



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.*

A 109.10:95



United States
Department of
Agriculture

Agricultural
Cooperative
Service

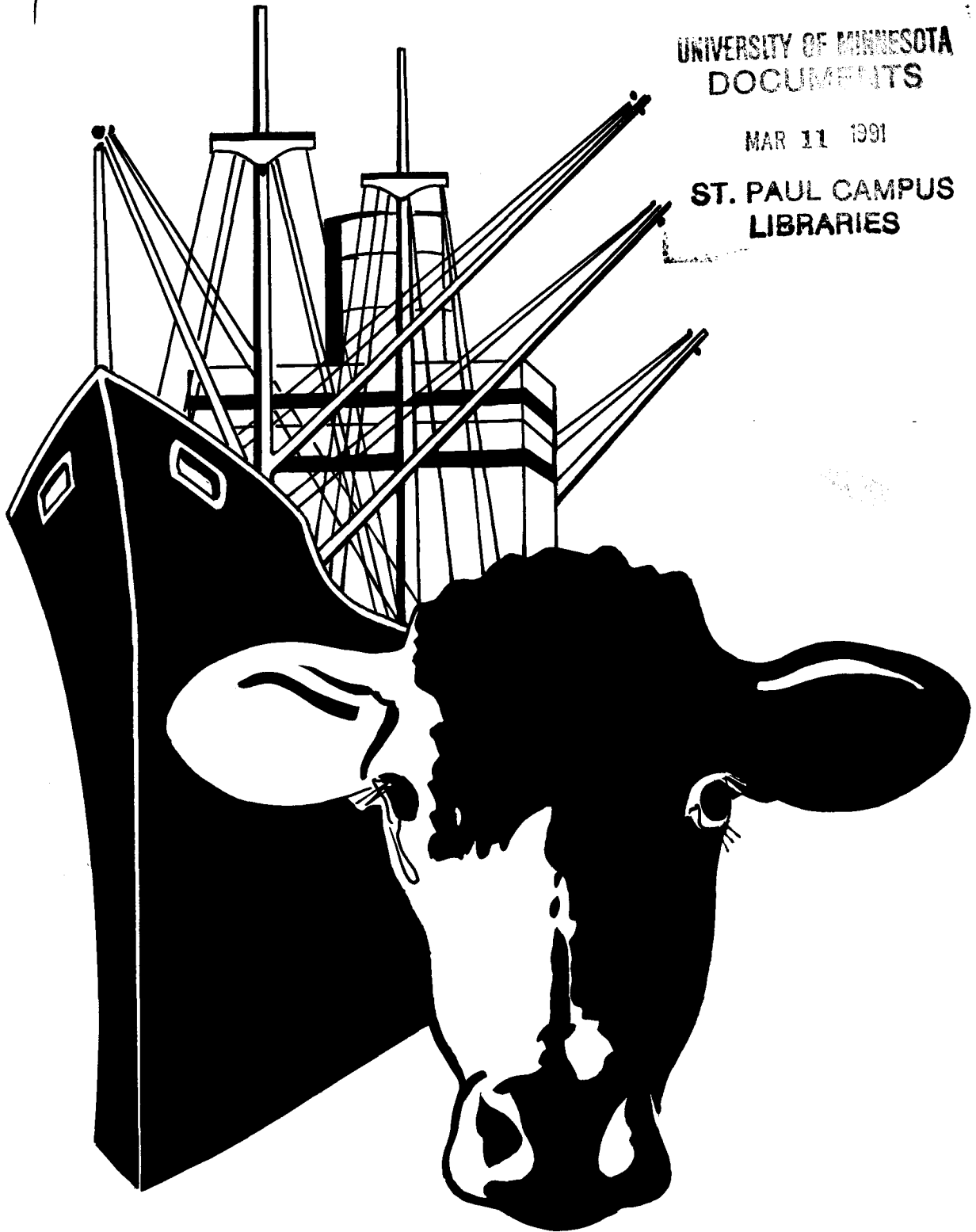
ACS Research
Report 95

Exporting: An Avenue for Dairy Cooperatives

UNIVERSITY OF MINNESOTA
DOCUMENTS

MAR 11 1991

ST. PAUL CAMPUS
LIBRARIES



Abstract

Exporting: An Avenue for Dairy Cooperatives

Karen J. Spatz

Eric Brainich

Agricultural Cooperative Service

U.S. Department of Agriculture

One avenue of growth for U.S. dairy cooperatives is exporting. Long-term market development is one ingredient for success in international sales. Given possible trade liberalization, cooperatives should evaluate their position in the global marketplace and develop a plan to ensure growth and stability for members.

The first part of this report evaluates world dairy market conditions. It looks at trends in world trade and cost of production and policies of major milk-producing countries. Various marketing organizations and practices such as joint ventures could be employed to facilitate exports. A description of the marketing strategies used by the New Zealand Dairy Board illustrates how these practices have been utilized for a successful international marketing organization.

Keywords: Cooperatives, dairy exports, cooperative exports, dairy, dairy cooperatives

ACS Research Report No. 95

December 1990

Preface

This report is primarily for dairy cooperatives interested in exporting. Increased world prices led to increased U.S. exports in the late 1980's and an increased interest by cooperatives in international marketing. World market conditions describe the European Community (EC) and New Zealand as leaders in exporting. The United States is competitive in the cost of production. EC prices set world prices but this is subject to change if trade negotiations are successful in reducing export subsidy programs. Most dairy cooperatives export through brokers, which is less costly but limits control. Alternative organizations and practices expand opportunities for market expansion and growth.

This report is not a guide on how to export but rather discusses marketing strategies, given the current world dairy market.

Contents

HIGHLIGHTSiv

WORLD DAIRY MARKET CONDITIONS1

 World Production and Consumption of Dairy Products4

 World Trade9

 U.S. Competitiveness in World Markets—Costs of Production9

 World Markets11

 Trade Policies of Major Dairy-Producing Countries12

U.S. GOVERNMENT EXPORT PROGRAMS.....13

 PL-480 and Section 416.....13

 Export Credit Guarantee Programs (GSM-102 and GSM-103).....14

 Dairy Export Incentive Program14

NATIONAL DAIRY BOARD15

U.S. COOPERATIVE EXPORT ORGANIZATION AND PRACTICES15

 Direct Exporting.....16

 Export Management Companies.....16

 Cooperative-Owned Export Organizations16

 Export Trading Company Act.....16

 Foreign Sales Corporation17

 Foreign Sales Agents17

 Foreign Licensing, Copacking, and Contract Ventures.....17

STRATEGIC PLANNING18

 The New Zealand Dairy Board—An Example18

 Adopting Strategies for U.S. Cooperatives.....19

REFERENCES20

Highlights

Dairy exports historically have been a small fraction of world production. However, to most major milk-producing countries, exports play, to some degree or another, an important part in their overall marketing scheme. Many developing countries remain net importers, and world consumption of value-added products are growing at a brisk pace. The outcome of the General Agreement on Tariffs and Trade (GATT) negotiations may have a large impact on world trade as negotiators try to eliminate or reduce trade-distorting barriers.

When analyzing cost competitiveness between major milk-producing countries, an independent study shows that New Zealand and Ireland have lower costs. New Zealand and Ireland account for nearly one-fifth of world trade, yet with a pasture-based production system, they are not well positioned for responding to increases in demand or lifting of trade barriers. Other countries included in the study have about the same or higher costs of production as the United States.

Pacific Rim countries, especially Japan, have the greatest potential as new markets for U.S. dairy products. Recent trade liberalization with Japan has opened up new market opportunities for natural cheeses, whey products, lactose, and specialty products such as yogurt and ice cream.

Trade policies of competing world suppliers affect the world price of dairy products. New Zealand does not subsidize exports and is able to compete due to low production costs. On the other hand, the EC subsidizes dairy exports. This policy helps dispose of surplus production in conjunction with a domestic price support program.

U.S. cooperatives can take advantage of various Federal programs that aid exports. These include the Export Guarantee Program (GSM-102) and the Intermediate Export Credit Guarantee Program (GSM-103), which provide credit payment guarantees for export sales. The Dairy Export Incentive Program is designed to promote U.S. dairy exports with Commodity Credit Corporation (CCC) bonuses.

Cooperatives have many options available when planning a long-term strategy to increase exports. Cooperatives can export direct or through export management companies. Furthermore, dairy cooperatives can pool their resources into a single export organization, such as a federated cooperative, to facilitate exports. Other practices include using foreign agents to act on behalf of the cooperative to develop markets in targeted countries. Arrangements with other businesses also facilitate exports. These include foreign licensing, copacking, and contract ventures.

In its strategic planning, the highly successful New Zealand Dairy Board (NZDB) has used subsidiaries and joint ventures to penetrate foreign markets. Powdered milk and anhydrous butterfat are shipped to recombining plants overseas. Bulk as well as branded, value-added products are shipped directly through their foreign-held companies.

Long-run participation in dairy product exporting by cooperatives requires financial investment and a commitment to establish permanent markets. Exports are one option for potential growth and increased profits to grower members. Long-term planning and flexibility increase the probability of success in international marketing.

Exporting: An Avenue for Dairy Cooperatives

Karen J. Spatz
and Eric Brainich
Agricultural Economists

Agricultural Cooperative Service
U.S. Department of Agriculture

Dairy cooperatives have shown increasing interest in expanding sales to foreign markets due to the increase in world prices in 1988 and 1989. Some dairy cooperatives export now, but few are involved in long-term export market development. Most exporting cooperatives use export trading companies that involve transactions not fundamentally different from domestic sales. Another marketing strategy is export market development requiring a long-term commitment.

This report addresses some issues dairy cooperatives must consider in developing an export marketing plan. The report first describes world market conditions that lead to increased export sales. Dairy policies of major dairy producing countries are then noted. Alternative export organization and practices are described. Finally, arrangements used by the New Zealand Dairy Board, a successful worldwide marketer, are discussed. This report outlines the importance of long-term planning to expand markets overseas.

Cooperatives play a major role in the U.S. dairy industry. In 1987, 125 cooperatives manufactured or processed dairy products in 1987. In the same year, cooperatives accounted for 83 percent of national butter production, 91 percent of dry milk products manufactured, and 45 percent of natural cheese produced. Cooperatives have been active in producing bulk as well as value-added products, positioning them well for both foreign and domestic sales.

Historically, U.S. commercial (non-government) dairy products exports have been minimal. Although a relatively minor share of export shipments, value-added dairy products exports, such as specialty cheeses and ice creams, have recently been growing. Most exports of bulk items have been government-administered disposal of CCC stocks. However, in 1988 and

1989, world prices for dry milk products were often equal to or greater than domestic prices, which opened opportunities for commercial exports. World prices have since fallen below their highs of 1989, slowing commercial exports of U.S. dairy products.

Attempts by negotiators at the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) to decrease export subsidies may bring about a more competitive environment in world trade. Simultaneously, many domestic price support policies are under review.

Per capita consumption of dairy products, except cheese, fell in the late 1970's and in the early 1980's (fig. 1). While growth in per capita consumption was positive in the mid-1980's, consumption was, and still is, below levels of the previous decades. With possible policy changes and the slowdown in growth of domestic demand, the U.S. dairy industry should look at exports for market stability and growth. U.S. Department of Agriculture Secretary Clayton Yeutter reacted to a requirement from Congress to trim \$800 million from the 1991 commodity program budget by stating "farmers will have to look to overseas markets to maintain their income levels."¹

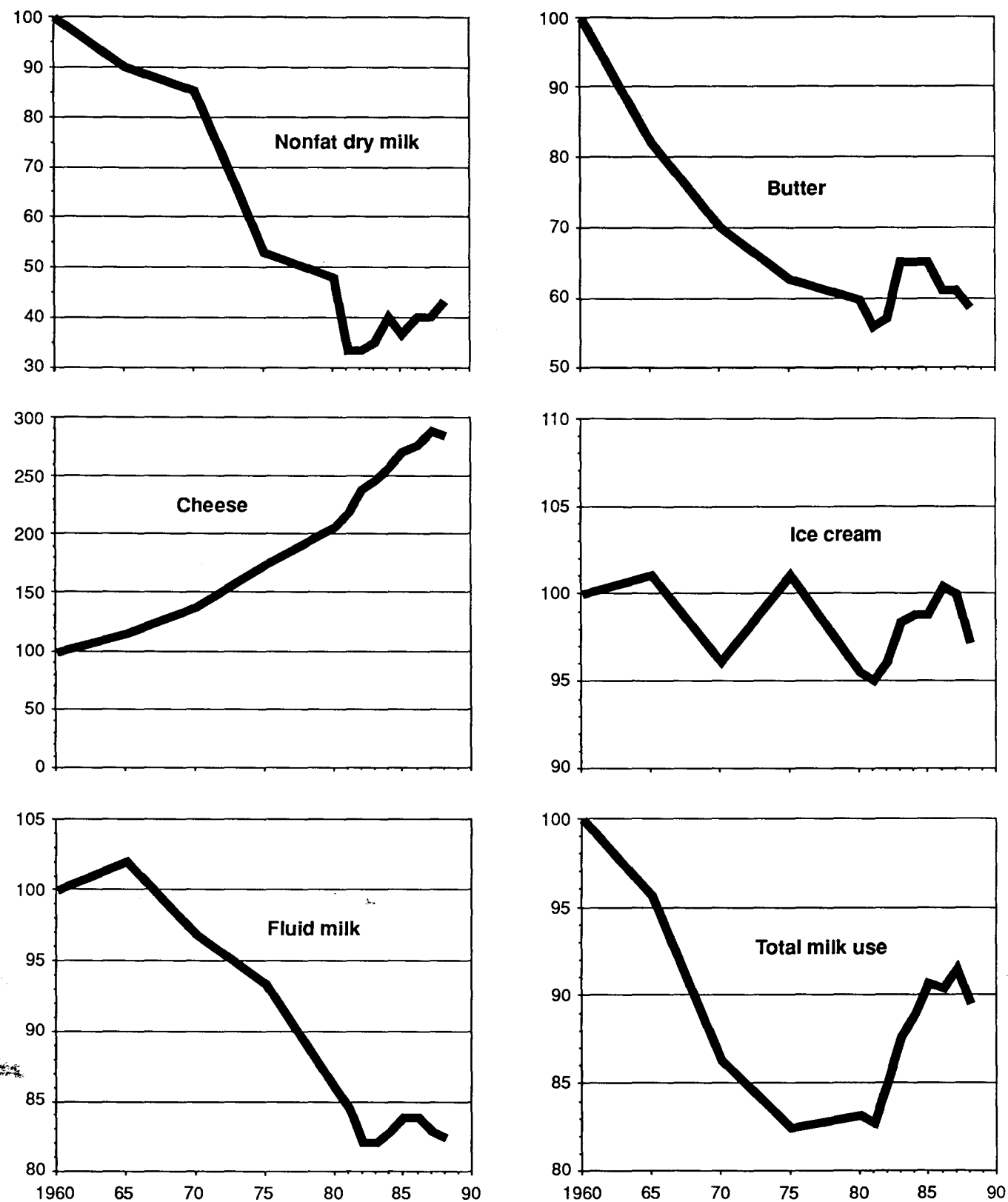
WORLD DAIRY MARKET CONDITIONS

This section is an overview of world dairy market conditions.² Cooperatives need to evaluate international market characteristics when

¹Agridata Executive News Summary, April 20, 1990.

²The most up-to-date information on world dairy markets are in the latest issues of *Dairy Situation and Outlook*, ERS, USDA and *Dairy, Livestock, and Poultry: U.S. Trade and Prospects*, Circular Series, FAS, USDA

**Figure 1—Index of Per Capita Consumption of Milk and Dairy Products,
United States, Selected Years**



1 Indexed on consumption for the year 1960=100
Sources: Agricultural Marketing Service and Economic Research Service, USDA

determining the best kinds of organizations and practices available for participation in exporting. The marketing strategy a cooperative adopts is determined by the world market environment including competitors, product type (bulk or high-value), and the relative cost of production.

In recent history, the world market for dairy products has been characterized by surplus production, stimulated by high dairy price supports. Export subsidies for major manufactured dairy products have been used by countries with high price supports in efforts to diminish domestic surpluses. The EC, other Western European countries, Canada, and the United States are the major players in dairy price support and export subsidy programs.

Historically, domestic prices have been supported at a level above world prices (fig. 2), requiring governments to purchase surplus production. In 1989, however, stocks of storable dairy products, most notably nonfat dry milk and butter, decreased sharply. In the United States, nonfat dry milk (NFDM) export commitments and relatively small cheese stocks com-

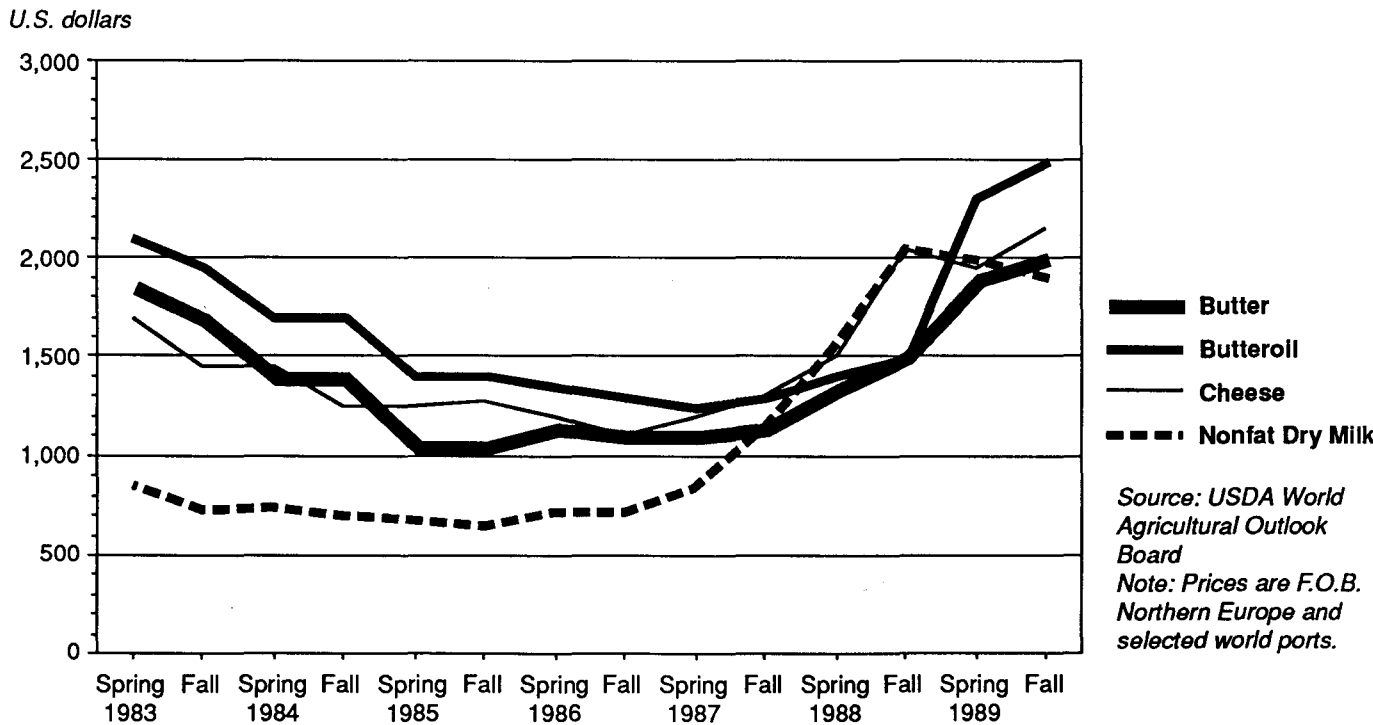
bined with an unexpected slowdown in output for the latter part of the year caused increased competition for milk supplies. As a result, commodity wholesale and farm prices rose sharply.

With low stock levels and production of dairy products increasing only slightly in 1989, world prices strengthened. This change caused commercial exports to replace government program exports. However, the price rise gave way to decreased world trade.

In January 1990, the Government announced that the CCC purchase price would be reduced. Given the strong opposition of policymakers to increases in agricultural spending, it appears unlikely support prices will be raised, especially if CCC stocks remain significant.

The United States and other countries are trying to eliminate or reduce export subsidies and price supports by the major milk-exporting countries at the GATT trade negotiations. With possible entry barrier reduction and greater trade liberalization, U.S. cooperatives need to evaluate opportunities available as well as their competitiveness in the world market.

Figure 2—High Seasonal Dairy Product Prices on International Markets, 1983-89



World Production and Consumption of Dairy Products

World milk production for 1989 was 431.8 million metric tons (mt) (fig. 3), less than 1 percent higher than the previous year. Production has shown an average growth of less than 1 percent per year in the past 5 years. Production growth has been greater in developing countries where demand, spurred by growing populations and incomes as well as a change in food consumption habits, has been strong. In most developed nations, growth in per capita consumption of dairy products, except cheese, was slow or even negative in 1989.

Since 1985, growth in milk production varied widely among countries. Supply management plans in some developed nations slowed and even decreased output, a turnaround from the large expansion in output seen in the 1970's and early 1980's. Milk production in the EC and other Western Europe countries decreased almost 6 percent from 1985 to 1989. The EC quota regulations, partially responsible for decreased production from 1987 to 1989, do not require further cuts in production for 1989-90. Production in the United States, Canada, Japan,

Australia, and New Zealand, while fluctuating slightly year to year, has grown only slightly since 1985.

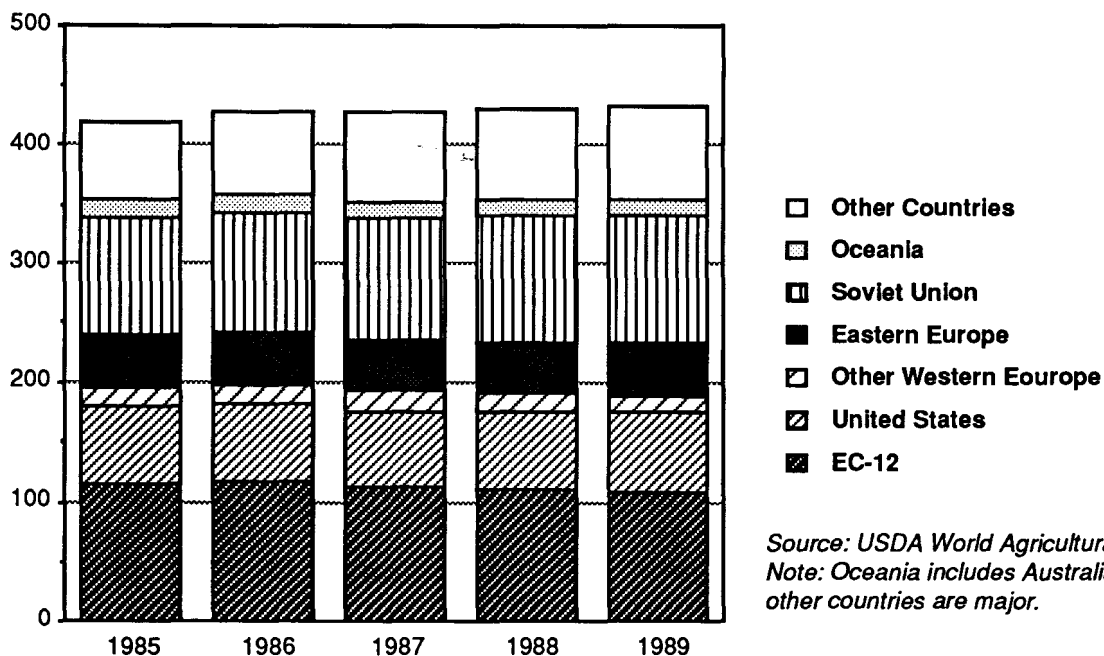
The centrally planned economies of China and the Soviet Union have increased their production 8 percent and 42 percent, respectively, since 1985, although 1989 production was at or slightly below 1988 levels. The Soviet Union, already the world's largest producer, has set a goal to become self-sufficient in dairy production by 1992. They have approved the use of bovine somatotropine (BST) as a means of attaining this goal.

Eastern European production has been stagnant since 1985. The rapid political changes sweeping through the Eastern Bloc in 1989 and 1990 may cause governments to shift from subsidizing foodstuffs towards a more market-oriented industry. All else equal, raised price ceilings could stimulate milk production in Eastern Europe.

Developing nations have also expanded output significantly. India, South America, and Mexico all gained 20 to 30 percent in output between 1985 and 1989. India, the world's eighth largest producer, has also approved the

Figure 3—Milk Production, Selected Countries, 1985-89

Thousand metric tons



Source: USDA World Agricultural Outlook Board
Note: Oceania includes Australia and New Zealand, other countries are major.

use of BST. Notwithstanding these large production gains, developing nations remain large importers of dairy products from developed countries.

Previously, world production of dairy products has grown faster than production of raw milk due to sluggish demand for fluid milk. However, since 1985, fluid milk consumption has increased at a rate roughly equivalent to that of raw milk production, or 3 percent, with almost all gains coming from developing and centrally planned countries.

Dry Milk Powder

Production of nonfat dry milk (NFDM) in 1989 totaled 3.3 million metric tons, up 2 percent from 1988, but down significantly from the recent high of 4.2 million metric tons in 1986 (table 1).

The EC remained the largest producer in 1989, accounting for more than 40 percent of world NFDM output, more than three times that produced in the United States, notwithstanding a decline of 34 percent since the peak year of 1986. U.S. production fell 12 percent in the same time period.

Whole milk powder (WMP) has been increasing as a percent of total dry milk pro-

duced. Production of 2.2 million metric tons in 1988 was 39 percent of all dry milk production. The EC, Soviet Union, and New Zealand, respectively, are the largest producers of whole dry milk with two-thirds of world production. In 1988, the United States produced only 76,300 metric tons of WMP, a mere 14 percent of total domestic dry milk production. With domestic butterfat support prices above world price levels, this trend is likely to continue.

Consumption of NFDM increased in Mexico, the Soviet Union, and Western Europe (except the EC), while total world consumption fell 9 percent due to tight supplies and consumption declines in the EC (table 2).

World stocks were 496,000 metric tons in 1989, well below the 1986 high level of 1.7 million metric tons (fig. 4). This decline was attributed to declining U.S. and EC inventories, which made up the majority of world stocks. EC and U.S. stock declines were due to changes in their respective government dairy programs.

Butter

Production of butter has fallen 2 percent since 1985. The largest declines have been in EC countries. For 1989, world production was up slightly to 6.7 million metric tons (table 3). The

Table 1--Nonfat dry milk production, 1987-89

Country or region	1987	1988	Prelim 1989
1,000 metric tons			
United States	480	444	390
Canada	110	110	105
South America	59	70	76
European Community-12	1,661	1,352	1,426
Other Western Europe ¹	143	119	131
Eastern Europe ²	214	214	221
Soviet Union	310	350	380
Japan	153	159	160
Australia	128	120	118
New Zealand	173	198	181
India	54	80	90
Other Countries	16	24	26
Total	3,501	3,240	3,304

¹Other Western Europe includes Austria, Finland Sweden, and Switzerland.
²Eastern Europe includes the German Democratic Republic, Poland, and Yugoslavia

Source: U.S. Department of Agriculture, Foreign Agricultural Service

Table 2--Nonfat dry milk consumption, 1987-89

Country or region	1987	1988	Prelim 1989
1,000 metric tons			
United States	384	189	160
Canada	46	59	40
India	92	116	105
European Community-12	1,577	1,324	1,086
Other Western Europe ¹	106	96	96
Eastern Europe ²	180	180	181
Soviet Union	310	350	380
Japan	260	282	281
Australia	43	44	54
New Zealand	35	26	24
Other Countries	321	454	424
Total	3,354	3,120	2,831

¹Other Western Europe includes Austria, Finland, Sweden, and Switzerland.
²Eastern Europe includes the German Democratic Republic, Poland, and Yugoslavia.

Source: U.S. Department of Agriculture, Foreign Agricultural Service

Table 3—Butter production, 1987-89

Country or region	1987	1988	Prelim 1989
<i>1,000 metric tons</i>			
United States	501	547	570
Canada	95	105	106
South America ¹	104	104	99
Mexico	26	32	33
European Community-12	1,893	1,683	1,680
Other Western Europe ²	232	223	228
Eastern Europe ³	844	833	830
Soviet Union	1,742	1,794	1,800
Japan	69	68	85
India	750	850	890
Australia	104	94	92
New Zealand	248	276	248
Other Countries	11	15	16
Total	6,619	6,624	6,677

¹South America includes Argentina, Brazil, and Venezuela.

²Other Western Europe includes Austria, Finland, Norway, Sweden, and Switzerland.

³Eastern Europe includes Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia.

Source: U.S. Department of Agriculture, Foreign Agricultural Service

United States and India had increases of 4 to 5 percent, which were nearly offset by declines in New Zealand and South America.

Actual butter consumption has been declining in most developed nations. However, upward trends in the Soviet Union, India (the two largest consuming countries), and Japan have offset these declines, resulting in a slight increase in butter disappearance from 1985 to 1988 (table 4). A 14-percent decrease in the EC caused world consumption to fall 3.5 percent in 1989.

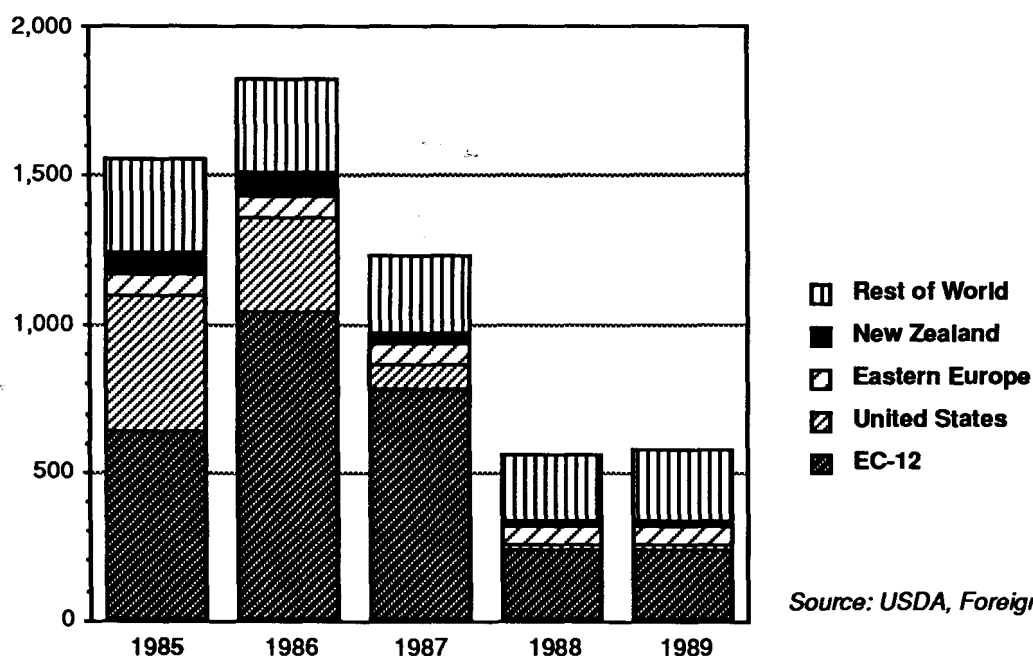
Butter stocks have declined mainly due to decreases in the EC stock. World levels of 818,000 metric tons in 1989 are 61 percent below the 2.078 million metric tons high level reached in 1986 (fig. 5).

Cheese

Cheese production and consumption continue to be the bright side of dairy manufacturing with steady increases in prices and value of production. Production of 10.6 million metric tons in 1989 is continuing the steady increase it

Figure 4—Nonfat Dry Milk Ending Stocks, 1985-89

Thousand metric tons



Source: USDA, Foreign Agricultural Service

Table 4—Butter consumption, 1987-89

Country or region	1987	1988	Prelim 1989
1,000 metric tons			
United States	511	499	486
Canada	101	105	100
South America ¹	110	107	103
Mexico	29	34	36
European Community-12	1,767	1,795	1,554
Other Western Europe ²	209	192	187
Eastern Europe ³	823	790	776
Soviet Union	2,125	2,214	2,230
Japan			
India	777	860	890
Australia	56	52	46
New Zealand	50	49	48
Other Countries	16	18	17
Total	6,669	6,811	6,570

¹South America includes Argentina, Brazil, and Venezuela.

²Other Western Europe includes Austria, Finland, Norway, Sweden, and Switzerland.

³Eastern Europe includes Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia.

Source: U.S. Department of Agriculture, Foreign Agricultural Service

has realized in the 1980's (table 5).

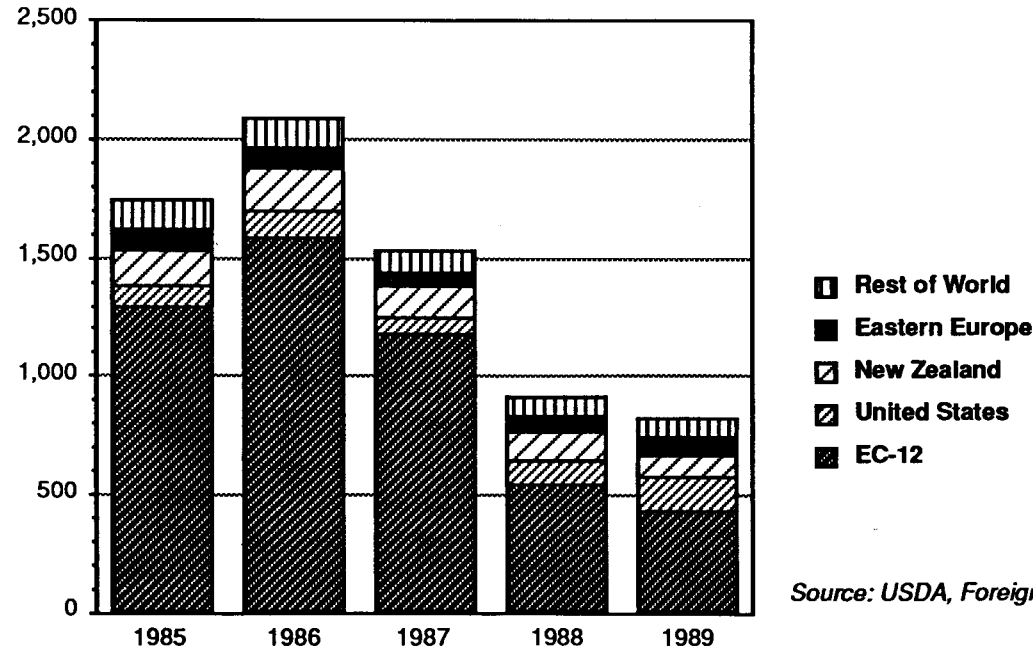
The United States is the single largest producer with output almost twice that of France, the next highest producer. The United States produces roughly 25 percent of world production (over 2.5 million metric tons). The EC and the United States combined production is almost two-thirds of the world's output. Upward trends in production for the United States and the EC have been slightly behind that experienced in the rest of the world. The Soviet Union, Canada, and Mexico have had the largest gains in production (14, 22, and 100 percent, respectively).

Cheese consumption increased 1.7 percent to 10.3 million metric tons in 1989 (table 6). The greatest increases were seen in Japan (11.1 percent), Australia (8 percent), the Soviet Union (3.3 percent), and the United States (1.8 percent). Since 1985, world consumption has had an average yearly increase of 3.4 percent.

Cheese stocks, which have been edging downward, decreased 3.4 percent from 1986, ending with 1.4 million metric tons in 1989, pushing world prices up (figure 6). U.S. cheese stocks declined 9 percent in 1989, 57 percent

Figure 5—Butter Ending Stocks, 1985-89

Thousand metric tons



Source: USDA, Foreign Agricultural Service

Table 5--Cheese production, 1987-89

Country or region	1987	1988	Prelim 1989
<i>1,000 metric tons</i>			
United States	2,424	2,527	2,570
Canada	246	252	260
Mexico	298	370	373
South America ¹	554	561	541
European Community-12	4166	4,298	4,345
Other Western Europe ²	466	482	479
Eastern Europe ³	715	729	743
Soviet Union	861	890	920
Japan	25	26	27
Australia	177	176	185
New Zealand	113	128	124
Other Countries	44	43	46
Total	10,089	10,482	10,613

¹South America includes Argentina, Brazil, and Venezuela

²Other Western Europe include Austria, Finland, Norway, Sweden, Switzerland.

³Eastern Europe includes Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia.

Source: U.S. Department of Agriculture, Foreign Agricultural Service

Table 6--Cheese consumption, 1987-89

Country or region	1987	1988	Prelim 1989
<i>1,000 metric tons</i>			
United States	2,673	2,652	2,701
Canada	253	257	260
Mexico	307	371	375
South America ¹	549	555	535
European Community-12	3867	4,043	4,090
Other Western Europe ²	361	383	388
Eastern Europe ³	649	667	691
Soviet Union	868	898	928
Japan	117	135	150
Australia	134	139	147
New Zealand	28	28	29
Other Countries	40	45	47
Total	9,846	10,173	10,341

¹South America includes Argentina, Brazil, and Venezuela

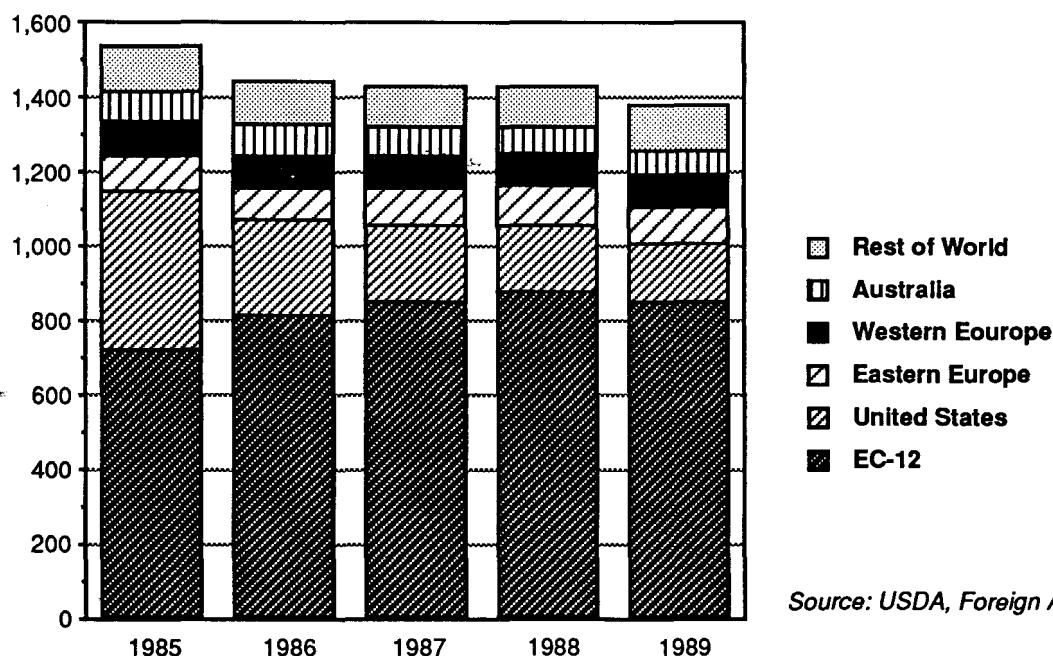
²Other Western Europe include Austria, Finland, Norway, Sweden, Switzerland.

³Eastern Europe includes Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and Yugoslavia.

Source: U.S. Department of Agriculture, Foreign Agricultural Service

Figure 6--Cheese Ending Stocks, 1985-89

Thousand metric tons



Source: USDA, Foreign Agricultural Service

below 1985 levels, the largest decline, both relatively and absolutely, for any major producing nation.

World Trade

In dry milk products, the EC remains the dominant force in exports (table 7). In addition to NFDM, the EC, Australia, and New Zealand produce and export significant amounts of whole and cream milk powder, a product seldom produced or exported by the United States. In the powdered milk product categories, the EC and the United States command two-thirds of world exports. The EC exports slightly more NFDM than the United States and almost three times as much total dry milk products.

With production and stock levels declining in the EC, the United States and, to a lesser degree, New Zealand, export levels have continued to decline. In 1989, U.S. commercial export opportunities have been replacing government exports as CCC stocks dwindled and world prices have been favorable relative to domestic prices. The U.S. export market share has declined from an average of 35 percent from 1985 to 1987 to 17 percent in 1988-89, due mainly to the shift from large CCC-subsidized sales and food aid to smaller commercial sales.

World butter exports were down 22 percent

Table 7--Nonfat dry milk exports, selected countries, 1987-89

Country	1987	1988	Prelim 1989
1,000 metric tons			
European Community ¹	393	611	431
United States	384	189	160
New Zealand	183	183	154
Australia	84	75	68
Canada	46	59	40
Poland	39	46	43
Sweden	29	11	15
Austria	20	4	6
German Democratic Republic	9	10	8
Other countries	7	18	30
Total	1,194	1,206	955

¹Excludes intra-EC trade. For 1987 the top three exporters (Germany, the Netherlands, and France) accounted for 75percent of all EC exports.

Source: USDA, Foreign Agricultural Service

in 1989 to 817,000 metric tons (table 8). Most major export countries have been down in trade volume, except the United States, which showed a 20,000-metric-ton increase. Even with the increase, U.S. sales of 40,000 metric tons and an export market of 5 percent were half the volume and market share of 1985. The EC and New Zealand accounted for more than two-thirds of the export market. Eastern European exports, mainly from the German Democratic Republic, accounted for 10 percent of world exports.

The volume of cheese exports worldwide has been declining (table 9). The EC (mainly the Netherlands, France, Germany, and Denmark) along with New Zealand are the major exporting countries. The EC has been trending upward slightly in its exports, with New Zealand holding steady and the United States' small export volume and market share declining.

U.S. Competitiveness in World Markets—Costs of Production

The two main forces that determine the competitiveness of a country in international trade of dairy products are government subsidies and relative costs of production. This section reviews previous studies on costs of milk production for various major milk-producing countries.

Table 8--Butter exports, selected countries, 1987-89

Country	1987	1988	Prelim 1989
1,000 metric tons			
European Community ¹	586	601	337
New Zealand	236	240	236
German Democratic Republic	60	57	55
United States	39	20	40
Australia	35	52	52
Finland	22	20	22
Romania	20	19	20
USSR	20	20	20
Sweden	10	8	17
Norway	7	7	7
Other countries	12	6	11
Total	1,047	1,050	817

¹Excludes intra-EC trade. For 1987 the three top exporters (the Netherlands, Belgium-Luxembourg, and France) accounted for 61 percent of all EC exports.

Source: USDA, Foreign Agricultural Service

Among the major milk-producing and exporting countries, milk production costs alone, ignoring subsidies less taxes, give a measure of absolute advantage, which is useful, if only providing a partial picture of each nation's comparative advantages. Data from a research

Table 9—Cheese exports, selected countries, 1987-89

Country	1987	1988	Prelim 1989
1,000 metric tons			
European Community ¹	378	384	408
New Zealand	101	105	94
Australia	61	74	59
Switzerland	60	60	63
German Democratic Republic	44	42	44
Austria	38	37	37
Finland	34	27	24
Norway	22	23	22
United States	20	17	5
Romania	16	18	20
Canada	9	8	10
Other countries	31	42	44
Total	814	837	830

¹Excludes intra-EC trade. For 1987 the three top exporters (the Netherlands, Germany, and France) accounted for 71 percent of all EC exports.

Source: USDA, Foreign Agricultural Service

report by Baker et. al., show that among major milk-producing countries, the United States is moderately cost competitive in the production of milk (table 10).

The authors note that difficulties in cross-country cost comparisons such as differences in production and cost accounting as well as macroeconomic conditions will influence comparative values. For instance, a weaker dollar renders greater cost competitiveness for the United States.

The lowest cost production countries were found to be those with a pasture-based dairy system. On both a per hundredweight and per cow basis, New Zealand is the lowest cost producing country, followed closely by Ireland. Production in both is characterized by low feed and labor costs. New Zealand also has one of the lowest fixed costs per hundredweight as well as per cow.

The pasture-based systems that allow low production costs for New Zealand and Ireland also limit expansion of milk output. Furthermore, a pasture-based system is in a poorer position to take advantage of BST technology, which requires additional feed intake

Table 10—Comparison of structure of dairy farms and estimated costs of producing milk in selected countries, 1986¹

Item of Comparison	Canada	West Germany	France	Ireland	The Netherlands	New Zealand	United States
Farm variables							
Number of cows	45	28	20	33	55	137	45
Number of acres	319	84	79	102	65	167	241
Capital	148,038	118,580	66,698	63,482	175,488	26,219	65,700
Milk revenue (\$)	80,928	35,032	19,383	17,087	80,508	44,372	83,825
Farm price: per cwt.	14.05	12.87	10.25	6.03	12.00	4.73	12.50
Production: pounds per cow	12,800	9,721	9,455	8,948	12,198	6,847	14,902
Costs (per cwt.)							
Variable costs:							
Feed	4.27	5.66	4.40	1.03	3.92	0.41	4.35
Labor	1.37	0.68	1.53	0.30	0.27	0.33	0.89
Other variable	6.36	7.96	8.24	2.35	4.59	2.81	1.92
Total variable	12.01	14.30	14.16	3.68	8.79	3.55	7.16
Fixed costs	0.73	1.68	1.13	1.43	0.33	0.34	2.02
Depreciation	1.37	3.12	2.15	1.20	0.86	0.45	1.09
Operating costs	14.11	19.1	17.44	6.31	9.98	4.34	10.27
Returns to capital	0.67	1.13	0.92	0.56	0.68	0.07	0.25
Total costs	14.78	20.23	18.35	6.87	10.65	4.41	10.53
Subsidies, less taxes	11.42	8.43	6.72	3.79	7.86	0.57	7.37

¹Source: Baker, D., et.al. "Estimates of the Costs of Producing Milk in Seven Major Milk-Producing Countries, 1986. Commodity Economic Division, Economic Research Service, 1990

usually provided by grains and concentrates.

Nevertheless, while the total production of these two countries is roughly only 20 percent of that of the United States, their exports are considerably larger. In 1989, New Zealand and Ireland (including intra-EC trade) combined exported more than 8 times the amount of butter, twice the amount of NFD, and 30 times the amount of cheese than the United States. Their combined exports for butter, NFD, and cheese are 24 percent, 19 percent, and 8 percent, respectively, of world exports.

Cost of production in the Netherlands is roughly equivalent to that of the United States on a per hundredweight and per cow basis. Canada has greater costs than the United States but has significantly lower costs than West Germany and France, the two highest cost producers of the selected countries.

Subsidies, less taxes, are the net amount governments spend on their various dairy support programs. These may include support for exports or domestic programs such as farm input subsidies, price supports, food programs, etc. With all subsidies lumped together into one category, it is hard to distinguish how much should be treated as cost of producing milk and how much is allotted to domestic food programs or export subsidies. Each program would have a different allocation effect on efficiency and international competitiveness. Nevertheless, subsidies, less taxes, provide a picture of the extent to which producers are subsidized.

It is apparent from the data that New Zealand and Ireland have the lowest milk production costs, followed by the United States and the Netherlands. New Zealand and Ireland also have the lowest subsidies, less taxes, for the countries included in the report by Baker et. al. For the United States, subsidies, less taxes, are slightly higher than for France and slightly less than for the Netherlands. West Germany and Canada have the greatest subsidies. New Zealand and Ireland have significant export market shares in butter and nonfat dry milk but hold less than a majority of the world trade for these two commodities. After these two countries, it appears that the United States can competitively supply world markets with dairy products.

World Markets

With tight milk supplies in the major producing and exporting nations, world prices of manufactured products rose as export volume weakened in 1989.

Centrally planned economies have steadily increased their imports of dairy products. However, with economic conditions changing rapidly in Eastern Europe, the outlook for market expansion is unclear. Greater milk yields, rising cow numbers, and improved technology could result in higher self-sufficiency ratios. Policies that strive for market-determined prices could provide incentives for expanded production in countries where price ceilings have resulted in chronic shortages.

Combined with the high population and income growth rates in some developing countries, the increase in imports has been spurred by ample supplies of subsidized exports. Effects of increased demand in developing nations have been reinforced by policies that promote low consumer prices, which in turn depress local milk production. Many of these policies are still in effect in parts of Africa, Latin America, and Southeast Asia.

In Asia, high economic growth will have positive effects on demand, while production may also be stimulated by demand pull and policies that favor production. Production and consumption are expected to grow even further in India and China. Milk production in India has been increasing more than 5 percent a year during the second half of the 1980's.

The Soviet Union has set a goal for dairy product self-sufficiency by 1992. Along with India, the Soviet Union has approved the use of BST. Loss of the Soviet Union as an export market, supplied mainly by the EC and New Zealand, would divert world trade, affecting prices received for dairy products, especially butter.

High growth areas for value-added products may be greatest in those countries with a high growth rate in per capita income. Pacific Rim countries have been experiencing the greatest income growth rate for developing nations. High income levels have contributed to increased consumption of high-value products in Japan. The United States exports specialty cheeses, ice

cream, lactose, and whey to Japan. Among developed market economies, Japan has a considerable net import demand.

Japanese milk producers are supported by guaranteed prices and deficiency payments. Japan has a surplus of milk production but imports cheese because not enough facilities exist to process raw milk into cheese; and because domestic raw milk prices are so high, it is less expensive to import natural cheese. In 1985, Japan placed import quotas on dairy products other than natural cheese, which was liberalized. Japan imported lactose, whey protein concentrate, and some specialty natural cheeses from Australia, New Zealand, and Western Europe.

In 1988, the GATT-11 agreement set up a liberalization schedule for dairy import quotas. Beginning in April 1990, the import allocation was expanded for the following products:

Prepared whey for infant formula	19,000 MT
Whey powder for animal feed	35,000 MT
Mineral concentrated whey	8,000 MT
Other dairy-based products ³	76,000 MT

The whey protein concentrate (WPC) market is growing in Japan. Many firms use it to replace egg whites. U.S. WPC is competitively priced. Other products with potential growth include cheeses, lactose, and other whey products. High-value growth markets include ice cream, yogurt, and other food items that have less than 30 percent dairy product.

Japanese officials ban importation of food-stuffs containing prohibited food additives even when the additives are present in nonfunctional low levels. Benzoates in yogurt naturally occur at low levels due to the culturing process, resulting in some U.S. yogurt being rejected by Japanese officials.

In summary, Japan is a growth market for

³Whipped or whipping cream, yogurt (including frozen yogurt), lactose containing less than 90 percent by weight of lactose, food preparation including dairy products, ice cream, food preparations mainly consisting of natural milk constituents including protein concentrates and ice cream mix, and products consisting of natural milk constituents, excluding whey powder and including mineral concentrated whey.

dairy products but the United States will compete with other suppliers as the doors open for imports. Other export markets with potential growth are Mexico, Pacific Rim countries, North Africa, and some South American countries. Cooperatives will need to re-evaluate these countries for possible export growth for their products.

Trade Policies of Major Dairy-Producing Countries

This section discusses trade policies of New Zealand, the European Community, and the import quota system of the United States. U.S. export programs are discussed in the following section. World trade in dairy products is significantly affected by these policies.

New Zealand

The New Zealand dairy industry relies on market forces to establish dairy product prices. Because production costs are low, New Zealand does not need to subsidize exports. Furthermore, there is no need to protect the domestic industry from foreign competition because they could not compete in price. A description of the export strategy by the New Zealand Dairy Board is given later in this report.

European Community

The agricultural policy of the 12-member States of the European Community (EC) is controlled by the Common Agricultural Policy (CAP). The dairy policy of the EC was implemented in 1968 with the objective to ensure a "fair standard of living" for EC dairy farmers. The policy entails a system that includes domestic price supports, variable levies, and export subsidies. Import levies are set to raise the minimum offer price of imports up to the domestic price. Export subsidies are set to enable EC exporters to sell at a competitive price. The combination of policy mechanisms has created a serious oversupply situation.

Imports into EC countries from non-EC countries are restricted by an import variable levy. This levy is applied to all dairy imports. A threshold price is the minimum price for dairy products at which imports are allowed to

enter the EC and compete with internally produced products. The levy is the difference between the threshold price and the free-at-frontier price. Free-at-frontier price (CIF) is established on the basis of the lowest representative price. The levy rates are reviewed every 2 weeks. Most trade within the EC countries are free from tariffs and nontariff barriers.

The EC exports to non-EC countries to dispose of surplus production. Export subsidies are the difference between the EC market price and the average world price. The export subsidy rates are reviewed by the commission every 4 weeks.

The EC initiated a quota system in 1984 to reduce overproduction of milk. These quotas have significantly reduced EC milk output and government stocks. Despite reduction in supply, the dairy program is still the most expensive of all EC agricultural programs. The export subsidy is a large part of this cost and enables EC exporters to compete in the world market.

United States

Section 22 of the Agricultural Adjustment Act of 1949 authorizes import quotas on dairy products. Quotas exist for 12 categories of cheese, chocolate, buttermilk, skimmed and whole milk, dried cream, evaporated milk, and dry milk. These quotas have protected the domestic dairy industry from foreign competition.

U.S. GOVERNMENT EXPORT PROGRAMS

This section gives an overview of the Federal programs that aid exports of U.S. agricultural products including dairy. These programs include PL-480, Section 416, Export Guarantee Program (GSM-102), Intermediate Export Credit Guarantee Program (GSM-103), and Dairy Export Incentive Program (DEIP). The Dairy Price Support Program and Federal milk marketing orders will not be covered in this report.⁴

⁴For further information about these programs, see *Dairy: Background for 1990 Farm Legislation*, by Richard F. Fallert, Don P. Blayney, and James J. Miller, Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture. Staff Report AGES 9020.

PL-480 and Section 416

Public Law 480 (PL-480), the "Food for Peace" program, was established in 1954 under the Agricultural Trade Development and Assistance Act. The four objectives of this law are to: (1) expand and develop foreign markets for U.S. agricultural commodities, (2) support economic development in developing countries, (3) provide humanitarian assistance, and (4) promote U.S. foreign policy. PL-480 authorizes three programs.

Title I and Title III provide for concessional sales to developing countries. These sales are not allowed to displace U.S. commercial export sales nor unduly disrupt world commodity prices or normal patterns of commercial trade. One objective of PL-480 is to develop export markets. Developing countries are future growth markets for U.S. agricultural commodities, and Titles I/III offer a mechanism to develop these markets. These programs operate through regular commercial channels. When a developing country is phased out of PL-480 assistance, commercial sales can easily take their place because introductions to U.S. suppliers and commodities have already been established through PL-480.

In 1985, 44 percent of U.S. exports of nonfat dry milk were through PL-480 programs. Dairy has not been one of the commodities sold under Titles I/III in the past few years because of decreased Commodity Credit Corporation (CCC) stocks.

Title II provides for donations of food to meet famine or other urgent relief requirements. In 1989, exports of dairy products through PL-480 have been Title II exports but this has been minimal because of reduced CCC dairy stocks. Dried milk exports from the U.S. under Title II was 106.3 mt, less than 1 percent of U.S. nonfat dry milk exports.

Section 416 (b) of the Agricultural Adjustment Act of 1949, as amended, authorizes food donations using excess stocks of the Commodity Credit Corporation. "Eligible agricultural commodities may be donated through foreign governments, public and nonprofit private humanitarian organizations, or coopera-

tives, as well as international organizations."⁵ These donations are coordinated with other U.S. foreign assistance efforts. Foreign governments may sell the donated products if the foreign currency is used for the purpose of financing the distribution of the donations. Furthermore, donations are not to disrupt commercial trade.

Because of low CCC stocks, there have been no donations of dairy products under Section 416 since 1987. In fiscal year 1987 (beginning October 1, 1986), the total Section 416 foreign donation commitments were 78,414 mt of nonfat dry milk, 18,040 mt of butter oil, 3,175 mt of butter, 14,898 mt of cheese.

Export Credit Guarantee Programs (GSM-102 and GSM-103)

GSM-102 and GSM-103 are administered by the Commodity Credit Corporation. The Export Credit Guarantee Program (GSM-102) provides the exporter or their assignee bank with a full faith and credit guarantee issued by the CCC on the foreign letter of credit for 98 percent of the FAS or FOB value of the commodity. The assignee can either be a U.S. bank or a foreign bank with a U.S. office.

GSM-102 provides credit for 6 months to 3 years. The Intermediate Credit Guarantee Program (GSM-103) was established in 1986 and is essentially the same as GSM-102 except that the term of credit is over 3 years but not more than 10 years. The guarantees allows many countries otherwise considered "high risk" to arrange financing to buy U.S. agricultural commodities. After annual negotiations with foreign governments, the USDA announces for each fiscal year, October 1 to September 30, the allocation of GSM-102 and GSM-103 for each foreign country. Terms are negotiated on commodity type and dollar amount.

For fiscal 1990, payment guarantee commitments for dairy products were \$31 million for the GSM-102 program. Individual country commitments include Algeria, \$20 million; Colombia, \$2 million; Iraq, \$5 million; and

Mexico, \$4 million. Dairy products committed were butter, butter oil, cheese, and milk powder to Algeria; nonfat dry milk to Colombia; dry milk powder (nonfat and fat) and cheese to Iraq; and nonfat dry milk to Mexico.

Dairy Export Incentive Program

The Dairy Export Incentive Program (DEIP) authorized an export incentive program of U.S. dairy products. Section 153 of the Food Security Act of 1985 (P.L. 99-198) established DEIP. Initially, the CCC awarded bonuses from its own inventories of dairy products to exporters of dairy products. Under the Omnibus Trade and Competitiveness Act of 1988, the bonuses awarded are generic commodity certificates from CCC-owned inventories of dairy products. As of December 1988, a total of 10,947 tons of milk powder were exported under DEIP. There have been no recorded sales after this time. The program was to end after September 1989 but was extended for one more year. USDA announced in January 1990 that sales under DEIP to 40 countries totaled 41,750 metric tons, with bonuses awarded to meet world price with negotiable CCC certificates for any CCC commodity. The program is active for butter and butter oil. Cooperatives have not been awarded any of the bids for the DEIP sales. Normally the export management companies have been active in the DEIP program.

NATIONAL DAIRY BOARD

The National Dairy Board (NDB) is a producer-funded promotion program established by Federal legislation. The purpose of the program is to advertise and promote dairy products. The NDB has focused its efforts on expanding domestic demand for dairy products. Recently, the NDB established an export division with responsibilities for research and promotion of dairy products in export markets. Expenditures will be modest to begin with and are part of NDB's budget. The NDB plans to utilize the export expansion programs administered by the U.S. Department of Agriculture and the International Trade Administration of the U.S. Department of Commerce. Funding for export market research and promotion can be supplied

⁵"Section 416(b) of the Agricultural Act of 1949, as Amended," Foreign Agricultural Service, USDA (a brief explanation of the program).

mented with matching funds from USDA's Foreign Agricultural Service (FAS) Cooperator program. Generic export promotion by the NDB will provide the groundwork for developing new markets for U.S. dairy products.

This report so far has examined the general economic conditions of the world dairy trade. EC is the price setter for nonfat dry milk. When the U.S. price became competitive due to short supply, cooperatives found a ready market for their nonfat dry milk. Commercial nongovernment sales replaced PL-480 and Section 416 exports. U.S. dairy products will be increasingly more competitive in the world markets, given constraints of competitors such as a costly EC subsidy program, and limited growth of pasture-based dairy systems of Ireland and New Zealand. The United States will have a cost-of-production advantage if it adopts BST usage.

Bulk exports depend on external factors such as government programs and world supply. The opportunities for high-value differentiated products are dependent on the marketing skill of the exporter. Products such as specialty cheese face increasing demand in countries with growing economies such as Japan. The following section will outline the different organization and practices cooperatives need to evaluate when developing an export marketing strategy.

U.S. COOPERATIVE EXPORT ORGANIZATION AND PRACTICES

As with any other type of business, cooperatives need to evaluate marketing plans to determine if the export market is an avenue for growth. Export marketing requires more homework than entering new domestic markets. Exporting cooperatives must understand many other factors such as tariffs, labeling requirements, and export financing. A first step is to evaluate a product to determine if it is appropriately designed for the foreign market.⁶ If the product does not meet quality standards or packaging requirements, evaluation of the cost of

changes to the product is the next step. Certain quality characteristics such as heat stability and viscosity specifications of nonfat dry milk differ for each end user. The international market uses the metric system, and cooperatives must be able to package for a specific buyer. For example, the United States packages nonfat dry milk in 50-pound bags while most countries request 25-kilogram bags.

Cooperatives market a wide range of dairy products including bulk and specialty products. Bulk products include powdered milk, butter, cheese, and whey. Specialty products include high-value products such as ice cream, new milk-based products (such as Sport Shake), and specialty cheeses. Product differentiation enables cooperatives to develop a strong market, often resulting in better returns than those from a homogeneous product.

Market research and product development are both important aspects of developing a differentiated high-value product for the export market. Some products might have to be reformulated to meet the tastes of consumers.

Milk powders, butter, whey, lactose, and cheese are bulk products with potential in export markets. Price competitiveness will be the leading factor rather than product differentiation. U.S. producers have already developed export markets for whey and lactose. This market is relatively small but nonetheless important. These byproduct sales can take advantage of value-added returns. The Netherlands produces more than 20 types of lactose for its customers, a case of a producer developing a product for its customer.

Long-term export market development involves monitoring how a product is marketed to foreign customers. A brand is an asset that should be protected when entering new markets. If the cooperative uses a distributor for a branded product who does not protect the quality of the product from receipt to final consumers, then consumers will associate the brand with a lesser quality and will not repeat the purchase. Exporting directly or through a domestic broker interested in increasing sales of the cooperative's product is a choice cooperatives must make in their marketing strategy. Cooperatives can use a combination of both.

⁶Cooperatives seeking assistance in exporting should contact USDA, Foreign Agricultural Service, Trade Assistance and Planning Office, (703) 756-6001 or (202) 447-8502.

Direct Exporting

Cooperatives can export by themselves or coordinate their sales with other companies. Cooperatives can export directly using their sales department or may set up their own international sales department. An international sales department works entirely in international markets, carrying out all the functions involved in export marketing. An advantage of employing staff directly is that employers are familiar with the product and can devote all their time to increasing sales overseas. These employees should be experienced in international sales. If a cooperative wishes to use existing staff experienced in domestic sales, the staff must be trained in the intricacies of direct exporting.

Export Management Companies

Most cooperatives export through domestically based export brokers or export management companies (EMC). Cooperatives with their own international sales division often use EMC's to enter new markets or, when it is not cost-effective, to export directly. EMC's either take title or act as brokers. These companies act as an export department of a company. They find buyers, negotiate sales, prepare export documentation, handle document transmittal, collect from buyers, and pay the supplier. The EMC is usually paid a commission for these services. Export management companies may also export by buying the product from the supplier rather than receiving a commission. As commodity owners, they conduct all export-related activities but also take all the risk. Exporting through an EMC requires the least effort in terms of knowledge of export markets and step-by-step procedures for exporting. For cooperatives not interested in establishing a commitment to the export market, this is the best method.

Cooperatives give up control of the market-~~ing~~ when they choose to export through EMC's. By selling to a domestic-based EMC, the cooperative has the advantage of less risk and cost, but there is no long-term export market development. This type of transaction is similar to a domestic sale. If an EMC purchases the product, there is no guarantee it will not sell the product back on the domestic market.

If the product is marketed with a brand name, a cooperative must protect its value. If quality is diminished through shipment and handling, the brand's value is lessened, damaging future growth of the brand in the market.

In summary, exporting through an EMC is a less risky and less costly means of exporting, but a cooperative seller gives up some control. A cooperative can use a combination of direct export sales and brokered export sales. For example, a cooperative may simultaneously export directly to principle markets and sell through a U.S. broker to insignificant and occasional export markets.

Cooperative-Owned Export Organizations

In addition to exporting directly or through an EMC, cooperatives may form an exporting organization with other cooperatives. This could be a partnership, a federated cooperative, or a cooperative-owned corporation not operated on a cooperative basis. These options would enable cooperatives to pool resources to develop new markets and expand exports. One benefit would be increased product diversification. The organization could operate as an EMC, sell products directly to foreign buyers, or be active in all stages of long-term export market development. The latter type of arrangement has been successful in other countries, an example being the New Zealand Dairy Board.

Export Trading Company Act

Export trading companies (ETC) authorized by the Export Trading Company Act of 1982 and Foreign Sales Corporations (FSC) authorized by the Tax Reform Act of 1984 can also be part of an exporting strategy.

The Export Trading Company Act of 1982 established rules under which U.S. companies can join to export goods and services with limited antitrust immunity for approved export activities (Title III). Title II of the act, the Bank Export Services Act, allows banking and service entities to have an equity interest in export trading companies. If a cooperative were to form an ETC with non-cooperatives, the Export Trading Company Act antitrust provisions would be necessary. However, if an ETC is formed with only

cooperative owners, they would not need to qualify under the act because the Capper-Volstead Act permits farmers and their cooperatives to market jointly.

Foreign Sales Corporations

A Foreign Sales Corporation is a legal entity providing tax incentives to exporters. A portion of foreign sales is exempt from U.S. income tax if the FSC meets certain requirements. A Foreign Sales Corporation must be a corporation chartered under laws outside U.S. customs territory and meet certain economic activities tests. A Foreign Sales Corporation must maintain a "permanent" office location in an approved country outside the United States.

A shared FSC for several cooperatives is also possible, so individual cooperatives need not maintain separate Foreign Sales Corporations. This may be beneficial if exports are small individually but large as a group of cooperatives.

Foreign Sales Agents

Foreign sales agents are also an important feature of exporting. When cooperatives export directly, they can sell directly to final users (retailers or processors), or they can export to foreign agents, whether they be brokers or distributors. Foreign brokers do not take title to the product but they handle all details of finding buyers and promoting the product. They know the market, speak the language, and have contacts in one country or region. They are geographically closer to the customer and are thus available to handle any problems once the product is in their country. They work for a commission and their profit is based on selling ability. However, they might handle so many clients that they may not have time to develop a new market for a new client. Cooperatives using a foreign agent must expend time and effort to find the right agent. It is often very difficult to replace an agent, especially if there is a written contract.

Many exporters use foreign agent distributors who take title to the product. Distributors have an incentive to move a product once it is purchased because of the high cost of storage. For perishable items, however, distributors who

properly store and handle a product would be essential to the quality of the product delivered to consumers. For some dairy products which can be stored for a short time such as ice cream and cheese, storage control is essential for a quality product. Dry milk can be packaged and stored more easily, but a good storage and delivery system is still essential. Therefore, new export market development depends not only on finding a buyer or distributor but also on finding a delivery and storage system that ensures a quality product when delivered to the consumer and encourages repeat purchases.

Foreign Licensing, Copacking, and Contract Ventures

Copacking means one company packs another company's product. Licensing a brand is another way firms expand brand recognition and earnings. A company licenses the right to use its registered brand to another with a formal agreement usually stipulating quality of the branded product. The product can be produced without any inputs from the licensor.

A coventure is a more complicated structure similar to a formal joint venture except no separate legal entity is formed. Rather, a set of formal contracts defines each company's obligations to the coventure. A copacking arrangement with licensing agreements is one type of coventure. The inputs to the manufactured product are supplied by one company and another provides the processing plant. For example, a U.S. cooperative might ship ice cream mix to an ice cream manufacturer in another country who would pack it with the U.S. cooperative's brand. The final product would then be sold in the country of manufacture.

Cooperatives adopt practices and organizations for different types of marketing situations. Each practice outlined above has strengths and weaknesses. The tradeoff is increasing control for decreasing costs. Therefore, cooperatives must weigh the benefits of each practice against the costs.

Export management companies are less expensive but cooperatives have less control. This type of arrangement is beneficial for short-term exports of residual supply. If cooperatives commit to long-term exporting, then coopera-

tives can afford the increased costs of direct exporting, FSC's, and cooperative-owned export organizations.

Branded high-value products require a long-term commitment to benefit from the increased research and development costs. Foreign licensing, copacking, contract ventures, foreign agents, and direct exporting need to be considered when developing overseas markets for high-value products.

STRATEGIC PLANNING

This section examines foreign marketing strategies used by the New Zealand Dairy Board. Although cooperatives may not be able to -- nor would they necessarily want to -- replicate the New Zealand Dairy Board, the board's strategies have been very successful in building a global market for New Zealand dairy products.

One definition of strategy is "the determination of the basic long-term objectives of an enterprise and the adoption of courses of action and allocation of resources necessary to achieve these goals."⁷ In other words, a strategy is a plan to achieve a specific goal. Strategic planning is also referred to as long-term planning.

The time required from marketing plan development to marketing plan implementation varies. However, a strategy's purpose is to plan for the future rather than react to market forces as they occur; to be proactive rather than reactive. A strategic marketing plan consists of identifying potential markets, potential products, the type of business practices to be used, and evaluating the plan. Strategic plans should incorporate possible changes in the global environment, such as general trade liberalization resulting from the GATT negotiations. The New Zealand Dairy Board is committed to global marketing and has spent the time necessary to develop successful strategies.

The New Zealand Dairy Board—An Example

While New Zealand produces about 1.5 percent of the world's milk, it accounts for nearly

25 percent of the value in world dairy products trade. All New Zealand dairy exports are controlled by the New Zealand Dairy Board (NZDB).

The NZDB exports dairy products for all New Zealand cooperatives and returns the proceeds to them, less marketing and administrative costs. Most overseas sales are made through foreign sales offices, subsidiaries, or agents. The NZDB exports New Zealand dairy products but also manufactures and markets foreign products in their overseas markets.

A highly successful marketing network has given the NZDB control of an extensive international marketing structure. Detailed marketing plans by product and country recognize the "importance of identifying and responding to customer requirements 'while focusing on' improving the security and quality outlets for our future business."⁸

Foreign subsidiaries and joint ventures have increased the NZDB's market presence in a great number of countries. The NZDB has used these types of arrangements to market New Zealand and foreign-supplied milk products with continuity of supply.

A subsidiary in Malaysia packs New Zealand milk powder under one of NZDB's brand name. The New Zealand Milk Products Company, a NZDB subsidiary, has a joint venture in Singapore that includes a processing plant. The NZDB uses reconstituting facilities in developing countries to meet demand for fluid and raw milk not met by local supplies.

A regional office in the Middle East has been converted into a subsidiary, emphasizing the increasing importance of the region. The NZDB ships skim and whole powder and anhydrous milk fat to recombining plants in Saudi Arabia and Yemen.

In the Soviet Union, a wholly-owned subsidiary, Sovenz, handles most of the trade between New Zealand and the Soviet Union. Sovenz imports all New Zealand dairy and most meat products to the Soviet Union. Trade financing is tied to sales of peat moss (with future developments in timber, fish, and minerals planned) by a joint venture company that, in turn, purchases New Zealand dairy products.

⁷Heinz Weihrich and Harold Koontz, Management (McGraw-Hill, Inc., 1988), p. 63.

⁸New Zealand Dairy Board 1987 annual report.

With dwindling EC stockpiles and the advent of Perestroika, the NZDB sees new opportunities in this previously closed market and has taken a pro-active role in USSR market development.

A Chilean company owned by the NZDB sells fertilizer, vegetable oils, and rice. This company owns controlling stock of a subsidiary with major market shares of liquid milk, yogurt, and dairy desserts as well as other food lines in Chile. The subsidiary purchases New Zealand dairy products during seasonal milk shortages in Chile.

Two trading companies and NZDB's Anchor Foods do business in Europe. Diversification of product mixes has added to their recent success. The trading companies have used value-added products to extend markets into such areas as food ingredients and animal health products.

Joint ventures and subsidiaries enable the NZDB greater penetration into worldwide markets. Through these operations, the NZDB was able to export NZ\$2 billion⁹ and attain a gross revenue of NZ\$3.8 billion for 1988/89. Foreign sales of non-New Zealand sourced dairy products totaled NZ\$800 million. With New Zealand sourced dairy exports roughly 2 1/2 times of non-New Zealand sourced dairy products, it appears the NZDB has effectively used foreign-based milk products to gain access to and increase its presence in foreign markets.

To improve returns, the NZDB has reduced dependence on bulk commodities while concentrating on tailoring products to certain markets with brand name, value-added products. Furthermore, diversified products may reduce impacts of world price fluctuations.

Independently operated subsidiaries and associated companies, along with a holding company representing the NZDB's interests in the Americas, have pursued branded, value-added products. One such company imports and distributes cheese and cheese-related products in the United States.

Product diversity for value-added products extends beyond traditional cheese, butter, and powder products. In the United States, marketing of milk-based functional ingredients include

TMP (milk proteins in soluble form), biologically active milk systems for the health food industry, stabilizer systems, and whey protein concentrates.

In 1989, fromage fraiche products were introduced to the European market with a joint venture operation. Further innovation in new product development includes half-fat butter, soft-whipped cheese, aerosol cream, and a whey-based fruit drink. These market innovations keep the NZDB viable in an extremely competitive market.

The NZDB has 55 companies in 25 countries that market branded products. This international marketing network provides a solid marketing system. Even when local milk is used to supply manufacturing plants, foreign markets permit the NZDB to use New Zealand dairy products as intermediate or final products when local supply cannot meet local demand. For the introduction of new products, the existing marketing infrastructure provides an excellent tool for market entry.

Adopting Strategies for U.S. Cooperatives

An organization of U.S. dairy cooperatives with attributes similar to the NZDB may be one way to expand exports. While all features of the NZDB are not wholly feasible, U.S. dairy cooperatives could adopt some marketing strategies and perhaps organizational structure. A large, single export organization can provide services and develop a permanent networking system with knowledge of local markets better than uncoordinated individual cooperatives.

U.S. cooperatives should view exports as a long-term growth market instead of outlets for surplus disposal. Only in this way can export markets be developed. Customers want a steady, reliable supply of quality products. Developing large permanent markets, as has the NZDB, is one way to manage risk and build lasting markets instead of filling sporadic excess demand.

"Give the customer what they want, when they want it" is the maxim for developing and maintaining markets. Part of being a reliable supplier means meeting customer needs and wants. That means packaging the product by country specifications (i.e., kilos instead of pounds). The NZDB meets local needs with

⁹For 1988/89 the average exchange rate for one New Zealand dollar was US\$0.64.

appropriate packaging as well as products suited to local tastes.

A diversified product line is one way to manage risk and create a larger market base for sales expansion. An effective diversification may require brand name promotion and new products development for overseas markets.

A large resource base is required to become a steady supplier to many overseas markets, have a wide scope of products available, and develop new product lines. A cooperative or joint organization would be more able to meet the quantity of product and product types required for this export strategy.

Foreign offices can help develop local contacts and gain firsthand knowledge of markets. Sales monitoring and quality control are other important benefits of foreign offices. The NZDB has also used subsidiaries and joint ventures in expanding market presence in certain countries. All strategies used by the NZDB have combined to make it a very effective exporting organization. Use of these strategies, all or in part, by U.S. cooperatives may help improve their position in the world market.

REFERENCES

- Ackerman, Karen Z., and Mark E. Smith. *Agricultural Export Programs: Background for 1990 Farm Legislation*. Washington, D.C.: USDA/ERS/CED Staff Report No. AGES 9033, May 1990.
- Agridata News Service. "Executive News Summary." April 20, 1990.
- Andre, Stan. "Pacific Rim Export Trip." California Milk Advisory Board, March 1987. (unpublished report)
- Baker, Derek, M.C. Hallberg, Rodolfo Tajuakio, Joachim Elterich, Robert L. Beck, and Carolyn Betts Liebrand. *Estimates of the Cost of Producing Milk in Seven Major Milk Producing Countries, 1986*. U.S. Department of Agriculture, Economic Research Service. Staff Report No. Ages 9056, August 1990.
- Blank, Steven C. "World Dairy Market Structure." *Agribusiness*, 2 (Summer 1986), 183-198.
- Fallert, Richard F., Don P. Blayney, and James Miller. *Dairy: Background for 1990 Farm Legislation*. Washington, D.C.: USDA/ERS/CED Staff Report No. AGES 9020, March 1990.
- Hallberg, M.C., and Woong-Je Cho. "The World Dairy Market---Policies, Trade Patterns, and Prospects." The Pennsylvania State University, A.E. & R.S. #191, August 1987.
- Krostitz, W. "Trends in World Trade in Dairy Products and Future Prospects." Milk-- the Vital Force: Proceedings of the XXII International Dairy Congress, pp. 473-485. the Hague, Sept. 29- Oct. 3, 1986.
- Ling, Charles, K., and James B. Roof. *Marketing Operations of Dairy Cooperatives*. Washington, D.C.: USDA/ACS Research Report 88, Nov. 1989.

New Zealand Dairy Board. *Annual Report*, 1987.

_____. *Annual Report*, 1989.

New Zealand Dairy Board. External Economics Division. *A Survey of the New Zealand Dairy Industry*, 5th ed. Wellington, New Zealand: 1984.

Reddington, John J. "World Dairy Giants Vie for Markets." *Foreign Agriculture*, August 1986, pp. 12-13.

Reynolds, Bruce J. and Karen J. Spatz. "International Business Arrangements of Farmer Cooperatives. NC-194 Occasional Paper Series. August 1990.

Stuart, B.L. "The Changing U.S. Role in the International Dairy Market." *Proceedings Annual Agricultural Outlook Conference*. U.S. Department of Agriculture. Washington, D.C., November 1988. p. 272-279.

Stuart, Bruce L. "A Global Market for U.S. Dairy Products." Paper presented at Western Dairy Marketing Conference, Billings, MT., March 14-16, 1990.

The Cheese Reporter. "NDB Committee Recommends Expanded US Dairy Product Export Effort." 20 April 1990, P. 1.

Trostle, Ronald, Miles Lambert, Stephen Sposato, James Lopes, and Marshall Cohen. *European Community Dairy Sector: Policies, Problems, and Prospects*. Washington, D.C.: USDA/ERS Staff Report No. AGES 860316, October 1986.

Urquhart, L.M. "Review of International Dairy Product Markets." Agribusiness and Economics Research Unit, Lincoln College, Canterbury, New Zealand, January 1990.

U.S. Department of Agriculture, "Agricultural Export Assistance Update." Foreign Agricultural Service, Washington, D.C., July 3, 1989.

_____. *Dairy, Livestock, and Poultry: U.S. Trade and Prospects*, Foreign Agricultural Service, Washington, D.C., selected monthly issues.

_____. "Import Controls Under Section 22 of the Agricultural Adjustment Act, as Amended." Foreign Agricultural Service, Washington, D.C., February 1981.

_____. "P.L. 480 Programs: General Overview." Foreign Agricultural Service, Washington, D.C., (no date).

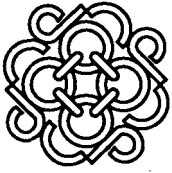
_____. "Section 416(b) of the Agricultural Act of 1949, As Amended." Foreign Agricultural Service, Washington, D.C., 1988

_____. *Situation and Outlook Report*, Economic Research Service, Washington, D.C., selected monthly issues.

_____. *World Dairy Situation*, Foreign Agricultural Service, Washington, D.C., selected monthly issues.

Verdonk, Ron and Bill Paddock. "U.S.-E.C. Dairy Picture Looking Brighter." *AgExporter*, May 1989, pp. 4-7.

Weihrich, Heinz and Harold Koon. *Management*. McGraw-Hill, 1988.



**U.S. Department of Agriculture
Agricultural Cooperative Service**

P.O. Box 96576

Washington, D.C. 20090-6576

Agricultural Cooperative Service (ACS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The agency (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

ACS publishes research and educational materials and issues *Farmer Cooperatives* magazine. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, age, marital status, handicap, or national origin.