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Rethinking Public Policy on Agricultural Market Information

Mark Drabenstott¹

Professor Christy does a good job laying out a theoretical framework for the economics of information in agricultural markets. Following Just (1983), he identifies two key types of information: market data and structural data. Though he maintains this dichotomy throughout, he avoids a strong conclusion about it with reference to current programs. He does suggest that structural data programs have been hit hardest by cutbacks in public spending and that because market data have become cheap to observe, we are probably "over-producing" it.

His theoretical framework is simple and useful. He divides the world into four discrete cases that, collectively, pretty well describe agriculture's spectrum of markets: competition, oligopoly, monopoly with bargaining, and pure monopoly. His framework leads to two main conclusions. First, the public's cost of obtaining information rises as we move away from the competitive, auction market case. A related, though less well-developed, point is that the type of information of greatest use to market participants and public policymakers also changes. That is, market participants care less about activity in auction markets and care more about the contract, or within-firm market, as the case may be. Second, the private sector's cost of obtaining its own information declines as we move away from the competitive, auction market case.

Having laid out this framework, Christy goes on to discuss a number of implications for public policy in food and agricultural markets and offers two fundamental conclusions. The first is a clear acknowledgment that, as the food system becomes more concentrated, the purpose of

public information programs "changes drastically," presumably moving away from facilitating market transactions to regulating undue market power. The second, related to the first, is that more concentrated food and agricultural markets suggest that the public maintain its programs but provide different information.

Henderson: As more and more economic activity is internalized (i.e., because of vertical integration and industry concentration), performance will increasingly depend on the firm(s) and less on the market. The problem is how can we get information from the firm(s), i.e., the private sector, to judge performance? We can't get a "warrant" unless there's evidence of a crime. We can't even get enough evidence to form a prior (e.g., a suspicion of anti-competitive behavior). While not all activities are internalized, there's not enough information available to even raise reasonable doubts about private rents being extracted.

Christy: We simply can't get it. It's private property.

Jim Shaffer, Michigan State University: Do you mean to say that you accept property rights (to information) as cast in concrete? The relationships between public and private change all the time. For example, a few years ago it was impossible to tell consumers what's in a food product. These "secrets" are now revealed and will be even more so with the new labeling law. The threshold between what's private and what's public information is always changing.

Christy: Well, in that case there was an overriding concern—nutrition. Perhaps today there's also an overriding concern about how the economy is working. We always have the option to break up a monopoly—if we can get the information we need to do so.

¹ The views expressed are strictly those of the author and do not necessarily reflect those of the Federal Reserve Bank of Kansas City or the Federal Reserve System.

Christy's analysis is useful, but it can, in my opinion, be pushed further and with perhaps slightly different conclusions. Two links might be made to strengthen the analysis. A clearer tie between Christy's theoretical framework and the current state of food and agricultural markets would add an important constraint to our discussion of public information programs. And a fuller discussion of *why* the public wants information on food and agricultural markets would help guide *what* information programs are appropriate now and in the future.

Theory and Practice in the Food and Agricultural Markets of the 1990s

As we meet, the quiet revolution in food and farm markets is well advanced. That term is one we coined to describe the collective changes occurring as the industry shifts from commodity markets to product markets, from auction markets to contract markets (Barkema et al. 1991). As you all know better than I, the revolution is essentially complete in broilers, eggs, turkeys, milk, and fruits and vegetables. Pork will be "contractized" in relatively few years, and the cattle industry—beyond the ranches—seems likely to follow suit. The phasing down of government contracts on major crops—whether through budget reconciliation bills or some bolder move—will push the nation's grain producers toward higher specialization too. To be sure, there will probably always be #2 yellow corn, but a bigger portion of the crop will move through contracting to more specialized uses, though we cannot say how much or how quickly.

Comment: There's no evidence of a diminished value of information in the corn market. There would be less and less reaction to corn news as it's released if it were becoming less valuable. The question about the justification for data gathering is

relevant for thin markets, such as broilers, where there's not much interest in market price information. But the public is still getting plenty of bang for its bucks in some agricultural markets—hogs and cattle, for example.

This snapshot of where we are and where we are headed is startling when laid alongside our line-up of market information programs. Most of these programs were created when auction and terminal markets were king. With more than a half century of operation in most cases, one has to admit that the programs have a great deal of inertia. But quite apart from the public dollars at stake, can we track market information in markets where more and more of the transactions are proprietary? What is feasible in contract markets is a severe constraint on public information collectors that simply did not exist heretofore. Christy points out that "information is a product of exchange." The problem is that we cannot observe the exchange like we used to.

Moreover, just what relation does market information on the increasingly-less-important auction markets bear to public and private concerns about the industry? For instance, we are committing significant tax dollars and USDA personnel to tracking egg prices, yet 93 percent of market eggs are moving outside of traditional market channels. That leads to my second issue: Why do we want to collect public information?

Justifying Public Information Programs in Food and Agricultural Markets

The justification for public information programs has clearly changed, but the new justification is, in my opinion, a bit fuzzy. Most of our public information programs were initiated more than a half century ago when the farm world was relatively homogeneous in its structure and marketing pattern. Then, there were three principal concerns:

- Consumers were concerned that food marketers would manipulate prices, misrepresent products, or disregard food safety hazards.
- The public wanted to ensure that the government would be a reliable umpire for agricultural trades that occurred over long distances, where farmers, in particular, did not know the other party in the exchange.
- Farmers wanted to make sure they got fair prices, and much of the tax-paying public sided with them.

Today, the public's interest has changed—but to what? Everyone will have their own list, I am sure, but let me propose a list of three goals that seem consistent with current consumer attitudes and practice.

Food safety. Consumers want to be assured that the product they purchase, quite apart from its price and nutritional content, passes an ill-defined safety threshold. Though lacking definition, this threshold is intimately connected to the production and marketing channels through which the product passed.

Market power. Consumers and farmers want to be assured that the big players that now dominate the processing, distributing, and retailing segments of the food system do not exert undue leverage on food prices or the prices farmers receive.

Sound contracts. The public wants to assure a workable environment in which parties in the food system can enter into binding contracts that make clear provision for nonperformance, with special concern for farmers that sign contracts with food processors and marketers.

Christy: Another, more recent, important use of data is for industrial policy and maintaining the competitiveness of various U.S. commodities in a global marketplace.

Sarahelen Thompson, University of Illinois: Perhaps the issue is better cast in terms of who uses the information. For one thing, the government needs to collect data for policy making. But even if it were not using data for policy decisions, the data are useful in other ways. For example, consumers will be using the new labeling information in their food purchasing decisions, reducing the branding advantage, thereby paying less for what they buy.

Comment: Historically, the justification for statistical information is to level the playing field—that is, information can help move us more toward the open auction end of the market spectrum, away from the concentrated, monopolized extreme. It is known that information increases rivalry and rivalry affects structure by broadening the bounds of the market.

What do these justifications suggest for current and prospective market information programs? They suggest a significant overhaul of current programs, the creation of some new programs, and perhaps some net decline in public programs, at least in the longer run. Four points help to elaborate this conclusion.

The private sector can supply—and already is supplying—much of the agricultural market information that public programs currently provide:

As Christy ably points out, the cost of monitoring many agricultural markets has fallen, and the private sector is providing a great deal of market information to farmers, food companies, and consumers. These markets are highly developed and efficient. I would argue that the overall justification for *market* information programs has diminished considerably. Put another way, there is much less need to facilitate markets than in the past. It is time, therefore, for a comprehensive review of these programs and a phasing out of unneeded programs.

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Meanwhile, the need for *structural* information has, if anything, probably increased. But more on that in a moment.

Some make the case that it is essential to maintain public information programs because they underpin commodity markets that serve as benchmarks in contracts. Hog contracts, for example, may specify terms that are based on a Chicago Merc futures price. But as more and more farm products are marketed through contracts, the result is a market that looks like an inverted pyramid, with more and more transactions depending on thinner and thinner futures and spot market transactions. I am not convinced that this is a real problem for public policy, inasmuch as both sides to the contract have a vested interest in having a reliable benchmark. Thus, if one benchmark fails, the private sector is able and willing to move to another. To some extent, this is probably already occurring.

Enhance information programs aimed at monitoring market performance:

With a more concentrated food industry, there will naturally be more interest in preventing firms from influencing prices. But what does that mean for the USDA in an industry increasingly characterized by private contracts instead of open market exchanges? It clearly points out a need to track outcomes in the retail market. Do retail food prices manifest a pattern of influence by big firms or not? Second, it means understanding the broad structure of the market better than we do now. Only in the past year or two have we even had a comprehensive assessment of how much food is flowing through which market channel.

A more vexing issue is whether our concern over market power leads to the conclusion that the public should monitor contracts between producers and processors. Here, it is very difficult to define the public interest, and some difficult choices will have to be made. Does the

public have a right to eavesdrop on a contract between two private firms? If we say no in the automotive industry, why might we say yes in the food industry?

Economists will come to these questions with different prior assumptions and different agendas. My own bias is to admit that we probably have no compelling public interest in tracking hog contracts between the major packers on the one hand and producers on the other. Even if we wanted to track these contracts, I am not convinced that we could, nor that we could generalize from a sample of complex, unique contracts to the point of communicating useful information to the public and the industry. The public does have a clear interest in facilitating sound contracts, but I am not sure that extends to tracking the terms of the contracts.

Lacking such contract information does pose two challenges for public policy. First, it is possible for monopoly processors to exert influence over contract terms, especially within a particular region. Such concerns have been expressed in both the broiler and hog industries. Market influence will be difficult to validate, but income data for producers and processors provide one initial way to address such concerns. Second, there is the question of market access for the small producers who are unable or unwilling to enter into contracts and thus continue to sell their product in open markets. The public has an interest in easing the transition of these producers, but I would argue that the phase-out period should have a fixed length.

A critical dimension in monitoring market performance will be defining the right market. Economists will need to exercise care in defining the relevant market, especially with respect to consumer interests. For instance, the broiler industry has become quite concentrated, but consumer prices for broilers have continued to decline relative to other meats. That is mainly the result of significant economies of

scale that enable bigger broiler processors to reduce their costs. In this case, an analysis of market power must take into account those economies of scale and define the overall meat complex as the relevant benchmark for analysis.

Finally, evaluate alternative information options in providing information on food safety and environmental attributes:

As suggested earlier, the public wants to know more about the safety profile of the food it buys. This uncovers a new dimension of market information that the private and public sectors both may struggle to provide and assure. Can we provide succinct information about the production and marketing channels a particular food product has taken? In some respects this issue may loom larger than the grades and standards issue, although it might also be viewed as a variant of this issue.

Conclusions

The United States has been investing in public information in food and agricultural markets for more than half a century. But the game has changed, and so has the justification for public involvement. The public used to be viewed as both the commissioner and the referee of the food market game. That is, it helped the game take place by providing a playing field and by calling fouls when they occurred. Today, the game is played skillfully in many venues by stronger players. The public no longer needs to provide a playing field, but it still needs to spot fouls when they occur. The problem is that the players are so strong and the referees are sufficiently removed from the action that it is much more difficult to spot the fouls. While some might argue for more officials, my preference is to have smarter referees that pay more attention to the final score.

References

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Mandatory vs. Voluntary Solicitation of Information from the Private Sector

Question: Can we require information from private firms to be used for the public good—or must it always be begged from them—that is, voluntary solicitation?

Grinnell: Well, in the Packers and Stockyards experience, mandatory data collection elicits an adversarial reaction, and the data obtained may be inaccurate and incomplete. P&S has mandatory power but tries not to use it because it gets better quality information if it's voluntary. The persons giving the information need to be convinced it's for their own good; then they will offer it voluntarily and it will be of much better quality.

In the old days we were able to convince farmers that their giving information was for their own good.

Nowadays that can't be said with a straight face. Now it's more likely that the information they offer can be used against them, for its purpose has changed. Now it's used to implement increasingly pervasive regulations.

This is because the purpose of the data has shifted from one of *facilitating markets* to one of *monitoring performance*.

Traditionally government agricultural statistics and information were directed toward producers. Along with structural changes in the industry, the who's-it-for is changing too. Now there's more interest in providing information to small producers, consumers—and regulators.

Dan Padberg, Texas A&M University: On the other hand, operating dairy marketing orders requires a lot of information (because of the separate market components) and it's

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been mandatory for generations. It's never been a problem. So maybe it would work in other areas as well.

Possible Bias in Public Information

Les Myers, Virginia Polytechnic Institute: What the public needs is neutral, unbiased information. However, just because it's a public agency collecting the information, you can't assume it's for the public good. It could be biased to serve the good of those who want the data. For example, choosing samples that are more likely to yield the desired conclusion (e.g., pesticide contamination) so that the department finds evidence to support its work. That is, public agencies have a vested interest in collecting data that will support their positions.

The Value of Private Information

Steve Meyer, National Pork Producers Council: Someone ought to speak up here on the value of information to the private sector—that is, the value of *keeping* the information private. Privacy provides incentives to try something new that will, if it succeeds, eventually benefit consumers.

Comment: But the way firms get bigger and more powerful is with information that others don't have.

Re: Substitutes for Public Information

Armbruster: There are substitutes available for some government-provided data. Yes, but these private sources (i.e., the substitutes) may well depend heavily on the government data. For example, the floriculture industry has a very rich data base, but at least part of it is from public sources (e.g., ERS, the Census Bureau). In fact, private data is sometimes a repackaging of government data. So, we need to be sure these substitutes would still be around if the government data are withdrawn.

Re: Purchasing Information

Comment: Some information is available for purchase—with or without strings attached. When a public agency purchases data, there are frequently strings attached, such as, "These data can be used for policy purposes, but not published." For example, the Nielson data are restrictive in this way; whereas the rice miller data are unrestricted.

From Data to Information

Myers: Technology can generate incredibly detailed information. For example, soon a computer will scan an entire shopping cart in one sweep, recording every item together with the purchaser's photograph and complete identification. The public may (or may not) have less information than before, but for sure there's more at the firm level. They'll know where you dined out, what you ate, and how much you drank. Where will the limits be?

Henderson: It could be argued that consumers own those data about themselves, yet they are not theirs. This becomes a property rights question.

Hal Harris, Clemson University: Universities haven't been mentioned as a source of data.

Grinnell: Well, they're not a principal source of data. They're only a secondary source, while being a primary user.

Harris: Well, the universities' (and ERS's) function of data analysis is extremely important. One of their research roles is to sort through enormous masses of data (consider for example, grocery store scanning data) to find what's relevant to apply to the problem at hand. Universities (and ERS) convert data into information. They add value to the data.