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# Marketing Outlook Information and Information Systems in Unstable Markets

James H. Cothern

It should probably be noted at the outset that this paper carries a heavy application rather than a theoretical bias; but I am not interested in arguing the relevance of theoretical and/or quantitative methods versus practical outlook work; because contemporary outlook work demands perusal of all available tools. I am more interested and concerned about the need for improving the relative contributions of quantitative methods and the practical approaches to outlook work and marshalling resources to do an adequate job today. I am also concerned about the technological advancement and public adoption of communication methods and their contribution to improving information systems, management decision making and the potential for improving general outlook methods. I must emphasize the term potential because I do not believe we are presently taking full advantage of technology available to improve outlook work in general; but I will expand upon this latter comment shortly. Finally, I am concerned about the welfare aspects of the sources and timing of market information, relative sectors' ability to utilize information systems and the implications of the growing public unwillingness to continue traditional support of publicly funded data systems.

There are four basic reasons why I think this matter is more important than ever before. First, public and private decision making is being conducted in an atmosphere of minimal food stocks and this does not allow the margin of error outlook workers possessed in market evaluation in the past. In addition, markets are responding more readily to federal outlook reports and market news than they have traditionally. Second, the development of low cost electronic computers, information and computing terminals and low cost general data processing equipment has given firms potentially

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enormous analytic capability. Third, because of present dynamic markets almost all forms of management and policy decisions revolve around the need to know precise outlook information relevant to the time frame considered. Fourth, the marginal value of increasingly precise information relative to the marginal cost of securing it is extremely variable from sector to sector depending on firm size.

## Outlook: Definition and Time Frames

Outlook can be defined as a best educated view of the future in an appropriate subject matter or commodity discipline, utilizing the best available scientific tools and methods, in order to facilitate a management or policy decision. Outlook information can arbitrarily be divided into three time frames; and each of these time frames might require different combinations of information. First, is the very short-run outlook information which facilitates analysts' and/or businessmen's day-to-day decisions; closely approximating market news, but with interpretation. Second, is the type of information which affects medium-range plans, for example the decision regarding enterprise combinations or livestock combinations might be affected by accurate seasonal supply forecasts, stock estimates and the like. Finally, longer-range outlook information which may affect the entire climate in which business is to be conducted if all inputs can be considered variable. Certainly many California operators and investors are considering inter-regional models and long-term projections for almost every enterprise of crop combination in terms of long-range investment plans. In many cases the geographical areas considered are far reaching.

For purposes of doing outlook work in most livestock or crop combinations analysts generally rely upon the resources of five major public

agencies: Federal-State Market News; Statistical Reporting Service; the relevant State Crop and Livestock Reporting Service; Economic Research Service; and miscellaneous federal agencies, e.g., Foreign Agricultural Service. In addition outlook specialists may subscribe to various privately published newsletters or data sources; but most of these agencies will utilize publicly collected or generated data. In addition, most "successful" outlook specialists have established a rapport with some relevant industry analysts and will share "informed" opinion periodically. Most have a plethora of information regarding short and long-range market news or situation reports. For example, I subscribe to about 35 publications, as well as occasionally scan materials that are delivered to the library. Some of these are reviewed daily or at least weekly; others are not used until I develop a formal outlook statement.

### Resources Necessary for Successful Outlook Programs

Within the framework of the management-time frame division for outlook developed in the previous section, definitional classifications can be related to my concern about outlook timing, quality and delivery methods. If outlook consisted solely of delivering market news most of us would say we are doing an adequate job in most areas. However, today more than ever, I believe outlook must be precise and couched in terms which will facilitate management or policy decisions for the length of run considered; it must be more than a regurgitation of the present market news or a current situation report released by USDA.

Before I give you my reasons for this general criticism of publicly supported outlook programs let me outline my perceptions of these prerequisites for an adequate outlook program.

1. Geographically relevant information must be continuously available and readily retrievable in the following areas;

a. Relevant seasonal prices, quantities produced and sold of affected goods and substitutes.

b. Exogenous demand and supply related information.

c. Market intelligence from international markets (prices, quantity produced, sold, weather, etc.).

2. Adequate clerical and/or data processing support should be provided so that file maintenance is

facilitated and information can be easily and quickly retrieved.

3. Professional staff support should be adequate to maintain familiarity with the data series, maintain close contact with the industries concerned and provide quantitative-evaluative capability. In addition, the group should have the capability to communicate and articulate results of analyses *verbally, graphically* and in *literary* form.

4. The periodic or seasonal forecasts or projections should be definitive, precise and available at regular intervals; and they should be refined for the appropriate geographical area or areas concerned.

5. Choice of communications media should be suited to the appropriate management-time frame criteria, the target release date should be consistently met, and the analyst(s) should have the ability to communicate results articulately and efficiently.

### Criticisms of Current Outlook

Given these prerequisites for an adequate outlook program, let me return to my specific criticisms and concern regarding the general relevance of current programs.

*Short-Run Outlook.* I think more and more private agencies are going to take advantage of publicly generated data for use in privately owned delivery systems for sale to subscribers. I am becoming more and more convinced that private firms will continue to develop and refine analytical techniques and will hire the technicians to exploit their capabilities. Services like *Grain Market News* and *Livestock-Feed Market News* are good examples of services which provide market news and interpretation. It can be argued that it is easier to subscribe to the service than to duplicate it; and further it might be argued that the public agencies should not be duplicating services of this nature. However, what are the welfare effects of the unequal abilities to secure this sort of service? The marginal cost of such a service is obviously much smaller to an owner of a 1,000 head capacity lot. It is true that telephone services of Federal-State Market News provides some market news access for the small operator, but there is less interpretation provided in these types of reports and the analytical skill level of both parties in the latter case are generally below those of the individuals in the former.

*Medium-Range Outlook.* Outlook specialists have had the habit of preparing this sort of outlook information in most states for many years. The frequency of these sorts of reports will vary but it is probably safe to say that a spring and fall report is prepared at the minimum and some specialists will prepare quarterly or more frequent reports depending on the enterprise. The degree of sophistication involved in the preparation of the report is extremely variable also; but it is functionally dependent on the resources available to the specialist, his familiarity with the industry and his interest and skill in utilizing quantitative methods with the empirical base available.

Frankly, I am more concerned about the public contribution to this area of outlook endeavor than either of the two other outlook efforts in the time frames considered. If you accept the prerequisites or even a portion of the prerequisites I have outlined for a good outlook program I would argue that few public agencies are presently willing to allocate the resource package such a program requires today; and I believe this for the following reasons:

1. Quantitative techniques can be particularly useful in refining empirical estimates of future seasonal commodity supply and demand patterns and resulting prices; but they are only useful if the analyst(s) can tune and temper them with experience and practical judgement. Cromarty and Myers made essentially the same observation and pointed out that no single technique was more successful than another from their point of view [Cromarty, et. al., p. 175]. I would argue that the rewards are far greater for the privately employed forecaster to utilize this strategy than for the experiment station quantitatively oriented researcher.
2. Seasonal forecasts made annually, or even quarterly are often inaccurate today because of the exogenous variables that can disrupt the market in the interim.
3. National and broad regional forecasts are often so inexact and imprecise when localized as to make them virtually ineffective in any sort of management framework. For example, the basis between Omaha and California Choice live cattle has behaved very erratically during the past three years with the California market fluctuating as much as \$3-4 above and below the Omaha market at times during the marketing year. Cereals have also apparently been affected by foreign demand

since prices have often fluctuated more than Corn Belt-California transportation costs alone would indicate; and the basis has also behaved erratically. 4. Medium-range outlook can be affected drastically in the short run by sudden changes in agricultural policy and even by "ad hoc" crop forecasts emanating from official sources. Both Rojko and Barr have pointed out the extreme sensitivity of prices when grain stocks are low [Rojko, p. 870; Barr, p. 19]. Rojko also warned of the problems involved in managing low level stocks when a tight supply-demand balance prevails. He notes that "... even with sophisticated analyses the vagaries of weather and political decisions dispel the notion that fine tuning is possible." He also expresses concern over the kind of supply response that can be expected following several years of a tight supply-demand balance and high prices.

Grain prices behaved as might be predicted from the Rojko-Barr analyses in 1973; they behaved about as expected in 1974 until export monitoring and embargoes were placed in effect in late October and early November. By December announcement of a record 1975 corn crop had been released and second half prices were affected by expectations of this large crop. This had a dampening effect as to what one might expect using their methodology.

The vagaries of the weather, political decisions and supply expectations have all been present in 1976. The Secretary has been talking about a "record corn crop" since December of last year. In addition, pronouncements were emanating from the office in February as to the large size of the 1976 wheat crop at the height of the concern over the drought damage to the winter wheat crop. Even the special April 10 crop report tended to understate the damage on a per acre yield basis while official policy statements have minimized the effects of winter wheat damage by emphasizing the prospective size of the total crop [Cothorn, p. 8] While winter and spring wheat prices are interrelated, hard and soft wheats are differentiated in the market. In addition substantial damage to the spring hard wheat crop has been inflicted by drought in key producing states.

*Long-Range Outlook.* Public "outlook" programs are probably at their best when looking down the road 10 to 20 years; and this is only in the normative sense that I consider this statement to be true. Baumol once said "... that biologists,

with some notable exceptions, have data without models, whereas we in economic theory have models which are usually created without data. And in this way we have summarized one of the economic theorist's greatest weaknesses and one of his greatest strengths [Baumol, p. 142]."

I have found some comfort in Baumol's statement because I believe it is in the normative sense that the great truths of economic theory are evident and make their greatest contribution, but I can also castigate myself and other members of the profession because I think we in outlook often take the empirical results obtained from such greatly simplified models too seriously, and analysts often underestimate the limitations of models.

I can remember being part of a university committee which was commissioned to advise some Montana farmers on the wisdom of investing in wheat land in 1971. We advised against it because it was obvious that a producer could not pay for wheat land at the then current price or even with prices projected from the then current national models. If farmers had invested in land at that time they would have it paid for by now quite easily.

Models like the Heady and Mayer national model which we were then using to look at the future can lend useful information to the decision making process if the empirical results are not taken too seriously [Heady, et. al.]. The Heady-Mayer study indicated that farm prices would be greatly depressed if 1) harvested acreage were expanded and 2) if exports were kept within levels that they foresaw as being most likely under several different assumptions. None of us foresaw the emergence of the USSR and the People's Republic of China as major trading powers and we still ponder their impact on the market because their activity is so discretionary.

Becoming involved in such studies reminds us that our methods of projecting yields, acreages and resulting supplies are shaky at best and they point out the weaknesses in demand projections. Finally, these endeavors lend some insight in regards to the welfare effects of various courses of action. The relative wisdom of unlimited acreage expansion under "free market" assumptions is questionable to some of us because of the welfare implications of such programs.

These studies can be very useful for measuring the outcome or effect of various policy alternatives in a *relative* sense. I think that the Dean-King West

Side study and the California Food Task Force study will be extremely useful to decision makers in the same sense as the Heady-Mayer study. I am less sure they are very useful for outlook work. Compared to the next best alternative of looking at the future of California agriculture within the current economic climate they look very good indeed.

### Outlook Programs: Welfare Effects

We have justified publicly supported market news information systems from the public interest point of view. Despite this it is questionable in my mind that we will continue to support public market information systems to the degree we have in the past and I expect a commensurate cutback in publicly funded outlook programs. The reason for this is simple. The marginal value of the programs is unknown and difficult to measure while the marginal cost is known and viewed by those who do not understand the welfare implications of properly operated programs as being essentially industry self-serving. Those in the industries able to generate self supporting outlook programs may not care if those left in the industries affected can solve the market information problem; and I believe this one can be solved rather easily.

This concentration of information problem is exemplified by the superior knowledge of the grain trading companies in the 1973 wheat sale to the USSR and the superior knowledge that these companies and their corollary commodity trading corporations currently possess regarding future sales and their impact on spot and future prices during critical marketing year time periods. If a firm is in a dominant position in both the buying and selling sides of the market it is in position to capitalize on one side or the other during periods of markedly unstable prices. The discussion concerning the winter wheat situation existing this past winter is particularly appropriate, and this has been particularly true during the February-May marketing period.

Hueth and Schmitz outlined the theoretical basis for this sort of market behavior and the conduct outlined under their hypothesis is pragmatically possible as well as theoretically sound. The main ingredients for success are market power and superior knowledge. Bieri and Schmitz argued that market intermediaries benefit from price instability

and in fact manufactured price instability will be to their benefit. Improperly framed market news or the complete absence of market news would be one obvious source of manufactured price instability. Superior market intelligence is commensurate with the first prerequisite and ability to analyze and assess the future is an auxiliary requirement for success. The market instability theory is a powerful argument for maintaining strong market information and outlook systems; but I wonder if decision makers in public places recognize the exigency of the problem and the resources required to maintain adequate market outlook and information resources in today's environment.

### Adequate Outlook Programs: A Regional Approach

I have specifically avoided any reference to public agencies or universities in this discussion. I believe the outlook programs of each have relative strong and weak points, and I also believe individuals within USDA and specific universities have strong programs. But in a general sense I believe both agencies utilizing resources in the present management framework lack specific capacities to satisfy the requirements I have previously outlined for a successful outlook program in the decades ahead. I believe this for the following reasons:

1. The *Situation Reports* and other generalized outlook reports as issued by the USDA are excellent sources of current information about the current situation; but they are not issued with sufficient frequency nor are they localized enough to satisfy the previous prerequisites of an adequate outlook program. In addition, the strong interrelationship between several commodities and/or enterprises requires the continuous perusal and interpretation of several specific publications. On the other hand USDA analysts have immediate access to nationally collected data that individual state specialists find difficult to maintain and retrieve.
2. Marketing specialists in most land grant systems in the United States do not work with sufficient resources to develop a strong individual program with a comprehensive empirical and quantitative base; consequently individual outlook programs are a blend of constant industry communication and review of other outlook efforts. In short they are an amalgam of experience, skill, and oftentimes pooled ignorance.
3. Communication technology has outstripped the

necessary commensurate university and USDA ability to analyze market news and quickly communicate results to the appropriate audience.

4. The agencies' clientele and audience need has changed from a "fairly infrequent generalized" information need to a "technical, specific and periodic" information need; but in most cases, the agencies have failed to make the analogous change. In fact I would argue that there would be a great difference and range of opinion if a definition of the "appropriate audience" were to be advanced.

5. The philosophical commitment to develop, administer and deliver outlook programs of the quality discussed at the outset of this paper is simply not present in a general institutional sense today, and one of the reasons is because present programs are not efficient.

*The Regional Approach: An Answer?* It has been my pleasure to have been associated with a cooperative regional effort in developing, administering and delivering outlook information, and this program, the Western Livestock Marketing Information Project, is well known to many of you in this room today. The Project staff activities include developing and maintaining a myriad of data series; constructing technical tables and charts for participating states' specialists' use; participating in outlook sessions throughout the country; preparation of a physically attractive monthly outlook publication, the *Western Livestock Round-up*, which is distributed to over 19,000 industry members throughout the United States, and the preparation and distribution of two special issues of the *Round-Up* to the same audience.

I am particularly proud of the Project because it satisfies almost anyone's efficiency criteria. The Project operates on a budget of slightly over \$100,000 and this includes the salaries of two professional economists as well as salaries of three technicians and an allowance of \$40,000 annually necessary for the rental of physical plant and operating expenses of the Project staff.

The monthly publication, the *Round-Up*, is a compendium of news and analyses utilizing market news from several sources. It has been very useful to most of the participating states as an adjunct to or in some cases a main focal point of a co-operating state's livestock marketing program. I think the main strengths of the program have been the ability to deliver timely short and medium-

range outlook tailored to the participating states' needs; and this has been accomplished mainly through the dissemination of the *Round-Up*, preparation of "soft ware" outlook materials tailored specifically to regional or state needs and continual consultation with members of the Technical Advisory Committee, staff analysts from USDA-ERS and industry members. The Technical Advisory Committee is composed of livestock marketing specialists from the respective states involved. The Committee annually meets with the Project staff and the Administrative Advisor in order to chart policy.

Until recently the Project was supported by the joint efforts of states' Cooperative Extension Service, Federal Extension Service, and Economic Research Service. By October, 1978 the Project will be either defunct or self-supporting since the Federal Extension Service is withdrawing support and Economic Research Service will withdraw their support for the Project in 1978.

This has been somewhat disappointing to me in that this sort of effort seems to me to be the sensible direction to take for all outlook programs rather than the centralized direction USDA and some Midwestern states now appear to be emphasizing. Whether the cooperating states will make the philosophical and financial commitment to support and strengthen the program remains to be seen. The Project is resource efficient in that it contributes one-half to three-fourths of a full time equivalent staff position in the states concerned and deserves the full support of all traditional agencies. It has strong grass roots support.

### Summary and Conclusions

Tailoring tomorrow's information needs with yesterday's market information and outlook methods and programs will cause publicly supported systems to fall further behind privately supported systems in providing this service. This premise is based upon present real incentives prevailing in the private sector and the lack of incentives present in the public sector to initiate and improve new and comprehensive outlook programs.

Present and future programs will need to be tailored to geographical areas; they must be precise and definitive, and they need to be released at regular intervals according to the needs of a demanding and knowledgeable clientele.

The absence of an ongoing and respected public outlook program will turn industry segments to private outlook services; and this "concentration of economic information" argument has some rather serious welfare implications.

Regional information and outlook programs provide a viable alternative to individual state and/or agency's dilemma in providing funding, staff support, and program developments and maintenance. The Western Livestock Marketing Information Project, one such program, provides substantive evidence that such efforts can be successful and at the same time be very efficient.

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