

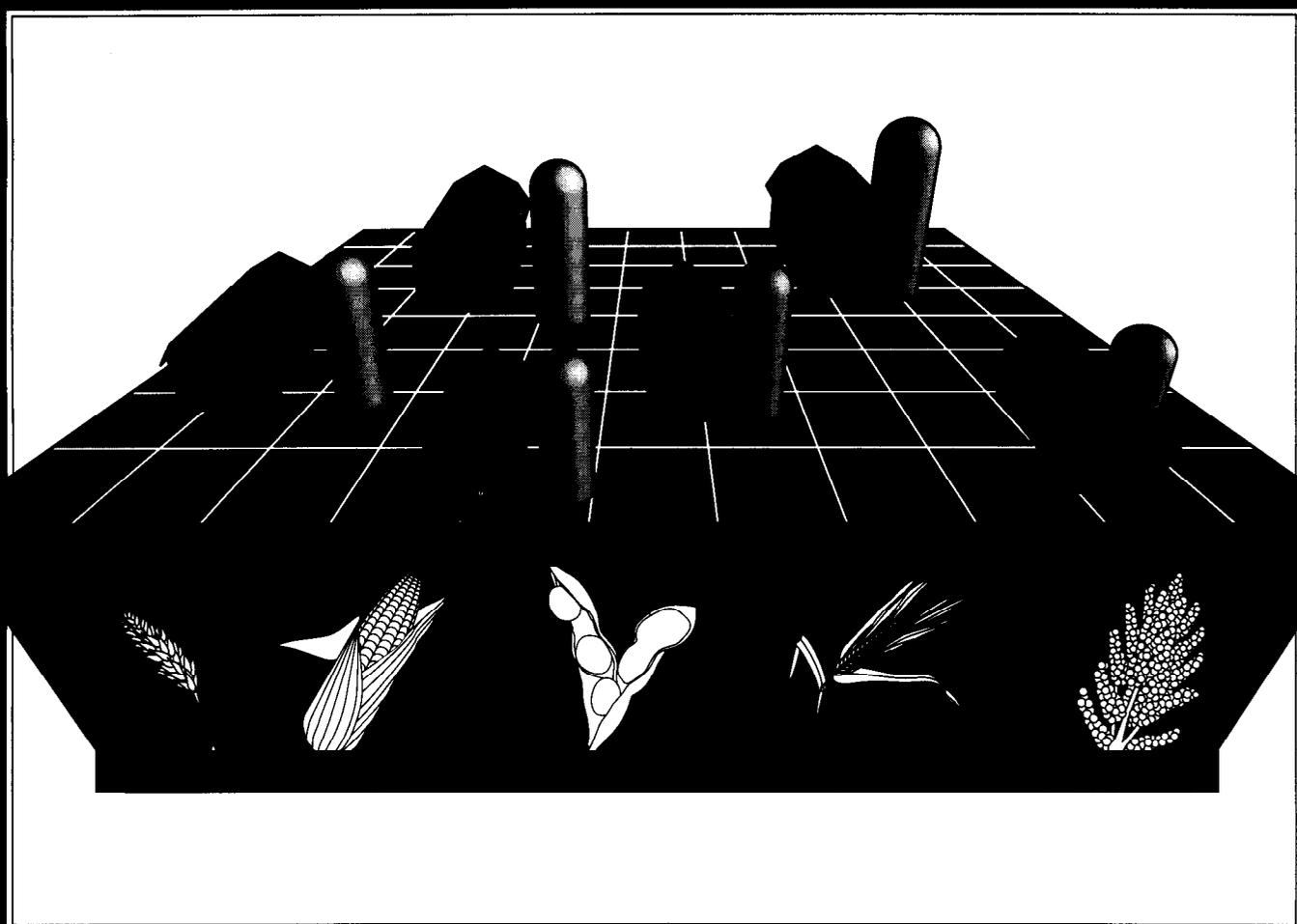


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Cooperative Grain Marketing: Changes, Issues, and Alternatives



Abstract

Cooperative Grain Marketing: Changes, Issues, and Alternatives

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This report discusses the various changes the cooperative grain marketing industry has experienced during the past 2 decades. The different influences and factors that led to these changes are analyzed. Issues currently affecting grain marketing cooperatives and that will define the future environment in which they operate are also discussed. Finally, some general directions that cooperatives can follow to become more competitive are outlined.

Keywords: Farmer cooperatives, grain, marketing, policy, historical

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Preface

The U.S. grain marketing system has changed considerably during the past 20 years. Various events and structural changes have had a tremendous affect on farmer-owned cooperatives. Mergers, acquisitions, and bankruptcies resulted in consolidation in the cooperative grain marketing sector. Changes in Government policies and in trading practices have forced the entire grain industry, including cooperatives, to alter operating procedures. Adjustments are still occurring.

This report is intended to stimulate debate about the future of U.S. grain marketing cooperatives. The future success of many grain producers depends on what direction cooperatives follow. Participants in this debate include producers; cooperative boards, management, and employees; grain users; academia; and Government.

The report has three sections. The first discusses the development of the cooperative grain marketing system and the events that affected its evolution. The second section discusses some issues grains and **oilseeds** cooperatives currently face and those that may arise in the future. The final section examines alternative courses cooperatives can follow to increase their chance of success.

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Highlights

- U.S. grain marketing cooperatives have experienced major structural and operational changes during the past 20 years. Adjustments are continuing.
- During the **1970s**, cooperatives were part of an industry-wide decade of expansion fueled by the growth in exports, low interest rates, and changes in marketing practices.
- Consolidations marked the 1980s due to falling exports, high interest rates, poor earnings, overexpansion, and changes in Government policies.
- The cooperative marketing component changed in step with or slightly behind the U.S. grain marketing industry. Major restructuring occurred on the cooperative side via mergers, acquisitions, and bankruptcies. Restructuring has been especially painful for regional grain marketing cooperatives.
- Causes of this restructuring fall into three general categories-external factors such as the evolution of grain marketing practices and general macroeconomic changes; internal factors such as the lack of coordination among regional cooperatives; and the federated structure of grain marketing cooperatives.
- Grain cooperatives face a number of issues that affect their current operations and will determine their future operating environment-globalization of grain marketing, changes in the domestic marketing and regulatory environment, and changes on the demand side of grain marketing.
- In the **1990s**, cooperatives can move in at least four general directions to compete more effectively in domestic and international markets-employ innovative marketing techniques, develop comprehensive service programs for members, integrate forward or backwards into other activities, and form joint ventures.
- Cooperatives must decide on their appropriate roles in the grain marketing system, examine strengths and weaknesses to find competitive advantages, and then translate these advantages into specific actions. This effort will require teamwork and planning.

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INTRODUCTION

One of the greatest adjustments to changing U.S. agricultural conditions during the past 20 years has occurred in the production and marketing of grains and oilseeds. After exports surged in the late 1970s, the grains and oilseeds sector encountered volatile prices, high interest rates, unstable production, and erratic domestic and international policy in the 1980s.

The 1980s began with wheat production greater than market demand at economically acceptable prices. Soybean production and prices continued their historically volatile patterns. Feed grain inventories fluctuated throughout the decade, driven by a combination of Government policy and weather. The period was also marked by major structural adjustments for farmer-owned grain marketing cooperatives. These changes are ongoing.

The number of grains and oilseeds cooperatives declined 14.8 percent during 1973-82 (table 1) and 28.1 percent further during 1982-92. Grains and oilseeds cooperative membership peaked at 1.38 million in 1975, but dropped 36 percent, to 882,762, in 1992. Net business volume (in actual dollars) by grains and oilseeds cooperatives peaked at \$20.6 billion in 1984, but then dollar volume began to fall. Between 1984 and 1987, net business volume declined 47.8 percent. By 1992, it had rebounded 41.6 percent, to \$15.2 billion. Cooperatives' share of the total value of grains and soybeans marketed at the first handler level grew from 29 percent in 1973 to 36 percent in 1983. That share dropped to 30 percent in 1989, but by 1991 had rebounded to 38 percent (figure 1).

Several studies and articles have discussed what has occurred in the grain industry in general and cooperatives in particular. These reports noted

various industry problems such as interest rates and transportation.

General problems associated with local grains and oilseeds cooperatives included pricing policy, inadequate equity, inadequate market information, farmers bypassing the locals and going direct to terminal markets, and competition with other firms, including other cooperatives (Yager and Hunley).

A major focus concerning regional cooperatives has been the difficulty competing in export markets and whether the federated structure is efficient in today's cooperative marketing environment. This is illustrated by the lack of local cooperatives' commitment to the federation and even to competition with their regionals (Campbell).

This report briefly discusses the cooperative grains (except rice) and oilseeds industry and the problems confronting it. The intent is to stimulate discussion about the future role of grain marketing cooperatives. The paper focuses on three areas: historical background, current issues, and future directions.

The historical section discusses the development and effects of economic changes on both local and regional grains and oilseeds cooperatives. The current issues section outlines the environment and the various forces currently confronting cooperatives. The section on future directions presents some alternatives cooperatives can follow to compete more effectively in grain markets.

HISTORICAL BACKGROUND

The early decades of this century saw the major development of farmer-owned, local grain marketing cooperatives throughout the Midwest. These cooperative grain elevators evolved to challenge the economic power of the large grain corpo-

Table 1—Grains and Oilseeds Cooperatives¹

Year	Total Co-ops	Members	Net Volume
	Number		1,000 dollars
1973	2,029	1,305,565	5,427,898
1974	2,012	1,300,615	9,645,767
1975	1,965	1,380,000	10,139,689
1976	1,986	1,254,636	10,633,612
1977	1,793	1,188,464	11,852,416
1978	1,790	1,188,460	12,816,723
1979	1,804	1,188,915	14,948,459
1980	1,792	1,173,999	17,789,697
1981	1,777	1,154,965	19,777,374
1982	1,729	1,192,725	18,233,654
1983	1,673	1,074,768	16,217,999
1984	1,639	1,127,344	20,607,295
1985	1,623	1,070,605	15,673,750
1986	1,514	910,000	11,605,175
1987	1,446	900,059	10,747,500
1988	1,482	890,686	12,628,500
1989	1,400	900,784	14,189,186
1990	1,400	913,463	14,259,200
1991	1,287	871,872	14,471,817
1992	1,243	882,762	15,223,300

¹ These numbers reflect cooperatives marketing grain, soybeans, or soybean products as their major business activity. Excludes rice and dry edible bean associations. Source: *Cooperative Historical Statistics*, USDA's Agricultural Cooperative Service (ACS), Cooperative Information Report 1, Section 26, October 1967, and *Farmer Cooperative Statistics*, USDA's ACS, various reports.

rations and the railroads serving the grain trade (Dahl).

Grain marketing cooperatives enabled farmer members to capture economies of size in one or several marketing functions (assembly, storage, and cleaning) and for purchase of farm supplies. Each cooperative's organization was based on the unique marketing needs of the local area served. These elevators purchased grain from their farmer members and sold it in single rail car lots to terminal elevators and processors. Even with the mechanization of agriculture, this structure changed little until the 1950s (Ginder).

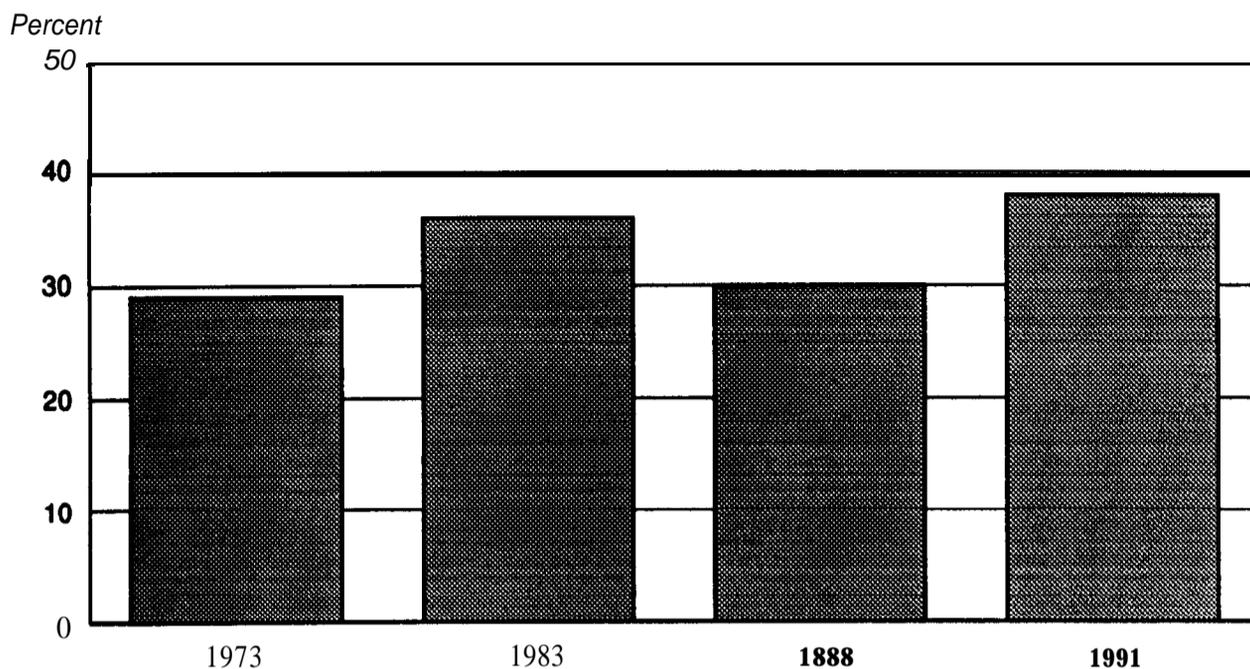
In the 1950s and 1960s, surplus grain stocks and Government programs began to dominate the grain marketing system. New technologies—such as improved seed varieties, inorganic fertilizer, and

increases in mechanization—produced greater volumes of harvested grain (Ginder and Baumel).

All grain marketing firms received Government storage payments to help remove market surpluses that were developing. In response, many cooperatives increased their storage capacity. Local cooperatives captured size economies while maintaining their original marketing areas (Ginder and Baumel).

The federated cooperative grain marketing structure was initiated when the first regional was organized in 1911 (Wineholt). Regional grains and oilseeds cooperatives provided a variety of services for their local cooperative members, although their primary purpose was merchandising grain originated by country elevators. Other functions includ-

Figure 1—Share of Grain Marketed by Cooperatives



Percent of total farm-level value marketed.

Source: ACS-STSS

ed operating terminal facilities, providing market information, and acquiring transportation.

Much of the grain export business in the 1960s was conducted under USDA's **PL-480** program. Most grain exports were traded on an FOB basis in relatively small lots. This enabled smaller firms to compete with the larger international grain exporters because importers assumed the shipping risks and costs. The existence of representatives of foreign companies in the U.S. also reduced sales costs, allowing smaller firms to compete (Ginder and **Baumel**).

Regional cooperatives responded to these circumstances with a concerted effort to enter export marketing. The first interregional grain exporting cooperative formed was Producers Export Company at Amarillo, TX, in 1958 (Reynolds).

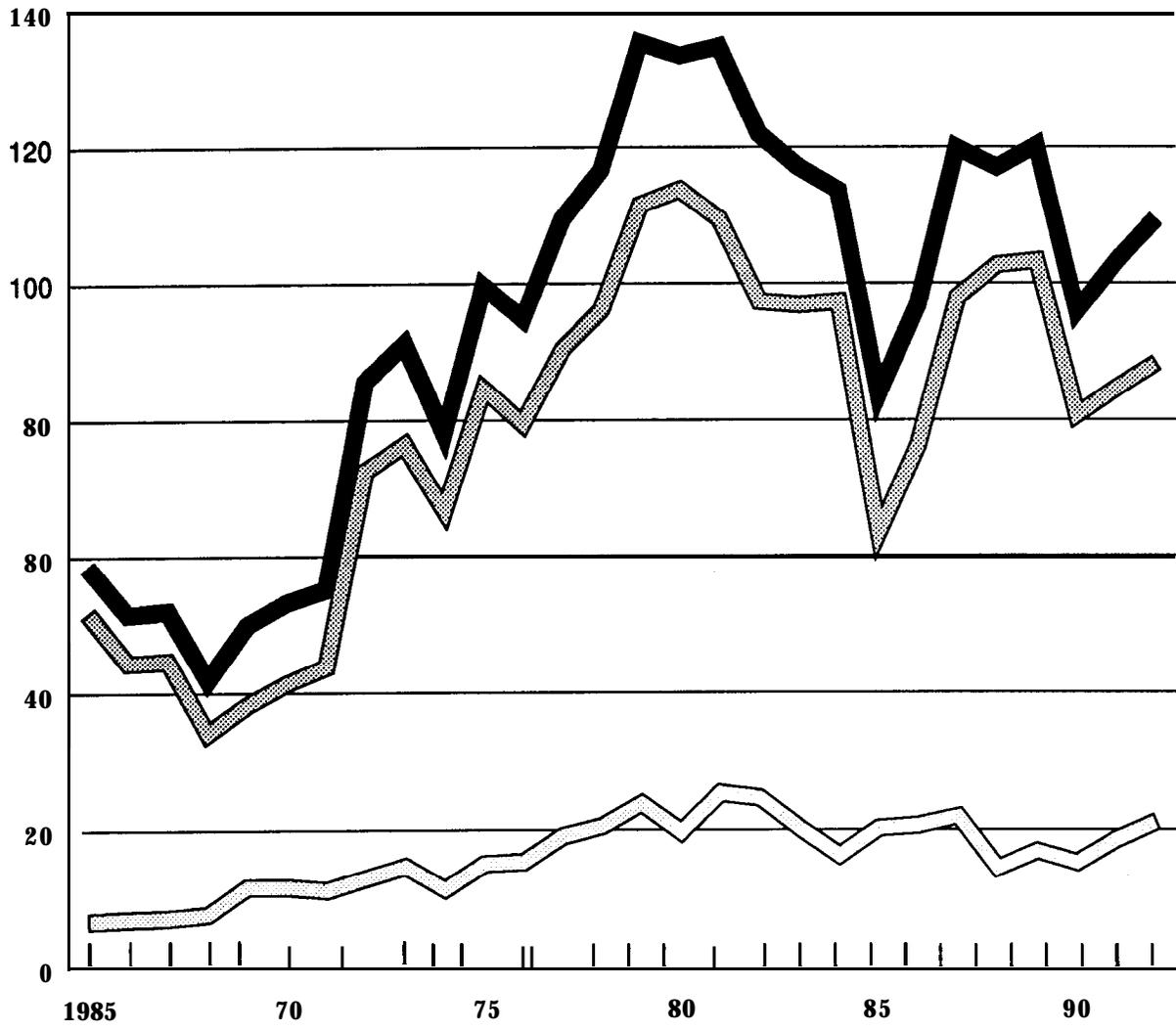
Major changes in the world and domestic grain trade began to occur in the 1970s. Early in the decade, reduced harvests throughout the world, especially in the Soviet Union, increased the world demand for American grain. U.S. grain exports in 1973 exceeded 3 billion bushels, up 67 percent from 1972. Grain prices climbed above price support levels.

Throughout the remainder of the decade, the low value of the dollar, general world prosperity, and the desire for improved diets worldwide kept the demand high for U.S. grain. Grain exports reached a record 5 billion bushels in 1979 (figure 2). That year the U.S. had a record **60-percent** share of the world grain trade (**Dahl**).

During the **1970s**, U.S. grain marketing cooperatives wanted access to export markets and

Figure 2—Grain and Soybean Exports

Million metric tons

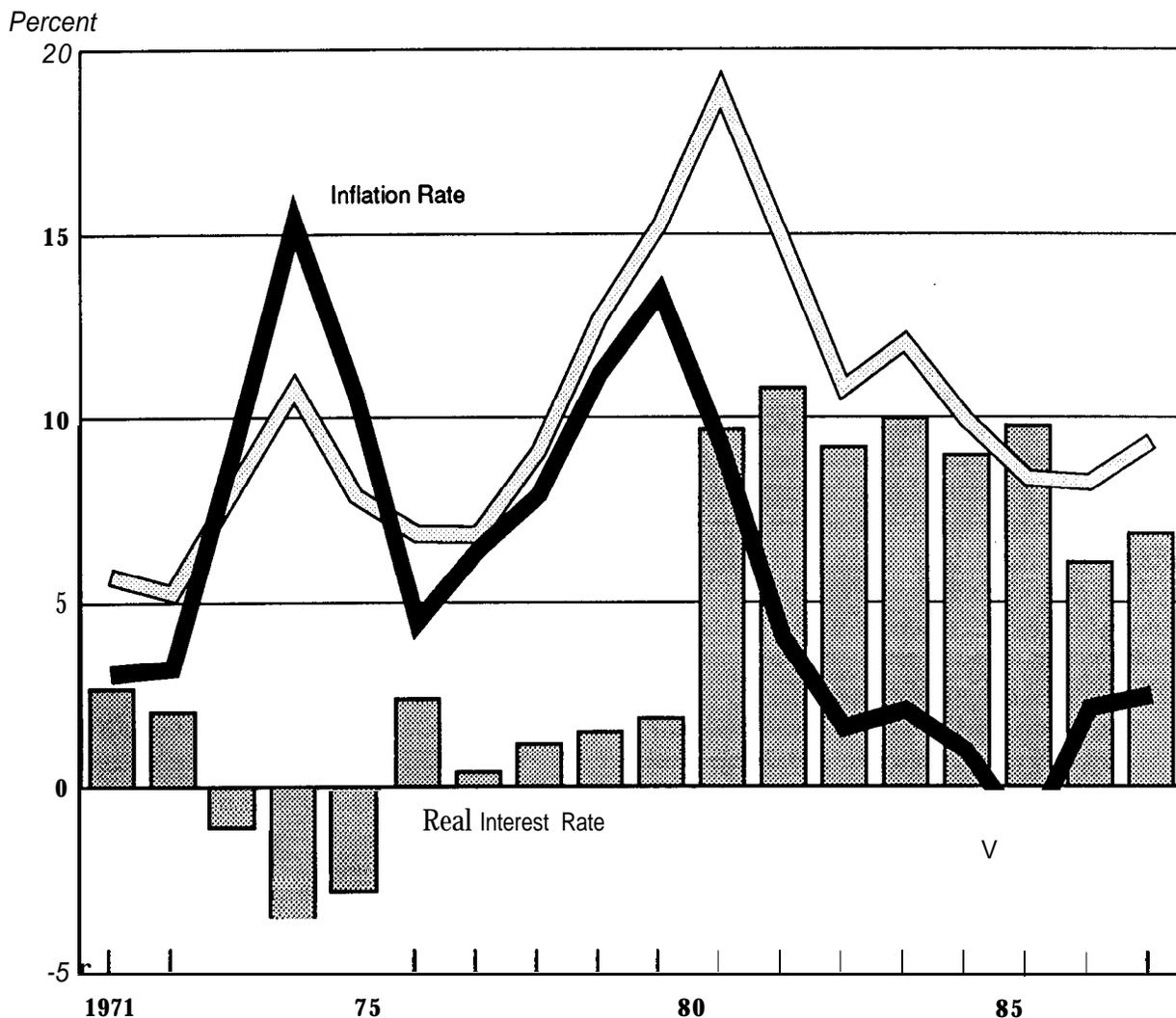


Source: ERS Situation and Outlook Reports

sought ownership of export storage and handling facilities. Regional and interregional cooperatives also invested heavily in additional terminal elevators, barges and rail cars to transport grain, and river barge loading facilities. Many local cooperatives invested heavily to upgrade their facilities.

Low interest rates made leveraging cooperative expansion activities attractive (Gunn and Cobia) (figure 3). Many cooperatives borrowed heavily to finance the acquisition of fixed assets. Directors and managers often did not understand that their highly leveraged operations required increased export growth, continued low-cost capital, and

Figure 3—Real Interest Rates



The prime interest rate is a proxy for the rates co-ops receive.

Source: Bureau of Labor Statistics

high inflation rates to survive (Ginder and Baumel).

Much of the incentive to invest was due to changes occurring in transportation. Competition in grain movement by trucks and barges as well as serious financial problems forced railroads to abandon many branch lines and to change their rate structure. In some areas, railroads eliminated the transit billing privilege and increased the use of significantly lower unit-train (multiple car) rates.

Local cooperatives serviced by active rail lines responded by investing in facilities to load **unit-trains** and to increase their storage capacity. However, cooperatives collectively upgraded more facilities than economically justifiable, leading to overcapacity (**Gunn** and Cobia). The existence of too many unit-train shippers narrowed the spread between multiple- and single-car rates.

A 1986 study illustrates the extent of overcapacity in three states. Researchers calculated ratios between unit-train **loadout** capacity and interstate rail and truck shipments of grain. The results indicated that Iowa had 5.83 bushels of unit-train **loadout** capacity for every bushel of major grain shipped out of the State by rail or truck. Nebraska had 5.34 and North Dakota had 2.32. (**The** ratios were calculated using 1985 data.) The authors said these ratios understated overcapacity because many destinations could not accept unit-trains (Cobia and others).

Lower unit-train rates enabled local elevators to ship grain directly to final users (port or mill) without going through terminal markets. Local cooperatives were encouraged to become more active in managing their grain merchandising and managers had to obtain trading and logistical skills. Cooperatives also had to increase their operating capital to originate larger grain supplies. Thus, local cooperatives found themselves competing directly with the traditional merchandising role of the regional grain cooperatives (Ginder and Baumel).

Cash grain purchases by importing countries increased significantly during the 1970s and had major impacts on all grain firms. One impact was the change in the terms of trade. Most exports in the 1960s were on an FOB basis, but a large per-

centage in the 1970s were made on a CIF (cargo, insurance, and freight) or a CF (cargo and freight) basis. This change meant exporters assumed shipping risks associated with ocean freight.

Grain exporters also began to ship more of their grain in larger vessels to capture savings from lower per-unit shipping costs. This change increased the amount of grain needed for an export shipment and correspondingly the price risk associated with export activities (Ginder and Baumel).

(The shift from FOB to CIF exports is a commonly held view. However, the actual circumstances of this change have not been well documented. Also, Union Equity Cooperative Exchange made indirect export sales on an FOB basis at its export facility on the Texas Gulf. When Union Equity sold grain for export to another exporter, the cooperative owned and controlled the grain until it was loaded on a boat for shipment. At this point, the other exporter took title.)

Another change in world grain marketing during the 1970s was the rise of multiple-origin trading, where grain can be originated from different areas, including different countries. Multi-national firms can originate grain from other countries and benefit from cheaper prices, reduced price risk, and transportation savings. Multiple-origin trading allows these firms to take advantage of changes in market prices, freight costs, and exchange rates that can occur between the sales agreement and delivery. It also allows firms to fulfill commitments despite events such as strikes, natural disasters, and embargoes (Cobia 1992).

Firms in position to capture the efficiencies from these various changes benefitted. Cooperatives, however, were placed at a disadvantage. For example, U.S. grain cooperatives could not engage in multiple-origin trading because it results in the sale of foreign **grain**. As **user-driven businesses, cooperatives felt they were limited to selling only U.S.-produced grain**. Cooperatives also **had some difficulty selling grain on a CIF basis, due in part to the inherent risks involved and the difficulty of merchandising transportation**.

Major problems and disruptions occurred in the 1980s. It started with an embargo on grain exports to the Soviet Union. The long worldwide

recession caused grain exports to fall; other countries increased their production and exports of grain in response to a strong US. dollar; U.S. price supports acted as price floor for grain worldwide; exports fell to a low of 3 billion bushels in 1986; and the U.S. share of the world grain market fell to 35 percent.

By the **mid-1980s**, handling and storing of grain for the Government was again a major function of the U.S. grain system, despite large acreages being removed from production. Inventories reached 204 million bushels by the end of the 1986 marketing year. Income from handling and storing Government grain helped slow the decline in revenue due to reduced exports and falling marketing margins for all grain companies (**Dahl**).

Low cost and easily accessible credit during the high inflation of the 1970s became more difficult to obtain after the Federal Reserve tightened the money supply in 1981. Many local and regional cooperatives had trouble meeting their repayment obligations. High debt loads from the 1970s hampered obtaining additional credit, forced cooperatives to use working capital to pay long-term debt, and created an overall difficult business environment (Ginder and **Baumel**).

Local cooperatives also faced other problems. Excess storage and unit-train capacity, high-cost facilities, and low margins were constant threats to the financial health of many locals. Many cooperatives struggled with the merchandising activities they began in the 1970s. Some cooperatives were confronted by the loss of rail service in segments, or even all, of their territories. These conditions prompted many local cooperatives to consolidate or merge with other locals or liquidate (**Gum and Cobia**).

Some locals began sourcing grain for private exporters and processors on a contract basis. These cooperatives assembled and stored grain for a fee. This service assured a short-term steady income and reduced the need to merchandise grain (Ginder and Baumel).

Regional grain cooperatives also faced additional problems in the 1980s. **Regionals** had difficulty capitalizing on the changing structure of grain marketing, specifically CIF sales and **multi-**

ple-origin trading. Meanwhile, shrinking export markets forced a major restructuring of the regional and interregional cooperative grain system. It began with the demise of Farmers Export Company, a major interregional grain cooperative. Many regional and interregional grain cooperatives were either liquidated, created joint ventures with investor-owned firms (**IOFs**), or merged with other regionals.

The declining influence of regional grain cooperatives during the 1980s is illustrated by the drop in their share of total export elevator storage capacity. In 1980, cooperatives controlled over 21 percent of this capacity. By 1989, that share dropped to 15.3 percent (figure 4). The share controlled by major multi-national grain companies also dropped during this period but at a much lower rate (**Dahl**).

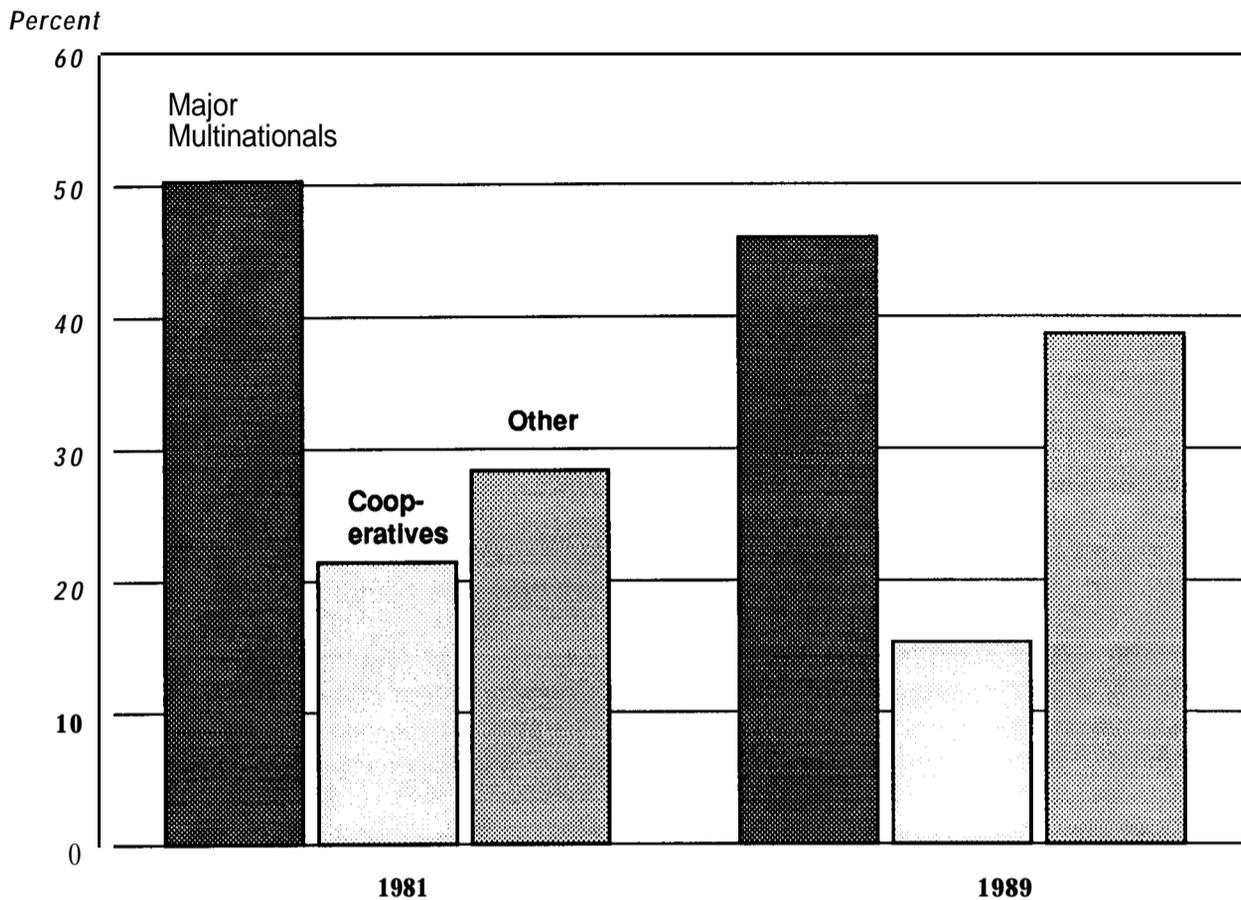
Prof. Roger Ginder, Iowa State University agricultural economist, breaks down the causes of the cooperative system's restructuring into internal and external factors. ("Restructuring the Grain Industry and Cooperatives' Role," American Cooperation 1988, American Institute of Cooperation, Washington, DC, 1988.)

Ginder said external factors included the evolution of grain industry practices and general macroeconomic changes. Lack of coordination among regional cooperatives was the basic internal factor. Instead of coordination, regionals often were rivals, competing with one another to capture both domestic and foreign markets. They often undercut each other and their own interregionals.

Perhaps the biggest disappointment is that throughout the process many of these regional cooperatives were routinely meeting as members of the same interregionals. The opportunity for communication and rational planning was there. Lacking was the commitment to find a joint solution to the problems at hand.

At least some of the blame for that lack of commitment and inability of cooperatives to adjust to changing industry practices can be attributed to the structure of the cooperative grain marketing system. The relationship of regional grain marketing cooperatives to local cooperatives is such that regionals must compete with other buyers for grain

Figure 4—Total Export Elevator Capacity



Other includes public elevators and elevators operated by port authorities.

Source: Dahl

originated by affiliated locals. This reflects the fact that most regional grain marketing cooperatives are federations of local cooperatives. This form of vertical organization allows direct control of local facilities and operations by local boards of directors (Campbell).

Without a formal coordinating mechanism, such as marketing agreements, federated regional cooperatives have limited (or no) control over local marketing decisions. This explains why intense competition among local cooperatives is the rule

rather than the exception. This is in considerable contrast to the direct control of local facilities and local marketings by centralized regional cooperatives. (The centralized form of organization has been practiced in some grain marketing cooperatives through the ownership of local line elevators. Also, emerging super local cooperatives are centralized organizations.)

Regional grain marketing cooperatives attempted to expand their vertical reach into the world grain markets without control over their

members' grain. They invested heavily in grain export marketing infrastructure and were hurt when financing costs reached record levels. They estimated a growth rate for grain exports that did not materialize. And, they did all of these at the same time (Campbell).

There was also much restructuring among local cooperatives—a long and painful process. Many local grain marketing cooperatives grew in size and scope of operations as they expanded through internal growth, mergers, and consolidation. This increased size has been necessary for local cooperatives (first-handlers) to originate grain in sufficient volume to take advantage of direct shipments and lower unit-train rail rates.

CURRENT ISSUES

The cooperative grain marketing system in the 1990s is quite different from the system that existed even a decade ago when grain exports had peaked. Today, grain marketing operations are much more decentralized. Because of unit-train rates, more grain is being marketed directly from first-handlers to end-users and export terminals rather than through terminal markets.

The Staggers Act of 1980, which deregulated the railroad rate structure and allowed railroads to negotiate rates with grain handlers, further encouraged the direct movement of grain from country origination points to final destination. The result has been a dramatic decrease in the number of buying and selling transactions between first-handlers and end-users since the 1970s (**Brannan**).

However, the production and marketing of grains and **oilseeds** are continuing to change and evolve, both domestically and globally. Changes occurring today may have a greater impact on the cooperative grain marketing system than those occurring in the past (Barr). The past 2 decades have shown that exports are a key to growth. The continuing globalization of the grain trade has several implications for grain handling cooperatives as for others in the industry

First, changes in production and marketing technology and the continuing formation of global entities and institutions will force changes in grain

markets and the policies that govern those markets. In general, the long-term competitive position of the U.S. grains and **oilseeds** sectors depends on improvements in the productivity and efficiency of the system.

Technological advances will help improve the production, marketing, and distribution of grain, but they will also help competing nations. This presents a major challenge to the United States in coming years to maintain its advantage to efficiently move large volumes of quality products that meet the various requirements of customers worldwide. Cooperatives must determine their roles in this process.

Many institutions have evolved over the years in the United States that facilitate the trade of products, including grain, through the various marketing systems. These systems are the result of statute law and Government rules designed to influence their structure and behavior and to monitor their functioning.

A set of rules for trading products internationally is just as appropriate, and institutions are emerging to facilitate world trade. The General Agreement on Tariffs and Trade (GATT) has developed some rules concerning trading practices between members. Other examples are the trading blocks such as the European Community and the emerging North American free trade area (formalized by the North American Free Trade Agreement (NAFTA)). With globalization of trade, this trend toward more formal trading structures will continue.

For the foreseeable future, major grain producing countries will continue to operate farm programs to err on the side of too much, rather than too little, food production. As technology-driven productivity gains are realized and grain supplies exceed demand at economically acceptable prices, budget pressures in all major grain producing countries will force a reduction in the per-bushel support levels for grain and/or a reduction in planted acreage. More importantly, there will be increased pressure for basic world wide policy reform (Barr).

Second, worldwide changes in demand for agricultural products will also affect policies con-

cerning the production and marketing of grain. Growth in demand for agricultural products is basically due to three factors: population growth, income growth, and changing consumption patterns. Demand growth for grain-based food products has slowed in the Western, developed countries. Population growth has slowed and the average age of the population has increased. This decrease in demand growth is somewhat mitigated by increased nutritional concerns.

Population growth continues in the less developed countries where most of the world's population growth will occur during the next 50 years. While many less developed nations are currently experiencing political and economic instability, these problems will be resolved sometime in the future. Part of this resolution will occur because of further development. This development will also result in markets with tremendous growth potential as the incomes of the populace increase.

More immediately, incomes of some **non-**Western countries will rise dramatically. For example, the annual economic growth for the Pacific Rim countries has **been estimated** at 5 to 8 percent per capita during the 1990s. With rising incomes, these countries will not only purchase more **wheat-**based foods, but also demand more meat, which also will increase the demand for feed grains and **oilseeds** (Avery).

It is estimated that Asia's 2.5 billion people are currently consuming 11 grams of high-quality protein per day. This compares with 72 grams in the United States and 52 grams in Japan. One projection estimates that consumption of livestock and poultry products will increase 500 percent by the year 2010. In that same period, Europe's animal protein consumption is estimated to increase only 19 percent (Avery).

Finally, concern for the world's environment will result in additional pressures on agricultural policies. Conservationists and environmentalists want to keep additional lands from going into production and to restrict the use of chemicals and fertilizers prevalent in high yield agriculture. This concern for wildlife, forests, grasslands, water, and air will increase as more of the world's population becomes economically secure. While agricultural

production and environmentalism are not necessarily conflicting issues, there will be continued pressure to adopt environmentally sound agricultural policies.

Within the global context, grain cooperatives must address some specific issues. For example, severe overcapacity problems must be resolved. More important, however, is how cooperatives will compete within the decentralized grain marketing system and in the global economy.

Adopting technological advances in grain handling, distribution, and marketing will certainly help efficiency, but these advances will also be available to the competition. Care must be exercised when deciding what advances to adopt and when to adopt them. Technology should not be adopted for its own sake, but rather should fit into the cooperative's overall objectives.

The domestic marketing and regulatory environment also needs to be monitored. This is necessary since a variety of market and Governmental forces will be working to reshape the way grain handlers including cooperatives do business. For example, a number of states have laws requiring elevators to maintain balanced grain positions. These are enforced through warehouse inspections and violators face fines and imprisonment. Other forces will be the result of global changes and positive or negative U.S. reaction to them. In any event, grain marketing cooperatives must continue to assess changing market conditions and react positively to them.

There are other general conditions that will affect grain cooperatives' future operations and their current decisions about future options. First, the grain industry had been facing a storage vs. merchandising cycle (Barr). From 1985 through 1988, grain storage was driving net income. The Government program paid cooperatives and others to hold grain. Even inefficient cooperatives showed positive net income because of the program's regularity.

By the end of the decade, the Government had drastically cut grain storage payments and cooperatives again had to depend on their ability to merchandise grain. Cooperatives needed to buy, sell, and ship grain at the best prices and rates. Since

the **1970s**, grain cycle stages have lasted from 3 to 5 years. The cycle was broken when the Government quit the grain storage business. The cycle will resume if there is a worldwide surplus of grain or Government policy changes.

Second, cooperatives must also plan for variability because they face increased market-driven fluctuations. For example, the large jump in U.S wheat supply in the 1990-91 marketing season was expected to outstrip demand and disrupt normal seasonal patterns and expectations. However, prices dropped during the first half of the 1990-91 marketing season, contrary to the normal seasonal trend; imports of wheat increased; and exports fell significantly. This again shows the impact of a global market (in this case wheat) on the domestic market.

With the Food, Agriculture, Conservation, and Trade Act of 1990 viewed as more market oriented than past programs, this variability will probably not be dampened by Federal farm policies. It is not clear now what the actual response will be to the Federal programs. However, the agreement reached in the Uruguay round of GATT will probably limit the ability of policy to dampen swings.

Additional Government regulations concerning the environment, worker safety, and other areas also will affect cooperative operations. The entire industry, including cooperatives, will be forced to make more nonproductive investments in equipment and facility alterations.

Third, cooperatives must also recognize the changing farm-level marketplace. A bimodal concentration of many small farms and a few large farms is in place. Cooperatives need to service both groups and pay attention to the needs of their producers or they will defect to another cooperative or an **IOF**. (Individual cooperatives may decide to specialize in serving one or the other.)

Many smaller-volume farmers will want the same services traditionally provided by their cooperative. Larger-volume farmers, who can often perform functions **such as conditioning, storage, and** transportation arrangements on the farm, will demand specialized marketing services such as direct access to specific markets, risk protection

through futures hedging, and contractual sales arrangements.

On the demand side, grain cooperative customers, who are informed buyers, will insist on specific product attributes and quality. End-users of grain will increasingly demand certain varieties with qualities needed to produce the desired final product. In some cases, end-users may contract for the desired production. This could occur directly between the end-user and producers or the end-users and a cooperative fulfilling the contractual details.

Finally, while not contracting for the production, end-users may wish to purchase identity-preserved grain to know the conditions under which that grain was produced and handled. This would certainly be true for those who want organically produced grain.

Implications

As a result of these various factors, cooperatives must reposition themselves in the grain markets by controlling costs, ensuring adequate capitalization, maximizing market power through the use of membership agreements, and developing good management skills to become more competitive and efficient. This will help provide the flexibility cooperatives need to succeed in the marketplace.

Cooperative members should view their cooperative as an investment (profit center), be willing to make the investment, make a commitment to market through it, and demand a return on that investment. This would allow more cooperatives to move into areas such as value-added activities. Currently, many view cooperatives as only service centers.

This is a controversial suggestion because it is advocating that cooperatives diverge from their historical paths. This issue is also part of the debate over efficiency vs. democratic control in cooperatives. The essence of the debate is that it is not easy to change the direction of a cooperative or curtail a service when the customers have a vote in the process. (The board and management need to sell the idea to members.)

Many people believe that efficiency and democratic control are conflicting concepts and cannot exist together in one organization. Others believe these concepts support and complement one another. Owner-members should want their business to be efficient and the existence of a participating membership gives the business an assured group of customers that makes it easier to be efficient. The key is to keep both of these concepts in balance.

Any cooperative advantage in grain merchandising appears to lie at the origination level, not the terminal or export levels. This is due to the changed structure of the grain marketing system and problems cooperatives face in export marketing. Regional cooperatives must position themselves for the future based on this reality. It will be difficult for regional cooperatives to compete with the multi-national firms in mass merchandising grain. To compete in export markets, regionals would have to develop a network of overseas agents, buy and sell worldwide, and develop risk-spreading (risk of merchandising losses) capabilities.

A group of 11 U.S., Canadian, and European cooperatives has tried to overcome these disadvantages by investing in A.C. Toepfer International through a cooperative called In-Trade.

Coopera lives have also developed some niches in the bulk export market, and there will probably be some opportunities to develop additional international niche markets. Despite these efforts, cooperatives are still facing the same problems.

This suggests that regional cooperatives should carefully reevaluate their role in the cooperative grain marketing system. Opportunities remain for grain marketing regionals, especially in developing and serving niche markets. But, **regionals** will need member commitment in terms of both volume and financing to reliably service these markets.

Local cooperatives will tend to become less dependent on regionals because locals are no longer captives of any one market. Super local cooperatives will continue to emerge. Major operating decisions for these cooperatives will be made at a central location to give them more control over

the grain they originate. Super locals and others will continue to compete with regionals in grain sales operations.

FUTURE DIRECTIONS

In the **1990s**, cooperatives (regionals and locals) can move in at least four general directions that should help them compete more effectively in the domestic and international grain markets—(1) employ innovative marketing techniques; (2) develop a comprehensive service program for members; (3) integrate forward or backward into other activities; and (4) form joint ventures.

These options will offset the low margins of grain merchandising operations and will help insulate cooperatives from the cyclical nature of the business. Cooperatives that develop a balance among these directions will have the best chance of success. While many grain cooperatives have already adopted some of these options, all need to consider new activities and opportunities.

Innovative Marketing

Cooperatives can employ innovative marketing techniques to help improve their position in the U.S. grains and **oilseeds** marketing system. Broadly defined, innovative marketing techniques are unique approaches to product marketing different from traditional mass marketing techniques and offer some distinct advantage to producers. Pooling and attribute-specific/identity-preserved marketing are examples.

A marketing pool is a device for combining the crop volumes of many growers under the marketing skill of a central professional staff. Each producer then receives payment based on the weighted average of prices received for all product of like quality in the particular pool. The specifics of the acquisition process and the actual marketing techniques are unique to each pool. However, two general types emerge.

Some pools place all marketing decisions in the hands of a central staff, without reservation. Others allow growers to retain some degree of authority over timing and/or price. The former is

frequently known as a seasonal pool, while the latter may be called a contract, call, or purchase pool.

Seasonal pools provide the greatest flexibility for professional management to move large crop volumes when market conditions seem most favorable. Because crop volume alone can offer an advantage in marketing, this aspect should not be underestimated. All authority over decisions as to price, terms of sale, extent of processing, and market timing is left to professional management.

Upon delivery, the marketing pool pays an advance to each grower, based on perceived market conditions. As the year progresses and actual sales are booked, progress payments are paid to reflect market conditions. All producers receive the same per-unit payments, adjusted for quality and variety differences. When the pool has been closed, a final payment is made with the cost of pool operations deducted.

Successful marketing pools often have a special feature that provides a unique edge in the marketplace. None rely exclusively on their ability to outguess the market more successfully than individual members. These special features are not unique to cooperative pooling programs. Rather, they are sound professional processing and marketing techniques used to enhance the basic pooling concept.

Examples of special features include improved quality control, elimination of cost centers through the elimination of redundant functions, gaining the ability to service large-volume customers, and integrating forward into processing activities.

Another example of innovative marketing that cooperatives might consider is attribute-specific/identity-preserved marketing. This is most often associated with the new varieties of “designer” grains that have significant attribute differences from the common varieties of grain currently produced. Under these circumstances, marketing services are very narrow for specialized niche markets. This type of marketing can be applied to common varieties if the end-users of that grain require specific quality attributes.

This type of marketing is also quality oriented and requires three specific components to obtain

positive results. First, cooperatives must identify the exact requirements and specifications needed by individual end-users. This includes identifying the exact variety, protein level, moisture content, and other important attributes that result in the commodity best suited for producing the final product wanted by the end-user.

Second, cooperatives must take responsibility for buying the identified commodity from **member-growers** currently producing product with the desired characteristics or by contracting with member growers to produce the crop.

Third, cooperatives must maintain the integrity of the commodity during storage, handling, and **shipment** to end-users. This includes conditioning and grading the commodity. A successful attribute-specific marketing program will also require procedures that guarantee the quality of the grain through a system that certifies producers and elevators.

An innovative procedure that can be combined with attribute-specific/identity-preserved marketing (or any marketing program) to enhance product appeal for buyers is the concept of Hazard Analysis and Critical Control Points (HACCP). HACCP is a continuous quality control and assurance program designed to prevent problems rather than react to them (Handy). While HACCP was designed to address food safety problems, it can also be applied to general quality problems.

The HACCP procedure begins with an analysis to determine where problems such as contamination or loss of quality could occur. Once these critical points are identified, standards to ensure minimum quality are developed and a monitoring system is designed. If the standards are violated, actions to correct the problem can be taken immediately. This would enable cooperatives to assure buyers of a safe and high quality product.

Cooperatives may need to establish HACCP programs if they are to remain competitive in the future. In some food industries, processors are requiring their suppliers to establish HACCP programs if they wish to remain a supplier. Also, USDA’s Food Safety and Inspection Service (**FSIS**) is considering implementing HACCP programs in U.S. meat and poultry plants. If FSIS initiates such

a program, this may impact cooperatives' need to establish HACCP programs.

Service Programs

Cooperatives can also move toward development of comprehensive service programs. Most likely it will be a revision of current programs. First, the needs of the cooperative's members must be determined. This is important in all cases, but especially in a cooperative where members have differing needs. Under some circumstances, a cooperative may wish to offer a bundle of related and complimentary services that uniquely benefit members. In other instances, a cooperative may wish to offer only certain stand-alone services.

Bundled services can be offered by regionals directly to producer members or indirectly to producers through the locals. Locals may also offer bundled services on their own.

Service bundles should focus on a single, well-defined activity and cover all aspects of it. Cooperatives can develop service bundles for a number of activities such as marketing, financial and accounting matters, production assistance, and risk management. Producers (or local cooperatives) should not be able to obtain the same type, mix, and quality of services from any other single source. By providing a comprehensive service package, a cooperative will help members reduce their marketing risk and, in turn, increase their returns.

It may be in the best interest of some cooperatives to move in the direction of unbundled services. For example, a cooperative that specializes in serving large producers may only need to offer certain services those producers can't do for themselves. Also, some cooperatives may want to specialize in one type of marketing service, such as pooling, and not offer the full range of marketing services.

One service cooperatives may perform is related to attribute-specific/identity-preserved marketing. If there is a potential of securing higher returns for members by the production and marketing of certain grains, then cooperatives can coordinate and facilitate these activities. Cooperatives can

work with producers on the cultivation techniques for the desired varieties and cooperatives can handle the marketing and distribution of the product to end-users. In this instance, the cooperative would handle all the details associated with the process as a service to its members.

Similarly, regional and local grain cooperatives can provide HACCP services to members. Regionals could offer training programs and support to local cooperatives to help them establish and maintain HACCP programs. Local cooperatives could help producers establish HACCP programs for their farming operations.

Vertical Integration

Vertically integrating forward into value-added activities or backwards into production is the third general direction cooperatives should consider. The technical definition of vertical integration is the coordination of technically separable activities in the vertical sequence of production and distribution of products under the control of an organization by ownership or contract (Reynolds and Spatz).

In terms of grain cooperatives, vertical integration should be considered the coordination or performance of two or more sequential stages or functions in the marketing channel within a single cooperative. Assembly is the primary function of grain cooperatives and the first step in vertical integration within grains and oilseeds marketing. Thus, for cooperatives the term vertical integration refers to marketing activities beyond the assembly function.

One reason for cooperatives to seek vertical integration is to capture more returns associated with the value-added process of a particular food or industrial product on its way to the consumer. The cooperative may also realize a higher return due to improved coordination of supply with demand.

Decisions are made internally through contracts or management edicts rather than through markets prone to uncertainty and variability. The cooperative benefits from the effectiveness of improved coordination and by the additional

return from performing value-added functions. A cooperative may also be able to get an improved flow of product and maintain better inventory control as well as stricter quality and merchandising control to meet the needs of a market niche. Finally, integration may also place a cooperative in a more advantageous bargaining position where it can use its power to affect prices to its advantage.

Cooperatives can also benefit from integration because of its income stabilizing effects. Cooperatives that have specialized in only traditional elevator activities may suffer financially from changes in weather, Government policy, and numerous other factors.

By integrating into processing activities, a cooperative is usually entering a more stable market. Prices of grain sold by the elevator can vary considerably even over short periods of time. This price variability is usually greater than that of processed products, such as feed or flour. Thus, integration into more stable processed product or industrial product markets enables a cooperative to pass on a more consistent return to its members.

Forward integration will also reduce the costs of search and negotiation for cooperatives. By having a constant outlet for some of its raw product, cooperatives would be less concerned about the competition of finding market outlets. Finally, forward integration would help cooperatives capture economies in allocating labor, facilities, and other inputs over more than one activity. Thus, if processing and storage were handled at one location, labor and other inputs could be used for both activities, eliminating some or all of the nonproductive use of these inputs.

A cooperative may also wish to vertically integrate backwards into production to secure supplies of grain that meet the needs of the cooperative. Most cooperatives will use production contracts with producers to accomplish backward integration. Cooperatives can use this option to fulfill attribute-specific marketing contracts. This is especially true if there is an opportunity to market a specific variety that has not been produced in the past by the cooperative's membership.

It is important to understand that when a cooperative integrates, it takes on all of the prob-

lems associated with that new activity. For example, integration into a value-added activity that has a single origin of supply can result in serious supply problems if the area experiences a drought or major quality problems. Thus, cooperatives must be careful to understand all the new problems it will encounter before integrating into that activity. These problems should be addressed to the extent possible and the potential benefits and costs analyzed before the integration actually occurs.

Joint Ventures

Joint ventures are agreements between two or more parties to perform specific tasks or functions. A joint venture is similar to vertical integration in that performance depends on the detailed provisions of the agreement. There is no clearly established, legal definition of a joint venture. Any collective business conduct, including the formation of a cooperative, involves a joint effort among the participants (Reynolds and Spatz).

A more appropriate definition with respect to grain cooperatives is that joint ventures are a separate entity owned and controlled by a small number of participants to carry on a specific, limited economic operation. Participants share on an agreed basis expenses, margins, losses, risks, and control of the arrangement.

Thus, joint ventures involve the establishment of a legal entity to facilitate business activities between two or more partners. They can take a corporate or partnership form of structure and usually involve an equity investment. These investments are usually far less than is required for establishing wholly owned subsidiaries. Coventures are similar but do not involve an equity investment, and in some cases, avoid having to establish a separate legal entity.

The distinguishing feature of this definition of a joint venture is the restriction on the size and purpose of the operation. These ventures help participants achieve specific objectives, but don't threaten the individual identities or autonomies of the participants.

Cooperative joint ventures can take two basic forms: a joint venture between two or more cooper-

atives or between a cooperative and an **IOF**. One of the best examples of a successful joint venture between two cooperatives was Harvest Equity, created by Harvest States Cooperatives and Union Equity Cooperative Exchange. After Farmland Industries, Inc., acquired Union Equity, this joint venture was terminated. The ease of dissolution is another attribute of joint ventures.

Serious issues must be considered before a cooperative forms a joint venture with a noncooperative. One issue is who controls the joint venture. To maintain control and identity, the cooperative must have controlling interest. The cooperative would need both more than 50 percent of the stock and the majority of members on the joint venture's board of directors.

Another important issue is the cross-purpose obligations of the parties involved. A cooperative's obligation is to obtain the highest returns for farmer-members. The **IOF's** goal is to maximize returns to stockholders.

Depending on the nature of the joint venture arrangement, these obligations may be incompatible. An example is where the two parties represent two different stages in the marketing-processing chain. If the cooperative provides the raw commodity, it wants to get the best price for its members. If the joint venture partner processes and/or markets the final product, the partner wants to pay the least amount to get a higher profit for stockholders.

A couple of joint ventures involving regional grain cooperatives and **IOFs** currently exist. In one of these joint ventures, all profits and losses are divided 49 percent for the cooperative and 51 percent for the **IOF**. This corresponds to the original capital contributions by the two organizations. The cooperative has four people on the venture board while the **IOF** has five. Member locals of the regional cooperative sell their grain directly to the joint venture rather than the regional.

The cooperative has no control of the joint venture and only a minority ownership interest. Renewal of the arrangement was at the discretion of the majority partner. The joint venture, however, has helped producers and local grain cooperatives in the area served by the regional. The important

issue is the long-term viability of the venture and the impact of any changes in the venture on cooperative members.

The cross-purpose obligations issue is not as relevant (as control) in this case as long as an open market exists parallel to the joint venture. The open market acts as a check on the price paid local cooperatives by the joint venture. Simply, if member locals of the regional are free to market outside the joint venture, that venture must pay a competitive price to the local cooperative.

Prices paid to the joint venture by the **IOF** and its subsidiaries do not have that check. It is in the best interest of the cooperative to have all profits remain in the joint venture. However, it may be in the **IOF's** best interest if the joint venture sells at lower prices to entities controlled by the **IOF** to increase profits of those entities at the expense of the joint venture. The point is not that this activity occurs, but that no market check exists to prevent it from occurring.

SUMMARY AND IMPLICATIONS

Over the past 2 decades, the U.S. grain marketing system has changed considerably. It operates in a global system and competes in many markets with other producing nations. The U.S. system also operates on a much more decentralized basis. First-handlers of ten market directly to end-users. The role of terminal markets has diminished.

More grain is being bought and sold by forward cash contracts between country elevators and buyers, replacing the merchandising of grain on a sample or "back-to-back" basis. Regionals must compete with other grain buyers daily to fulfill their grain needs.

Changes in transportation have also contributed to the decentralization of U.S. markets. Increased use of trucks and barges for grain shipments, multi-car railroad rates, and the elimination of the railroad transit billing privilege have allowed many local elevators and subterminals to ship grain directly to port or mill, bypassing the terminal markets. Thus, the larger local cooperatives with sufficient volume and unit-train loading

facilities have taken over the functions of the older rail terminal elevators.

Along with changes in transportation policies, current U.S. farm policies have a much stronger market orientation than past policies. This is forcing grain producers and grain marketing cooperatives to respond more to market signals than Government programs.

The biggest policy change has been the move away from Government ownership and storage of grain. This was accomplished through a decrease in the loan rates (encouraging less forfeiture of grain to CCC), vigorous application of the Export Enhancement Program, and payment-in-kind entitlements. This has contributed to the excess-capacity problem faced by the grain industry, including grain cooperatives. Another Government policy that has affected cooperatives is the Conservation Reserve Program. It has reduced grains planting and lowered the volume moving into the system (**Gunn and Cobia**).

As the U.S. grain marketing system changed, so did cooperative participation. A major restructuring of the cooperative system resulted. Through mergers, acquisitions, and bankruptcies, the system has downsized significantly. Cooperative numbers and membership have fallen. Many of the cooperatives (including **regionals**) that have adjusted to the structural changes are doing well. Other cooperatives are still struggling and further adjustments and consolidations are expected.

Cooperatives face a global agricultural economy. Some traditional markets are saturated, but new markets are emerging. They face informed customers with specific demands and a changing farm population that produces the grain and owns the cooperative. This environment has several implications.

First, cooperatives must decide on their appropriate role in the grain marketing system by carefully examining their strengths and weaknesses to discover their advantages over competitors. Second, cooperatives must translate those advantages into specific actions. Development of a committed marketing system is crucial. Innovative marketing practices, joint ventures, integration, and service programs are options that individual

cooperatives can employ to develop commitment. The appropriate option or options will differ with each cooperative's circumstances.

Teamwork and planning are the main requirements to accomplish this task successfully. There must be teamwork on the boards of cooperatives and among cooperative boards and their members, managers, and employees. Planning helps determine where the cooperative is and where it should be in the future. Planning also matches current resources of the cooperative with its objectives and opportunities.

To build toward future success, cooperatives must be willing to consider change, be imaginative and creative, and take a leadership role. Cooperatives must reexamine their traditional role to determine what is unique and applicable today and then seize marketplace opportunities.

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