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Prepared by the Divisions of Agricultural Economics and Agricultural Extension
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War and Postwar Financing of Cooperatives

E. FRED KOLLER

What changes have there been in the financial condition of local cooperatives in Minnesota during the war? How well are these organizations prepared to finance postwar replacements and expansion? An analysis of the balance sheets of 90 identical cooperative oil associations and 75 identical cooperative creameries for the fiscal years ending 1940 and 1943 pro-

vides many of the answers to these questions.

From the viewpoint of their current financial position the oil associations have shown some improvement during the war. Current assets of these associations, including cash and the assets intended for immediate conversion into cash, increased from \$15,052 per association in 1940 to \$18,798 in 1943, an increase of 25 per cent (table 1). In the meantime, current liabilities (short-term debts) increased from \$7,973 to \$9,470, or only 19 per cent. As a result of these changes, net working capital (the amount by which current assets exceed current liabilities) increased from \$7,079 to \$9,328. The increase in working capital probably was larger than indicated here, since yearto-year analysis of these associations has shown that about one half of their patron refunds payable have been retained in the business and the other half paid in cash. The upward trend in working capital is a favorable factor in the postwar financing of these associations since a large volume of readily obtainable funds will be required to finance the many repairs and replacements which could not be made during the war.

The current ratio (current assets divided by current liabilities) which is a measure of the current debt-paying ability of these associations increased from 1.89 to 1 in 1940 to 1.98 to 1 in 1943. A 2.00 to 1 ratio is considered to be a desirable minimum standard.

The oil associations have effected a noteworthy reduction in their net receivables from an average of \$5,901 at the close of 1940 to \$4,859 in 1943. The reduction of receivables from patrons was even larger than the foregoing figures indicate, since these associations have included among their receivables advance payments made to their cooperative wholesalers for commodities to be purchased at

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a later date. These advances averaged \$654 in 1940 and had increased to \$1,004 in 1943. Measured in terms of days of sales outstanding in gross patrons' receivables there were only 14.3 days of sales outstanding at the close of 1943 as compared with 21.3 days in 1940. A goal of 15 days or less has been recommended for local oil associations.

It is also significant that notes, acceptances, and accounts payable were much smaller in 1943 even though inventories were substantially larger.

Analysis of the current position of the 75 creameries showed an increase in current assets averaging \$7,064, or 59 per cent, but the percentage increase in current liabilities was even larger (see table 1). In consequence, net working capital rose only slightly from an average of \$2,601 to \$3,361. The volume of working capital of many of these creameries as well as that of a large proportion of creameries over the state is too small for sound financing. This often gives rise to such undesirable and costly financial practices as bank overdrafts, short-term borrowing at high rates to cover patron payrolls, delayed payment of bills with loss of discounts, and inability to buy supplies economically in large quantities and for cash. In general, the increase in working capital of these creameries has not been large enough to finance the repairs and replacements which have been delayed because of wartime restrictions.

The current ratio of these creameries while abnormally low in the past declined further from an average of 1.28 to 1 to 1.21 to 1 in this period. The weak current position of many creameries is attributable to severe competition between plants which causes them to pay more than is warranted for butterfat. Recently many gathered cream plants have weakened their current position in trying to meet the prices paid by nearby whole milk plants.

During the war the oil associations have effected further improvement in their long-term financial position as shown by an increase of member and patron equities (net worth) from an average of \$16,694 to \$21,777. These equities represented 62 per cent of the total capital of the associations in 1943 as compared with 60 per cent in 1940.

In contrast the equity position of the creameries deteriorated slightly in this period. Although average net worth rose to \$31,800 in 1943, this was only 65 per cent of the total capitalization as compared with 68 per cent in 1940.

The net worth accounts of these associations indicate that some important changes have been made in the methods of acquiring capital in this period. While net earnings retained in the business still represent the principal sources of funds of the oil associations, fewer of these earnings are being set aside in the surplus account and more are being definitely allocated to the patrons in patrons' equity reserves and in capital stock accounts. Average surplus accounts increased by \$696 while patrons' equity reserve increased \$1,468 and stock and stock credits \$4,725.1 This change has occurred as more and more associations have come to realize that surplus as usually set up on the books legally belongs to the stockholders; and that in consequence this method of retaining earnings violates the cooperative principle that all earnings, after provision for limited dividends on stock, should be distributed equitably among the patrons in proportion to the volume of business which they have provided. It also appears on the basis of a federal court decision (Fertile Cooperative Dairy Association [Iowa] vs. Houston) that it is advisable, if not actually necessary, for a cooperative desiring to maintain a tax exempt status to allocate all earnings retained in the business on a patronage basis.

Creameries have made an even larger shift to the allocated type of capital accounts, particularly patrons' equity reserves, in financing their long-term needs. Average surplus accounts actually declined by \$43 while the patron equity reserves increased by \$8,846. Most of the new funds obtained were used to finance facilities, particularly whole milk equipment. Investments in other cooperatives also increased significantly, reaching an average of \$7,822, as local creameries have taken a larger part in financing central milk drying plants and other federated cooperative enterprises.

A survey of the postwar financing plans of these cooperatives shows that less than 20 per cent have set up any specific reserves or funds for this purpose. Some have purchased government bonds during the war with the tacit understanding that the proceeds would be used to finance postwar projects. Under present conditions it would be advisable for more associations to segregate some current funds in special savings deposits or government bonds for postwar uses. Since normal replacements often could not be made during the war, funds obtained in the depreciation process are larger than usual and it may be well to segregate these if there is danger that they may be used in payment for products, dividends, or spent in other ways. Associations which are low on working capital or which have specific postwar building or other expansion plans may also to advantage set up reserves and segregate funds for these purposes at this time. Conditions for doing this are opportune, since earnings in most cases are ample and farm income is such that the payment of large cash dividends is not urgent. Planning along these lines will strengthen the financial position of many associations.

Table 1. Average of Balance Sheets of 90 Cooperative Oil
Associations and 75 Cooperative Creameries for
Years Ending 1940 and 1943

	Oil Asso	ciations	Creameries	
	1940	1943	1940	1943
Current assets:		•		
Cash and U.S. bonds	. \$ 3,265	\$ 4,144	\$ 4,129	\$ 5,97
Receivables (net)	. 5,901	4,859	4,462	8,30
Inventories	. 5,382	9,104	3,267	4,60
Prepaid expenses, etc	. 504	691	142	16
Total current assets	\$15,052	\$18,798	\$12,000	\$19,06
Investment assets:				
Equities in other coops, etc.	. \$ 2,133	\$ 4,751	\$ 2,701	\$ 7,82
Fixed assets:	#1E C40	¢10.4E0	#20 CO1	#20 FF
Land, bldgs., equipment		\$19,459	\$32,681	\$38,55
Less: reserve for depreciation	5,432	8,283	13,239	16,97
Net value	. \$10,216	\$11,176	\$19,442	\$21,58
Other assets:	. 419	306	218	16
Total assets	. \$27,820	\$35,031	\$34,361	\$48,63
Current liabilities: Notes, acceptances, and contracts				
payaple		\$ 1,028	\$ 907	\$ 1,21
Accounts payable—general		900	803	82
Accounts payable—patrons			6,860	12,38
Accruals, etc. payable		2,432	829	1,27
Patron refunds payable	. 2,442	5,110		
Total current liabilities	. \$ 7,973	\$ 9,470	\$ 9,399	\$15,70
Noncurrent liabilities:				
Mortgages payable, etc	. \$ 1,832	\$ 2,367	\$ 1,538	\$ 1,13
Patron refunds payable (long-term)	1,321	1,417		
Total noncurrent liabilities	. \$ 3,153	\$ 3,784	\$ 1,538	\$ 1,13
Members' and patrons' equities:				
Stock and stock credits	. \$ 9,981	\$14,706	\$ 7,832	\$ 8,17
Patrons' equity reserves	. 1,746	3,184	3,071	11,91
Surplus (general reserve)		3,447	11,528	11,48
Undistributed earnings		440	993	22
Total members' and patrons'				
equities	\$16,694	\$21,777	\$23,424	\$31,80
Total liabilities and equities	\$27,820	\$35,031	\$34,361	\$48,63

Farm Real Estate Prices Move Upward

A. A. Dowell

Sale prices of farm real estate in Minnesota moved sharply upward during the two-year period 1942-43. The average for the state increased from \$32 per acre in 1940-41 to \$37 per acre in 1942-43. This upward trend followed nearly two decades of falling prices, the average for the state having declined from a peak of \$104 per acre in 1920-21.

Farm real estate sales data have been supplied during recent years by various corporate lending agencies, including insurance companies, trust companies, joint stock land banks, the Minnesota Department of Rural Credit, and the Federal Land Bank and Federal Farm Mortgage Corporation. These agencies sold 2,279 Minnesota farms in 1942 and 1,904 in 1943, or a total of 4,183 during the two-year period, compared with 6,511 in 1940-41, and 5,188 in 1938-

¹ Relatively little stock in these associations was sold for cash so the increase is largely from earnings applied toward the purchase of shares.

39. No measure of quality differences, if any, in the farms sold in the different periods is available.

Of the farms sold during 1942-43, nearly 35 per cent were sold by the Federal Land Bank and Federal Farm Mortgage Corporation, 33 per cent by insurance companies, 24 per cent by the Minnesota Department of Rural Credit, 5 per cent by trust companies, and 3 per cent by joint stock land banks. The proportion sold by insurance companies was considerably higher in 1942-43 than in 1940-41, while the proportion sold by the Minnesota Department of Rural Credit was considerably lower.

As shown in table 1, the rate of increase during the previous boom varied considerably from district to district within the state. Likewise, the rate, extent, and duration of the subsequent decline varied from district to district. The greatest relative increase during the earlier boom occurred in the east central district, and the least increase in the northeastern district. The greatest relative decline, compared with the 1912-13 base, occurred in the northwestern district, and the least decline in the southwestern district. The low point of the decline was reached in 1934-35 in the southwestern district, but it was not reached in the other districts until 1940-41. As an average for the state, farm real estate prices fell to about two thirds of the 1912-13 level in 1940-41, and then increased to three fourths of the 1912-13 level in 1942-43. Prices advanced sharply during 1942-43 in the two southern and two western districts, but advanced only slightly in the northeastern and east central districts.

Average land prices for the state increased about 8 per cent in 1942 and another 8 per cent in 1943. Indications are that prices have continued to advance during 1944. Consequently, land prices for the state are materially above the 1942-43 average. Prices received for some farms are now above their prospective long-time earnings.

Table 1. Index of Sale Prices per Acre of Farm Real Estate in Minnesota by Districts for Specified Two-Year Periods (1912-13 == 100)

District	1910- 1911	1920- 1921	1930- 1931	1934- 1935	1936- 1937	1938- 1939	1940- 1941	1942- 1943
Southeastern	84	204	128	76	74	64	60	70
Southwestern	83	220	128	84	88	84	87	98
West central	85	213	111	82	75	67	62	73
East central	83	234	124	89	78	66	54	59
Northwestern	83	197	76	76	73	65	48	61
Northeastern	85	185	138	112	118	91	68	69
Minnesota	84	212	122	80	79	71	66	75

Consumption of Fats and Oils in Food Products

R. W. Cox.

The total per capita consumption of fats and oils in food products among civilians since the beginning of the war has been maintained at a level which compares rather favorably with prewar (table 1). This has been due in the main to the record output of lard. Although the military needs have been large and purchases for lend-lease amounted to 882 million pounds in 1943 or about 7 pounds per domestic civilian, the per capita consumption of lard

Table 1. Estimated Per Capita Disappearance of Food Fats for Civilian Consumption, 1935-1944*

Ye	ar	Total	Butter	Margarine	Lard	Shorten- ings	Other food products†
				Pounds			
Av.	1935-39	48.0	16.7	2.3	10.9	11.8	6.3
	1940	50.0	16.9	1.9	14.7	9.0	7.6
	1941	51.0	15.9	2.2	14.1	10.4	8.3
	1942	48.4	15.6	2.2	13.5	8.9	8.1
	1943	45.8	12.0	3.2	14.5	9.9	6.3

^{*} From data in the Fats and Oils Situation 86, p. 40.

in this year was about the same as in 1940. Supplies of margarine have also increased and the per capita consumption of this product reached a peak in 1943. Purchases of margarine for lend-lease were about .6 pound per civilian in 1943.

The drop in the civilian per capita consumption of butter to 12.0 pounds in 1943 was mainly the result of reduced supplies and the large needs of the military. Purchases for lend-lease, which amounted to 120 million pounds last year or .9 pound per civilian, accounted for only 21 per cent of the decline of 4.9 pounds in the per capita consumption from 1940 to 1943.

The supplies of processed shortenings in 1943 were sufficient to provide 9.9 pounds per civilian which was more than the consumption in 1940 but less than in 1941. Purchases for lend-lease were equivalent to .5 pound per civilian.

It is estimated that the per capita consumption of fats and oils in food products in 1944 will be about the same as in 1943. There probably will be some increase in the consumption of lard and margarine, but a decline in butter, processed shortenings, and other food products. Supplies of lard will be reduced in 1945 but it is likely that a larger supply of foreign vegetable oils will be available at that time.

The important oils which enter into the manufacture of food products are cottonseed, soybean, corn, and peanut. The manufacture of these products also provides the main outlets for these oils. More than three fifths (table 2) of the cottonseed oil and more than four fifths of the soybean oil utilized in manufacture in 1943 went into the manufacture of shortenings and margarine. Cottonseed and soybean oil also constituted the main components used in these food products. In this year, each contributed 42 per cent to the total weight of fats and oils used in the manufacture of shortenings. Cottonseed oil accounted for 51 per cent and soybean oil, 40 per cent of the fats and oils used in margarine. No foreign oils were used in making margarine in 1943 and only small amounts were used in shortenings and other food products.

Table 2. Utilization of Specified Oils in the Manufacture of Various Food Products, 1943

		Proportion of total used in:						
Oil	Total utilization	Shorten- ings	Mar- garine	Other food products	Nonfood products			
M	illion pound	s	Pe	rcent				
Cottonseed	1,326	43.1	19.0	37.4	.5			
Soybean	941	60.4	21.0	13.2	5.4			
Corn	117	5.5	4.9	87.7	1.9			
Peanut	86	59.0	5.3	29.7	6.0			

 $[\]dagger$ Includes mainly cooking and salad oils, mayonnaise, and salad dressing.

Minnesota Farm Prices for August, 1944

Prepared by W. C. WAITE and R. W. Cox

The index number of Minnesota farm prices for August, 1944, is 177. This index expresses the average of the increases and decreases in farm product prices in August, 1944, over the average of August, 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, August, 1944, with Comparisons*

	Aug. 15, 1944	July 15, 1944	Aug. 15, 1943	Aug. 15,	July 15, 1944	Aug. 15, 1943
Wheat\$	1.38	\$ 1.45	\$ 1.24	Hogs\$13.30	\$12.70	\$13.40
Corn	1.02	1.02	.95	Cattle11.50	12.00	12.40
Oats	.64	.72	.59	Calves 13.10	13.40	13.70
Barley	1.05	1.13	.92	Lambs-sheep 11.95	12.35	12.36
Rye	.98	1.03	.81	Chickens21	.21	.22
Flax	2.89	2.85	2.81	Eggs	.30	.36
Potatoes	1.25	1.10	1.45	Butterfat	.53	.52
Нау	8.60	8.60	6.00	Milk 2.75	2.70	2.70
-				Wool†4	.44	.45

 $^{^{\}star}\,\text{These}$ are the average prices for Minnesota as reported by the United States Department of Agriculture.

Small grain prices declined from July to August as the new crop movement got underway. Corn prices remained at the ceiling level and flax prices advanced as a result of an increase of 5 cents in the ceiling price. Hog prices experienced a sharp upturn but the prices of other classes of livestock declined. Livestock product prices, with the exception of milk, remained about the same. The Minnesota farm price index is six points higher than one year ago. The index of crop prices rose almost 11 per cent but the indexes of livestock and livestock product prices declined about 1 per cent and 2 per cent respectively.

The feed ratios except the beef-corn ratio are higher than in July. If the subsidy payment of 6 cents per pound of butterfat is added to the reported price of this product, the butterfat-farm-grain ratio would be raised to 29.5 which exceeds the corresponding ratio in August, 1943.

Indexes and Ratios for Minnesota Agriculture

Aug. 15, 1944	Aug. 15, 1943	Aug. 15, 1942	Average Aug. 1935-39
182.8	181.8	151.5	100
177.4	171.4	138.9	100
187.7	172.0	123.5	100
157.2	159.0	156.9	100
178.3	182.2	148.9	100
129.8	134.5	123.8	100
126.0	126.8	113.5	100
•			48.4
11.5	12.6	16.9	12.3
13.0	14.1	19.6	14.6
11.3	12.2	14.8	12.0
14.8	19.3	22.0	15.9
26.5	28.5	35.5	33.5
	15, 1944 182.8 177.4 187.7 157.2 178.3 129.8 126.0 61.5† 11.5 13.0 11.3 14.8	15, 15, 1944 182.8 181.8 177.4 171.4 187.7 172.0 157.2 159.0 178.3 182.2 129.8 134.5 126.0 126.8 61.5† 64.5 11.5 12.6 13.0 14.1 11.3 12.2 14.8 19.3	15, 15, 15, 15, 1942 182.8 181.8 151.5 177.4 171.4 138.9 187.7 172.0 123.5 157.2 159.0 156.9 178.3 182.2 148.9 129.8 134.5 123.8 126.0 126.8 113.5 61.5† 64.5 59.0 11.5 12.6 16.9 13.0 14.1 19.6 11.3 12.2 14.8 14.8 19.3 22.0

 $^{^{\}star}\, \text{Explanation}$ of the computation of these data may be had upon request.

Per Capita Consumption of Foods

The per capita consumption of foods in terms of pounds tends to remain fairly stable, but the index of consumption weighted by the average retail prices of foods during the period 1935-39 has shown an upward trend over the past 35 years. This is due to the shift from cheaper foods, such as potatoes, flour, and other grain products to the more expensive types such as dairy products, fruits, and vegetables. For example, the per capita consumption of flour and other grain products during the past decade has averaged almost 24 per cent less than in 1910-14, whereas the per capita consumption of dairy products has been 20 per cent larger and that of fruits and vegetables 35 per cent larger.

The weighted index representing the total per capita consumption of foods in 1944 is estimated to be 110 or 7 per cent above that in 1935-39. The estimate does not include the production of food in city gardens. If the production in these gardens equals the 1943 estimates, 1944 consumption will be about equal to the record level in 1941.

Per Capita Consumption of Foods, by Major Food Groups,* 1910-1944† (Index Numbers 1910-14 == 100)

Year	Total	Dairy products	Meats, poultry, fish	Eggs	Potatoes, sweet potatoes	Fats and oils#	Flour, grain products	Fruits, vegetables	Total consumption in pounds
1910-14	100	100	100	100	100	100	100	100	100
1915-19	99	101	94	95	94	103	94	99	97
1920-24	102	109	95	101	92	101	85	107	99
1925-29	105	119	92	108	83	107	83	115	101
1930-34	102	114	91	100	81	107	76	115	98
1935-39	103	116	88	96	76	102	72	133	99
1940-44	110	124	97 、	105	74	115	75	137	103
1940	108	121	96	102	73	116	72	139	101
1941	111	123	97	100	72	114	73	145	103
1942	110	130	96	100	73	105	75	139	103
1943	109	124	98	110	76	119	78	129	103
1944§	110	124	98	110	76	121	78	135	105

^{*} Also includes sugar and other foods in addition to those listed.
† Based on data reported in "The National Food Situation No. 18."
Beginning in 1941 the estimates of consumption refer to civilian population, while data for earlier years refer to the total population.

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[†] Not included in the price index number.

[†]Figure for June, 1944.

[#] Excludes butter.

[§] Preliminary.