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“CHICKENIZATION,” DATA-HARVESTING, AND ANTITRUST

SALIL K. MEHRA†

The past decade has seen increased concentration among meat processors, who generally stand in between farmers upstream and retailers and consumers downstream. In the pre-Internet era, antitrust often treated concentration among intermediaries relatively benignly, reasoning that their pricing was constrained by the possibility of their upstream suppliers doing an “end run” around the intermediaries to deal directly with downstream retailers and consumers. However, vertical contracts with suppliers, combined with increased data-gathering ability, has made it possible for powerful intermediaries to shift bargaining power massively in their favor. This dynamic, termed “chickenization” for its early appearance in the poultry industry, has spread to pork and beef, and may yet spread further. This article describes and critiques these developments and argues for a more active antitrust role in addressing the harms that can result from data-turbocharged processing intermediaries who may exercise monopsony power vis-à-vis upstream producers, and monopoly power towards downstream retailers and consumers.

I. INTRODUCTION

Over the past decade, critics of the American agricultural system have warned of the danger of “chickenization”: the tight vertical integration of farmers into the supplier chains of large processors, for example, Tyson Foods.¹ Combined with increased horizontal concentration of suppliers, poultry farmers see chickenization as shifting bargaining power massively in favor of the large processors who buy their birds.² Moreover, farmers complain that chickenization results in the replacement of preexisting open markets with one-sided contractual relationships.³

Over a decade ago, United States President Barack Obama’s administration tried to take on the spread of chickenization to other areas of agriculture with a series of unprecedented Department of Justice (“DOJ”) and Department of

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1. CHRISTOPHER LEONARD, THE MEAT RACKET: THE SECRET TAKEOVER OF AMERICA’S FOOD BUSINESS 113-46, 149-58 (2014) (describing “The Great Chickenization” of the meat industry, with “chickenized” describing a phenomenon involving high market power by processors, tight vertical control of producers—who see low or negative margins making them reliant on bailout loans or government subsidies).

2. See generally *id* (describing this further); MARYN MCKENNA, PLUCKED: CHICKEN, ANTIBIOTICS, AND HOW BIG BUSINESS CHANGED THE WAY THE WORLD EATS (2019).

3. MCKENNA, *supra* note 2, at 245-61.

Agriculture (“DOA”) joint hearings;⁴ while ambitious, this initiative was seen as relatively fruitless. Indeed, the pattern seen in the chicken industry has spread to other industries.⁵ Some of the results are shocking: for example, the hardships visited upon dairy farmers has led big dairy processors to start including a list of suicide prevention hotlines in the same envelopes as the checks they send to the farmers they have under contract.⁶

Chickenization depends on both horizontal concentration and vertical integration. Horizontal concentration tends to create increased buyer market power and, at a high degree, monopsony power. A strict, short-term consumer welfare view might see this buyer market power as beneficial if the reductions in farm product prices are passed on by the processors to consumers as cheaper food. However, monopsony power can cause long-term welfare losses, as artificially low prices deter investment by farmers and others in productive capacity.

As a result, the vertical dimension of chickenization deserves renewed attention. While the Chicago School⁷ held vertical restraints to be benign or even procompetitive overall, that proposition is under current debate.⁸ Moreover, it is increasingly clear that some vertical restraints can foster competitive harm, and if they can be identified, society might be better off prohibiting them.⁹ Big Data makes the problem of chickenization more urgent. The deployment of the so-called “Internet of Things” is driving the development of “smart farming,” by which large amounts of data about farmers’ produce and livestock will be available in real time for the analysis and optimization by processors with the market power to contract for it.¹⁰ As in the world of Big Data generally, a key question is whether data interoperability should be promoted to promote competition between processors, rather than allowing the enclosure of farmers into walled gardens from which switching or information costs make it difficult to exit.

Unfortunately, these trends seem to be spreading beyond farming; we may all be chickenized soon. In particular, so-called “sharing economy” platforms are showing signs of concentration, parallel behavior, and vertical control that

4. Press Release, Dep’t of Just., Off. of Pub. Affs., Justice Department and USDA to Hold Public Workshops to Explore Competition Issues in the Agriculture Industry (Aug. 5, 2009), <https://perma.cc/R4FW-EV44>.

5. LEONARD, *supra* note 1, at 183-227 (describing the spread of chickenization to pork and beef production).

6. David Dayen, *Obama’s Agriculture Secretary, Now Working for the Dairy Industry, Urges 2020 Democrats to Be Nice to the Dairy Industry*, THE INTERCEPT (May 6, 2019), <https://perma.cc/R2D8-XK92>.

7. Herbert Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L. REV. 213, 217-27 (1985) (describing the “Chicago School” as a movement dating to the late 1970s and early 1980s in which proponents made a major impact on antitrust law by successfully arguing for a shift to a “neoclassical market efficiency model” as the basis for antitrust policy with economic efficiency as its sole goal).

8. See Lina Khan, *Amazon’s Antitrust Paradox*, 126 YALE L. J. 710, 731-36 (2017).

9. See Jonathan Baker and Fiona Scott Morton, *The Antitrust Case Against Platform MFNs*, 127 YALE L. J. 2176, 2199 n. 97 (2018).

10. See Brian Leopold, *Forecasting Change: Examining the Future of Agricultural Data Processors and Ownership Rights*, 44 J. CORP. L. 403, 405 (2018) (describing move towards “big data”-driven “smart farming” and potential concerns).

resemble what has happened in farming.¹¹ This short article, prepared for a symposium on agriculture and technology hosted by the *South Dakota Law Review*, argues that, as in the reconsideration of antitrust policy for data-rich platforms more generally,¹² chickenization and data-monopsony require steps towards preventing asymmetries in Big Data from augmenting market power.¹³ While such an approach alone will not cure the ills of chickenization, they may prevent Big Data from worsening the condition.

II. AGRICULTURE, INCREASED CONCENTRATION, AND “CHICKENIZATION”

The U.S. economy has seen increased consolidation and concentration across a variety of industries during this century.¹⁴ Agriculture has not been an exception to this trend.¹⁵ Across a variety of subsectors, agriculture has seen increased concentration in recent years.¹⁶ Between 1977 and 2011, the share of the market controlled by the four largest soybean purchasing companies increased from 54% to 79%.¹⁷ Similarly, the share held by the four largest beef processors increased from 36% to 85%.¹⁸ A series of mergers between agricultural chemical firms in 2017 and 2018 led to three firms holding 80% of the U.S. corn seed market and 70% percent of the world pesticide market.¹⁹

The trend towards increased concentration in U.S. agriculture has continued despite warnings early last decade about what has been called “chickenization”: the transformation of agriculture into a top-down, contract-based vertically integrated system in conjunction with increased concentration among intermediaries between the farmer and the end consumer.²⁰ The word derives from the fact that this process took place first in the chicken industry, driven by intermediaries with high market share such as Tyson and Perdue.²¹ In reality, chickenization involves three different, interconnected phenomena.

11. See, e.g., REBECCA GIBLIN & CORY DOCTOROW, *CHOKEPOINT CAPITALISM* (Scribe 2022) (arguing that Internet platform- and data-driven “chickenization” has already come to a range of creative industries).

12. STAFF OF H. COMM. ON the Judiciary, H. Subcomm. on Antitrust, Com. & Admin. L., 117th Cong., *Investigation of Competition in Digital Markets: MAJORITY STAFF REPORT AND RECOMMENDATIONS* (Comm. Print 2020), <https://perma.cc/P4BK-B387>.

13. See discussion *infra* Part III (analyzing how informational asymmetries increase as Big Data enters these markets).

14. See THOMAS PHILIPPON, *THE GREAT REVERSAL*, 84-85 (2019) (describing the data regarding increased concentration across a series of industries).

15. Andrew Schwartz & Ethan Gurwitz, *Big Business Rules American Agriculture—and Congress Doesn’t Seem to Care*, CTR. FOR AM. PROGRESS (May 16, 2018), <https://perma.cc/9VZJ-VBWY>.

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.*; James M. MacDonald, *Mergers in Seeds and Agricultural Chemicals: What Happened?*, AMBER WAVES MAG. (Feb. 15, 2019), <https://perma.cc/4NRT-VY9A>.

20. Jennifer 8. Lee, *Tyson’s ‘Chickenization’ of Meat Industry Turns Farmers into Serfs*, THE SPLENDID TABLE (Feb. 21, 2014), <https://perma.cc/8RV5-J5XW>; LEONARD, *supra* note 1, at 145.

21. See LEONARD, *supra* note 1.

Intermediaries grow in market share as producers and buyers.²² They vertically integrate with farmers by contract.²³ In conjunction, preexisting market processes—for example, a regional auction or a spot market—for meat or produce are displaced by these vertical relationships with a few powerful intermediaries.²⁴

Indeed, these changes took hold in the chicken industry starting in the middle of the last century.²⁵ In 1950, there were 1.6 million U.S. poultry farms, most of them operating independently.²⁶ Now there are approximately 25,000, virtually all operating under contracts that virtually integrate them with a handful of intermediaries such as Tyson Foods, Sanderson, Pilgrim's Prime, Koch Foods, and Perdue.²⁷ As of 2020, these five firms controlled about 60% of the U.S. chicken market.²⁸ The level of vertical integration combined with high market shares has enabled the construction of, for example, internal tournament systems among Tyson's suppliers, under which lower-ranked performers earn less compensation and are weeded out.²⁹ Having been locked into a particular intermediary's production ecosystem by contract, they cannot easily seek a better alternative if they start to slip in the tournament rankings.³⁰ This market structure has largely displaced the prior system of independent poultry farmers free to buy or sell chickens to whom they want; their birds are under long-term contracts with the large intermediaries.³¹

To be fair, these changes have had some benefits for consumers. As producers have noted, the poultry industry was transformed into one that “produc[es] meat for almost the price of bread.”³² Consumers have enjoyed the benefits of lower cost poultry, pork and beef—though recent rises in price and antitrust investigations have raised questions about whether consumer benefits will continue.³³ This kind of compensation might strengthen the intermediary—

22. *Id.* at 98-111 (describing growth of chicken processors' market share via acquisition of competitors).

23. *Id.* at 120-22 (describing imbalance of power between processors and producers leading to contract-based “tournament” among the latter to survive as suppliers).

24. *Id.* at 207-21 (describing auctions and cash markets for cattle being displaced by vertical contracting with processors).

25. See MCKENNA, *supra* note 2, at 58-73.

26. *Id.* at 66.

27. *Id.*

28. Michael Sainato, *'I Can't Get Above Water': How America's Chicken Giant Perdue Controls Farmers*, THE GUARDIAN (Mar. 14, 2020), <https://perma.cc/MD8S-MYRL>.

29. See LEONARD, *supra* note 1, at 120-22.

30. See Sainato, *supra* note 28.

31. *Id.* (reporting that fewer than 10% of U.S. poultry producers can do so due to exclusive contracts).

32. MCKENNA, *supra* note 2, at 67 (quoting the poultry company Arbor Acres's Henry Saglio); Anahad O'Connor, *Henry Salgio, 92, 'Father' of Poultry Industry*, N.Y. TIMES (Dec. 21, 2003), <https://perma.cc/CY3C-8FD2> (describing how chicken breeder's efforts transformed chicken from “probably the most expensive meat you could buy” before his efforts to “one of the least expensive meats”).

33. See Matthew Perlman, *Why DOJ's Chicken Price-Fixing Probe Fizzled Out*, LAW360 (Oct. 19, 2022) <https://perma.cc/2MTP-LF2B> (describing probe that led to guilty plea and \$107.9 million criminal fine from Pilgrim's Pride, a large chicken processor, but failed to obtain convictions against industry executives as individual criminal defendants). There is ongoing civil antitrust litigation in the pork and beef industries. Joyce Hanson, *Court Oks \$75M Smithfield Deal in Pork Price-Fixing Suit*, LAW360 (Nov.

e.g., Tyson versus Perdue—by driving down costs of supply, though perhaps at the cost of poultry farmers. Actionability under current antitrust law depends on four considerations. First, whether the changes wrought by chickenization are a problem depends on (i) whether the intermediaries have monopsony power (for example in a relevant geographic or product market) and (ii) whether their conduct can be appropriately characterized as predatory or exclusionary.³⁴ On the intermediaries’ consumer side, (iii) sufficient competition between intermediaries could force them to reduce prices to consumers, rather than pocketing the reduction in poultry acquisition costs for the intermediaries’ shareholders. Finally, and crucially, there is the question of (iv) whether gains to the consumer side of the intermediaries should be weighed against losses to the supplier side, even when the latter is harmed by the predatory or exclusionary exercise of monopsony power.

In fact, questions about chickenization go beyond the poultry industry. Increases in intermediary concentration and shifts to vertical integration in contracting have also taken place in the U.S. pork and beef industries.³⁵ Despite some significant differences in the reproductive lives of these animals and the scalability of their production, intermediary concentration and vertical integration via contact have taken similar hold as in the poultry industry.³⁶ Relatedly, this has changed market mechanics. In the pork industry, a few large intermediaries, such as Smithfield, Hormel, JBS/Cargill, and Tyson, have replaced auctions and spot markets with long-term contracts for hogs.³⁷ These four firms account for almost three-quarters of U.S. hog processing.³⁸

Similar concentration and vertical concentration have taken place in the beef industry, notably drawing an antitrust class action.³⁹ Though the suit has been recently dismissed,⁴⁰ its allegations about market mechanics in the beef industry were interesting. The cattle ranchers’ trade association alleged that the processors required a “queueing protocol” in which the ability of ranchers to solicit bids from

10, 2022), <https://perma.cc/LJ6F-MM6R> (describing preliminary judicial approval of a seventy-five million dollar settlement between Smithfield Foods, Inc. and consumer indirect purchasers, and noting that the “sprawling litigation” is “ongoing”); Chris Clayton, *Fed Cattle Lawsuit Against Big Four*, PROGRESSIVE FARMER (Nov. 21, 2022), <https://perma.cc/A8CX-B23B> (describing ongoing proceedings in “what is becoming one of the largest and most complicated antitrust cases against the country’s four largest [beef] packers”).

34. See discussion *infra* Part V (commenting on the U.S. pork and beef industries’ intermediary concentration and shifts towards vertical integration). “Predatory” and “exclusionary” are terms of art in antitrust law.

35. LEONARD, *supra* note 1, at 190-227.

36. Chickens’ egg laying and ability to cohabit in confined spaces is much greater than with swine and their broods. Even more notably, cows typically bear only a single calf, taking roughly a year to do so. *Id.*

37. *Id.* at 203-04 (describing effects on market structure and price discovery).

38. Tom Philpott, *Bacon is About to Get More Expensive*, MOTHER JONES (July 8, 2015), <https://perma.cc/5N2H-6LLF>.

39. Joe Fassler, *A New Lawsuit Accuses the “Big Four” Beef Packers of Conspiring to Fix Cattle Prices*, THE COUNTER (Apr. 23, 2019, 4:55 PM), <https://perma.cc/YXD5-856U>.

40. Todd Neeley, *Cattle Price Conspiracy Suit Dismissed*, PROGRESSIVE FARMER (Oct. 5, 2020), <https://perma.cc/CHK2-5W2G>.

buyers was limited in several ways.⁴¹ Fundamentally, this protocol shaped the relationship between ranchers and buyers by instituting a stepwise algorithm.⁴² Ranchers who received a bid from a processor, by contract, were prevented from “shopping” that bid to other processors to try to induce a higher bid.⁴³ Then, if a rancher passed on a bid, they were required to inform the next bidder of it and could only accept a bid of $X+\$1$, where the first bid was X .⁴⁴ The first bidder would then have a right of first refusal at $X+\$1$.⁴⁵ Finally, the winning bidder would then have an “option” to buy, as opposed to being obligated to do so.⁴⁶ The potential for these restrictions to reduce competition among buyers may be particularly of concern given the high value and relatively short window for economically bringing cattle to market.⁴⁷

Chickenization is not limited to meat.⁴⁸ Indeed, similar trends have been observed in the production of potatoes, as well as potentially to grains, legumes and vegetables.⁴⁹ Moreover, some argue that similar trends are spreading throughout the rest of the U.S. economy—even that Amazon is “chickenizing” its suppliers and workers.⁵⁰ The gist of such arguments is that concentration plus contract can displace prior market mechanisms, and that powerful intermediaries can become market shapers rather than market participants.⁵¹ Indeed, just as firms with market power can become “price makers” rather than “price takers,” they can also become “law makers” rather than “law takers,” effectively creating the new rules under which competition, to the extent it takes place, will happen.

III. BIG DATA COMES TO AGRICULTURE

As much concern as chickenization has already engendered, technological trends might raise even more alarm. While concentrated intermediaries have already imposed significant buyer control on their suppliers via contract, they may be able to further leverage that control via Big Data and related technologies. In general, sellers possess more information than buyers about the subject of their transaction. While buyers can try to protect themselves, this informational

41. *See id.*

42. *See id.*

43. *See id.*

44. Fassler, *supra* note 39.

45. *Id.*

46. *Id.*

47. *See* LEONARD, *supra* note 1, at 190.

48. Candace Krebs, *Chickenization: How Far Can Vertical Integration Go?*, in SOY PERSPECTIVES 8-9 (Mar. 2019), <https://perma.cc/EJ3G-JLW5> (considering spread of concentration and vertical integration via contracts to potatoes and potential for chickenization in grain and soybean industries).

49. *Id.*

50. *See* Robin Kaiser-Schatzlein, *Monopolies Make Their Own Rules*, THE NEW REPUBLIC (July 7, 2020), <https://perma.cc/A8WX-SVF8> (describing and applying arguments in *Break'em Up*, a book by Zephyr Teachout).

51. *See id.*

asymmetry is a longstanding subject of contract law.⁵² However, the increased ability to collect and process data may reduce this asymmetry. While we might normally see transparency as beneficial, it could have the potential to exacerbate the exercise of market power by concentrated intermediaries. Several nascent technologies could have such results.

A. SMART FARMING

Smart farming (also referred to as “precision farming” or “digital agriculture”) has been defined as the application of technology to agriculture to minimize waste and boost productivity.⁵³ In particular, by monitoring inputs, such as soil, irrigation, pest control, and others, and analyzing the responsiveness of outputs, such as yield, better, more cost-effective utilization strategies can be developed.⁵⁴ Measurements can be gathered via a variety of fairly longstanding technologies, including drones, video cameras, and GPS devices.⁵⁵ Additionally, the burgeoning Internet of Things promises to accelerate the growth of smart farming.

B. THE INTERNET OF THINGS (“IoT”)

IoT generally takes the form of a network of interconnected devices that can communicate with each other.⁵⁶ Depending on the device’s capabilities, it can collect various sorts of data about its operating environment, and an array of devices can gather multiple data points on various different parameters. The growth and improvement of such devices has been stunning in recent years, with significant reductions in cost, power consumption, and size.⁵⁷ Moreover, increased connectivity with the internet has created the capacity to collect and process the data such devices collect.⁵⁸

IoT architecture, like information technology architecture generally, is frequently described in terms of layers, building up from perception to transport and then to processing and application.⁵⁹ In the agricultural context, for example,

52. See, e.g., 2 JAMES KENT, COMMENTARIES ON AMERICAN LAW 491 (3d ed. 1836) (describing a Roman case involving a corn merchant from Alexandria (Egypt) arriving by ship in Rhodes (now Greece) during a time of famine and whether he was required to disclose to sellers that there was an abundance of corn in Alexandria and many more merchants’ ships coming behind him).

53. See NIKOLA M. TRENDOV ET AL., FOOD & AGRIC. ORG. OF THE U.N., DIGITAL TECHNOLOGIES IN AGRICULTURE AND RURAL AREAS 1-2, <https://perma.cc/R4DJ-4FLT>.

54. See *id.*

55. See *id.*

56. Scott R. Peppet, *Regulating the Internet of Things: First Steps Toward Managing Discrimination, Privacy, Security, and Consent*, 93 TEX. L. REV. 85, 87-89 (2014).

57. *Id.*

58. *Id.* at 113 (describing examples of sensors with such connectivity).

59. See, e.g., Phil Goldstein, *What is IoT Architecture, and How Does It Enable Smart Cities?*, STATETECH (June 16, 2021), <https://perma.cc/6FN3-AX57> (describing conventional understanding of IoT architecture as involving 4 layers: the sensor or sensing layer, the network layer, the data processing layer, and the application layer).

perception may be done by sensors that monitor growth or condition, with network protocols enabling the transport of this data to a computer that processes and analyzes that data, yielding an application step, for example, disease control or feed adjustment.⁶⁰ While this data promises to improve the efficiency of farming, it can also yield a great deal of highly granular information about the costs involved.⁶¹ Knowledge of this information by buyers, such as high-market share agricultural intermediaries, could bolster their bargaining leverage.

C. ROBO-SELLING

An additional set of technologies could exacerbate existing monopsony power. The combination of mass data collection, increased connectivity and algorithmic processing—“robo-selling”—can make price fixing more feasible and more robust.⁶² Potentially, it could even facilitate higher pricing, even in the absence of an agreement of the sort antitrust law traditionally has required, via algorithmic collusion.⁶³

In the context of an industry with a few powerful intermediaries who already integrate suppliers vertically via contract, the increased ability to monitor, process, and respond to competitors’ pricing could be good or bad. Price discovery fosters efficiency. However, increased transparency can also promote tacit collusion and parallel behavior. While this is an area that is currently under significant study,⁶⁴ the allegations of the cattle ranching trade association’s antitrust lawsuit suggest a willingness of intermediary processors to reshape market mechanisms in ways adverse to producers via algorithms, albeit lower-tech ones.⁶⁵

IV. CHICKENIZATION BEYOND FARMING

While this article focuses on chickenization in agriculture, these developments in agriculture should cause concern in other sectors. Specifically, the mix of intermediary concentration, vertical restraints, and technological development has allegedly fostered higher prices, both explicitly via price fixing and via tacit collusion.⁶⁶ In a series of ongoing antitrust cases, American poultry, pork, and beef farmers have alleged that the concentrated intermediary sector

60. See Barnaby Lewis, *How Smart Farming is Changing the Future of Food*, ISO (June 15, 2022), <https://perma.cc/7H5L-BQXG> (describing these applications).

61. *Id.*

62. See Salil K. Mehra, *Antitrust and the Robo-Seller: Competition in the Time of Algorithms*, 100 MINN. L. REV. 1323, 1363-64 (2016).

63. *Id.*

64. See Emilio Calvano et al., *Protecting Consumers from Collusive Prices due to AI*, SCIENCE (Nov. 27, 2020), <https://perma.cc/6XJN-PW2C>.

65. See *supra* Part II and accompanying text (explaining the increased concentration in the cattle ranching industry through the use of algorithms).

66. For examples, see the U.S. DOJ indictments of chicken price-fixers and its investigation of beef (2019-ongoing). There is ongoing litigation in Pork/Agri Stats (D. Minn. 2019), Cattlemen/Agri Stats (D. Minn. 2019), and Poultry/Agri Stats (D. Md. 2020).

(meat processors) use software-powered information exchange services, such as “Agri Stats,” to enhance their monopsony power, keeping prices paid to farmers low.⁶⁷ Moreover, a series of related allegations suggest that Agri Stats also serves “as a kind of digital evolution of the proverbial smoke-filled rooms where collusive schemes” lead to higher retail prices to consumers for processed meat.⁶⁸

In part, Agri Stats’s role results from affirmative government policy. In 2014, the DOJ and the Federal Trade Commission (“FTC”) jointly announced that they would permit “reasonable” information exchanges.⁶⁹ While this announcement was not sector-specific, it was quite relevant to agriculture and Agri Stats.⁷⁰ The agencies created what they termed a “safety zone” for data exchanges that fulfilled several conditions: the data exchanges were managed by a third party and not a firm providing the data, and the data contained was more than three months old, not readily traceable to each provider, and not heavily sourced from a particular provider.⁷¹ Given the focus on Agri Stats’s role in facilitating collusion, the FTC and DOJ should consider whether their safety zone is too risky for competition.

That said, reexamining the safety zone may be necessary, but not sufficient, to deal with data-driven monopsony. Moreover, looking beyond meat and Agri Stats, intermediary platforms have grown in a variety of industries.⁷² Most notably, the past decade has seen the rapid rise of so-called sharing economy platforms, some of which have seen supercharged growth due to the pandemic.⁷³ In areas such as ridesharing (Uber, Lyft), meal delivery (Grubhub, Postmates, Deliveroo), and others, a few firms have emerged, with one or two often dominating a metropolitan area.⁷⁴ Like the meat processors and their data services, these firms may have the ability to coordinate with “digital smoke-filled rooms” to chickenize their suppliers, and, on their customer side, simultaneously foster increased retail prices.

Specifically, the combination of concentration—a few platforms in any given field—plus vertical integration and control could cause the chickenization of not just farmers but gig workers. Technological advances in surveillance could shift

67. Examples of antitrust cases against meat processors that also involve allegations concerning Agri Stats include: Complaint, *United States v. Cargill Meat Solutions Corp.*, 1:22-cv-01821-ELH (D. Md. July 25, 2022); *In re Turkey Antitrust Litig.*, No. 19 C 8318, 2022 WL 797180, at *1 (N.D. Ill. Mar. 16, 2022); *Jien v. Perdue Farms, Inc.*, No. 1:19-CV-2521-SAG, 2020 WL 5544183, at *2 (D. Md. Sept. 16, 2020); *In re Pork Antitrust Litig.*, 495 F. Supp. 3d 753, 775 (D. Minn. 2020).

68. Christopher Leonard, *Is the Chicken Industry Rigged?*, BLOOMBERG BUSINESSWEEK (Feb. 15, 2017), <https://perma.cc/73AS-ENCN> (describing farmer and consumer advocate concerns about the use of Agri Stats by intermediaries and the resulting effects).

69. The announcement was made via an FTC official blog post. Michael Bloom, *Information Exchange: Be Reasonable*, FTC: COMPETITION MATTERS BLOG (Dec. 11, 2014), <https://perma.cc/QZS2-XKW2>.

70. *Id.*

71. *Id.*

72. Salil K. Mehra, *Price Discrimination-Driven Algorithmic Collusion: Platforms for Durable Cartels*, 26 STAN. J.L. BUS. & FIN. 171, 173 (2021) (describing the rapid growth of such data-driven intermediaries).

73. *Id.*

74. *Id.* at 212-13.

the returns from platform-based gig work, and possibly other fields, away from workers and towards a few oligopolists. While the tech-supercharged vertical control alone may not cause this outcome, the interaction between that control and industry concentration bear watching. As a result, renewed antitrust concern focused on the chickenization of the meat industry may have broader implications.

V. ANTITRUST'S ROLE

Technological change could exacerbate existing buyer power in agriculture. However, to date, antitrust has played a limited role regarding chickenization and monopsony, and understandably, almost no role concerning data-powered monopsony. That said, chickenization has drawn notable antitrust concern, if relatively little concrete action. President Obama's administration convened a series of joint DOJ/DOA hearings focusing on disfunction and manipulation of agricultural markets.⁷⁵ While well-intentioned, they are largely regarded to have had little impact, in part due to well-mobilized lobbying efforts aimed at stemming the reinvigoration of antitrust in this area.⁷⁶

A. MONOPSONY AND INTERMEDIARIES

Antitrust commentators have directed renewed concern at monopsony power, as well as the role of intermediaries.⁷⁷ As a result of new empirical learning, much of this attention has focused on labor market monopsony.⁷⁸ In particular, commentators argue that employers' market power enables the purchase of workers' labor at under-competitive prices, calling for increased antitrust attention and labor market regulation.⁷⁹

In the agricultural sector, the case is analogous but more difficult. It is analogous to the labor market examples because of the potential for abuse of monopsony power by buyers. But conceptually, it may be more difficult; opponents of labor market monopsony can point to pro-unionization labor law and minimum wage regulation as legislative antipathy to buyer power. Lacking such endorsement, agriculture will have to make a more complex case about reduced

75. Alan Guebert, *Bigger and Bigger and . . .*, TRI-STATE LIVESTOCK NEWS (Apr. 16, 2012), <https://perma.cc/6WF3-YW9J>.

76. *Id.*; see LEONARD, *supra* note 1, at 279-303.

77. See, e.g., Candice Yandam Riviere, *The Legal Causes of Labor Market Power in the U.S. Agriculture Sector*, 88 U. CHI. L. REV. 1555, 1565 (2021) (describing recent focus by the U.S. DOJ and FTC on monopsony power over labor, including its exercise or augmentation via intermediaries).

78. See Ioana Elena Marinescu & Eric A. Posner, *A Proposal to Enhance Antitrust Protection Against Labor Market Monopoly*, ROOSEVELT INST. (Dec. 21, 2018), <https://perma.cc/C9FZ-9USQ>; Hiba Hafiz, *Labor Antitrust's Paradox*, 87 U. CHI. L. REV. 381 (2020).

79. See ERIC POSNER, HOW ANTITRUST FAILED WORKERS 53 (2021) (describing how reinvigorated antitrust enforcement in the past five years has led first to allegations that Perdue, Tyson, and other processors fixed the prices they paid poultry farmers and then subsequently to allegations that these poultry processors also fixed the wages that they paid their employees); Hafiz, *supra* note 78, at 388-91 (arguing that a "new labor antitrust" movement may be able to redress the harms to workers of employer monopsony that lowers wages).

incentives for investment and innovation. Antitrust law should create conceptual space for this debate. Moreover, debates about the desirability of trading off one side of a platform against another should be extended to discussions about intermediaries in agriculture.

B. VERTICAL RESTRAINTS

Recently, there have been calls to strengthen antitrust law’s scrutiny of vertical agreements.⁸⁰ While the Chicago School successfully convinced the federal courts to modify antitrust’s *per se* hostility to vertical restraints, since they could be pro- or anticompetitive, increasingly, the courts are unjustifiably treating verticality almost as an indicator of *per se* legality.⁸¹

This debate should be extended to data-monopsony in the agricultural sector. Because vertical agreements can be anticompetitive, special attention should be paid to their actual impact in agriculture. Moreover, as discussed, the increased availability and processing of data could enhance the power of these vertical agreements.⁸² In particular, antitrust enforcers should direct their focus at whether concentration among intermediaries means that these vertical agreements are hurting competition, either on the supplier (farmer) or buyer (consumer) side. For example, they may be enhancing monopsony power on the supplier side. Alternatively, the consumer side could be injured through reduced quality or increased prices. The latter could occur even in the event monopsony power is being enhanced if the existing level of competition among intermediaries is not sufficient to force cost savings to be passed on to consumers.

C. CONCENTRATION THRESHOLDS

Big data, the Internet of Things, and Robo-selling provide more control, and more transparency, to those firms that can take advantage of these technologies.⁸³ Large intermediaries such as Tyson, Perdue, and similar firms are more likely to be early adopters, and to make more significant use of these developments.

All things being equal, technologies that enhance monopsony or monopoly power make that power more concerning. To the extent that these changes make tacit collusion and parallel conduct more likely, enforcement agencies would do well to reconsider whether the existing level of toleration for mergers in the agricultural sector is appropriate.

80. Jonathan Baker et al., *Five Principles for Vertical Merger Enforcement Policy*, 33 ANTITRUST 12, 17 (2019); Steven Salop, *Invigorating Vertical Merger Enforcement*, 127 YALE L. J. 1962 (2018).

81. See D. Daniel Sokol, *The Transformation of Vertical Restraints: Per Se Illegality, the Rule of Reason, and Per Se Legality*, 79 ANTITRUST L.J. 1003 (2014).

82. See *supra* Part III and accompanying text (describing how technology may lead to increased market power by concentrated intermediaries).

83. See *supra* Part III and accompanying text (discussing how Big Data has arrived in agriculture, seemingly to the advantage of a few).

VI. CONCLUSION

The changes, trends, and proposals set forth in this paper are necessarily tentative. There is relatively little case law in this area, and the interaction between Big Data, markets, and antitrust is still a nascent field. That said, the ability of increased data collection and processing—and its asymmetry—to allow contracts to displace traditional market mechanisms bears scrutiny, particularly in the agricultural sector, even if “chickenization” there is just the canary in the coal mine for the rest of the economy.