



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

GROWTH AND EQUITY IN AGRICULTURAL DEVELOPMENT

PROCEEDINGS

EIGHTEENTH
INTERNATIONAL CONFERENCE
OF AGRICULTURAL ECONOMISTS

Held at Jakarta, Indonesia
24th AUGUST – 2nd SEPTEMBER 1982

Edited by
Allen Maunder, Institute of Agricultural Economics,
University of Oxford, England
and
Kazushi Ohkawa, International Development Centre
of Japan, Tokyo

INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS
INSTITUTE OF AGRICULTURAL ECONOMICS
OXFORD

1983

Gower

M. HAWKINS, S. LEAVITT AND R. NORBY*

Operation of Market Mechanisms in Accelerating Agricultural Growth

Accelerated growth of the agricultural economy is not possible without the existence of an adequate market mechanism. In an enlightened economy, the concepts of equity and self-initiative should also be linked with the market mechanism. Most nations work hard at developing market mechanisms which fit their environment and economic order. The functions of marketing are dutifully examined and action is taken to upgrade storage, processing, transportation, information flows, and so on. Planners expect incredible results and, indeed, sometimes, especially in the early stages of agricultural development, productivity increases can be dramatic. Thus, in the early stages of development, functional analysis and market reorganization can be effective in fostering growth in the agricultural sector.

History, however, illustrates that as food production more nearly meets consumer needs, initiative, innovation and efficiency tend to fall. Market concentration, aided and abetted by private or government marketing organizations, seems to dictate rigorously defined market channels, with a minimum of interest in price exchange mechanisms and in daily or weekly price haggling sessions. The discipline of the marketplace is directed towards operational needs of the system, including the needs of the retailer, wholesaler, processor and consumer. The exchange functions of marketing give way to cost-plus accounting as the system evolves from many relatively small partners in the system to fewer but larger successors. The latter firms tend to downplay activity directed towards pricing activities and export markets and devote their energies to a demanding standardized domestic consumer market. The mature marketing scene is therefore depicted by a concentrated domestic marketing effort, with total consideration being given to the elements of operational efficiency.

THE MATURE MARKET

There is evidence of informal structural arrangements (Hawkins and Norby,

* The authors would sincerely like to thank Ms Evelyn Shapka and Ms Judy Warren for editing and typing the many drafts of this manuscript.

1977) which negate the exchange system's effectiveness in reflecting supply and demand. Daily and weekly price haggling appears to have become only a point of historical interest.

Equity and growth within the mature market concern only the taxing authorities and national planners. Marketing events for firms in the mature market are developed around (a) weekly standing orders; (b) formula pricing tactics; (c) private label practices; (d) public relations; (e) image differentiation; (f) products with long shelf-life; (g) one-stop shopping centres with exclusive retail space; (h) excessive retail selling space; and (i) vertical integration (Hawkins, 1979) – providing peace and serenity for all in a regularized domestic market. Governments and marketing agencies pursue the common goals of redistributing wealth outside of the marketplace, limiting growth principally to the domestic scene, and avoiding at all costs price competition and the rigour of a noisy marketplace where occasional pain is a way of life.

The problem with this 'commercial pastoral' life is that food prices rise at a faster pace than consumers relish due to restriction of output. Internal equity issues between labour and management begin to dominate events and growth stagnates. It is now a matter of history that when an economic system decides that small agricultural producers and processors are redundant to the industrialization of food production, then eventually the resultant costs of marketing and producing food will be paid for through shortages and/or higher prices.

THE PROBLEMS

The questions therefore become: (1) 'Can we develop a marketing mechanism which promotes equity and accelerated growth in the agricultural sector without promoting excesses of market structure concentration and oligopolistic conduct within the food marketing system?' and (2) 'Can we foster the innovativeness and drive of the small producer and processor while exploiting the economies of scale of the larger operator?' The task is to direct government attention away from the 'big picture' towards providing an atmosphere where the relatively smaller agricultural producers can co-ordinate their activities in production and marketing in such a manner as to maintain equity and growth within the food system.

This paper will present an example of this producer co-ordination which is presently occurring in the Province of Alberta in Canada. The paper will briefly outline the history of the Alberta Pork Producers Marketing Board (APPMB) and will attempt to develop conclusions from its experience. The authors regret the narrowness of the analysis. However, we trust that our intimate knowledge of this situation will be more useful to the IAAE membership than would an overzealous attempt to extrapolate and generalize our personal experiences to areas beyond our environment.

BACKGROUND

The groundwork for the establishment of Canadian marketing boards took place in the State of Queensland, Australia, in the early 1900s. News of the legislation passed there for the formation of marketing boards by agricultural producers soon found its way to the Province of British Columbia in Canada. From there the news spread through Canada, arriving in Alberta in 1956. Over a thirty to forty year period, Canadians evolved the original Australian precept into a system built around a supervisory/regulatory body called a marketing council, or 'super board.' The Marketing of Agricultural Products Act of Alberta is administered by the Alberta Agricultural Products Marketing Council, an appointed body that reports to the province's Minister of Agriculture. It is a political body which serves at the discretion of the Minister; thus, it acts as the arm of government directing marketing initiatives to approximately ten Alberta commodity boards.

Briefly put, the government places the powers of regulating quantities and commodity prices within the Council. It is interesting to note that although the Council has the legislated authority to regulate retail behaviour, it has to date confined its actions to the farm level. At this level, the Council delegates to producer-elected marketing boards such powers as the producers approve in referendums or through unanimous consent. Therefore, after a series of producer plebiscites, the APPMB was established in 1968 to undertake research, promotion, political lobbying, and to conduct a public teletype auction of pigs.

INTERIM COMMENTS

At this point in the paper several observations should be noted. The Alberta Agricultural Products Marketing Act is generous to agricultural producers. That is to say, the objective of the government is to foster producer participation in the marketing of their products. One could comment that within the overall guidelines of government policy, the producers are trusted to run their own affairs. This situation is made possible through control and feedback mechanisms which make certain that boards carry out their individual mandates. These mechanisms include: (a) supervised secret voting by ballots for elections and major changes in regulations; (b) approval of yearly operating statements, budgets and marketing fee checkoffs by all producers; (c) verbatim minutes of board and director meetings sent to each Council member; (d) occasional Council attendance at board meetings; and (e) the holding of regular meetings between the Council, its member boards and the Minister. Through the Council, the boards have been granted fairly specific regulations. Within these regulations, the boards have substantial freedom to act. If producers as a group have shown tangible support to a proposition, amendments to the regulations are made fairly readily.

THE TASK

Since the inception of the APPMB, the goal of hog producers has been to develop a market system which accelerates agricultural growth while maintaining market discipline, producer involvement and equity considerations. How well has the APPMB fulfilled these obligations? Has the Board met the additional criterion of market efficiency?

In 1979, researchers in the Department of Rural Economy undertook a comprehensive study and evaluation of APPMB operations. The research attempted to link changes in institutional policies with economic criteria. Several publications are pending and the M.Sc. thesis of Mr S. Leavitt, currently with Cargill Grain Ltd., forms the basis of the context and much of the analytic work behind this paper. Our thoughts reflect 30 years of personal study in this areas and an intensive, objective evaluation of a working marketing system by a gifted student. Our total task, therefore, is to blend and expand the theoretical basis for market analysis of a marketing system with a case study situation to see if a link can be made between theoretical relationship and actual market activity.

INSTITUTIONAL FACTORS

During the 1960s, hog producers in Alberta became concerned about the structure of the hog industry. Manning (1965) indicated that 'less than 5 percent of the total number of hogs marketed were sold at public auction in Calgary and Edmonton, and this small number established the base prices for most of the other hogs sold'. There may have been advantages in this system for the larger producers as the 'packers introduced various means of awarding producers, such as premium payments, quick payment, quick kill, assembly and transportation cost subsidies, and other prearranged formulas' (Andersen, 1971).

If a perfectly competitive market exists, neither the buyers nor the sellers can exert more market power than the other. However, market power is strengthened for either buyers or sellers as one side becomes highly concentrated. Reschenthaler (1980) implies that a number of costs affecting market power show up under the heading of poor performance. Examples are inefficiencies in allocation, technology and dynamics. Additionally, as competitive forces are reduced, 'firms in an oligopoly might not try as hard to keep their costs down or artificially depress prices of resource inputs'.

The hog producers in Alberta acted collectively when they became aware of the market power existing among the packing plants. Galbraith (1952) implies this reaction when he states: 'Power on one side of the market creates both the need for, and the prospect of reward to, the exercise of countervailing power from the other side. The first begets the second'.

Hog producers and producer organizations related to the industry began submitting marketing plans to the Alberta Department of Agriculture for

approval in the early 1960s. In the fall of 1965, the newly appointed Agricultural Products Marketing Council urged the organizations which had submitted plans to co-operate on a consolidated proposal acceptable to all sectors of the industry. The organizations sponsoring the three basic plans were the Western Hog Growers' Association, the Alberta Livestock Co-operative, and the joint organization of the Alberta Federation of Agriculture and the Farmers' Union of Alberta¹. No agreement on consolidation was made. The Marketing Council then advised all swine and farm organizations that the Minister of Agriculture had approved a proposal to conduct an opinion poll of hog producers concerning the type of marketing plan they favoured.

In the fall of 1968, the results of the opinion poll indicated that the producers favoured the joint FUA/AFA proposal which called for the establishment of a hog marketing board under which all slaughter hogs were to be sold through a single selling agency. The provincial government began action to make the Alberta Hog Producers' Marketing Board a reality, and on 31 October 1969, the Board officially opened its telebid system of selling hogs.

Since the Board's implementation, it has undergone various developments and policy changes. Some of these alterations include Board involvement in domestic and foreign pork marketing contracts, insurance programmes, price pooling, bid/acceptance selling system, promotional activities and court action against the packing plants. Appendix A summarizes the development of the Board and events which have affected it. Using quantitative techniques, the following section will review the analysis which attempted to link the institutional changes outlined in the Appendix with empirical data obtained from the marketplace.

SUMMARY OF ANALYSIS

Space and time do not allow complete documentation of the research results. Briefly summarized, the research findings were as follows:

Concerning conduct among the pork packing plants in Alberta

- 1 Despite wide fluctuations in hog marketings, the four major packing plants exhibited constant market shares during the periods studied.
- 2 Short-run price fixing was suggested.
- 3 Price leadership was exhibited.
- 4 Cost-plus pricing of hogs was evident.

Concerning market information

- 1 The Board has instituted regular summaries of wholesale and retail pork prices.
- 2 Hourly, daily and weekly market information has become available by phone and is published in numerous publications.

3 Actual price and quantity figures are supplied to government and business, at no cost to the user.

4 Delegates to the Board are also instrumental in circulating information to producers.

Concerning operational efficiency

1 The costs of insurance coverage on transit pigs were cut approximately in half.

2 The number of assembly yards were cut from several hundred to six; thus, the actual costs of assembly were almost cut in half.

3 Pigs were directed to the nearest slaughter facility, thereby limiting shrink costs.

4 The Board received substantial income from the 'check float' mechanism. Interest from this source paid a considerable part of the Board's operation.²

5 Data processing has reduced paper costs and payment times and the information flow generated also benefits the total industry.

6 The Board assumed the cost of supervizing carcass identification from the federal government, thus saving the taxpayer a sum of money.

Concerning pricing efficiency

1 The Board established a trading company in order to (a) expedite export of live hogs and (b) find places to slaughter hogs during labour strikes, thus improving market arbitrage.

2 Domestic contracts with local processors, as well as export contracts, on a cost-plus basis, with Japanese buyers, have been undertaken.

3 The Board has purchased a packing plant operation in order to modify the structure of the marketplace.

4 Prices for Alberta pigs appear to more closely approximate other Canadian markets since the Board started.

5 Price differences with major US markets appear to have narrowed considerably.

6 There would appear to be some evidence that the level of real hog prices was higher after the Board came into effect. However, variability of real prices increased substantially. The latter situation led the Board to pool daily prices for all producers.

ADDITIONAL REFLECTIONS

The two year study into the APPMB clarified and reinforced previous observations. The producer-controlled body had improved market efficiency. Not quite as clearly did it present the case for increased growth and equity in the marketplace.

Previous to the Board's operation, large commercial operations received substantially higher prices for their pigs than small producers. In addition, many bonuses were available to large volume producers such as fast kill, fast payment, free trucking, delayed kill premiums, and guaranteed dollar premiums. The large number of producers who accounted for a relatively small percentage of total pigs slaughtered became noticeably upset. Political pressure grew. Therefore, the Board's implementation of one price for all producers found considerable political favour. It would appear that the new system was able to eliminate discrimination between producers while improving or maintaining operational efficiency. Thus, equity between producers in regard to access to the market and terms of trade became reality.

The Board has also had to come to grips with alleged collusive conduct on the part of the processing industry. Evidence of alleged staged auction sales, rigid market shares, a lack of market arbitrage and active tampering by meat processors and assemblers with telecommunication sales network led the Board towards active intervention in the marketplace.³ Reinforcing the drive for producer activism was the abdication of the market regulator role by the Council and various other government regulatory organizations.

The newly formulated political and economic activity instituted by the Board was financed by an additional producer checkoff on the sale of each pig. In point of fact, this fee is now several times higher than the amount of the producer-collected funds going towards the handling and selling of each pig. In addition, the APPMB has engaged a small, talented, high-priced group of experts to help it plot its course. The Board has become a democratically elected political force with economic power and has made considerable progress in handling operational, equity and growth factors in its production and marketing environment. The Board's impositions on the system have been limited in abuse of power by the two-way flow of pigs and pork products across North America, the Marketing Council's supervisory role, and by the competition of meat alternatives in the consumer food basket. In addition, election procedures, which involve limited terms for officers and financial accountability to member producers, have generated turnover in the players and have created new imaginative thrusts in management. The individual producer can produce whatever pigs he desires, responding to market ebbs and flows. In addition he is financially supported by a joint government-producer income averaging plan and he has the final confidence that his elected proxies are directing the attack for equity, growth and market efficiency.

Thus, the system has retained the discipline required of a competitive marketplace, while allowing individual producers to demonstrate self-initiative and innovative desires in their production units. It has recognized the necessity of economies of scale in a narrow consumer market and now works actively in maintaining the volumes of hogs necessary for the survival of the existing meat processors.

APPENDIX A
Flow chart of significant events affecting the Board

31 October 1969 – AHPMB officially started selling hogs.

May 1973 – The Board negotiated first of a series of contracts with Japan for hog exports.

July 1973 – Formation of the Producers' Hog Indemnity Fund.

1974 – Board given authority to negotiate directly with processors or buyers.

1975 – Board terminals established to influence hog flow to packing plants.

November 1977 – Hu Harries completes report on the hog price relationship.

March 1978 – Board implements daily producer price averaging.

March 1978 – Board starts marketing hogs under advanced buyer bidding.

June 1978 – Producer toll free code-a-phone market information service.

1978 – Incorporation of the Alberta Hog Trading Company.

April 1979 – Sale of frozen pork to Korea.

May 1979 – Name change from ‘Hog’ to ‘Pork’.

November 1979 – Appeal of the Board’s bid/acceptance system and domestic contracting launched by two major processing firms.

February 1980 – Three processor firms’ partial boycott starts.

February 1980 – Minister Schmidt announces his intention to establish a Hog Marketing Review Committee.

February 1980 – Board discontinues use of teletype: receives offers by telephone, telex, letter or teletype circuit.

March 1980 – Board and individual plaintiffs file \$73 million statement of claim against packers for restraint of trade.

March 1980 – Marketing Council passes motion to take over Board operations through A.R. 99/80.

April 1980 – A.R. 99/80 is repealed by Council.

May 1980 – Temporary Stop-Loss Program announced by Minister Schmidt.

December 1980 – The Board purchases Fletchers’ Fine Foods Limited packing plants in Red Deer and Vancouver.

CONCLUDING COMMENTS

The task of this paper has been to present a situation wherein the marketing mechanism has been utilized to accelerate growth in the agricultural sector while retaining marketing efficiency, equity and the role of self-initiative. The marketing system examined utilized co-operative action by producers, computerized mechanisms, and imaginative government legislation to jar the mature market structure towards the aforementioned goals.

It is important to note that the described system has only one weapon to use in the face of market collusion or government restriction. Awareness and unbiased technical knowledge of the marketplace are the principal means of directing political pressure towards legislative or producer-directed changes.

Accelerated growth in agricultural development would appear to be possible with an elected producer-backed market mechanism. It is also apparent that operational efficiency gains are similar to those available in concentrated mature market systems which owe their existence to economies of scale, market power or government decree.

NOTES

¹ For a detailed description of the three marketing plans proposed and the development of the Board, see M. H. Hawkins, S. S. Leavitt and L. Leiren, *Development and Operation of the Alberta Pork Producers Marketing Board*, Revised Rural Economy Bulletin 12, Edmonton: University of Alberta, Dept of Rural Economy, 1981.

² 'Check float' is the amount of money tied up in uncashed producer payment checks. The total amount involved is remarkably constant. Interest on this money is paid by the banks to the Board. Previously these payments had gone to the packers.

³ Legal actions by the APPMB and the Canada Department of Justice are pending.

REFERENCES

- M. H. Hawkins and R. Norby, *The Implications of Vertical Integration by Food Retailers on the Canadian Pork Marketing System*, Occasional Paper No. 2, Edmonton: Rural Economy, University of Alberta, November 1977.
- M. Hawkins, 'The Competitive Environment in the Canadian Food System' (Paper presented to Organization and Direction of the Food System in the 1980s seminar, at Edmonton, Alberta, 11 - 12 June 1979).
- Travis W. Manning, *Performance of the Hog Marketing System in Alberta*, Agricultural Economics Research Bulletin No. 4, Edmonton: University of Alberta, July 1967, p.9.
- Richard S. Andersen, 'An Economic Analysis of Daily Hog Price Fluctuations and Supply Response', unpublished M.Sc. Thesis, University of Alberta, Edmonton, 1971, p. 14.
- G. B. Reschenthaler, 'An Analysis of the Competitiveness of the Pork Industry in Alberta', paper presented to the Hog Marketing Review Committee, Edmonton, 24 June 1980, p. 9. Mimeographed.
- J. K. Galbraith, *American Capitalism: The Concept of Countervailing Power*, Houghton Mifflin, Boston, Mass.: 1952, pp. 111 and 113.

DISCUSSION OPENING – MICHAEL HAINES

In recent years it has become fashionable to stress the role of marketing in encouraging agricultural development. Some writers, particularly those from the straight marketing and business disciplines, have even gone so far as to assert that marketing improvement is *the* key factor in development, both in the developed and the developing world. This view has led to the great emphasis on the role of agri-business. In the same period, the acceptance by many people of the fact that input supply, agricultural production, processing, retailing and ultimate consumption are simply part of an integrated food production and marketing system (characterized in French by the term *agro-alimentaire*) has stimulated renewed interest in the developed world in a problem which has been ever present in the developing world: namely, whether *growth* is more important than *equity* or vice-versa; that is the theme for this conference. That both these concepts are important has always been recognized; the *problem* has always been to design a system such that it achieves a satisfactory trade-off between them – satisfactory normally being conceived from the farmer's point of view.

The fact that most agricultural products require processing, and that most processing activities exhibit considerable economies of scale, has led to the growth of very large firms which, it has been widely believed, exercise considerable power over the farming sector and may cause a loss of consumer sovereignty. This view of the situation has been widely accepted by agricultural economists, and considerable efforts have been devoted to devising institutional arrangements which would allow the exploitation of economics of scale without permitting exploitation of the farmer. This paper offers a case study of one recent attempt to prevent the exploitation of small farmers by an oligopoly of four hog processors in Alberta. The solution discussed is the establishment of a marketing board to countervail the power of the oligopoly, and thereby ensure that all producers receive the same price and are offered the same terms of trade (where before the establishment of the Board larger producers obtained better terms than small producers). There is therefore *equality* of treatment, but this may not represent *equitable* treatment. Indeed, what may have been created is a producer monopoly which may well countervail the power of a processor oligopoly, but may not have increased the revenue and consumer satisfaction of the total system, simply redistributing it among the participants. It may have ensured better treatment of small farmers, but at the expense of efficient, planned, large-scale, low cost production which would be beneficial to the largest group in developed countries – that is, consumers. I am not arguing that what the Board has achieved in improving operational efficiency has not been beneficial; it clearly has – costs of collection and so on have been reduced by 50 per cent, which is a major achievement. Similarly, illegalities have been detected and prosecutions put in hand, which is also important. What I am more concerned about is that the Board was established and is controlled, albeit democratically, by one sector of the marketing system to protect, as I understand it, the interests of small

producers against large producers and against other sectors of the agri-food system.

The authors say that hog purchasers were offering special terms of trade and inducements to larger producers, and that the farmers were right to object and call for government intervention to prevent this. At the present time there is a similar campaign by small retailers in the United Kingdom and we have seen such action in France. The Robinson-Patman Act was a legislative response in the United States to a similar complaint by retailers. Marketing Boards and co-operatives have been established by government and farmers throughout the world based on similar reasoning. In many cases these activities have failed to achieve all that their sponsors sought because in effect they are trying to put the clock back, and more importantly they are damaging other sectors of society. In the case of the retailers, they are preventing consumers from obtaining food at lower prices, and the same is often true of attempts to protect small farmers. I must say that I am not persuaded of the case that 'when an economic system decides that small agricultural producers and processors are redundant to the industrialization of food production, then eventually the resultant costs of marketing and producing food will be paid for through shortages and/or higher prices'. Certainly where state ownership is concerned this may be true, but in Europe and, I suspect, North America, many consumers would argue that high prices (or high taxes) are the *result* of attempts to keep small farmers, processors, and indeed retailers in business, and not that the demise of these smaller businesses is the cause of high food prices. Clearly it depends on whether there are further economics of scale to be exploited by larger units, and this may in turn depend upon research and technology which is often funded by the State but benefits larger and more industrialized producers, who are often better able to produce growth in output.

This paper then raises again the main issue to which this conference is devoted, namely growth and equity, that is *a question of objectives*. If we want equity (or as it seems to me in this case, equality of treatment) then we may have to live with low levels of growth since growth in output nearly always results from the use of more resources, both financial and technical, which smaller farmers do not have. Efforts to protect small farmers may therefore be counter-productive both to other producers and certainly to the marketing system as a whole, whereas it is the planning by the food industry and large retailers which I would argue has led to increases in consumer satisfaction (which is the aim of all marketing activities).

The second question raised by the case study is one of *means*. If it is decided by the state that on political grounds it is necessary to protect a particular group, what is the best method of so doing? The authors of the paper show that the Alberta Hog Marketing Board has achieved many of the objectives which were sought. This is a common experience in many developed countries where marketing boards exist although not in LDCs. They allow the producer to exercise a high degree of freedom in his production decisions while at the same time imposing, after his initial consent, a certain minimum level of discipline, and it is this statutory

discipline which overcomes the problems of the voluntary co-operative. This Marketing Board seems to be totally producer-run, although some others have a number of independent members, while others may contain representatives of the processing and retail trades and consumer groups. It seems to me that this last structure, which is more representative of the system as a whole, is more in line with modern marketing thinking, and this seems to me to be one topic worthy of discussion today.

There is, finally, another general point which is of considerable importance in a number of countries, and has received a great deal of attention in Canada, the United Kingdom and so on. Many countries now face a situation in which the market for agricultural commodities is no longer growing and conditions of surplus exist. What is required, therefore, is a means of equitably preventing the growth and later even reducing output, so that producers' incomes can be maintained without imposing unacceptable costs on consumer and taxpayers. I, for one, would welcome the views of the authors of this paper on the idea that a broadly-based Marketing Board involving all participants of the marketing system plus the government might be the most acceptable means of achieving this end.