_000079_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUN_BA.xlsx
COSTCO_000080_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUN_BD.xlsx
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COSTCO_000082_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUN_MW.xlsx
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COSTCO_000086_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUN_SD.xlsx
COSTCO_000087_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUN_SE.xlsx
COSTCO_000088_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_JUN_TE.xlsx
COSTCO_000089_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_MAR_BA.xlsx
COSTCO_000090_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_MAR_BD.xlsx
COSTCO_000091_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_MAR_LA.xlsx
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COSTCO_000109_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_MAY_TE.xlsx
COSTCO_000110_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_NOV_BD.xlsx
COSTCO_000111_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_NOV_LA.xlsx
COSTCO_000112_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_NOV_MW.xlsx

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Documents Relied Upon

COSTCO_000113_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_NOV_NE.xlsx
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COSTCO_000123_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2006_SALES_OCT_NW.xlsx
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COSTCO_000160_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_APR_MW.xlsx

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Documents Relied Upon

COSTCO_000161_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_APR_NW.xlsx
COSTCO_000162_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_APR_SD.xlsx
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COSTCO_000189_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_FEB_SD.xlsx
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COSTCO_000222_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_MAR_BD.xlsx
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COSTCO_000250_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_OCT_BD.xlsx

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COSTCO_000251_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_OCT_LA.xlsx
COSTCO_000252_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2007_SALES_OCT_NE.xlsx
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COSTCO_000298_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_AUG_LA.xlsx

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Documents Relied Upon

COSTCO_000299_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_AUG_MW.xlsx
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COSTCO_000313_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_DEC_NW.xlsx
COSTCO_000314_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_BA.xlsx
COSTCO_000315_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_BD.xlsx
COSTCO_000316_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_LA.xlsx
COSTCO_000317_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_MW.xlsx
COSTCO_000318_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_NE.xlsx
COSTCO_000319_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_NW.xlsx
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COSTCO_000323_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_FEB_TE.xlsx
COSTCO_000324_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_BD.xlsx
COSTCO_000325_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_LA.xlsx
COSTCO_000326_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_MW.xlsx

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Documents Relied Upon

COSTCO_000328_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_NW.xlsx
COSTCO_000329_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_SD.xlsx
COSTCO_000330_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_SE.xlsx
COSTCO_000331_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JAN_TE.xlsx
COSTCO_000332_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_BA.xlsx
COSTCO_000333_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_BD.xlsx
COSTCO_000334_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_LA.xlsx
COSTCO_000335_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_MW.xlsx
COSTCO_000336_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_NE.xlsx
COSTCO_000337_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_NW.xlsx
COSTCO_000338_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_JUL_SE.xlsx
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COSTCO_000352_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_MAR_MW.xlsx
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COSTCO_000354_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_MAR_NE.xlsx
COSTCO_000355_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_MAR_NW.xlsx

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Documents Relied Upon

COSTCO_000356_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_MAR_SD.xlsx
COSTCO_000357_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_MAR_SE.xlsx
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COSTCO_000384_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_OCT_SD.xlsx

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Documents Relied Upon

COSTCO_000385_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_OCT_TE.xlsx
COSTCO_000386_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2008_SALES_SEP_BA.xlsx
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COSTCO_000432_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_AUG_TE.xlsx

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Documents Relied Upon

COSTCO_000433_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_DEC_BA.xlsx
COSTCO_000434_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_DEC_BD.xlsx
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COSTCO_000461_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JAN_TE.xlsx
COSTCO_000462_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_BA.xlsx
COSTCO_000463_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_MW.xlsx

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Documents Relied Upon

COSTCO_000464_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_LA.xlsx
COSTCO_000465_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_BD.xlsx
COSTCO_000466_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_NE.xlsx
COSTCO_000467_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_NW.xlsx
COSTCO_000468_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_SD.xlsx
COSTCO_000469_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUL_SE.xlsx
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COSTCO_000474_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_JUN_MW.xlsx
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COSTCO_000491_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_MAY_LA.xlsx

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Documents Relied Upon

COSTCO_000492_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2009_SALES_MAY_MW.xlsx
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Documents Relied Upon

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COSTCO_000566_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_DEC_MW.xlsx
COSTCO_000567_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_DEC_NE.xlsx

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Documents Relied Upon

COSTCO_000568_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_DEC_NW.xlsx
COSTCO_000569_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_DEC_SD.xlsx
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COSTCO_000592_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_JUL_BD.xlsx
COSTCO_000593_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_JUL_MW.xlsx
COSTCO_000594_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_JUL_NE.xlsx
COSTCO_000595_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_JUL_SD.xlsx

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Documents Relied Upon

COSTCO_000596_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_JUL_SE.xlsx
COSTCO_000597_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_JUL_TE.xlsx
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COSTCO_000623_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_MAY_SE.xlsx

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Documents Relied Upon

COSTCO_000624_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_MAY_SD.xlsx
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COSTCO_000651_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2010_SALES_SEP_SE.xlsx

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Documents Relied Upon

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COSTCO_000699_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_DEC_TE.xlsx

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Documents Relied Upon

COSTCO_000700_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_FEB_BA.xlsx
COSTCO_000701_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_FEB_BD.xlsx
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COSTCO_000727_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_JUL_TE.xlsx

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Documents Relied Upon

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COSTCO_000753_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_MAY_TE.xlsx
COSTCO_000754_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_BA.xlsx
COSTCO_000755_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_BD.xlsx

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Documents Relied Upon

COSTCO_000756_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_LA.xlsx
COSTCO_000757_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_MW.xlsx
COSTCO_000758_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_NE.xlsx
COSTCO_000759_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_NW.xlsx
COSTCO_000760_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_SD.xlsx
COSTCO_000761_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_SE.xlsx
COSTCO_000762_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_NOV_TE.xlsx
COSTCO_000763_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_OCT_BA.xlsx
COSTCO_000764_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_OCT_BD.xlsx
COSTCO_000765_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_OCT_MW.xlsx
COSTCO_000766_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_OCT_LA.xlsx
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COSTCO_000769_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_OCT_SD.xlsx
COSTCO_000770_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_OCT_SE.xlsx
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COSTCO_000773_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_SEP_BD.xlsx
COSTCO_000774_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_SEP_LA.xlsx
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COSTCO_000777_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_SEP_NW.xlsx
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COSTCO_000779_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_SEP_SE.xlsx
COSTCO_000780_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2011_SALES_SEP_TE.xlsx
COSTCO_000801_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_BA.xlsx
COSTCO_000802_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_BD.xlsx
COSTCO_000803_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_LA.xlsx

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Documents Relied Upon

COSTCO_000804_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_MW.xlsx
COSTCO_000805_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_NE.xlsx
COSTCO_000806_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_NW.xlsx
COSTCO_000807_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_SD.xlsx
COSTCO_000808_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_APR_SE.xlsx
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COSTCO_000813_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_AUG_MW.xlsx
COSTCO_000814_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_AUG_NE.xlsx
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COSTCO_000829_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_FEB_BD.xlsx
COSTCO_000830_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_FEB_LA.xlsx
COSTCO_000831_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_FEB_MW.xlsx

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Documents Relied Upon

COSTCO_000832_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_FEB_NE.xlsx
COSTCO_000833_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_FEB_NW.xlsx
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COSTCO_000859_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_JUN_NE.xlsx

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Documents Relied Upon

COSTCO_000860_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_JUN_NW.xlsx
COSTCO_000861_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_JUN_SD.xlsx
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COSTCO_000885_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_NOV_MW.xlsx
COSTCO_000886_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_NOV_NE.xlsx
COSTCO_000887_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_NOV_NW.xlsx

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Documents Relied Upon

COSTCO_000888_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_NOV_SD.xlsx
COSTCO_000889_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2012_SALES_NOV_SE.xlsx
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COSTCO_000933_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_APR_NE.xlsx
COSTCO_000934_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_APR_NW.xlsx
COSTCO_000935_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_APR_SD.xlsx

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COSTCO_000936_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_APR_SE.xlsx
COSTCO_000937_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_AUG_BA.xlsx
COSTCO_000938_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_APR_TE.xlsx
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COSTCO_000965_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_FEB_TE.xlsx

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Documents Relied Upon

COSTCO_000966_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JAN_BA.xlsx
COSTCO_000967_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JAN_BD.xlsx
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COSTCO_000982_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUL_SE.xlsx
COSTCO_000983_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUL_TE.xlsx
COSTCO_000984_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_BA.xlsx
COSTCO_000985_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_BD.xlsx
COSTCO_000986_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_LA.xlsx
COSTCO_000987_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_MW.xlsx
COSTCO_000988_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_NE.xlsx
COSTCO_000989_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_NW.xlsx
COSTCO_000990_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_SD.xlsx
COSTCO_000991_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_SE.xlsx
COSTCO_000992_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_JUN_TE.xlsx
COSTCO_000993_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_BA.xlsx

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Documents Relied Upon

COSTCO_000994_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_BD.xlsx
COSTCO_000995_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_LA.xlsx
COSTCO_000996_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_MW.xlsx
COSTCO_000997_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_NE.xlsx
COSTCO_000998_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_NW.xlsx
COSTCO_000999_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_SD.xlsx
COSTCO_001000_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_SE.xlsx
COSTCO_001001_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAR_TE.xlsx
COSTCO_001002_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAY_BA.xlsx
COSTCO_001003_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAY_BD.xlsx
COSTCO_001004_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAY_LA.xlsx
COSTCO_001005_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAY_MW.xlsx
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COSTCO_001007_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_MAY_NW.xlsx
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COSTCO_001015_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_NOV_MW.xlsx
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COSTCO_001018_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_NOV_SE.xlsx
COSTCO_001019_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_NOV_TE.xlsx
COSTCO_001020_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_BA.xlsx
COSTCO_001021_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_BD.xlsx

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Documents Relied Upon

COSTCO_001022_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_LA.xlsx
COSTCO_001023_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_MW.xlsx
COSTCO_001024_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_NE.xlsx
COSTCO_001025_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_NW.xlsx
COSTCO_001026_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_SD.xlsx
COSTCO_001027_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_OCT_TE.xlsx
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COSTCO_001031_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_SEP_LA.xlsx
COSTCO_001032_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_SEP_MW.xlsx
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COSTCO_001037_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2013_SALES_SEP_TE.xlsx
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COSTCO_001063_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_APR_NW.xlsx
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COSTCO_001068_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_AUG_BD.xlsx
COSTCO_001069_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_AUG_LA.xlsx

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Documents Relied Upon

COSTCO_001070_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_AUG_MW.xlsx
COSTCO_001073_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_AUG_NW.xlsx
COSTCO_001074_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_AUG_SD.xlsx
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COSTCO_001098_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_JAN_MW.xlsx
COSTCO_001099_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_JAN_NE.xlsx

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Documents Relied Upon

COSTCO_001100_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_JAN_NW.xlsx
COSTCO_001101_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_JAN_SD.xlsx
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COSTCO_001123_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_BA.xlsx
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COSTCO_001125_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_MW.xlsx
COSTCO_001126_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_NE.xlsx
COSTCO_001127_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_NW.xlsx

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Documents Relied Upon

COSTCO_001128_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_SD.xlsx
COSTCO_001129_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_SE.xlsx
COSTCO_001130_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAR_TE.xlsx
COSTCO_001131_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAY_BA.xlsx
COSTCO_001132_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_MAY_BD.xlsx
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COSTCO_001155_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_OCT_NW.xlsx

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Documents Relied Upon

COSTCO_001156_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_OCT_SE.xlsx
COSTCO_001157_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2014_SALES_OCT_TE.xlsx
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COSTCO_001204_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_AUG_SD.xlsx
COSTCO_001205_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_AUG_TE.xlsx

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Documents Relied Upon

COSTCO_001206_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_DEC_BA.xlsx
COSTCO_001207_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_DEC_BD.xlsx
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COSTCO_001209_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_DEC_MW.xlsx
COSTCO_001210_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_DEC_NE.xlsx
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COSTCO_001234_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JAN_TE.xlsx
COSTCO_001235_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_BA.xlsx
COSTCO_001236_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_BD.xlsx
COSTCO_001237_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_LA.xlsx

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Documents Relied Upon

COSTCO_001238_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_MW.xlsx
COSTCO_001239_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_NE.xlsx
COSTCO_001240_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_NW.xlsx
COSTCO_001241_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_SD.xlsx
COSTCO_001242_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_SE.xlsx
COSTCO_001243_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUL_TE.xlsx
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COSTCO_001245_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_BD.xlsx
COSTCO_001246_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_LA.xlsx
COSTCO_001247_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_MW.xlsx
COSTCO_001248_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_NE.xlsx
COSTCO_001249_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_NW.xlsx
COSTCO_001250_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_SD.xlsx
COSTCO_001251_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_SE.xlsx
COSTCO_001252_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_JUN_TE.xlsx
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COSTCO_001254_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_BD.xlsx
COSTCO_001255_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_LA.xlsx
COSTCO_001256_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_MW.xlsx
COSTCO_001257_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_NE.xlsx
COSTCO_001258_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_NW.xlsx
COSTCO_001259_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_SD.xlsx
COSTCO_001260_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_SE.xlsx
COSTCO_001261_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAR_TE.xlsx
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COSTCO_001263_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_BD.xlsx
COSTCO_001264_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_LA.xlsx
COSTCO_001265_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_MW.xlsx

Appendix B
Documents Relied Upon

COSTCO_001268_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_NW.xlsx
COSTCO_001269_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_SD.xlsx
COSTCO_001270_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_SE.xlsx
COSTCO_001271_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_MAY_TE.xlsx
COSTCO_001272_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_BA.xlsx
COSTCO_001273_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_BD.xlsx
COSTCO_001274_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_LA.xlsx
COSTCO_001275_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_MW.xlsx
COSTCO_001276_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_NE.xlsx
COSTCO_001277_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_NW.xlsx
COSTCO_001278_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_SD.xlsx
COSTCO_001279_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_SE.xlsx
COSTCO_001280_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_NOV_TE.xlsx
COSTCO_001281_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_BA.xlsx
COSTCO_001282_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_BD.xlsx
COSTCO_001283_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_LA.xlsx
COSTCO_001284_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_MW.xlsx
COSTCO_001285_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_NE.xlsx
COSTCO_001286_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_NW.xlsx
COSTCO_001287_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_SD.xlsx
COSTCO_001288_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_SE.xlsx
COSTCO_001289_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_OCT_TE.xlsx
COSTCO_001290_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_BA.xlsx
COSTCO_001291_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_BD.xlsx
COSTCO_001292_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_LA.xlsx
COSTCO_001293_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_MW.xlsx
COSTCO_001294_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_NE.xlsx
COSTCO_001295_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_SD.xlsx

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Documents Relied Upon

COSTCO_001296_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_NW.xlsx
COSTCO_001297_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_SE.xlsx
COSTCO_001298_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2015_SALES_SEP_TE.xlsx
COSTCO_001319_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_APR_BA.xlsx
COSTCO_001320_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_APR_BD.xlsx
COSTCO_001321_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_APR_LA.xlsx
COSTCO_001322_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_APR_MW.xlsx
COSTCO_001323_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_APR_NE.xlsx
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COSTCO_001336_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_AUG_TE.xlsx
COSTCO_001337_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_BA.xlsx
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COSTCO_001339_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_LA.xlsx
COSTCO_001340_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_MW.xlsx
COSTCO_001342_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_NW.xlsx
COSTCO_001345_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_SD.xlsx
COSTCO_001346_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_SE.xlsx

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COSTCO_001347_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_FEB_TE.xlsx
COSTCO_001348_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_JAN_BA.xlsx
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COSTCO_001375_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_JUN_SE.xlsx
COSTCO_001376_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_JUN_TE.xlsx
COSTCO_001377_HIGHLYCONFIDENTIAL-SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_BA.xlsx

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Documents Relied Upon

COSTCO_001378_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_BD.xlsx
COSTCO_001379_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_LA.xlsx
COSTCO_001380_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_MW.xlsx
COSTCO_001381_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_SD.xlsx
COSTCO_001382_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_NW.xlsx
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SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_NE.xlsx
COSTCO_001384_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_SE.xlsx
COSTCO_001385_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAR_TE.xlsx
COSTCO_001386_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_BA.xlsx
COSTCO_001387_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_BD.xlsx
COSTCO_001388_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_LA.xlsx
COSTCO_001389_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_MW.xlsx
COSTCO_001391_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_NW.xlsx
COSTCO_001394_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_SD.xlsx
COSTCO_001395_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_SE.xlsx
COSTCO_001396_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SALES_MAY_TE.xlsx
COSTCO_001397_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_BA.xlsx
COSTCO_001398_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_BD.xlsx
COSTCO_001399_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_LA.xlsx
COSTCO_001400_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_MW.xlsx
COSTCO_001401_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_NE.xlsx
COSTCO_001402_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_NW.xlsx
COSTCO_001403_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_SD.xlsx
COSTCO_001404_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_SE.xlsx
COSTCO_001405_HIGHLYCONFIDENTIAL-
SUBJECTTOPROTECTIVEORDER_P10_2016_SEP_SALES_TE.xlsx
2019-06-11 Hesterberg to Scarlett re Response to Document Production Questions.pdf
GO-000001 HIGHLY CONFIDENTIAL -- SUBJECT TO PROTECTIVE ORDER.xlsx
KRGCHKDD000000001_DSDATA_HIGHLY_CONFIDENTIAL.xlsx
MEI-BROILER-0000890.xlsx
MEI-IPP_BROILER-0000001.CSV
MEI-IPP_BROILER-0000002.CSV

Appendix B
Documents Relied Upon

MEI-IPP_BROILER-0000003.CSV
MEI-IPP_BROILER-0000004.CSV
MEI-IPP_BROILER-0000005.CSV
MEI-IPP_BROILER-0000006.CSV
MEI-IPP_BROILER-0000007.CSV
MEI-IPP_BROILER-0000008.CSV
MEI-IPP_BROILER-0000009.CSV
MEI-IPP_BROILER-0000010.CSV
MEI-IPP_BROILER-0000011.CSV
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MEI-IPP_BROILER-0000053.CSV
MEI-IPP_BROILER-0000054.CSV
MEI-IPP_BROILER-0000055.CSV
MEI-IPP_BROILER-0000056.CSV
MEI-IPP_BROILER-0000057.CSV
MEI-IPP_BROILER-0000058.CSV

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Documents Relied Upon

MEI-IPP_BROILER-0000059.CSV
MEI-IPP_BROILER-0000060.CSV
MEI-IPP_BROILER-0000061.CSV
MEI-IPP_BROILER-0000062.CSV
MEI-IPP_BROILER-0000063.CSV
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Appendix B
Documents Relied Upon

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Appendix B
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Appendix B
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Appendix B
Documents Relied Upon

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Appendix B
Documents Relied Upon

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2019-11-14 Joseph Alioto - Howard Iwrey re Amick Farms Structured Data
2020-07-31 Letter to DAPs re Contracts and Structured Data Update
AMICK0000390326
AMICK0000390327
AMICK0000406868
AMICK0000406869
2020-01-17 CaseFarms Struct Data Ltr Respv2.0
Case Sales Data 01-01-11 to 12-31-13
Case Sales Data 01-01-14 to 12-31-17
Case Sales Data 11-04-07 to 12-31-10
CASefoods0000620116
2020.03.25 Claxton Production Letter - CLAXTON_0192520A - 0192521A
2020.07.30 Ltr. from Herbison to Counsel
2020-03-03 Shana Scarlett - James Herbison re Claxton Structured Data
CLAXTON_0192496
CLAXTON_0192505
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CLAXTON_0192520A
CLAXTON_0192521A
2020 08 21 Cover Letter re Production 25

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Documents Relied Upon

6.19.19 data
AGSTAT-00795869
AGSTAT-15546482
Letter to Plaintiffs re Agri Stats Data Questions
AGSTAT-00795872
AGSTAT-00795873
AGSTAT-00795874
AGSTAT-00795875
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AGSTAT-15546300
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AGSTAT-00795899
AGSTAT-00795900
AGSTAT-00795894
Fieldale - Cover Letter for November 1, 2019 Data Production
Fieldale - Letter to DAPs and EUCPs re Structured Data Questions (3-13-2020)
Fieldale - Letter to Plaintiffs Regarding 2018 and 2019 Structured Data Production (June 19 2020)
Fieldale - Letter to Plaintiffs Regarding Strudctured Data (June 12, 2020)
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FF-BC-00631185
FF-BC-00631976
FF-BC-00632395
Foster Farms Report 20190713
FW In re Broilers FOSTER FARMS - Data Clarification Questions MB-AME.FID1626528
2019.09.10 - Medlock LTR to Plaintiffs' Counsel re Foster Farms' Document Production
2019.12.10 - Letter to CIIPS re Data Questions
GEO_0000965070
GEO_0000965072
GEO_0001436486
GEO_0001436491
GEO_0001436492
GEO_0001437088
07.21 Response to DAP Data Questions
07.28 Response to Class Plaintiffs Data Questions
1.31 PPC Response to DAP 11.19 Ltr
1.31 PPC Response to Ltr from S. Scarlett
6.14.18 PPC Letter to Ps re Structured Data Production
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2020 01 27 Letter to Daniel Owen
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Harrison 00176180
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102419 Letter to House of Raeford Re Data Questions
Fwd EXT In Re Broiler Chicken Antitrust Litigation
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Documents Relied Upon

HRF_0000375562
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HRF_0000565357
FW In re Broiler Chicken Antitrust Litigation - subpoena to Keystone Foods LLC
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KF_0420821
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2019-12-20 Koch's Response ltr. to CIIPP's Data Clarification Questions
2-19-20 Koch letter to J. Alioto
KOCH_SD_0000000305
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Documents Relied Upon

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2019.11.25 Letter to Bobby Pouya
2019.6.7 Letter re Mar-Jac Structured Data
2020.06.19 Letter to Bobby Pouya
2020.1.14 Letter re Mar-Jac Production
GA-MJ-INVC-ADJ - HIGHLY CONFIDENTIAL - MAR-JAC_SD_0000000364
GA-MJ-ITEM-MSTR – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000367
GA-MJ-ORDR – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000370
GA-MJ-ORDR-DTL – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000369
Mar-Jac_SD_0000000180

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MJ-INVC-ADJ – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000053
MJ-INVC-ADJ-CODE – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000052
MJ-ITEM-MSTR – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000076
MJ-ORDR – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000086
MJ-ORDR-DTL – HIGHLY CONFIDENTIAL – MAR-JAC_SD_0000000084
2020-01-31 Bobby Pouya - Amanda Wofford re Mountaire Structured Data
letter to Pouya w supplemental responses re sales SD 3-19-2020
MTA-PL0001191637
MTA-PL0001191638
MTA-PL0001191639
MTA-PL0001191640
MTA-PL0001191641
MTA-PL0001265836
MTA-PL0001265838
MTA-PL0001265841
MTA-PL0001265842
MTA-PL0001265843
MTA-PL0001265844
10.18.19 - Letter to Brian Clark and Scott Gant re Broiler Chicken Antitrust Litigation encl Production.pdf
Letter to Lori Lustrin regarding DAP Structured Data Questions

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OK Foods - Response to Class Plaintiffs' Structured Data Questions
OKFoods_0000906717
OKFoods_0000906718
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OKFoods_0000906728
OKFoods_0000906729
OKFoods_0000906730
OKFoods_0001621139
OKFoods_0001621259
OKFoods_0001621260
2020.1.8 Flath Letter to Alioto - Peco Data Clarification Questions
2020.5.20 Correspondence from L Flath re Peco Structured Data
2020-07-29 Peco Production Letter
8.16.19 - Peco Letter - HIGHLY CONFIDENTIAL
PECO0000595942
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Peco Structured Data (7.18.18) - HIGHLY CONFIDENTIAL
1.0 Operator Template claims data
2.1 Distr. Template - Non-Brokerage claims data 03012017-07312017
2.2 Distr. Template - Non-Brokerage claims data 08012017-08312017
2.3 Distr. Template - Non-Brokerage claims data 09012017-09302017
2.4 Distr. Template - Non-Brokerage claims data 10012017-10312017
2.5 Distr. Template - Non-Brokerage claims data 11012017-11302017
2.6 Distr. Template - Non-Brokerage claims data 12012017-02282018
2.7 Distr. Template - Non-Brokerage claims data 03012018-06262018
2007 fiscal week1
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2007 fiscal week9
2018-08-09 Cover Letter re Perdue Second Production of Structured Data
2018-08-17 Cover Letter re Structured Data Production
2018-07-18 Cover Letter re Perdue Structured Data Production
2019-11-26 Letter to B. Pouya and K. Smith re Structured Data
2019-12-11 - Perdue Structured Data Production
2019-12-11 Letter to B. Pouya and K. Smith re Perdue Structured Data
2020-02-28 Cover Letter for Perdue's 2-28-20 Structured Data Production
2020-02-28 Letter to Plaintiffs re Perdue's Structured Data
Customer List 2006
Forge Data Explanation - Instructions
INVOICEDATA_PE1_010118_063018
INVOICEDATA_PE1_010119_063019

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INVOICEDATA_PE1_032717_092417
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N_2.01 Distr. Template - Non-Brokerage claims data 20180101-20180228
N_2.02 Distr. Template - Non-Brokerage claims data 20180301-20180430
N_2.03 Distr. Template - Non-Brokerage claims data 20180501-20180731
N_2.04 Distr. Template - Non-Brokerage claims data 20180801-20180930
N_2.05 Distr. Template - Non-Brokerage claims data 20181001-20181231
N_2.06 Distr. Template - Non-Brokerage claims data 20190101-20190228
N_2.07 Distr. Template - Non-Brokerage claims data 20190301-20190430
N_2.08 Distr. Template - Non-Brokerage claims data 20190501-20190731
N_2.09 Distr. Template - Non-Brokerage claims data 20190801-20190930
N_2.10 Distr. Template - Non-Brokerage claims data 20191001-20191231
N_2.11 Distr. Template - Non-Brokerage claims data 20200101-20200331
N_2.12 Distr. Template - Non-Brokerage claims data 20200401-20200615
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Product List 2008
Product List 2009
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PR1 Data Descriptions
07.06 PPC Structured Data Prod Letter
07.21 Response to Class Plaintiffs Data Questions
07.21 Response to DAP Data Questions
07.28 Response to Class Plaintiffs Data Questions
07.29 Pilgrim's Production Letter
Pilgrims - 11.12.19 Response to Letter from S. Scarlett
1.31 PPC Response to DAP 11.19 Ltr
1.31 PPC Response to Ltr from S. Scarlett
11.20.19 Response to Letter from S. Scarlett
2.19.20 PPC Response to DAP Letter
2.26 PPC Response to Class Plaintiffs data questions
6.07.18 PPC Letter to Ps re Structured Data Production
7.16.18 PPC Letter to Ps re Structured Data Production
7.25.18 PPC Letter to Ps re Structured Data Production
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PILGRIMS_SD_00469

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Documents Relied Upon

PILGRIMS_SD_01434
PPC SD Production Ltr (VOL 17)
2020_1_24 S. Pepper Letter to Plaintiffs on Structured Data
Foods Sales - Jan 2004-Dec 2011
SALES_09032016_12312019
SALESB-20180501
SFCOMPLEXF
2018.07.18 Simmons Structured Data Cover LTR to B. Clark and S. Gant - Highly Confidential
7-30-20 Simmons Supplemental Production Cover Letter
SIMM0000345050
SIMM0000354467
SIMM0000355197
SIMM0000458917
Simmons 11-11-19 letter to Alioto re Responses to Data Questions (HIGHLY CONFIDENTIAL)
Simmons 6-26-20 letter to Pouya re Responses to Supplemental Data Questions
Simmons Strucutred Data SIMM019
10-19-20 Simmons Supplemental Production Cover Letter
2018-07-20 B. Oppenheimer ltr to Plaintiffs
2018-08-14 B.Oppenheimer ltr to Plaintiffs
2020-02-07 - O'Mara Ltr to Scarlett re Tyson Data
2020-03-09 - O'Mara Ltr to Scarlett re Data
2020-03-09 B.Oppenheimer ltr re TF-031
2020-07-31 B.Oppenheimer ltr to Plaintiffs re TF-033
2020-08-17 B. Oppenheimer ltr to Plaintiffs re TF-035
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2018.09.12 WF014 WF015 Production Cover Letter
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Documents Relied Upon

KOCH_0001003222-262
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WF-0001184835-923
WF-0001128191-228
WF-0000973858-880

NON-Bates Stamped:

Appendix B
Documents Relied Upon

https://www.nationalchickencouncil.org/about-the-industry/statistics/u-s-broiler-production/
https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html
Watt Poultry USA, March 2018 (workpaper: poultryusa201803-2017 source)
Watt Poultry USA, March 2019 (workpaper: poultryusa201903-2018 source)
Watt Poultry USA, March 2020 (workpaper: poultryusa202003_2019 source)

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https://www.businesswire.com/news/home/20030818005524/en/BC-Natural-Foods-LLC-Acquires-Industry-Leaders
https://www.wattagnet.com/articles/36001-georges-acquisition-of-ozark-mountain-poultry-completed?v=preview

Appendix C

Timeline of Key Events in 2011

2011 Timeline

Jan.

- Donohue at Poultry Expo: "industry is currently at record high weekly slaughter volumes"
- Simmons 8% reduction in pounds

Feb.

- Amick & Mar Jac exchange info
- Peco "verified" OK Foods cut & begins reducing egg placements
- Wayne learns from Trudell price impact of cuts; tracks comp. cuts
- Sanderson announces delay plant construction
- Tyson reverse engineers reports
- Fieldale approves 5% cut

Mar.

- HOR press release announces 10% cut
- Simmons learns of OK Foods plan to cut 25%

Apr.

- Pilgrim's reduces egg sets
- Mountaire announces it will not increase production
- Simmons learns of Claxton's planned cuts at EMI event
- Tyson learns Pilgrim's plans to cut
- Wayne implement 7% cut

May

- Fieldale breaks eggs and "molts" breeders
- Tyson discloses production cut

Jun.

- Koch cuts back 3% for fall
- Tip Top observes "extraordinary" industry cutbacks to breeder hens; allows members to render own birds; "dead birds cannot lay more eggs."
- Simmons: "rumor is the industry supply cut will be in the 5-7% range"
- Pilgrim's kills hens to implement cutback
- Harrison plans 5% production cut
- Donohue tells Fieldale he's seeing "cutbacks I can believe in"

Jul.

- Tyson chasing buy vs. grow concept
- Peco shares news of new cutbacks with Harrison

Aug.

- Sanderson to keep fall 4% cut in place beyond January 2012
- Trudell tells Sanderson price impact of cuts

Sept.

- Fieldale plans additional cut; total 10%

Oct.

- NCC Conference: "Companies are going to need to adjust. Discipline on the supply side was one suggestion."
- Tyson plans 10% cutback for 2012
- Perdue plans cut for 2012

Nov.

- Donohue: "Inventories are declining and breast meat prices are inching up."
- Koch learns OK Foods, Pilgrim's and House of Raeford are "STILL TALKING CUTBACKS"

Dec.

- Peco & Harrison exchange production numbers
- Pilgrim's & Wayne exchange 2012 pricing plans for breast meat

Month	Event	Citation
January	Donohue at Poultry Expo: "industry is currently at record high slaughter weekly volumes"	TF-0002637445-446 at 445
	Simmons "overall 8% reduction in pounds" [Board Presentation January 2011 file path]	SIMM0000309027-047 at 031
February	Amick & Mar Jac exchange information on other processors cuts (Peco, OK, Raeford)	AMICK0000372315-316 at 315 (Exhibit 2251)
	Peco "verified" OK Foods cut & begins reducing egg placements	PECO0000125851; PECO0000482114 & PECO0000482115
	Wayne learns from Trudell price impact of production cuts; tracks competitors cuts	AGSTAT-14608896-902 (Ex. 1518); WF-0000978494-582 at 503
	Sanderson announces delay plant construction	Sanderson-0000404684-710 at 686
	Tyson reverse engineers reports	TF-0002293288-336 at 290-299
	Fieldale approves 5% cut	FIELDALE_1434251, FIELDALE_0184781-783
March	HOR press release announces 10% cut	Sanderson-0001239447-448 at 447
	Simmons learns of OK Foods plan to cut 25% (Tyson 4% Pilgrim 4%)	SIMM0000266997-7009 at 7000
April	Mountaire announces it will not increase production	AGSTAT-14595068-084 at 068 (Ex. 2039)
	Simmons learns of Claxton's planned cuts at EMI event	SIMM0000427570
	Tyson learns Pilgrim's plans to cut	TF-0002933543
	Wayne implements 7% production cut	WF-0000985624-669 at 646
	Pilgrim's reduces egg sets	PILGRIMS-0007109248
May	Fieldale breaks eggs and "molts" breeders	FIELDALE_1426292; FIELDALE_1426280-288 at 280
	Tyson discloses production cut	KOCH_0000495518-522 at 521
June	Koch plans 3% cut back for fall	KOCH_0002131865
	Simmons: "rumor is the industry supply cut will be in the 5-7% range"	SIMM0000123681-697 at 693
	Pilgrim's kills hens to implement cutback	PILGRIMS-0007109921
	Harrison plans 5% production cut	Harrison 00041736-741 at 738
	Donohue tells Fieldale he is seeing "cutbacks I can believe in"	AGSTAT-14685221 (Ex. 2244)
July	Tyson "chasing" buy vs. grow concept	TF-0007877266
	Peco shares news of new cutbacks with Harrison	PECO0000127224 (Ex. 1621)
August	Tip Top allows members to render own birds, 'dead birds cannot lay more eggs	FIELDALE_0235378-423 at 390; FIELDALE_0235164-185 at 170
	Sanderson announces it will keep fall 4% production cut in place beyond January 2012	DPP0000019275
	Trudell tells Sanderson price impact of production cuts	Sanderson-0003396979-987
September	Fieldale plans additional cut; total 10%	FIELDALE_1409840-873 at 847
October	NCC Conference: "Companies are going to need to adjust. Discipline on the supply side was one suggestion."	Rabo_0000097079
	Perdue plans cut for 2012	PERDUE0000165579
	Tyson plans 10% cutback for 2012	TF-0002897291-303 at 298
November	Donohue: "Inventories are declining and breast meat prices are inching up."	AGSTAT-14687400-401at 400 (Exhibit 183)
	Koch learns OK Foods, Pilgrim's and House of Raeford are "STILL TALKING CUTBACKS"	KOCH_0001144185
December	Peco and Harrison exchange production data	Harrison 00022944-945 at 944

Appendix D

Data Appendix

1. Price Data

The chicken processor structured data is first collapsed where there are observations with duplicate identifying information. Then, we correct miscoding that is important to our class when evident based on the product description. Once these corrections are made, the dataset is narrowed to the class, largely relying on the "EMPT" codes provided by Agri Stats.[1]

To narrow the dataset to the class, the following deletions are made:

- Drop the small amount of data before 2004 and after 2019.
- Drop data with missing date or processor.
- Drop any data not in pounds (missing is assumed to be pounds).
- Retain the EMPT codes where they indicate the product is breast or whole bird.
- Drop rendered, comminuted, pet food, or offal.
- Drop where grade is free range, organic, grade B or C meat as well as grades used as administrative codes including parts missing.
- Drop non-broiler (fowl/spent hens, Cornish game hens)
- Drop dark meat codes.
- Drop diced product.
- Drop breaded product.
- Drop cooked product.
- Drop flavored products (non-salt flavorings).
- Drop where customer is another integrator.
- Drop where customer is an exporter.
- Drop where customer is non-retail or reseller for retail.
- Drop where product is Halal.
- No Kosher products were found, but they would be dropped if present.
- Drop products destined to be rotisserie.
- Drop where implausible volume.

Once deletions are complete, data are collapsed to a monthly dataset summing revenue and quantity for a detailed product from a processor to a customer. After this step is done, any negative or implausible prices or quantities are dropped.

- Drop if quantity is negative.
- Drop any prices less than 10 cents a pound (roughly the rendering value).

[1] These codes include EMPTCODE, which tracks major "forms" or cuts of meat; EMPTFRMC, which tracks additions such as injection, marination, breading etc.; EMPTAGEC, which tracks aging of product; EMPTTRMC, which tracks trimming of the product; EMPTWGTC, which tracks the weight; EMPTGRDC, which tracks the grade; EMPTTYPC, which tracks packaging; EMPTBAST, which tracks percentage basted; EMPTPCAD, which tracks percentage marinated; and EMPTFLAV, which tracks flavoring.

- Drop any prices over 10 dollars a pound for breast, or 5 dollars a pound for whole bird.

2. <u>Cost Data</u>

Using the Agri Stats manuals produced by defendants, it is possible to disaggregate the variable costs from the total costs associated with the live production and processing of broilers.[2] The field used in the overcharge model is the variable cost portion of the overall dressed meat cost provided in Processing Report 1.1 (field A.1). Disaggregating the variable and fixed costs requires combining data from numerous reports from both the Processing and Live Production books.[3] For example, total dressed meat cost and its components are found in Processing Report 1.1. It is comprised of plant cost per pound (1.1.B.1) and yielded live cost per pound (1.1.C.2), which are broken down in Processing Report 1.2 and Live Production Report 6.1, respectively. Other reports, in turn, provide more granular breakdowns of the costs in these reports.

Fixed and variable costs are divided at the most granular data level available using the following guidelines: fixed costs include overhead, utility and gas for buildings, electricity, water and sewage, supervision labor, depreciation and lease of buildings, and other miscellaneous expenses (including demurrage, data analysis, and freezers[4]); variable costs include hourly, contract, and driver labor, materials (packaging, feed, vaccinations, rolls and dies, and other plant and hatchery supplies), gas for hauling and other transportation, maintenance and repair, pullet depreciation, payments to growers, and hazardous waste disposal.

The variable cost components from each report are summed up and then transformed into the units used in the report above it in the hierarchy, eventually getting to the final report, Processing Report 1.1. For example, Live Production Report 1.15 gives a breakdown of costs for egg production. After identifying the variable costs in this report as pullet depreciation (1.15.B),

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[2] KOCH_0000509284 (live production); WF-0001245681 (processing). The fields included in these Agri Stats manuals change only slightly as the reports provided to participants change. For example, the field for Reusable Packaging Material (1.2.C.2) is not mentioned in the 2016 manual.

[3] Agri Stats' "Live Production" monthly report (a.k.a. blue book) is divided into six sections: breeder, hatchery, feed mill, ingredient purchasing, feed formulation, and live production costs (called broiler growout section in the monthly live report, see AMICK0000127890).

The Agri Stats monthly "Processing" report, also referred to as the "green" book, is comprised of multiple sections: 1. total processing section; 2. first processing section (everything from the reception of the birds, the killing of the birds and then through the evisceration process up to and including the chiller); 3. yield section (whole birds, boneless breast meat, leg quarter, etc.); 4. support section (amount spent on plant-wide costs including maintenance and repairs, sanitation, water and sewer, medical, refrigeration, boxes, security, janitors, etc., per pound of meat from second processing); 5. second processing section (everything post chiller—cost for USDA grading, supplies, ice, packaging, utilities, depreciation, and labor costs by second processing department including cut-up chicken, fast food chickens, deboning breast meat and dark meat, trimming/portioning, whole bird packaging, tray pack, IQF (individually quick frozen), marination, packaging, shipping, etc.); 6. product mix report (where if you had 150 or 225 products, identify that this is a breast meat product that's going to be used and the total pounds that will be divided by all the labor to get a cost per pound).

Specifically, these reports are used in the construction of the variable dressed meat cost: Processing Reports 1.1 and 1.2; Live Production Reports 1.15, 2.1, 2.2, 2.6, 2.7, 2.8, 3.1, 3.2, 3.6, 3.7, 3.10, 6.1, 6.12, 6.13, and 6.14.

[4] This is post-processing freezer storage owned by the processor (inside) and owned by a third-party and leased (outside). Freezer cost per pound (inside and outside, Processing Report 1.2.L and 1.2.L.1, respectively) is categorized as a fixed cost because use of these facilities is a function of demand and how much is already in the frozen inventories, rather than a simple function of supply.

actual feed ingredients (1.15.C.1), feed milling and delivery (1.15.D), housing and labor cost (1.15.E), and vaccination and medication cost (1.15.F), these fields are added to find the total variable hatching eggs cost and then scaled to the next report in which those fields would be aggregated to other variable components of chick cost (Live Production Report 2.8).

$$\mathit{Variable\ Hatching\ Egg\ Cost} = (1.15.\mathrm{B} + 1.15.\mathrm{C}.1 + 1.15.\mathrm{D} + 1.15.\mathrm{E} + 1.15.\mathrm{F}) * \frac{2.8.B.2}{1.15.A.2}$$

Similarly, the variable components of hatchery costs (Live 2.2), hatchery trucking (Live 2.7), and chick services (Live 2.6) are added and converted to the units of Live Production Report 2.8. These four variable components are then added and scaled to the chick cost report (Live Production Report 6.1).

$$\mathit{Var\ Chick\ Cost} = (\mathit{Var\ Hatching\ Eggs} + \mathit{Var\ Hatchery} + \mathit{Var\ Hatchery\ Trucking} + \mathit{Var\ Chick\ Services}) * \frac{6.1.B}{2.8.A.2}$$

This process is necessary as different plants and units of measure are used in the various reports, and scaling between reports using the common totals accounts for these differences in the cost measurements. These calculations are repeated for all components of Yielded Live Cost (Live Production Report 6.1.A.1) and Plant Cost (Processing Report 1.2.A.1), and at that point the calculated variable cost components are scaled to Processing Report 1.1. The result of all these calculations is a total variable dressed meat cost per pound. For the Processing Reports, we use the measures for Tray Pack plants since they are most representative of the products in our class.

To back cast cost before 2004, ERS data on corn and soymeal are used. The log of variable cost of Agri Stats' Dressed Meat Cost measure is regressed on a trend, and current logged prices and three lagged logged prices of corn and soymeal each. The coefficients from this regression are used to generate costs prior to 2004.

3. <u>BLS Data</u>

Six price series were obtained from the Bureau of Labor Statistics website:

- PPI Commodity data for Processed foods and feeds-Chicken and turkey feed, supplements, concentrates, and premixes, not seasonally adjusted (WPU02930102)
- Eggs, grade A, large, per doz. in U.S. city average, average price, not seasonally adjusted (APU0000708111)
- Turkey, frozen, whole, per lb. (453.6 gm) in U.S. city average, average price, not seasonally adjusted (APU0000706311)
- Pork in U.S. city average, all urban consumers, not seasonally adjusted (CUUR0000SEFD)
- Beef and veal in U.S. city average, all urban consumers, not seasonally adjusted (CUUR0000SEFC)

- CPI inflation. All items in U.S. city average, all urban consumers, not seasonally adjusted (CUUR0000SA0)

Each series was read into Stata and cleaned by renaming variables, converting data from a wide to long format and then checking for any missing or outlier data. One missing observation for turkey was interpolated by averaging data from the month before and month after.

In addition to this, a red meat index was also calculated by assigning weights to Beef and Pork data. The shares varied little over years and were not available before 2001. Because some robustness checks use this index before 2001, the average value from 2001 to 2019 was assigned for all years (60.2% for beef and the 39.8% for pork). After rebasing to January 2004, the relative weights were applied to generate a summary red meat index. Weights were accessed from the following two sources: https://www.bls.gov/cpi/tables/supplemental-files/home.htm https://www.bls.gov/cpi/tables/relative-importance/home.htm.

4. <u>USDA Data</u>

NASS – Young Broilers Slaughtered by Month in heads and pounds was obtained from
https://quickstats.nass.usda.gov/
Survey>Poultry>Chickens>Slaughtered>CHICKENS, YOUNG, SLAUGHTER, FI - SLAUGHTERED, MEASURED IN HEAD
Survey>Poultry>Chickens>Slaughtered>CHICKENS, YOUNG, SLAUGHTER, FI - SLAUGHTERED, MEASURED IN LB, LIVE BASIS
National, monthly data was selected for both series.

NASS – Chicken and Egg report Layers on Hand and Eggs Produced by Type and Molt – United States was obtained from
https://usda.library.cornell.edu/concern/publications/fb494842n?locale=en
Zip files containing each monthly report excel file were downloaded.

ERS – Corn Prices
Data is downloaded from https://data.ers.usda.gov/FEED-GRAINS-custom-query.aspx
Prices>Corn, No. 2 yellow>U.S. - Chicago, IL>Monthly>All years

ERS – Soymeal Prices
Data is downloaded from source: https://data.ers.usda.gov/FEED-GRAINS-custom-query.aspx
Prices>Soybean meal, high protein>U.S. - Central IL>Monthly>All years

ERS-Export Destination data is downloaded from https://www.ers.usda.gov/data-products/livestock-and-meat-international-trade-data/livestock-and-meat-international-trade-data/
This data is used to create the weighted export destination exchange rate series. Total export pounds are totaled by country from Jan 2004-Dec 2008. The top ten export destinations are determined by this total. The weights used are obtained from the relative shares of each of these top ten over the total exports to top ten destination markets.

ERS – Broiler Prices data is obtained from
Data from 2000 through 2019 is obtained from
www.ers.usda.gov/webdocs/DataFiles/51875/WholesalePrices.xls?v=6021.4 and data before 2000 is from
https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0093.xls
In 2012 the USDA changed its methodology for collecting prices for its WOG series from a population weighted 12-city average to a volume poundage weighted aggregation method to represent the market more accurately. The USDA analyzed the difference between the two weight schemes and found them to be relatively minor. USDA0000000047-54 at 48 and 53-54

AMS-Boneless skinless Breast Meat Prices
https://marketnews.usda.gov/mnp/py-report-config
Data before 2000 is from
https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0095.xls

AMS-Chicken Breast (ribs on) data is from
https://marketnews.usda.gov/mnp/py-report-config
Data before 2000 is from
https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0096.xls

AMS-Chicken Breast (line run) data is from
https://marketnews.usda.gov/mnp/py-report-config
Data before 2000 is from
https://web.archive.org/web/20170801020653/usda.mannlib.cornell.edu/usda/ers/89007/table0097.xls

WSADE Export quantities. Data is obtained from
https://www.ers.usda.gov/webdocs/DataFiles/51875/MeatSDFull.xlsx?v=4084.5
Percent exported is exported pounds divided by total ready to cook pounds

FSIS health and safety recalls
From the United States Department of Agriculture's Food Safety and Inspection Services website, Calendar Year Recall summary datasets were obtained from 1994 through to 2019. USDA did not provide downloadable datasets for 2000-2004 and was manually entered. Two dummy variables, red_rec and chk_rec, were created in order to indicate whether each product contained red meat, chicken meat, or both. "Chk_rec" was coded as being 1 for any product that contained the word chicken or poultry in its name. Red meat was and product that included beef, pork, boar and lamb. In addition to this, unless otherwise stated, any sausage, bacon, ham, steak, spam, pastrami, meatball, chili, meatloaf, lasagna, cheeseburger, head cheese, guisada, jerky,

ravioli or pot roast product was also counted as red meat. Any other meat or unknown products were coded as being 0 under both categories.

We only retained class 1 and 2 violation recalls and dropped all other observations. In the end we collapsed our data to create summary variables that measured the amount of red meat and chicken meat recalls every year from 1994 to 2019. Data was then combined to calculate the total number of red meat and chicken products that were recalled across the entire timeframe.

5. Federal Reserve (FED) Data

The following data sets were downloaded and then imported into Stata from the St Louis Federal Reserve Bank website:

- Population, Thousands, Monthly, Not Seasonally Adjusted (POPTHM)
- Retail Sales: Food Services and Drinking Places, Millions of Dollars, Monthly, Seasonally Adjusted (MRTSSM722USS)
- Real gross domestic product per capita, Chained 2012 Dollars, Quarterly, Seasonally Adjusted Annual Rate (A939RX0Q048SBEA)

All data was timeseries, given either on a monthly or quarterly basis.

6. IHS Markit Data

Monthly dollar exchange rates for Brazil and the top 10 export markets 2004-2008 were obtained from IHS. These include Angola, Canada, Mainland China, Cuba, Hong Kong, Lithuania, Mexico, Russia, Turkey, and Ukraine.
To create weights relative export shares are determined (see ERS-Export Destination in USDA data section). Each country is rebased to 2004 and weights were applied to average them.

7. Urner Barry Data

Daily Urner Barry data series "UB Chicken, EC Fz Exp Legs, Jumbo, Layer Pkd" was averaged to the monthly level.

8. Energy Information Administration (EIA) Data

West Texas Intermediate Oil prices were obtained from:
https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RWTC&f=M