

2023

## Dr. Pangloss as an Agricultural Economist: The Analytic Failures of the U.S. Beef Supply Chain: Issues and Challenges

Peter C. Carstensen

Follow this and additional works at: <https://red.library.usd.edu/sdlrev>

---

### Recommended Citation

Peter C. Carstensen, *Dr. Pangloss as an Agricultural Economist: The Analytic Failures of the U.S. Beef Supply Chain: Issues and Challenges*, 68 S.D. L. REV. 458 (2023).

Available at: <https://red.library.usd.edu/sdlrev/vol68/iss3/13>

This Article is brought to you for free and open access by USD RED. It has been accepted for inclusion in South Dakota Law Review by an authorized editor of USD RED. For more information, please contact [dloftus@usd.edu](mailto:dloftus@usd.edu).

# DR. PANGLOSS AS AN AGRICULTURAL ECONOMIST: THE ANALYTIC FAILURES OF THE U.S. BEEF SUPPLY CHAIN: ISSUES AND CHALLENGES<sup>1</sup>

PETER C. CARSTENSEN†

*In 2020, the House Committee on Agriculture requested the Department of Agriculture to fund research on the marketing of beef cattle. This request resulted in the publication of a volume containing nine chapters on the marketing of cattle. This essay critically reviews that volume. With only some partial exceptions, the authors, all agricultural economists, presented an unreflective defense of the status quo in beef marketing. This is remarkable because of the long history of concern with many aspects of those markets. The authors largely ignored alternative ways to accomplish what they claimed were the benefits of the current system. Thus, they generally seem to have committed the error of assuming that only the present marketing systems would be capable of producing those benefits. The resulting analyses are reminiscent of the view of Voltaire’s famous Dr. Pangloss for whom this was “the best of all possible worlds.”*

\* \* \* \*

## DEDICATION

This short piece is dedicated to the memory of Thomas (“Tom”) Horton. When I look over the range of his publications from Chinese and European Union competition law to the problem of repair services for tractors, I am awed. It is the tractor repair piece that I am particularly fond of.<sup>2</sup> It is a short article written in collaboration with one of his students, Dylan Kirchmeier.<sup>3</sup> It was instrumental in focusing attention on the competitive issues and harms to farmers resulting from restrictions on equipment owners’ rights to select who could repair their equipment.<sup>4</sup> That article also raised the broader question of how control over digital information about farming may be used to restrict competition in various input markets.<sup>5</sup>

---

Copyright © 2023. All rights reserved by Peter C. Carstensen and the *South Dakota Law Review*.

1. THE U.S. BEEF SUPPLY CHAIN: ISSUES AND CHALLENGES (Bart L. Fischer et al. eds., 2021) [hereinafter BEEF ISSUES].

† Senior Fellow American Antitrust Institute; Professor of Law Emeritus, University of Wisconsin Law School.

2. Thomas J. Horton & Dylan Kirchmeier, *Monopolizing the Digital Agricultural Information Market: John Deere’s Nefarious “Right to Repair” Scheme*, CPI ANTITRUST CHRON., Jan. 13, 2020, at 1, <https://perma.cc/R7VJ-9NQA>.

3. *Id.*

4. *Id.*

5. *Id.*

Tom was an active proponent of competition law and a dedicated teacher and scholar. I was honored to have had his friendship. We particularly shared an interest in the application of antitrust law and competition policy in various aspects of agriculture. He was also a little skeptical about the role and contribution of economists to that process. This article would, I believe, have delighted him.

\* \* \* \*

## I. INTRODUCTION

In August of 2020, the then-leadership of the United States House of Representatives Committee on Agriculture (“House Agriculture Committee”) requested the United States Department of Agriculture (“USDA”) to fund research on the issues surrounding the marketing of beef cattle.<sup>6</sup> The scope of the request included consideration of “industry structure,” “barriers to entry,” “price discovery and methods to address deficiencies,” “purchasing mandates,” as well as a variety of issues for which more “in-depth description” was sought.<sup>7</sup>

The USDA’s Office of the Chief Economist commissioned Texas A&M University and its Agricultural and Food Policy Center to carry out this project.<sup>8</sup> A group of agricultural economists with expertise in cattle marketing were commissioned to produce papers on related topics. These papers were then presented at a conference in Kansas City in June of 2021 and after any revisions collected into a publication, *The U.S. Beef Supply Chain: Issues and Challenges* (hereafter “*Beef Issues*”).<sup>9</sup> As acknowledged in the introduction, the result “focused primarily on fed cattle pricing . . .”<sup>10</sup> Indeed, there is only passing reference in these papers to the structure of the industry, barriers to entry, or other specific issues raised in the letter to the USDA.<sup>11</sup> The result is a series of nine papers that, with a couple of partial exceptions, present a sustained, unreflective, Panglossian defense of the status quo.<sup>12</sup> Moreover, Professor Stephen R. Koontz issued a dire, but implausible, prediction that reforms in the methods of marketing cattle could result in increased costs of more than a billion dollars!<sup>13</sup>

---

6. BEEF ISSUES, *supra* note 1, at vi-vii (reprinting Letter from the House Committee on Agriculture to Sonny Perdue, Secretary of Agriculture (Aug. 7, 2020)).

7. *Id.*

8. *Id.* at xv.

9. *Id.*

10. *Id.* at viii.

11. *Id.* at vi.

12. VOLTAIRE, *CANDIDE* (Boni & Liveright, Inc. Publishers New York 1918), <https://perma.cc/9MUG-DH6P>. Dr. Pangloss in Voltaire’s *Candide* was presented as a philosopher but based on the papers in this book it appears plausible that the doctor’s frame of reference, “this is the best of all possible worlds,” has become the rallying cry of agricultural economists studying cattle markets.

13. See Stephen R. Koontz, *Another Look at Alternative Marketing Arrangement Use by the Cattle and Beef Industry*, in BEEF ISSUES, *supra* note 1, at 102. It would unduly extend this brief review to comment in detail on the narrow and implausible assumptions made in this effort to transfer some analyses based on a couple of years of data in the early 2000s into an estimate of increased transactional costs. The greatest weakness in this exercise is the failure to consider whether alternative negotiated strategies would

The authors of the papers in *Beef Issues* repeatedly commit the errors of assuming causal relationships and ignoring plausible alternatives already in use in some regions. Given the controversies surrounding the market for beef cattle, it is truly remarkable that the organizers were unable (or unwilling?) to include anyone who might have a less positive view of the current systems for marketing cattle and a greater awareness of alternatives.<sup>14</sup> It is, of course, possible that no credentialed agricultural economist dissents from the views expressed in this volume. If that is true, then the discipline itself is at risk of Panglossian intellectual irrelevance because there are significant and proven concerns with the operation of fed cattle markets.<sup>15</sup> Indeed, the issues go back more than a century and motivated the United States Congress to adopt the Packers and Stockyards Act.<sup>16</sup>

In this brief review, the central concern is that, despite a few papers that acknowledged that causal questions existed,<sup>17</sup> there was a fundamental failure in these articles to address the relationship between what some authors recognize as the market power of the packers and the choice of buying methods which might exploit that power by choosing the most anticompetitive method to accomplish efficiency enhancing goals.<sup>18</sup> In addition, the failure to consider how strategic conduct and game theory<sup>19</sup> might illuminate the impact of buying strategy is a striking omission that again undermines the Panglossian enthusiasm for the status quo. On the other hand, one useful contribution provided an analysis of the merits of creating a library of alternative marketing agreement contracts,<sup>20</sup> and there were

---

effectively avoid the assumed cost increases. Another serious problem is the failure to recognize that the lack of cash markets in some regions is a direct consequence of the high level of concentration in those regions rather than a movement from one marketing system to another based on inherent advantages.

14. See Scott Brown, *What Can the Cattle Industry Learn from Other Agricultural Markets That Have Limited Negotiated Trade?*, in BEEF ISSUES, *supra* note 1, at 149 (describing how other agricultural industries, e.g., pork and dairy, have found other ways to identify market prices).

15. See *In re Cattle Antitrust Litig.*, 2021 WL 7757881 (D. Minn. Sept. 14, 2021) (rejecting defendants' motion to dismiss and finding allegations of collusion among cattle buyers to be plausible); see also Jacqui Fatka, *JBS Pays \$52.5M to Partially Settle Beef Antitrust Litigation*, FARM PROGRESS (Feb. 2, 2022), <https://perma.cc/4PLZ-LS9W> (a major meatpacker proposed to settle some claims in this lawsuit while other packers had not yet reached a similar agreement); see also Francisco Garrido et al., *Buyer Power in the Beef Packing Industry: An Update on Research in Progress* (Apr. 13, 2022), <https://perma.cc/LF8K-GNKZ> (explaining that empirical analysis shows that increased use of AMAs results in lower prices for cattle).

16. See, e.g., *Swift & Co. v. United States*, 196 U.S. 375 (1905) (explaining that defendant packers fixed prices to exploit producers and consumers). See generally FED. TRADE COMM'N, REPORT OF THE FEDERAL TRADE COMMISSION ON THE MEAT-PACKING INDUSTRY (1919) (documenting in great detail the competitive problems created by the concentrated meat packing industry); Packers and Stockyards Act of 1921, 7 U.S.C. § 181; see also Peter C. Carstensen, *How to Assess the Impact of Antitrust on the American Economy: Examining History or Theorizing?*, 74 IOWA L. REV. 1175, 1198-1210 (describing the history of change in meat packing and cattle marketing).

17. See, e.g., Brown, *supra* note 14, at 149-55 (one such paper); Joshua G. Maples & Kenneth H. Burdine, *Market Reporting and Transparency*, in BEEF ISSUES, *supra* note 1, at 132 (same); Christopher T. Bastian et al., *How Market Institutions, Risks, and Agent Incentives Affect Price Discovery: Fed Cattle Market Implications*, in BEEF ISSUES, *supra* note 1, at 65 (same).

18. See Garrido et al., *supra* note 15, at 14-19 (citing empirical evidence of price effects).

19. Game theory involves developing models of strategic conduct that show how actors, economic or political, can use their power to achieve their objectives. *Game Theory*, CAMBRIDGE DICTIONARY, <https://perma.cc/RUC3-99YN> (last visited Apr. 5, 2023).

20. See Maples & Burdine, *supra* note 17, at 141-45.

several acknowledgements of the existence of the packers' market power as buyers even if the authors sought to trivialize the significance of that fact.<sup>21</sup>

## II. A LITTLE BACKGROUND ON THE METHODS OF BUYING CATTLE

There are two broadly defined methods of buying fed cattle today: (1) "negotiated prices," which means open market sales or (2) an alternative marketing agreement ("AMA").<sup>22</sup> AMAs involve an agreement to deliver cattle at future times based on some price formula. There are apparently a variety of formulas, but predominantly their basis is either a price based on contemporary market prices (i.e., negotiated prices) or prices derived from the futures market in cattle which, again, in turn, relies on expected negotiated prices. AMAs then provide increases or decreases in the final price paid based on characteristics of the cattle as evaluated after slaughter. Negotiated sales can be based either on the weight of the live animals ("conventional negotiated" sales) or on a grid of prices ("negotiated grid" sales) in which the final price paid uses the conventional negotiated market price adjusted by the characteristics of the animals after slaughter. The use of a negotiated grid avoids the "lemons" problem that exists when a packer pays based on the live weight of the cattle.<sup>23</sup> In different regions of the country there are distinctly different proportions of sales based on AMAs and the two types of negotiation.<sup>24</sup>

## III. THE "POST HOC ERGO PROPTER HOC" ERROR

The basic syllogism of the authors of the studies presented in this volume is that after the introduction of AMAs, prices paid to feeders were better, efficiency was better, and quality was better than under a conventional negotiated price system.<sup>25</sup> Hence, the AMAs must have caused all these good things.<sup>26</sup> The goal

21. See, e.g., Koontz, *supra* note 13, at 107 (exploring this further).

22. See Derrell S. Peel, *How We Got Here: A Historical Perspective on Cattle and Beef Markets*, in BEEF ISSUES, *supra* note 1, at 1, 32-33; see also Ted C. Schroeder et al., *Enhancing Supply Chain Coordination through Marketing Agreements: Incentives, Impacts, and Implications*, in BEEF ISSUES, *supra* note 1, at 81, 82-83.

23. See Schroeder, *supra* note 22, at 85 (describing in Table 4.1 different marketing methods showing that negotiated grids and AMAs with grids have similar characteristics on quality dimensions, while asserting that they are more costly for price discovery, less secure for market access, and do not provide the same timing options for delivery). However, the significance of these purported limitations is questionable because they result from assumptions drawn from a world in which the packers generally have no incentive to improve the characteristics of negotiated grids because that would increase the potential for price competition.

24. Koontz, *supra* note 13, at 123-24. The differences seem to correlate with the number of competing buyers in each region with the negotiated sales more common in more competitively structured markets. Also, there seems to be a preference for negotiated grid sales in those markets with more competitive structures.

25. See, e.g., Koontz, *supra* note 13, at 105 (exploring this further); Schroeder et al., *supra* note 22, at 99 (same).

26. Schroeder et al., *supra* note 22, at 93. The authors do recognize that at best the evidence shows correlation and not causation, but then they ignore this insight. See *id.*

of these claims is to dispute the desirability of several pending proposals to require that major packers engage in negotiated purchases for some percentage of their cattle buying. Because such proposals would reduce the number of cattle coming to market through AMAs, this would, it follows, necessarily harm feeders and consumers in at least one telling.<sup>27</sup> These harms would come from increased “transaction costs” as well as loss of quality control based on various characteristics in cattle that packers can obtain using AMAs that specify such details.

The congressional mandate was to examine “price discovery and methods to address deficiencies,” where “price discovery” means the process of setting a specific transactional price.<sup>28</sup> On the one hand, the chapters acknowledge there are a variety of types of transactions that produce price discovery by different means.<sup>29</sup> The uniform conclusion of those chapters is that AMAs are the best option for individual feeders.<sup>30</sup> On the other hand, the first and painfully obvious weakness in this conclusion is that the articles also report that there are a wide variety of AMAs, and, worse, there is little knowledge of their specific terms.<sup>31</sup> Indeed, the most interesting contribution is from Joshua G. Maples and Kenneth H. Burdine who recommend creating an AMA contract library like that used in the hog business so that producers can be better informed of options.<sup>32</sup> That paper also acknowledges that as the volume in the cash market declines, price variance increases because most AMA prices are derived directly or indirectly from the cash market.<sup>33</sup> Moreover, Professor Scott Brown reports that other comparable agricultural markets such as hogs and milk have moved away from using the market for the commodity to using some downstream basis derived from an apparently more competitively robust market context.<sup>34</sup>

Consider the circularity of the Schroeder et al. and Koontz argument for the AMA as a better option.<sup>35</sup> First, conventional negotiated sales are critiqued because they do not allow buyers to differentiate between high quality and less desirable cattle, do not allow grading of the resulting beef to play into the final

---

27. See, e.g., Koontz, *supra* note 13, at 104, 124 (exploring this further).

28. See Peel, *supra* note 22, at 1; see also BEEF ISSUES, *supra* note 1, at vi-vii.

29. See, e.g., Schroeder et al., *supra* note 22, at 95 (exploring this further); Koontz, *supra* note 13, at 105 (same).

30. See Koontz, *supra* note 13, at 124-26 (concluding that limitation of the use of AMAs will negatively impact farms and ranches); Schroeder et al., *supra* note 22, at 99-100 (describing the benefits marketing agreements provide to producers).

31. See Koontz, *supra* note 13, at 124-26; Schroeder et al., *supra* note 22, at 99-100.

32. Maples & Burdine, *supra* note 17, at 141-45.

33. *Id.* at 132 (“Reductions in public cash market information has also been found to increase price variance and decrease production efficiency.” (citing John D. Anderson et al., *Experimental Simulation of Public Information Impacts on Price Discovery and Marketing Efficiency in the Fed Cattle Market*, 23 J. AGRIC. & RES. ECON. 262 (1998))); Schroeder et al., *supra* note 22, at 87.

34. See Brown, *supra* note 14, at 149-54. But experience in dairy where cheese prices on public exchanges are the primary basis for pricing milk is that the resulting market is thin and manipulable. See WILLARD F. MUELLER ET AL., CHEESE PRICING: A STUDY OF THE NATIONAL CHEESE EXCHANGE PREPARED FOR THE WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE, AND CONSUMER PROTECTION INVESTIGATION INTO CHEESE PRICING SUMMARY, CONCLUSIONS, AND POLICY INITIATIVES 42 (1996).

35. Schroeder et al., *supra* note 22, at 99; Koontz, *supra* note 13, at 106-12.

price, and do not permit the use of the breeding or certification requirements.<sup>36</sup> Hence, because AMAs provide one means to improve the pricing for cattle in comparison to one negotiated method, these scholars conclude it is the best option.<sup>37</sup> But the base price for most, perhaps all, AMAs appears to be the price set by conventional negotiated sales.<sup>38</sup> Hence, the AMA price predictably is better than the conventional negotiated price both because that price is likely to be depressed to some degree given the market power of the packers and because the conventional negotiated price does not allow for the kinds of efficiency-enhancing quality incentives that AMAs generally are claimed to provide. But, compared to what a workably competitive market might have produced including strategies that would achieve comparable quality improvement, the AMAs might still yield a lower price even if higher than the conventional negotiated price.<sup>39</sup> Thus, feeders as a group would be better off with a better designed negotiated price system, but packer buyer power makes it impossible for any feeder, however substantial, to demand such treatment.<sup>40</sup> As long as the AMA house of cards rests on conventional negotiated prices, which by definition are inferior, the claim that AMAs are preferable proves nothing of relevance about a fair and equitable pricing system.

#### IV. THE ROADS UNEXAMINED

Within the marketing systems discussed in the papers in *Beef Issues*, there are some interesting options that warrant, but do not receive, consideration as alternative ways to do price making and discovery.

The most obvious is the negotiated grid. These are negotiated sales in which the value of the cattle is assessed after slaughter and the feeder compensated based on the actual quality of the cattle sold. This form of negotiated sale could also take account of certification and other characteristics in much the same way that AMAs are said to do. Hence, none of these “unique” attributes of AMAs are in fact only possible with an AMA unless one adds the negotiated grid to the list of AMA types.<sup>41</sup> But then there should have been a much more critical review of alternatives among the AMAs in current use.

The analyses, especially that in Koontz and Schroeder et al., argue that negotiated sales do not address supply risk (i.e., uneven supply), so they result in

---

36. See Koontz, *supra* note 13, at 104; Schroeder et al., *supra* note 22, at 86.

37. See, e.g., Schroeder et al., *supra* note 22, at 86 (providing one such conclusion).

38. See Koontz, *supra* note 13, at 116; Christopher T. Bastian et al., *supra* note 17, at 65 (reporting experiments showing that an English auction under competitive conditions consistently result in higher prices to buyers while AMA type agreements result in lowest prices).

39. See Garrido et al., *supra* note 15, at 1-2 (providing evidence that AMAs cause lower prices for cattle).

40. This poses a classic collective action problem. All would be better off with a better negotiated price system, but that would require all or most feeders to act together. But even if feeders were to solve the collective action problem by some agreement, it would likely violate antitrust law.

41. Given modern technology, it should be no more costly to do any of the post-slaughter evaluation when the packer used a negotiated grid to obtain the cattle than when it used an AMA.

higher overall transaction and processing costs as well as diminishing the ability of buyers to seek specific characteristics.<sup>42</sup> The supply risk problem is spurious as increased use of negotiated sales which allow the buyer to take or order delivery within up to thirty days simply means that the buyers will need to organize their purchases so that they have the desired flow of cattle. Use of negotiated grids, as Schroeder et al. recognize, can solve the problem of rewarding appropriate types of cattle and create appropriate market incentives. Hence, the overall claims of Koontz and Schroeder et al. rest on the assumption that the market dynamics that have made AMAs a preferred method of dealing with a number of efficiency issues would not also operate in a negotiated market context to induce the same or better results, assuming, of course, that the buying market is workably competitive.

A second interesting but unexplored option is the use of the wholesale price of beef as the basis for AMA contracts.<sup>43</sup> Those prices pit the packers against the large retailers and better reflect the value of the cattle delivered to the packer.<sup>44</sup> It is, indeed, possible that some AMAs use this basis, but the lack of information in the hands of the expert economists preclude them from any investigation of how this option would perform relative to one based on the conventional negotiated price. Under such an AMA system, when the capacity of packers or the limited supply of cattle increased wholesale prices, the gain would be likely to go to the feeders who provided the more valuable input rather than the packers whose other production costs had remained largely unaffected.<sup>45</sup>

There are two scenarios implied here. In the first, the supply of fed cattle is such that demand drives up the wholesale price of beef. Here, one would predict that packers operating in a competitive market would raise the price they pay for cattle. Hence, use of the wholesale price would not result in a different outcome for the feeder. But if the packers constrain their use of their slaughter capacity—an exercise of monopsony power—then wholesale prices for beef would go up; but prices for cattle would likely decline despite the fact that the value of the cattle actually sold was greater. In this context, use of the wholesale beef price would be likely to protect feeders and provide an inducement for packers to expand or restore production.

Another option that was not even mentioned in any of these chapters is the use of “custom packing,” which is a system in which a downstream wholesaler, restaurant chain, or retailer buys the cattle and contracts to have the packing house slaughter and process them. Whenever there is significant spread between the

---

42. Koontz, *supra* note 13, at 113-15; Schroeder et al., *supra* note 22, at 88.

43. The USDA has the authority to forbid unfair or discriminatory practices by packers. Packers and Stockyards Act of 1921, 7 U.S.C. §§ 181-229. It could invoke that authority to forbid AMAs based on negotiated or future cattle prices and even determine that only AMAs based on the wholesale price of beef are sufficiently free from the risks of discrimination and unfairness to be lawful.

44. See Brown, *supra* note 14, at 152 (reporting that some pork AMAs in fact use the wholesale price of pork as the basis for the price of pigs given the increasingly limited negotiated market for pigs).

45. If prices paid to feeders were a function of the wholesale price of beef, then when that wholesale beef price went up, the price paid for cattle would go up. Thus, increased demand as reflected in the price of the key output would be directly related to the price paid for the key input, cattle.

price of cattle and the wholesale price of beef, such a system would allow downstream buyers of beef to lower their costs even as the feeders would receive higher prices for their cattle. But such a system requires that there be sufficient slaughter capacity available for such a use.<sup>46</sup> Packer market power could plausibly explain why only a few small packers offer this relatively rare option.

## V. THE PARTIALLY ACKNOWLEDGED PROBLEMS WITH THE CURRENT MARKET METHODS

Intermittently, there are admissions that the world of cattle marketing is not perfect. The need for an AMA library is an example of a market failure. Feeders are ignorant of the options that might be relevant to them, which is the hallmark of a defective market. Of course, if a feeder operated in a market with a few buyers, better knowledge might not be of much economic value. On the other hand, AMAs are probably the better strategy in such markets given the risks of sales in markets with such concentrated buying power. Koontz's argument against negotiated sales (his focus seems to be exclusively on conventional negotiated sales) and in favor of AMAs ignores his own data showing the relationship of buyer concentration to the use of AMAs.<sup>47</sup> In such concentrated markets it is implausible that buyers are not exercising their power.

It is here that the models commonly used in the non-agricultural part of economics would seem relevant. AMAs, for example, can be strategic conduct that functions in part to exclude potential competition by tying up a key input. These agricultural economists, on the other hand, did not examine how AMAs combined with high buyer concentration might both entrench market power and minimize the prices that would be paid for desired cattle.<sup>48</sup> To imagine that the packers, given the history of this industry, have become naïve or altruistic in the use of their market position is a charming but unhelpful fantasy. A game theory model would suggest that the interdependence among the four major packers is likely to lead to parallel strategies in both upstream and downstream markets that are likely to entrench the dominant buyers and limit the gains to their suppliers while at the same time exploiting consumers.<sup>49</sup> Yet the authors of these papers ignore all the tools at their disposal to examine how much exploitation is possible consistent with the acquisition over time of sufficient supplies to achieve an optimal return for the shared monopoly.

---

46. Whether the USDA authority under the Packers and Stockyards Act would permit a requirement that some percentage of packer capacity be dedicated to custom packing is an interestingly technical question. See Packers and Stockyards Act of 1921, 7 U.S.C. §§ 181-229.

47. See Koontz, *supra* note 13, at 123-25.

48. See Garrido et al., *supra* note 15, at 2 (providing that a statistical model shows evidence that increased use of AMAs results in lower overall prices for cattle).

49. See Adam Hayes, *Game Theory*, INVESTOPEDIA (Sept. 29, 2022), <https://perma.cc/3KV9-342N>. Hayes provides a useful introductory presentation.

There are several acknowledgements that the packers have buyer power.<sup>50</sup> But the implications of this indisputable fact are not examined beyond the claim that there was little observable effect from this power. Indeed, one author contends that the “efficiencies” of large-scale production outweighed the harms of market power without asking whether a less concentrated market would both produce the same or more efficiencies and more competitive prices.<sup>51</sup> This is a classic example of Panglossian tenor of these articles.

Despite the claims of great advantage to scale and by implication concentration, the twenty-two largest packing plants on average slaughter 3.26% of the federally inspected production.<sup>52</sup> Given that all other plants have lower capacity and work varied hours, it is highly likely that the minimum efficient scale is in the range of two to three percent.<sup>53</sup> The most obvious implication of this economic fact is that the market structure is not the product of scale economies. Beef packing fifty years ago had evolved away from its earlier high concentration and become quite unconcentrated.<sup>54</sup> Its current structure is the consequence of mergers and other strategic choices in the subsequent decades. These papers make no effort to show why such a high level of concentration is necessary for the efficiencies that are identified. At best, the “analysis” is that there is concentration and efficiency; hence, concentration is necessary for efficiency. But nothing in the nine chapters of this book provide any theory of why that might be the case.

Further, the existence of market power means that the packer has the bargaining power to insist on the form of AMA or negotiated purchase most favorable to itself and least favorable to the feeder.<sup>55</sup>

---

50. See, e.g., Koontz, *supra* note 13, at 107-08 (providing one such acknowledgment); see also Peel, *supra* note 22, at 27-30. Figures 1.27, 1.30, and 1.31 show the increase in concentration (Fig. 1.31), which correlates with increased prices for boxed beef (Fig. 1.30) and prices paid by consumers (Fig. 1.29). It is noticeable that the increases came after the industry achieved its present concentration level in the late 1990s. There is also a distinct difference in the price increases for boxed beef sold to major buyers and the greater increase in price experienced by consumers despite the fact that boxed beef reduced retail processing costs significantly.

51. See Koontz, *supra* note 13, at 107-08.

52. Mellin Ma & Layson L. Lusk, *Concentration and Resiliency in the U.S. Meat Supply Chain* (Nat'l Bureau of Econ. Rsch., Working Paper No. 29103, 2021), <https://perma.cc/2W9E-G445> (explaining that the twenty-two largest beef processing plants average 3.26% of the total slaughter of federally inspected cattle); see also *Top 30 Beef Packers 2013*, STUDYLIB, <https://perma.cc/C88A-9Z9M> (last visited Mar. 13, 2023). In 2013 (the most recent listing that included the number of plants and aggregate capacity that are available on the web), the average daily capacity of the plants belonging to the big four ranged from 3,013 head (JBS Swift) to 4,666 head (National), while the sixth largest packer, Greater Omaha, had roughly comparable capacity to Swift (2,900 head).

53. Packing plants are high volume operations relative to the fixed costs. This suggests that the incremental cost curve is likely to be relatively flat through some reasonable range of production. The bigger issue would be the cost implications of operating at levels substantially below optimal capacity. Again, the papers in this volume do not address this issue, which is another element in the kinds of strategic options open to dominant firms.

54. See Carstensen, *supra* note 16, at 1188.

55. See Garrido et al., *supra* note 15.

## VI. CONCLUSION: WASTED TAXPAYER FUNDS

This volume fails to provide the kind of analysis that the letter from the House Agriculture Committee requested. It fails to recognize the incentives of dominant buyers to exploit their power over time while preserving their sources of input. It does not evaluate the full range of known options for price making and discovery that might cabin that power more effectively. Rather its primary contribution is a defense of the status quo even while recognizing that there is only limited information about how the various AMAs operate or might operate and, of course, no way to determine which are better or worse for feeders. The taxpayers paid for this project, and neither they nor Congress got much in return.