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# BALANCE SHEET of the FARMING SECTOR 1974



ECONOMIC RESEARCH SERVICE  
U.S. DEPARTMENT OF AGRICULTURE

## ABSTRACT

On January 1, 1974, farm proprietors owned equity totaling \$394.7 billion in assets worth \$478.8 billion after deducting \$84.1 billion in farm debt. Increases in equity (\$82.8 billion) and asset value (\$92.0 billion) from January 1, 1973, were records, far outstripping any other yearly gains. Over two-thirds (\$64.7 billion) of the increase in assets was due to a record 25-percent gain in real estate value, but livestock and crop values also increased rapidly mainly because of higher prices. Farm debt outstanding January 1, 1974, was \$9.2 billion above January 1, 1973, with real estate increasing more rapidly than nonreal estate debt. Interest charges of \$5.1 billion on farm debt in 1973 were sharply higher—18 percent—than in 1972, reflecting both the increased use of credit and higher interest rates. The 17.6-percent ratio of farm debt to value of assets on January 1, 1974, was down sharply from the 19.4-percent ratio on January 1, 1973, and was the second consecutive decrease since the ratio began a steady climb in 1958. The rapid rises in asset value and more moderate rises in farm debt during 1972 and 1973 caused the ratio to drop. Returns to equity in farm production assets jumped to 10.9 percent for 1973 from 4.7 percent in 1972, reflecting the faster rate of increase in gross farm income than in production expenses. Beginning with 1969, *The Balance Sheet of the Farming Sector* includes data for Alaska and Hawaii; formerly estimates were available for only the 48 contiguous States.

## FOREWORD

*The Balance Sheet of the Farming Sector* assembles into one financial statement the major farm asset inventory and liability accounts. This is the 30th issue in the series (formerly called *The Balance Sheet of Agriculture*). Comparable annual estimates are available beginning with 1940.

The balance sheet depicts only farming assets, debts, and equities of farm operators and landlords. Nonfarm property and debts of many manufacturers and others who supply farm production inputs or process farm products are not included. Lack of sufficient data prevents separation of debts or assets by owner-operator, tenant, and landlord, or separate estimates for farms with debt and those that are debt free.

Farmland and building values are from annual surveys reporting values as of March 1 each year. However, since the March 1 value has been consistently used in the balance sheet in lieu of the January 1 value of farm real estate, the trend is not affected.

Except for farm loans outstanding and reported by institutional lenders, items in the balance sheet are estimates. Some relatively minor items are not included because of lack of adequate data. Further details on estimating procedures used in the balance sheet are published in *Major Statistical Series of the U.S. Department of Agriculture: How They Are Constructed and Used*, Agr. Handbook 365.

Data are for 48 States through 1968; beginning with 1969 data for Alaska and Hawaii are included.

Within the past year, special studies were made of the financial aspects of the farming sectors of Alaska and Hawaii. Annual balance sheets of the farming sectors of Alaska and Hawaii were constructed for 1969-74. (See pages 36 and 44). After additional data are collected over the next several years, the balance sheet of the farming sector will cover the 50 States beginning with 1960.

Because of special problems related mainly to the geographical location of Alaska and Hawaii, the uniqueness of some of their farming enterprises, and some important data limitations, the initial estimates for these two States are admittedly rough. Improvements will be made, however, as more complete information is obtained.

This publication was prepared under the general supervision of Carson D. Evans, National Economic Analysis Division, Economic Research Service. Data on livestock inventories were prepared under the direction of W.H. Walther, Estimates Division, Statistical Reporting Service; Richard P. Small directed the preparation of crop inventory data. Mardy Myers, William C. Paddock, and Clinton F. Wells of the National Economic Analysis Division, Economic Research Service, were responsible for the data on farm income and value of farm machinery. Data on household equipment and furnishings were prepared to Lucile F. Mork under the direction of Frances Magrabi, Consumer and Food Economics Institute, Agricultural Research Service.

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# THE BALANCE SHEET OF THE FARMING SECTOR, 1974

By Carson D. Evans, Richard W. Simunek, Philip T. Allen and Robert D. Reinsel

## THE 1974 BALANCE SHEET IN GENERAL

*Between January 1, 1973, and January 1, 1974, farm asset value outgained farm debt \$92 billion to \$9 billion and lowered the ratio of debts to assets for the second consecutive year. But remove the effect of price rises and the asset gain in real terms was slight.*

The value of farm assets totaled \$478.8 billion on January 1, 1974, after posting a record \$92.0-billion gain from 1973 (table 1 and fig. 1). The 24-percent increase was almost double the 13-percent rise in 1972 and 3 times the more moderate growth rate of 8 percent during 1971.

Farm debt also chalked up a big increase during 1973. Total farm debt of \$84.1 billion at the beginning of 1974 was \$9.4 billion, or 12.4 percent higher than a year earlier. Both long-term and short-term types of debt shared in the increase.

Farm proprietors' equity showed a healthy \$82.6 billion gain over a year earlier, reflecting the larger gain in asset value. Equity of \$394.7 billion on January 1, 1974, was larger than the total value of all farm assets just 1 year earlier.

Because of the slight drop in the number of farms, the per farm value of assets, debt, and equity trended

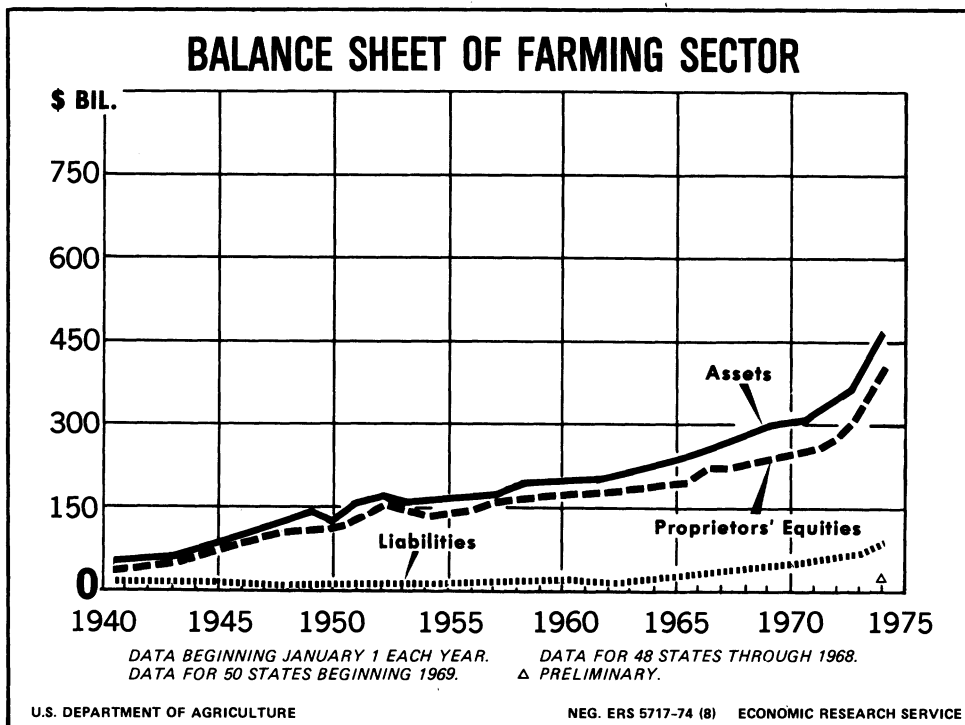


Figure 1

Table 1—Balance sheet of farming sector, January 1, selected years, 1940-74<sup>1</sup>

Item	1940	1950	1960	1970 <sup>2</sup>	1973 <sup>2</sup>	1974 <sup>3</sup>	Change	
							1973 to 1974	1973 to 1974 <sup>4</sup>
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Percent</i>
<b>ASSETS</b>								
Physical assets:								
Real estate .....	33.6	75.3	130.2	206.9	260.6	325.3	64.7	24.9
Non-real estate:								
Livestock and poultry .....	5.1	12.9	15.2	23.4	34.1	45.8	11.7	34.5
Machinery and motor vehicles .....	3.1	12.2	22.7	32.3	39.1	43.6	4.5	11.5
Crops stored on and off farms <sup>5</sup> .....	2.7	7.6	7.7	10.9	14.5	22.1	7.6	52.3
Household equipment and furnishings ...	4.2	8.6	9.6	9.7	11.9	13.6	1.7	14.1
Financial assets:								
Deposits and currency .....	3.2	9.1	9.2	11.9	14.0	14.9	.9	6.1
U.S. savings bonds .....	.2	4.7	4.7	3.7	4.0	4.0	.0	.0
Investments in cooperatives .....	.8	2.1	4.2	7.2	8.6	9.5	.9	10.2
<b>Total .....</b>	<b>52.9</b>	<b>132.5</b>	<b>203.5</b>	<b>306.0</b>	<b>386.8</b>	<b>478.8</b>	<b>92.0</b>	<b>23.8</b>
<b>CLAIMS</b>								
Liabilities:								
Real estate debt .....	6.6	5.6	12.1	29.2	35.8	41.3	5.5	15.4
Non-real estate debt:								
Excluding CCC loans .....	3.0	5.1	11.6	27.0	37.3	42.1	4.8	12.8
CCC loans <sup>6</sup> .....	.4	1.7	1.1	2.7	1.8	.7	-1.1	-58.1
<b>Total liabilities .....</b>	<b>10.0</b>	<b>12.4</b>	<b>24.8</b>	<b>58.9</b>	<b>74.9</b>	<b>84.4</b>	<b>9.2</b>	<b>12.4</b>
<b>Proprietors' equities .....</b>	<b>42.9</b>	<b>120.1</b>	<b>178.7</b>	<b>247.1</b>	<b>311.9</b>	<b>394.7</b>	<b>82.8</b>	<b>26.5</b>
<b>Total .....</b>	<b>52.9</b>	<b>132.5</b>	<b>203.5</b>	<b>306.0</b>	<b>386.8</b>	<b>478.8</b>	<b>92.0</b>	<b>23.8</b>
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>		
Debt to asset ratio <sup>4</sup> .....	18.9	9.4	12.2	19.2	19.4	17.6	---	---

<sup>1</sup> For other years after 1940, see table 26. <sup>2</sup> Includes Alaska and Hawaii. <sup>3</sup> Preliminary. <sup>4</sup> Computed from unrounded data. <sup>5</sup> All crops held on farms including crops under loan to CCC, and crops held off farms as security for CCC loans. On Jan. 1, 1974

the latter totaled \$553 million. <sup>6</sup> Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in this balance sheet.

upward a little more sharply than the totals for the nation (table 2).

The major farm asset items have maintained approximately the same relative importance since 1940 (table 3 and fig. 2). Except for a few years around 1950, farm real estate value has accounted for close to two-thirds of total asset value. The value of physical assets other than real estate usually makes up about one-fourth of the total, with financial assets accounting for the remainder.

For the last 25 years, farm debt has been divided almost equally between long-term or real estate debt and short-term nonreal estate debt. Commodity Credit Corporation (CCC) loans have declined sharply after peaking at \$2.7 billion in 1969 and 1970.

### BALANCE SHEET COMPONENTS

Farm real estate value increased at an astounding 25-percent rate during 1973, with the \$65-billion jump

dwarfing gains for any other year. In fact, it was more than the total gain in value for 1969-72. The average value of farmland per acre rose from \$247 at the beginning of 1973 to \$310 at the beginning of 1974.

Livestock and poultry on farms January 1, 1974 were valued at \$45.8 billion, a hefty one-third increase in 1 year. The value of livestock on farms has fluctuated rather widely over the years, but the jump in value of nearly \$12 billion in 1973 was a record. Increases in the number of cattle and hogs on farms and sharply higher values per head combined to push total value to more than double livestock and poultry value on January 1, 1969.

Farmers spent record amounts to purchase farm machinery and motor vehicles during 1973, and that helped push total value on farms January 1, 1974, to \$43.6 billion, an increase of \$4.5 billion over a year earlier. Larger and higher valued items of machinery, equipment, and motor vehicles accounted for the

**Table 2.—Balance sheet of the farming sector: Average per farm, current prices, January 1, selected years 1940-1974<sup>1</sup>**

Item	1940	1945	1950	1955	1960	1965	1970 <sup>2</sup>	1974 <sup>2</sup>
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
<b>ASSETS</b>								
Physical assets:								
Real estate . . . . .	5,297	9,030	13,324	21,094	32,913	48,031	70,021	115,345
Non-real estate:								
Livestock & poultry . . . . .	808	1,510	2,283	2,409	3,845	4,290	7,929	16,827
Machinery & motor vehicles . . . . .	482	1,085	2,154	3,995	5,742	7,399	10,933	15,468
Crops stored on & off farms <sup>3</sup> . . . . .	420	1,120	1,344	2,073	1,956	2,747	3,697	7,821
Household equipment & furnishings . . . . .	663	936	1,524	2,147	2,421	2,573	3,291	4,827
Financial assets:								
Deposits & currency . . . . .	510	1,325	1,607	2,025	2,314	2,853	4,025	5,246
U.S. savings bonds . . . . .	39	566	836	1,068	1,177	1,253	1,266	1,417
Investment in cooperatives . . . . .	131	204	364	668	1,072	1,670	2,438	3,373
<b>Total . . . . .</b>	<b>8,350</b>	<b>15,776</b>	<b>23,436</b>	<b>35,479</b>	<b>51,440</b>	<b>70,817</b>	<b>103,600</b>	<b>169,744</b>
<b>CLAIMS</b>								
Liabilities:								
Real estate debt . . . . .	1,037	828	988	1,772	3,053	5,634	9,879	14,633
Non-real estate debt:								
Excluding CCC loans . . . . .	473	456	912	1,546	2,913	5,112	9,159	14,985
CCC loans <sup>4</sup> . . . . .	70	114	305	477	294	460	906	266
<b>Total liabilities . . . . .</b>	<b>1,580</b>	<b>1,398</b>	<b>2,205</b>	<b>3,795</b>	<b>6,260</b>	<b>11,206</b>	<b>19,944</b>	<b>29,882</b>
Proprietors' equities . . . . .	6,770	14,378	21,231	31,684	45,180	59,611	83,656	139,862
<b>Total . . . . .</b>	<b>8,350</b>	<b>15,776</b>	<b>23,436</b>	<b>35,479</b>	<b>51,440</b>	<b>70,817</b>	<b>103,600</b>	<b>169,744</b>
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Debt-to-asset ratio . . . . .	18.9	8.9	9.4	10.7	12.2	15.8	19.3	17.6

<sup>1</sup>Total values divided by total number of farms. <sup>2</sup>Includes Alaska and Hawaii. <sup>3</sup>All crops held on farms including crops under loan to CCC, and crops held off farms as security for CCC loans. <sup>4</sup>Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in this balance sheet.

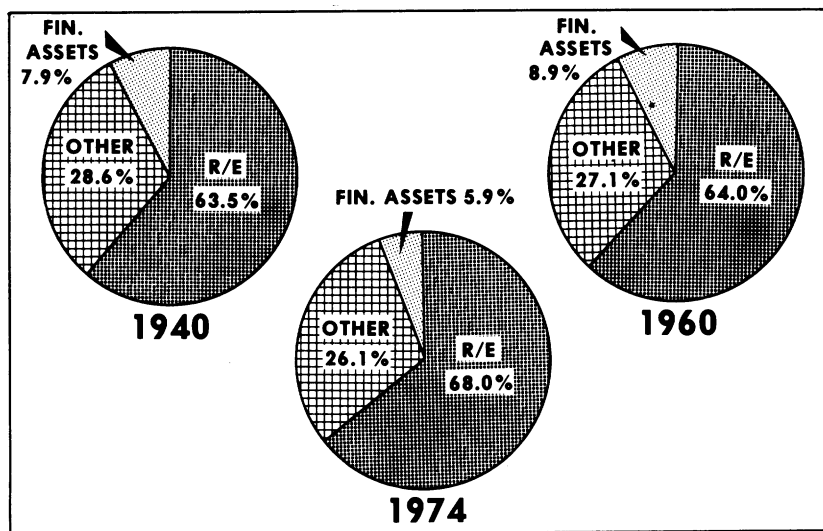
**Table 3—Balance sheet components as shares of total assets and liabilities, selected years, 1940-74**

Item	1940	1950	1960	1970 <sup>1</sup>	1973 <sup>1</sup>	1974 <sup>1 2</sup>
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
<b>ASSETS</b>						
Physical assets:						
Real estate . . . . .	63.5	56.9	64.0	67.6	67.4	68.0
Non-real estate:						
Livestock and poultry . . . . .	9.7	9.7	7.5	7.7	8.8	9.6
Machinery and motor vehicles . . . . .	5.9	9.2	11.1	10.4	10.1	9.1
Crops stored on & off farms <sup>3</sup> . . . . .	5.1	5.7	3.8	3.6	3.8	4.6
Household equipment and furnishings . . . . .	7.9	6.5	4.7	3.3	3.1	2.8
Financial assets:						
Deposits and currency . . . . .	6.0	6.9	4.5	3.9	3.6	3.1
U.S. savings bonds . . . . .	.4	3.6	2.3	1.2	1.0	.8
Investments in cooperatives . . . . .	1.5	1.5	2.1	2.3	2.2	2.0
<b>Total . . . . .</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>LIABILITIES</b>						
Real estate debt . . . . .	66.0	45.2	48.8	48.9	47.8	49.0
Non-real estate debt:						
Excluding CCC loans . . . . .	30.0	41.1	46.8	46.5	49.8	50.1
CCC loans <sup>4</sup> . . . . .	4.0	13.7	4.4	4.6	2.4	.9
<b>Total . . . . .</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup>Includes Alaska and Hawaii. <sup>2</sup>Preliminary. <sup>3</sup>All crops held on farms including crops under loan to CCC, and crops held off farms as security for CCC loans. <sup>4</sup>Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in balance sheet.



## BALANCE SHEET COMPONENTS



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Figure 2

higher total value, as numbers on farms changed only slightly from 1973 to 1974.

*Farmer-owned crop inventories* showed a striking 52-percent increase over January 1, 1973, values. The gain of \$7.6 billion, by far the largest gain since 1940, and with practically all crops sharing in the rise, placed total value of farmer-owned crops on January 1, 1974, at \$22.1 billion.

Most of the increase in total value of crops was due to sharp rises in price, but soybeans was one important crop which also showed a larger volume on hand January 1, 1974, than a year earlier. The inventory stocks of other important storable crops, such as wheat, corn, and cotton, declined between the two dates.

The value of *household equipment and furnishings* on farms showed an unusually large increase in value between 1973 and 1974—from \$11.6 billion to \$13.6 billion. The average value per farm increased a record \$630 as it moved from \$4,200 on January 1, 1973, to \$4,830 at the beginning of 1974.

*Financial assets* of farmers amounted to \$28.4 billion on January 1, 1974, up from \$26.6 billion a year earlier after rising at a rate that was slightly faster than usual since 1969. Bank deposits and currency account for the bulk of farmers' financial assets included in this balance sheet. Farmers' financial assets did not show as much gain as expected in view of the record \$32.2-billion realized net farm income in 1973. Evidently farmers made

unusually large cash purchases during 1973 or placed more than the usual portion of their cash reserves in financial institutions other than banks.

*Farm debt outstanding* at the beginning of 1974 was an impressive \$84.1-billion. Farm real estate debt and nonreal estate debt increased \$5.5 billion and \$4.8 billion, respectively, from a year earlier, but CCC loans dropped to \$0.7 billion, less than one-half the amount outstanding at the start of 1973.

*Debt secured by farm real estate* increased \$5.5 billion during 1973 and totaled \$41.3 billion on January 1, 1974. A strong demand for loans based on high farm income and optimism for the future plus an adequate, although somewhat high priced, supply of loan funds were the main contributors to the increase in farm mortgage loans outstanding. Much of the additional demand was identified with the purchase of farmland, which also was relatively high priced, and, therefore, required larger loans. Federal land banks, the leading institutional holder of farm mortgages, increased, their loans by 21 percent during 1973. Commercial bank, life insurance company, and Farmers Home Administration farm mortgage holdings increased also but not as rapidly. Lending by individuals and other miscellaneous lenders was up more than 18 percent.

*Nonreal estate farm debt*, excluding CCC loans, totaled \$42.1 billion on January 1, 1974, gaining 13 percent since January 1, 1973. Contributing strongly to the increase were loans for purchasing machinery,

motor vehicles, and livestock. Also, farmers had to pay higher prices for most farm operating items, such as, fertilizer, fuel, labor and repairs, much of which was financed through loans.

Banks continued as the leading nonreal estate lender. Production credit associations posted large gains in loans held during 1973, although not matching the volume or percentage rise of bank farm loans. Loans held by merchants, dealers and other miscellaneous lenders increased at a much slower rate than usual.

*Equity* owned by proprietors in their farm assets increased at a slightly faster rate than did assets and totaled \$394.7 billion at the beginning of 1974. Gains in farm real estate equity accounted for nearly three-fourths of the total \$82.8-billion increase.

On January 1, 1974, the farm debt-to-asset ratio dropped to 17.6 percent from 19.4 percent at the beginning of 1973 and 19.8 percent on January 1, 1972. The downward movement of the ratio in 1973 and 1974 countered a steady upward trend which began in 1958.

### Farm Assets in 1967 Prices

When stated in 1967 prices, the value of total farm assets for the 48 conterminous States on January 1, 1974, was \$275.4 billion, an increase of only \$0.6 billion in the last year. Practically all of the \$91.9-

billion gain in current prices was accounted for by higher prices (table 4 and fig. 3). Because of the lack of data, asset values in 1967 prices are for 48 States only.

A \$2.1-billion gain in value of physical assets other than real estate and a \$0.3-billion increase in farmland value in constant prices was largely offset by a \$1.8-billion decline in the purchasing power of financial assets. Farmers' increased expenditures for tractors and other machinery were the major cause for the rise in value of physical assets other than real estate when measured in constant prices. Because of the extensive purchases of new and larger units of machinery, the real value of those purchases more than offset the value of machinery replaced and depreciation of older machinery on hand.

Mainly because of improvements in land, including that brought out of retirement from government programs, the increase in the constant dollar value of farm real estate was more than in other recent years.

The decrease in the buying power of the dollar more than offset the increase in farmers' financial assets, and the gain of \$1.7 billion in current dollars from 1973 to 1974 translated into a decline of \$1.8 billion when converted to 1967 dollars.

Over the period 1969-74, the value of farm assets in current prices rose \$210.7 billion. Of that amount, \$202.1 billion, or 96 percent, was due purely to increase in prices (table 5).

## THE BALANCE SHEET IN DETAIL

*The big gun influencing the record gain in farm asset value was real estate, but also making a mark were livestock, machinery, and stored crops. Farm mortgage debt rose a little more than nonreal estate debt, but neither went up unusually; conversely, CCC loans were cut in half. Proprietors' equity increased almost as much as assets.*

### Assets

#### Farm Real Estate

The market value of all farm real estate reached \$325.3 billion on March 1, 1974, up \$64.7 billion from a year earlier. The average value per acre increased by 25 percent to reach \$310 by March 1, and the value of a farm operating unit, including owned and rented land, averaged \$125,500, or 26 percent more than in March 1973 (fig. 4).

Unusually high commodity prices, record high net farm income in 1973, and buyer optimism over the long-term outlook for farm income were the main causes of the increase in real estate value. But, also, some investors facing a rapid rate of inflation in the general economy apparently shifted funds into farm real estate as an inflation hedge.

The rate of voluntary and estate transfers of farm real estate increased slightly from 1973, but the decline in the number of farms offset the rate increase, leaving the total number of these transfers unchanged.

Although the number of transfers occurring during the year ended March 1, 1974, remained unchanged from the previous 12 months, the average size increased by 15 percent, as a total of 36.3 million acres valued at \$14.2 billion dollars changed hands during the year. Equity capital of \$4.9 billion plus \$9.3 billion in loan funds was used to finance these transactions.

Approximately 44 percent of these loan funds were provided by the sellers of the property and 25 percent by Federal land banks. Insurance companies and commercial banks provided about 10 percent each, with the remainder coming from other miscellaneous lenders. High interest rates throughout the year seemed to have little impact on real estate markets as land buyers' demand for loan funds remained strong.

Although individuals still accounted for the majority of the participants in the market, privately held corporations purchased an increasing percentage of the acreage transferred over the last 3 years. And their net holdings increased, because farmland purchases increased faster than sales.

**Table 4—Value of farm assets in 1967 prices, January 1, 1940-74**  
(48 States)

Item	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
<b>ASSETS</b>														
Physical assets:														
Real estate .....	156.4	157.1	157.8	158.5	159.2	159.9	159.6	161.2	162.8	164.7	166.5	168.0	169.3	171.0
Nonreal estate:														
Livestock <sup>1</sup> .....	14.9	15.2	16.1	17.4	18.2	17.2	16.6	16.0	15.3	15.1	15.3	16.0	16.8	17.3
Machinery and motor vehicles .....	9.1	9.4	10.7	10.2	9.4	9.5	10.1	11.0	13.4	16.6	19.7	22.2	24.2	24.8
Crops stored on and off farms <sup>2</sup> ..	6.4	7.2	7.0	8.1	7.7	8.2	7.5	7.5	6.4	8.5	8.3	7.8	7.5	7.9
Household equipment and furnishings .....	8.4	8.5	8.6	8.0	7.6	7.5	7.6	8.2	8.5	9.0	9.1	9.4	9.6	9.3
Financial assets:														
Deposits and currency .....	9.0	9.4	10.0	11.5	12.6	14.4	16.5	15.4	12.9	12.8	12.4	11.4	11.2	11.5
U.S. savings bonds .....	.7	.9	1.2	2.4	4.2	6.1	7.3	6.4	5.7	6.1	6.5	5.9	5.6	5.7
Investments in cooperatives .....	2.3	2.4	2.2	2.2	2.1	2.7	2.4	2.3	2.2	2.5	2.8	2.8	2.9	3.3
<b>Total .....</b>	<b>207.2</b>	<b>210.1</b>	<b>213.6</b>	<b>218.3</b>	<b>221.0</b>	<b>225.5</b>	<b>227.6</b>	<b>228.0</b>	<b>227.2</b>	<b>235.3</b>	<b>240.6</b>	<b>243.5</b>	<b>247.1</b>	<b>250.8</b>
Item	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
Physical assets:														
Real estate .....	172.4	173.6	174.5	175.4	176.1	176.7	177.4	178.0	178.6	179.3	180.0	180.7	181.0	181.7
Nonreal estate:														
Livestock <sup>1</sup> .....	17.3	17.5	17.5	16.9	16.6	17.2	17.7	17.4	17.8	18.5	18.9	18.7	18.6	18.9
Machinery and motor vehicles .....	26.2	26.5	26.7	26.1	25.6	25.7	26.3	25.8	25.4	25.3	25.5	25.9	26.6	27.4
Crops stored on and off farms <sup>2</sup> ..	8.8	9.1	9.0	8.7	9.6	11.1	9.7	10.3	10.7	10.9	11.1	9.5	10.9	10.0
Household equipment and furnishings .....	9.3	9.7	10.1	9.7	9.6	9.5	9.2	8.8	9.1	9.0	9.0	8.7	8.7	8.4
Financial assets:														
Deposits and currency .....	11.6	11.6	11.9	11.3	11.2	11.5	10.4	9.9	9.9	10.0	10.0	10.3	10.4	10.3
U.S. savings bonds .....	5.8	6.1	6.5	6.1	6.0	6.1	5.3	5.3	5.0	4.9	4.6	4.5	4.2	3.9
Investments in cooperatives .....	3.5	3.7	4.0	4.2	4.3	4.5	4.8	5.1	5.4	5.5	5.8	6.0	6.1	6.2
<b>Total .....</b>	<b>254.9</b>	<b>257.8</b>	<b>260.2</b>	<b>258.4</b>	<b>259.0</b>	<b>262.2</b>	<b>260.8</b>	<b>260.6</b>	<b>261.9</b>	<b>263.4</b>	<b>264.9</b>	<b>264.3</b>	<b>266.3</b>	<b>266.8</b>
Item	1968	1969	1970	1971	1972	1973	1974							
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>							
Physical assets:														
Real estate .....	182.0	182.2	182.4	182.7	182.9	183.0	183.3							
Nonreal estate:														
Livestock <sup>1</sup> .....	19.1	19.3	19.5	20.2	20.5	20.9	21.8							
Machinery and motor vehicles .....	28.5	28.6	28.6	28.8	28.6	28.8	30.0							
Crops stored on and off farms <sup>2</sup> ..	11.4	12.7	12.8	11.1	13.0	12.5	12.0							
Household equipment and furnishings .....	8.7	9.0	8.8	8.9	9.4	9.8	10.3							
Financial assets:														
Deposits and currency .....	10.8	10.8	10.6	10.6	10.6	10.4	9.5							
U.S. savings bonds .....	3.7	3.5	3.3	3.1	3.0	3.0	2.5							
Investments in cooperatives .....	6.4	6.4	6.4	6.5	6.5	6.4	6.0							
<b>Total .....</b>	<b>270.6</b>	<b>272.5</b>	<b>272.4</b>	<b>271.9</b>	<b>274.5</b>	<b>274.8</b>	<b>275.4</b>							

<sup>1</sup> Beginning with 1961, horses and mules are excluded. <sup>2</sup> Includes all crops held on farms and crops held off farms by farmers as security for CCC loans.

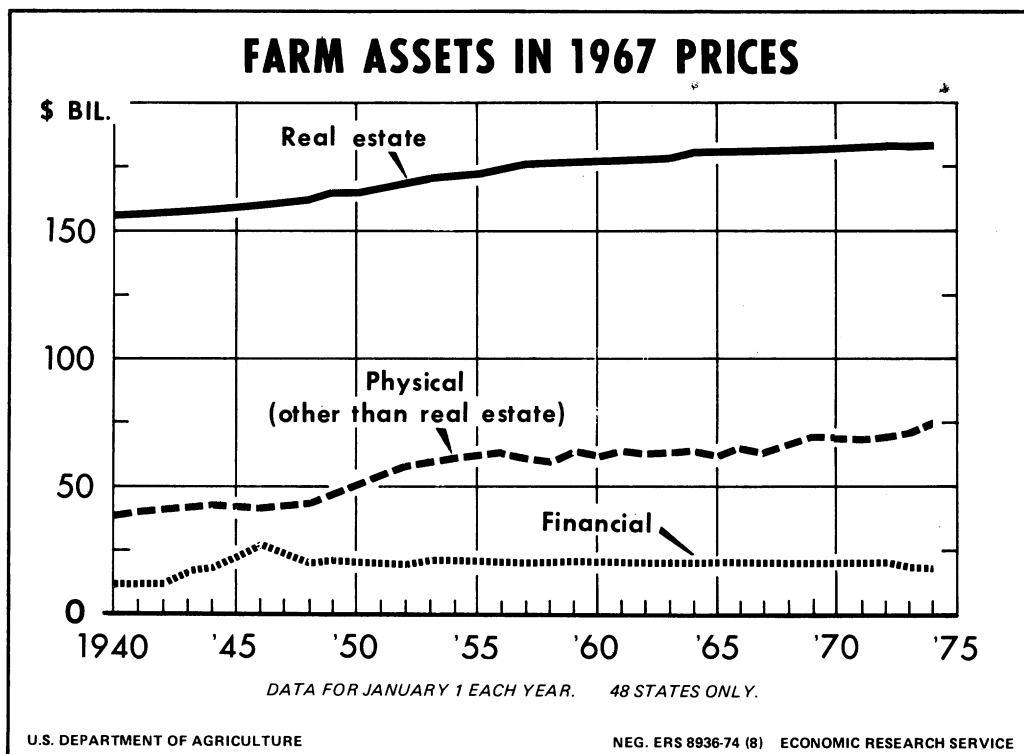


Figure 3

**Table 5—Value of farm assets in current and constant 1967 prices and changes due to higher prices, January 1, 1967, 1973, and 1974 (48 States)**

Item	1967	1973	1974	Change		Percentage distribution of change <sup>1</sup>	
				1967 to 1974	1973 to 1974	1967 to 1974	1973 to 1974
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Percent</i>	<i>Percent</i>
<b>Real estate:</b>							
Value in current prices . . . . .	181.7	259.5	324.2	142.5	64.7	100.0	100.0
Value in 1967 prices . . . . .	181.7	183.0	183.3	1.6	.3	1.1	.5
Increase due to higher prices . . . . .	.0	76.5	140.9	140.9	64.4	98.9	99.5
<b>Physical assets other than real estate:</b>							
Value in current prices . . . . .	64.7	99.5	125.0	60.3	25.5	100.0	100.0
Value in 1967 prices . . . . .	64.7	72.0	74.1	9.4	2.1	15.6	8.3
Increase due to higher prices . . . . .	.0	27.5	50.9	50.9	23.4	84.4	91.7
<b>Financial assets:</b>							
Value in current prices . . . . .	20.4	26.6	28.3	7.9	1.7	100.0	100.0
Value in 1967 prices . . . . .	20.4	19.8	18.0	-2.4	-1.8	.0	.0
Increase due to higher prices . . . . .	.0	6.8	10.3	10.3	3.5	100.0	100.0
<b>Total:</b>							
Value in current prices . . . . .	266.8	385.6	477.5	210.7	91.9	100.0	100.0
Value in 1967 prices . . . . .	266.8	274.8	275.4	8.6	.6	4.1	.7
Increase due to higher prices . . . . .	.0	110.8	202.1	202.1	91.3	95.9	99.3

<sup>1</sup> Computed from unrounded data.

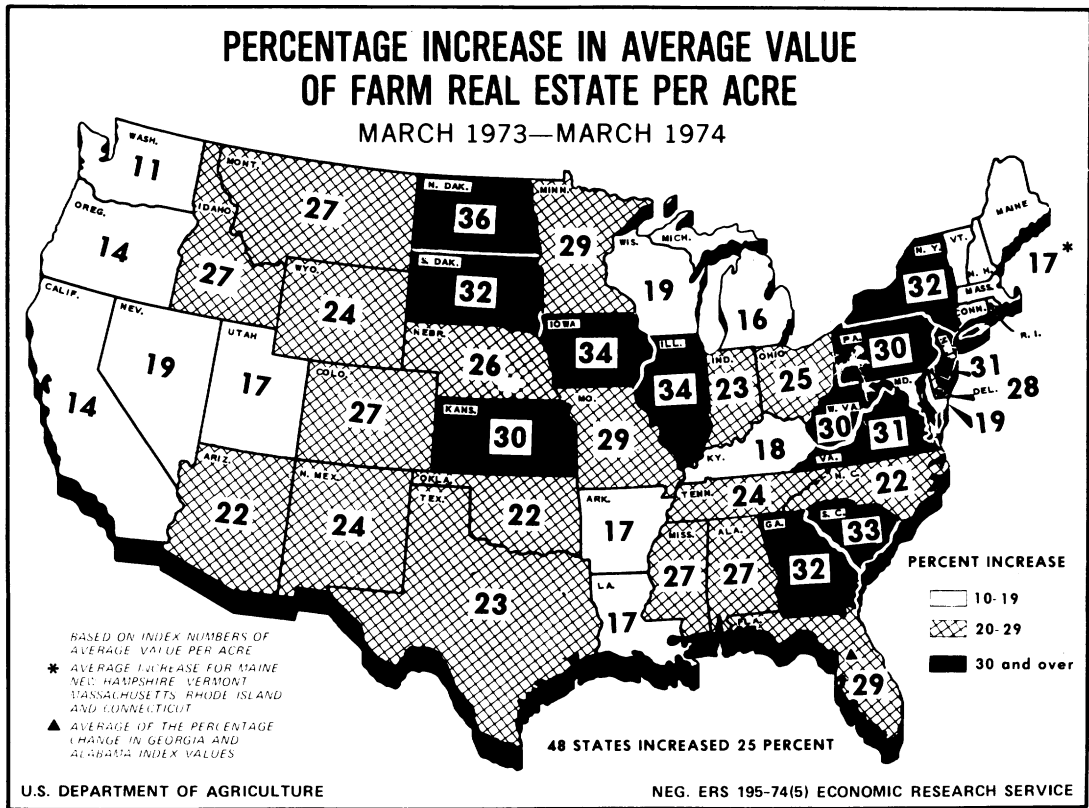


Figure 4

Publicly held corporations bought and sold about 1 percent of the land transferred in 1973, about the same percentage as in the last several years.

### Livestock and Poultry Inventory

At the beginning of 1974, the value of livestock and poultry totaled \$45.8 billion, up 34 percent from a year earlier (table 6). During 1973, the value of cattle and

calves jumped \$10.3 billion; hogs and pigs \$1.2 billion; and sheep, lambs, chickens, and turkeys, \$0.3 billion. The record \$11.7-billion inventory increase between 1973 and 1974 greatly exceeded the \$6.8-billion increase between 1971 and 1972, also a record.

Largely responsible for the 34-percent gain in cattle value was the 27-percent increase between 1973 and 1974 in the value per head of cattle and calves on farms (fig.5). Although cattle on feed declined 6.

Table 6—Livestock and poultry on farms: Number, value per head, and total value, January 1, 1972-74

Class	1972 <sup>1</sup>			1973 <sup>1</sup>			1974		
	Number	Value per head	Total value	Number	Value per head	Total value	Number	Value per head	Total value
	1,000 head	Dollars	Million dollars	1,000 head	Dollars	Million dollars	1,000 head	Dollars	Million dollars
Cattle and calves	117,608	208.00	24,462	121,283	251.75	30,533	127,291	320.80	40,834
Hogs <sup>2</sup>	62,444	28.50	1,780	59,120	41.96	2,481	60,960	60.23	3,672
All sheep	18,691	22.90	428	17,708	26.40	467	16,531	32.70	541
Chickens <sup>3</sup>	424,135	1.23	522	404,874	1.28	518	410,996	1.62	666
Turkeys <sup>4</sup>	3,370	6.23	21	3,303	6.50	21	3,605	9.58	35
Total	---	---	27,213	---	---	34,020	---	---	45,748

<sup>1</sup> Revised. <sup>2</sup> Beginning with 1970, estimates of hogs and pigs on farms January 1 were discontinued. Hogs and pigs data relate to December 1 of the preceding year. <sup>3</sup> Excludes commercial broilers. <sup>4</sup> All turkey breeder hens on farms December 1 of the

preceding year. Estimates of total turkeys were discontinued in 1971.

Source: Statistical Reporting Service.

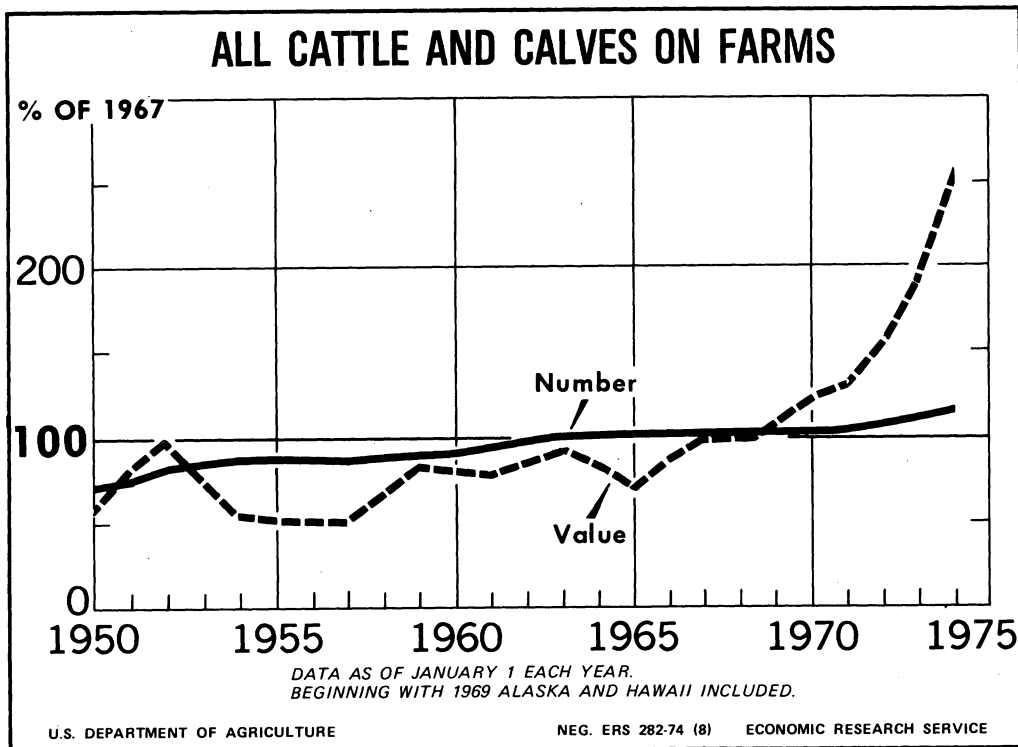


Figure 5

percent and dairy cows 3 percent, these declines were more than offset by the 5-percent increase in other cattle. From January 1, 1970, to January 1, 1974, the inventory value of all livestock and poultry on farms rose \$22.3 billion, with cattle and calves accounting for 95 percent of the increase. The number of cattle and calves on farms rose 14 percent, but value per head rose 79 percent—from \$179 per head in 1970 to \$321 in 1974. Prior to 1970, the highest value per head was recorded in 1952, also \$179.

A record high value per head of \$60.20, up 43 percent from 1973, caused total value of hogs and pigs on farms January 1, 1974, to rise to an unprecedented \$3.7 billion (fig. 6). The previous high values per head were \$42.90 in 1948, \$45.20 in 1966, and \$42.00 in 1973; no other year exceeded \$40 per head. The number of hogs and pigs on farms rose 3 percent after declining 2 years. Market hogs and pigs gained 4 percent over 1973, but the number of breeding hogs and pigs remained about the same.

The number of sheep and lambs on farms continued their gradual decline, dropping 7 percent from 1973. However, value per head jumped from \$26.40 in 1973 to \$32.70 in 1974, causing total value to rise to \$541 million from \$467 million. The value of turkeys and chickens, excluding commercial broilers, increased 30 percent from 1973 to 1974, thus halting a 3-year decline in value.

### Motor Vehicles and Machinery on Farms

On January 1, 1974, the value of motor vehicles and machinery on farms totaled \$43.6 billion, up 11 percent from 1973 and 4.0 percent above 1964 (table 7).

Except for automobiles, all classes of motor vehicles and machinery increased in value over 1973. Tractor value jumped 17 percent (in contrast with a 5-percent rise in 1972), motortruck value rose 9 percent, and other farm machinery gained 14 percent. Mainly because of the fuel shortage, total automobile value on farms dropped 8 percent. Most classes of farm machinery declined in number as the shift to larger and more efficient sizes continued (table 8). For example, the average horsepower of farm wheel tractors sold in 1973, excluding garden tractors, was 82, compared with 55 in 1963, an increase of 49 percent. Only 4 percent of the farm wheel tractors sold in 1963 were rated 90 horsepower or more, compared with 44 percent in 1973. Purchases of tractors during 1973 increased 33 percent; trucks, 9 percent; automobiles, 7 percent; and other machinery and equipment, 41 percent.

Farmers boosted capital expenditures for farm production purposes including motor vehicles and machinery, from \$7.9 billion in 1972 to \$10.4 billion in 1973, a 31-percent increase. The \$2.5-billion increase

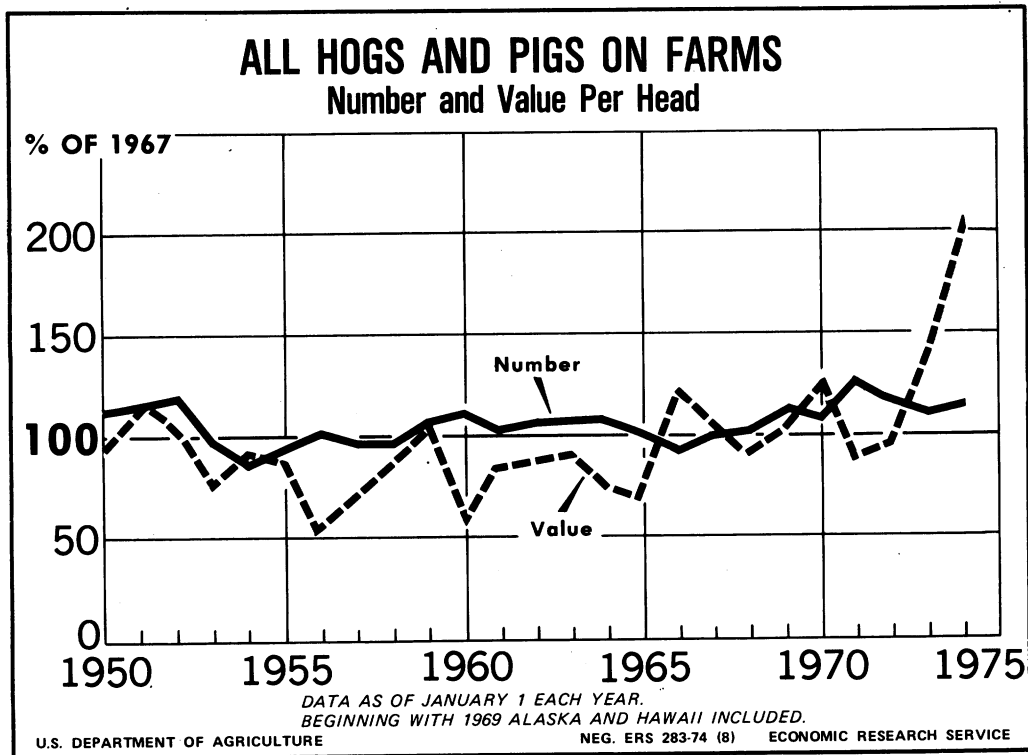


Figure 6

Table 7—Value of motor vehicles and specified machines on farms January 1, specified years, 1940-74<sup>1</sup>

Year	Automobiles	Motortrucks	Tractors	Other farm machinery	Total
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>
1940 .....	958	262	503	1,337	3,060
1945 .....	1,144	590	1,557	3,183	6,474
1950 .....	2,313	1,446	2,905	5,502	12,166
1955 .....	4,310	1,898	4,270	8,197	18,675
1960 .....	4,757	2,469	5,419	10,067	22,712
1961 .....	4,190	2,551	5,232	10,198	22,171
1962 .....	4,274	2,660	5,208	10,340	22,482
1963 .....	4,655	2,841	5,409	10,513	23,418
1964 .....	4,632	2,806	5,612	10,849	23,899
1965 .....	4,554	2,973	5,856	11,410	24,793
1966 .....	4,509	2,939	6,305	12,215	25,968
1967 .....	4,157	2,908	7,011	13,329	27,405
1968 .....	4,230	3,097	7,521	14,920	29,768
1969 .....	4,184	3,250	7,939	15,898	31,271
1970 .....	4,303	3,243	7,997	16,756	32,299
1971 .....	4,575	3,639	8,080	18,078	34,372
1972 .....	4,732	3,892	8,635	19,353	36,612
1973 .....	5,055	4,177	9,084	20,824	39,140
1974 <sup>2</sup> .....	4,665	4,547	10,618	23,798	43,628
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Percent change:					
1969-74 .....	11	40	34	50	40
1973-74 .....	-8	9	17	14	11

<sup>1</sup>Includes Alaska and Hawaii beginning with 1969. <sup>2</sup>Preliminary.

**Table 8—Motor vehicles and specified machines on U.S. farms, January 1, selected years, 1940-74**

Year	Motortrucks	Tractors <sup>1</sup>	Grain combines <sup>2</sup>	Cornpickers and picker shellers	Pickup balers	Field forage harvesters
	<i>Thousand</i>	<i>Thousand</i>	<i>Thousand</i>	<i>Thousand</i>	<i>Thousand</i>	<i>Thousand</i>
1940 .....	1,047	1,567	190	110	---	---
1945 .....	<sup>3</sup> 1,490	<sup>3</sup> 2,354	<sup>3</sup> 375	168	42	20
1950 .....	<sup>3</sup> 2,207	<sup>3</sup> 3,394	<sup>3</sup> 714	<sup>3</sup> 456	<sup>3</sup> 196	81
1955 <sup>3</sup> .....	2,675	4,345	980	688	448	202
1960 .....	<sup>3</sup> 2,834	<sup>3</sup> 4,688	1,042	792	680	290
1965 .....	<sup>3</sup> 3,030	<sup>3</sup> 4,787	910	690	751	316
1966 .....	3,017	4,783	888	686	752	316
1967 .....	3,009	4,786	867	680	748	319
1968 .....	3,016	4,766	847	673	739	321
1969 .....	3,004	4,712	820	657	726	314
1970 .....	<sup>3</sup> 2,984	<sup>3</sup> 4,619	790	<sup>3</sup> 635	<sup>3</sup> 711	304
1971 .....	2,968	4,562	760	<sup>4</sup> 618	<sup>4</sup> 687	300
1972 .....	2,943	4,469	725	<sup>4</sup> 612	<sup>4</sup> 663	298
1973 .....	2,915	4,387	701	607	642	292
1974 <sup>5</sup> .....	2,906	4,376	698	603	633	295
1975 .....						
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Change						
1969-74 .....	-3	-7	-15	-8	-13	-6
1973-74 .....	<sup>6</sup>	<sup>6</sup>	<sup>6</sup>	-1	-1	-1

<sup>1</sup>Excludes garden tractors. <sup>2</sup>Includes corn heads for combines. <sup>3</sup>Census of Agriculture. Census dates: January 1, 1945; April 1, 1940 and 1950; November 1954, 1959, 1964, and

1969. <sup>4</sup>Revised. <sup>5</sup>Preliminary. <sup>6</sup>Less than one-half of one percent.

in capital expenditures was a record, surpassing the former record \$1.2 billion-increase in 1947. The latter increase was caused by delayed war-time purchases, whereas the former was due to record-high farm income.

Based on data collected in the 1971 Farm Production Expenditure Survey, the value of motor vehicles and machinery on farms was revised beginning with 1960. Adjustments were small, but, in general, the value of other machinery and equipment was adjusted upward, motortrucks, downward, and tractor and automobile values remained about the same. The net effect of these adjustments was a slight gain in the total value of motor vehicles and machinery for most years. Comparisons with previously published figures can be made by referring to the 1973 *Balance Sheet of the Farming Sector*, table 7, page 10.

### Crop Inventory

Farmer-owned inventories of stored crops were valued at a record \$22.1 billion at the beginning of 1974, half again as much as a year earlier and double the value on January 1, 1969 (table 9). All crops contributed to the increase in value of \$7.5 billion over 1973, but three crops accounted for over three-fourths of the total gain. Corn gained \$2.7 billion; soybeans, \$1.9 billion; and hay and forage, \$1.3 billion.

Price increases were the major cause of the jump in value of crop inventory. Although there were substantial increases in prices of the more important stored crops from December 15, 1971, to December 15, 1972 (except for cotton), increases between December 15, 1972, and December 15, 1973, were even larger:

Crop	U.S. average price on December 15			Change 1972 to 1973	
	1971	1972	1973	Dollars	Per cent
Wheat, bu. ....	1.34	2.38	4.78	2.40	101
Oats, bu. ....	.62	.81	1.32	.51	63
Soybeans, bu. ...	2.93	3.95	5.87	1.92	49
Hay, ton .....	26.10	33.00	47.10	14.10	43
Cotton (American upland), lb. ...	.29	.26	.57	.31	119
Corn, bu. ....	1.08	1.42	2.59	1.17	82
Potatoes, cwt. ...	1.85	2.64	4.67	2.03	77

There were also increases in the volume of some crops held by farmers on January 1, 1974, compared with a year earlier. The most notable increase was the 45-percent increase in soybeans held, probably due to some farmers withholding sales until after the first of



**Table 9—Value of U.S. crop inventories, January 1, selected years, 1945-74<sup>1</sup>**

Crop	1945	1950	1955	1960	1965	1970	1973	1974 <sup>2</sup>
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>
Corn .....	2,191	2,736	2,889	2,884	3,168	3,612	5,295	8,001
Other feed grains <sup>3</sup> ..	711	740	1,082	838	776	885	1,118	1,486
Total feed grains ...	2,902	3,476	3,971	3,722	3,944	4,497	6,413	9,487
Wheat .....	729	1,063	1,218	911	635	1,352	1,210	1,774
Other food grains <sup>4</sup> .	25	23	71	55	67	134	160	313
Total food grains ...	754	1,086	1,289	966	702	1,486	1,370	2,087
Soybeans .....	87	137	419	419	535	1,158	1,818	3,747
Other oil crops <sup>5</sup> ...	84	134	100	51	110	70	59	95
Total oil crops .....	171	271	519	470	645	1,228	1,877	3,842
Hay and forage <sup>6</sup> ...	1,805	1,758	2,101	2,062	2,455	2,862	3,578	4,875
Cotton .....	565	537	1,379	167	906	368	665	869
Vegetables <sup>7</sup> .....	157	191	133	194	358	283	355	576
Tobacco .....	270	186	180	103	145	146	176	185
Miscellaneous <sup>8</sup> .....	58	85	74	52	49	50	45	136
Total all crops .....	6,682	7,590	9,646	7,736	9,204	10,920	14,479	22,057

<sup>1</sup> All crops stored on farms including crops under loan to the CCC, and farmer-owned crops in off-farm storage under CCC loan. Includes Alaska and Hawaii beginning with 1970. <sup>2</sup> Preliminary. <sup>3</sup> Barley, grain sorghum, and oats. <sup>4</sup> 1945-60, buckwheat, rye, and rice; 1965-74, rye and rice. <sup>5</sup> Cottonseed,

flaxseed, and peanuts. <sup>6</sup> All hay, corn silage, corn forage, sorghum silage, and sorghum forage. <sup>7</sup> Cabbage, onions, and potatoes. <sup>8</sup> Broomcorn, dry edible beans, dry field peas, tung oil (prior to 1971), and seeds for hay and pasture crops.

1974 for tax purposes. Potato and hay stocks were also larger but nowhere close to soybeans stocks:

Crop	Farmer-owned stored crops, January 1		Percentage change 1973 to 1974
	1973	1974	
	<i>Millions</i>	<i>Millions</i>	<i>Percent</i>
Wheat, bu. ....	545	376	-31
Oats, bu. ....	557	473	-15
Soybeans, bu. ....	459	664	45
Hay, ton .....	89	93	5
Cotton (American upland), lb. ....	2,614	1,764	-32
Corn, bu. ....	3,797	3,375	-11
Potatoes, cwt. ....	133	155	16

The relationship between the volume and value of four important stored crops can be seen in figure 7. For 1969-74, the volume and value movements were relatively the same until 1973, for wheat, soybeans, and hay, but to a lesser extent for corn. For 1973 and 1974, value increased at a faster rate than volume due to rapid gains in prices.

On January 1, 1974, the value of crops stored on farms made up 97.5 percent of total farmer-owned crop inventory. A year earlier, the onfarm portion was 93 percent. While onfarm and total crop value increased over 50 percent from 1973 to 1974, value of farmer-owned crops stored off-farm under CCC loans

increased only slightly, from \$534 million on January 1, 1973, to \$553 million on January 1, 1974.

### Household Equipment and Furnishings

A record increase of \$1.7 billion from 1973 carried the value of farmers' household equipment and furnishings to \$13.6 billion on January 1, 1974 (table 10). The value per farm also rose a record amount as it

**Table 10—Household equipment and furnishings on farms: Total value and value per farm, January 1, selected years, 1940-74<sup>1</sup>**

Year	Total value	Value per farm
	<i>Million dollars</i>	<i>Dollars</i>
1940 .....	4,213	660
1945 .....	5,584	940
1950 .....	8,610	1,520
1955 .....	9,992	2,150
1960 .....	9,576	2,420
1965 .....	8,623	2,590
1966 .....	8,574	2,650
1967 .....	8,413	2,660
1968 .....	9,046	2,970
1969 .....	9,584	3,200
1970 .....	10,122	3,430
1971 .....	10,289	3,540
1972 .....	11,002	3,830
1973 .....	11,936	4,200
1974 <sup>2</sup> .....	13,615	4,830
1975 .....		

<sup>1</sup> Includes Alaska and Hawaii beginning with 1969. <sup>2</sup> Preliminary.

Source: Agricultural Research Service.

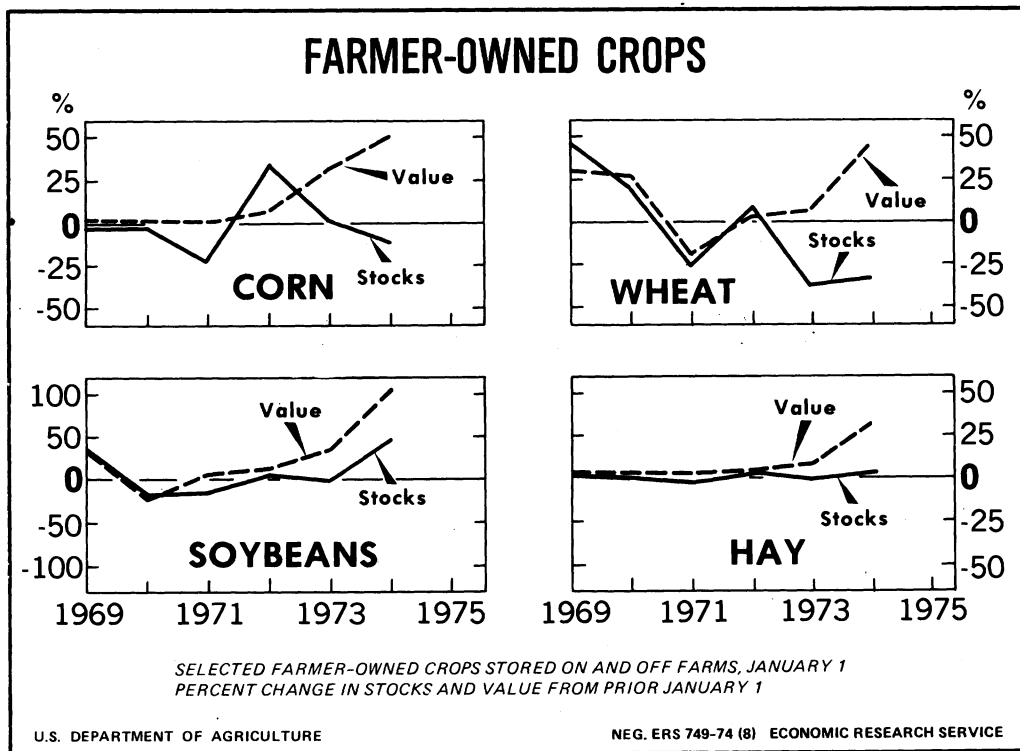


Figure 7

jumped over \$600 and reached \$4,830 at the beginning of 1974. The rate of gain was slightly higher per farm than for total farms—15 percent and 14 percent, respectively—because the drop in number of farms was slightly more than offset by the higher value of equipment and furnishings in individual farm households.

#### Financial Assets

On January 1, 1974, farmers' liquid financial assets as represented by their holdings of currency, bank deposits, and U.S. savings bonds were a record \$18.9 billion (table 11). The \$0.9-billion increase from a year earlier did not match the record \$1.2-billion rise during 1972, however, as only bank demand and time deposits showed gains during 1973.

The moderate gain in farmers' liquid financial assets during 1973 was somewhat less than might be expected in view of their record high net farm income. Some of the explanation may lie in their unusually high cash purchases of machinery during 1973. By using their own money rather than borrowing at the relatively high interest rates in effect most of the year, farmers could eliminate some interest and thereby hold down operating expenses. Too, although new equipment sales were brisk, there was reportedly more than the usual number of sales of used farm equipment among farmers, and those sales probably involved less credit financing than purchases of new

items. Some of the extra income also may have been used for larger than usual down payments on purchases of farmland. And with the high farm income of 1973, probably a larger number of farmers paid cash for certain items such as fertilizer and fuel before the beginning of 1974 for tax purposes.

One reason farmers' bank demand deposits did not show a larger increase in 1973 than in 1972 might have been the time of year some farmers received some of their extra 1972 farm income. Farm income for 1972 was substantially higher than for 1971, but most of the gain occurred late in the year, and farmers may have carried an unusually large amount of money into 1973 in the form of bank checking accounts, thus causing the abnormally large increase in their bank demand deposits during 1972.

Farmer-owned bank time deposits showed a substantial rise from January 1, 1973, to January 1, 1974, but maybe not as much as expected considering the abnormally high 1973 net farm income. Instead of depositing their savings in banks, some farmers may have put more in savings and loan associations, other thrift institutions, or possibly U.S. Treasury bonds, or corporate stocks, but there are no data to substantiate this.

Evidence does indicate, however, that farmers did not invest any more heavily in U.S. savings bonds in 1973 than earlier years. In fact, it is estimated that the value of their bonds redeemed for cash just about

Table 11—Selected financial assets owned by U.S. farmers, January 1, selected years, 1940-74<sup>1</sup>

Year	Liquid financial assets					Net worth of selected farmer cooperatives	Total financial assets
	Currency	Demand deposits <sup>2</sup>	Time deposits	U.S. savings bonds	Total		
	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars
1940 .....	0.7	1.3	1.2	0.2	3.4	0.8	4.2
1945 .....	2.6	3.6	1.7	3.4	11.3	1.2	12.5
1950 .....	2.5	4.5	2.1	4.7	13.8	2.1	15.9
1955 .....	2.2	4.7	2.5	5.0	14.4	3.1	17.5
1960 .....	1.9	4.3	2.9	4.7	13.8	4.2	18.0
1965 .....	1.9	4.0	3.7	4.2	13.8	5.6	19.4
1966 .....	1.9	4.1	4.0	4.0	14.0	5.9	19.9
1967 .....	1.9	4.1	4.3	3.9	14.2	6.2	20.4
1968 .....	1.9	4.2	4.8	3.8	14.7	6.5	21.2
1969 .....	2.0	4.3	5.2	3.8	15.2	6.8	22.1
1970 .....	2.0	4.4	5.5	3.7	15.6	7.2	22.8
1971 .....	2.0	4.5	5.9	3.6	16.0	7.6	23.6
1972 .....	2.1	4.5	6.6	3.7	16.8	8.1	25.0
1973 .....	2.2	4.7	7.1	4.0	18.0	8.6	26.6
1974 <sup>3</sup> .....	2.2	4.9	7.8	4.0	18.9	9.5	28.4
1975 .....							

<sup>1</sup>Data for 50 States beginning with 1969. <sup>2</sup>Figures for 1940 and 1965-74, estimated by USDA. Demand deposits for other years are estimates of the Board of Governors of the Federal Reserve System. <sup>3</sup>Preliminary.

equalled new purchases plus accrued interest, so the amount owned by farmers on January 1, 1974, was about the same as a year earlier.

On January 1, 1974, the net worth of farmer cooperatives had increased to \$9.5 billion after gaining 10 percent from January 1, 1973, a little larger annual growth than usual. As a group, farmers' marketing and purchasing cooperatives accounted for about 40 percent of total net worth of farmers cooperatives. The three credit cooperative groups, production credit associations, Federal land banks, and Federal land bank associations, made up a little over 25 percent, and rural electric cooperatives a little over 20 percent of total net worth of farmer associations.

### Claims

Two general kinds of claims—liabilities and equity—balance the value of assets in the farming sector. Liabilities are composed of real estate or farm mortgage debt, and nonreal estate debt, including CCC loans. Equity is the unencumbered amount owned by proprietors in farm assets. Farm proprietors are mainly individuals but also include corporations and agencies of Federal, State, and local governments, with as much as one-third of farm real estate owned by nonfarm landlords.

### Total Farm Debt

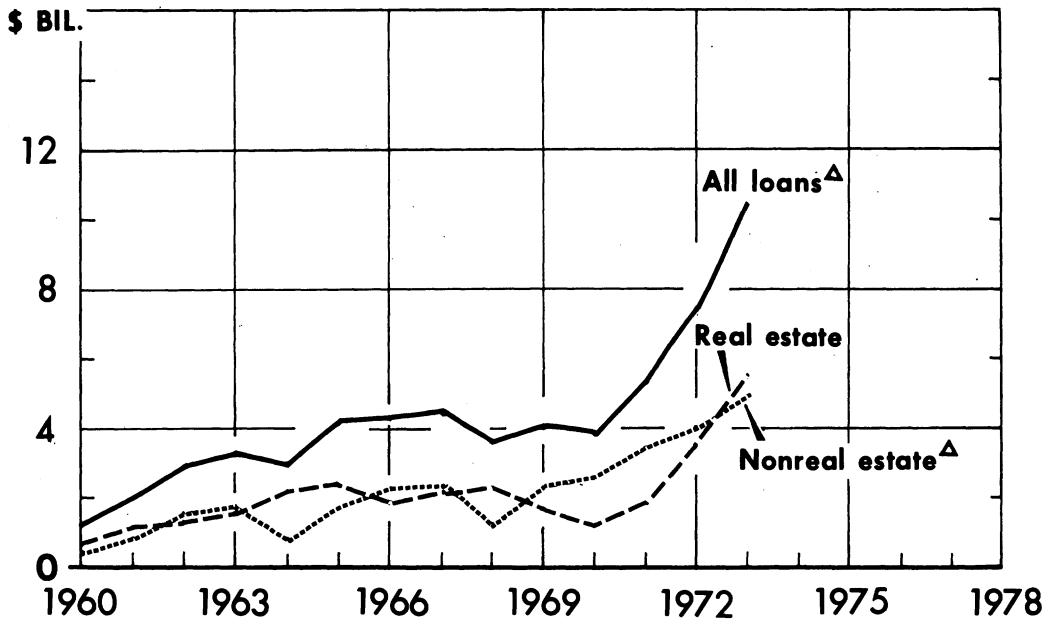
In 1973, farmers increased their borrowings further, both real estate and nonreal estate, and outstanding debt by yearend had reached record

levels. There were reports that some farmers either paid off or consolidated their debts during the year, but, if so, this was much more than offset by increased borrowing by others (fig. 8). With the spectacular rise in farm prices and earnings in 1973, more farmers were able to qualify for loans from private lenders, and loans were available to most farmers willing to pay the higher interest rates. The Farmers Home Administration, an agency of the U.S. Department of Agriculture, assisting lower income operators who need credit beyond that available from private lenders, also loaned greater amounts during the year. With the change in farm programs, CCC loans outstanding declined to \$0.7 billion on January 1, 1974, \$1.1 billion less than a year earlier (fig. 9).

During 1973, with farmers' earnings and savings supplemented by a large increase in net borrowings, the farm sector used cash funds totaling about \$26.5 billion to invest in capital goods and financial and farm inventories, and to purchase real estate assets from discontinuing proprietors (table 12). Purchases of such real estate assets totaled about \$11.4 billion in 1973, 33 percent greater than in 1972, and purchases of machinery and equipment were \$7.3 billion, also up 33 percent from the previous year.

As noted elsewhere, net farm earnings in 1973 reached an exceptional level, far exceeding any previous record. Realized net income from farming reached \$32.2 billion, nearly double the earlier record set in 1972 of \$17.5 billion. However, funds used for investment from those expanded earnings were less than were needed to pay for all the purchases, thus

# ANNUAL NET FLOW OF FARM LOAN FUNDS \*



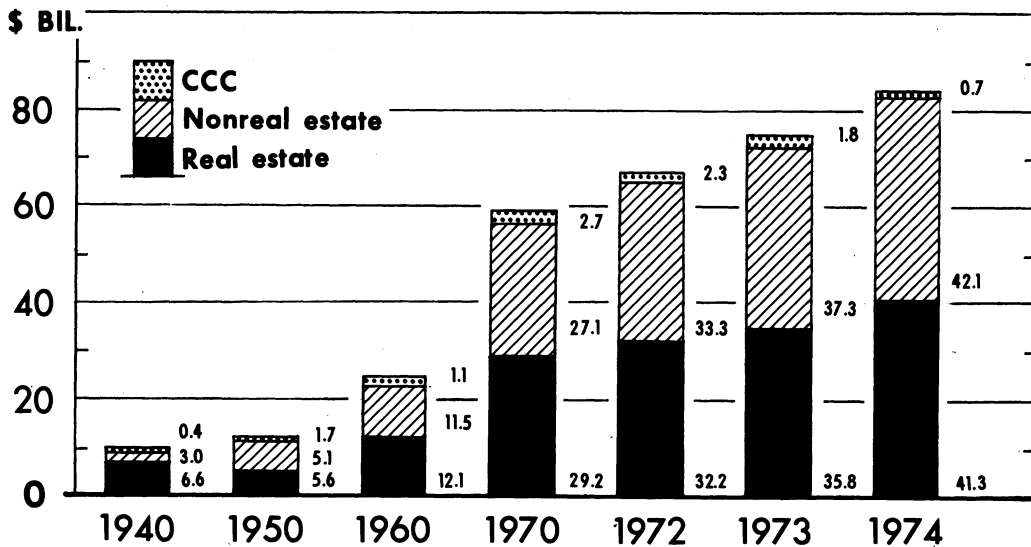
\*NEW LOANS MADE LESS REPAYMENTS DURING YEAR.  
 Δ EXCLUDES CCC LOANS WHICH DECLINED \$0.5 BILLION IN 1972 AND \$1.1 BILLION IN 1973.

U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 3792-74 (9) ECONOMIC RESEARCH SERVICE

Figure 8

# FARM DEBT, LOANS OUTSTANDING JANUARY 1



1974 PRELIMINARY.

U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 5734-74 (9) ECONOMIC RESEARCH SERVICE

Figure 9

**Table 12—Financing annual capital formation and real estate transfers in the farm sector, selected years, 1960-73**

Item	1960	1965	1970	1971	1972	1974 <sup>1</sup>
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
<b>Uses for funds for:</b>						
Capital improvements to real estate .....	1.32	1.22	2.37	2.49	2.37	2.98
Purchases of machinery and motor vehicles .....	2.71	4.22	4.92	4.87	5.58	7.34
Net additions to household furnishings .....	-.41	0.00	.11	.57	.47	.63
Net additions to farm inventories .....	.34	.99	.01	1.40	.87	4.02
Net additions to cash balances .....	.40	.10	.10	.10	.35	.15
Annual capital formation .....	3.56	6.53	7.51	9.43	9.64	15.12
Purchases of real estate assets from discontinuing proprietors .....	3.04	4.30	3.84	5.47	8.53	11.40
Total cash flow of capital .....	6.60	10.83	11.35	14.90	18.17	26.52
<b>Sources of funds used to finance total cash flows of capital:</b>						
Cash flow of income and savings <sup>2</sup> .....	5.50	6.73	7.50	9.51	10.61	16.21
Net flow of loan funds:						
Real estate secured loan funds <sup>3</sup> .....	.70	2.30	1.16	1.86	3.53	5.52
Nonreal estate secured loan funds <sup>4</sup> .....	.40	1.80	2.69	3.53	4.03	4.79
Total cash flow of funds used .....	6.60	10.83	11.35	14.90	18.17	26.52
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
<b>Percentage of total cash flow of capital financed by:</b>						
Cash flow of income and savings <sup>2</sup> .....	83.33	62.14	66.07	63.81	58.40	61.12
Net flow of loan funds:						
Real estate secured loan funds <sup>3</sup> .....	10.61	21.24	10.19	12.48	19.42	20.82
Nonreal estate secured loan funds <sup>4</sup> .....	6.06	16.62	23.74	23.71	22.18	18.06
Total cash flow of funds used .....	100.00	100.00	100.00	100.00	100.00	100.00

<sup>1</sup> Preliminary estimate of flows of funds in farm sector.

<sup>2</sup> From farm and off-farm sources including income transfers

from nonfarm landlords. <sup>3</sup> Loan funds secured by farm real estate assets. <sup>4</sup> Loan funds not secured by farm real estate assets. Does not include CCC nonrecourse loans.

explaining the \$4.8-billion increase in nonreal estate debt and \$5.5-billion increase in real estate debt (fig. 8).

The ability of farmers to repay debt apparently was generally strong throughout the year. With the unprecedented climb in asset values and net farm income in 1973, the ratios of debt to asset values and debt to farm income became smaller, indicating that debts were easier to repay or less likely to result in lender losses in the event of difficulty. The more critical testing periods, however, would be expected to be later, especially for intermediate- and long-term loans since capital and land purchase loans are usually repaid over many years.

### Nonreal Estate Debt

Farmer purchases of both capital and current production goods were expanded in 1973, with many of these purchases partly financed by borrowed funds. Larger quantities of inputs were needed for cultivation of the expanded acreage planted and for

feeding more livestock. Moreover, rising costs and fears of shortages encouraged buying available farm production items unusually far in advance, and favorable income prospects strengthened farmers' desires to purchase land and other capital goods. Another development, more important than in any other year, was the great increase in the value of unsold farm products held for sale after the beginning of the new year, several billion dollars more than at the end of 1972. These inventories needed to be financed either from internal sources or by loans. As sales of these holdings are made later, funds will become available for investment, debt repayment, or other uses.

The major institutional lenders increased their nonreal estate farm loans outstanding by 19 percent during 1973, in contrast with only a 4-percent rise for the nonreporting lender group (table 13). Loans of all operating banks increased by 20 percent—for them, a near record rate of increase. Demands for bank farm loans were very strong, especially in the last half of the year, even though interest rates were rising sharply. The gain made by bank lending in 1973, as

Table 13—Nonreal estate farm debt held by major institutional lenders, and by nonreporting creditors, January 1, 1972-1974<sup>1</sup>

Lender	Debt outstanding, January 1			Percent change	
	1972	1973	1974	1972-73	1973-74
	Million dollars	Million dollars	Million dollars	Percent	Percent
All operating banks .....	12,498	14,315	17,167	15	20
Production credit associations .....	6,078	6,607	7,829	9	18
Federal intermediate credit banks <sup>2</sup> .....	237	251	331	6	32
Farmers Home Administration <sup>3</sup> .....	771	781	877	1	12
Total, institutional lenders .....	19,584	21,954	26,204	12	19
Nonreporting creditors <sup>4</sup> .....	13,700	15,360	15,900	12	4
Total .....	33,284	37,314	42,104	12	13

<sup>1</sup> Excludes Commodity Credit Corporation loans. <sup>2</sup> Loans to and discounts for livestock loan companies and agricultural credit corporations. <sup>3</sup> All FmHA direct and insured farm loans to individuals not secured by farm real estate. <sup>4</sup> Nonreporting creditors are those whose lending activities are not reported to a

Federal agency on a regular basis. The group includes merchants and dealers, landlords and other individuals, some lending institutions with small amounts of farm loans, and others. Estimates for nonreporting creditors were made on a different basis for January 1, 1974 than for previous years.

in 1972, was more rapid than that of the production credit associations (PCA's), although for many years previous to 1972, PCA lending had increased more rapidly than banks.

The growth in farm incomes during the year helped increase deposits in banks in rural areas and permitted an expansion in their lending. However, even with this expansion in deposits, according to an American Bankers Association survey, smaller banks had difficulties in meeting the borrowing needs of the larger farm operators, for the size of loan desired by some farmers exceeded the bank's legal lending limit. Typically, such "overline" requests were handled cooperatively with one or more other banks.

On January 1, 1974, PCA loans outstanding were 18 percent higher than a year earlier and as with banks, the rise was more concentrated in the last part of the year. Production credit association lending continued to rise rapidly in 1974 and at midyear was 21 percent higher than a year earlier. PCA's obtain the bulk of their loan funds by discounting loans with the Federal intermediate credit banks (FICB's), which obtain funds by selling their securities in the major money markets.

Although a small part of the total, direct loans to other lending institutions by FICB's rose sharply over 1973, as shown in table 13. The expansion was related to the growth in borrowing by different kinds of financial institutions including agricultural credit corporations (ACC's). A number of ACC's were established in the last year or two, several of them for financing cattle feedlots or other large enterprises. At times an ACC is affiliated directly with a commercial bank or indirectly through a bank holding company. At other times, an ACC is established as a nonbank financial institution with the choice of affiliation, depending on applicable State and Federal laws and

the purposes for which the ACC was formed. These firms may have advantages not available to commercial banks in raising funds directly from investors, or in the volume of funds they can discount with FICB's. The ACC's of the smaller commercial banks may also be able to service large individual or corporation farm accounts whose needs exceed the loan limits of the individual bank. The large ACC's established recently have raised funds by selling commercial paper in the central money market rather than discounting with FICB's.

Outstanding nonreal estate loans of the Farmers Home Administration (FmHA) on January 1, 1974, were 12 percent higher than on January 1, 1973—the largest increase in several years. Farm operating loans were made on an insured basis made possible by recent legislation. Previously, FmHA operating loans were made directly from appropriated funds. Insured FmHA operating loans are similar to the direct loans previously made and serviced by FmHA.

Farmers Home Administration loans are often made in conjunction with other lenders. Thus, in 1973, of the \$723 million in total operating loans made to FmHA borrowers, \$472 million was provided through FmHA on an insured basis and \$251 million was provided directly by other lenders. By use of insured lending and by lending cooperatively with others, FmHA has been able to reach more borrowers with only a small drawing on Federal budget resources. Another activity, started in 1973, was the guaranteed loan program authorized under the Rural Development Act of 1972. This program is designed to bring more funds into rural areas for housing, farming, business, community, and other needs. The guarantee limits the lender's loss on a loan to 10 percent of the total loss. Otherwise, the loans are similar to nonguaranteed loans negotiated between private lenders and borrowers.

Downward fluctuations in prices of some farm products after they reached extremely high levels has made lending-borrowing activities more uncertain. For example, many livestock producers suffered losses starting in the last half of 1973 and continuing through the first half of 1974. Legislation was enacted in mid-1974 to provide FmHA guarantees of loans made by private lenders to livestock producers who are unable to obtain enough credit without those guarantees to maintain their operations. Loans of up to \$250,000 per operator are guaranteed under FmHA authority. The guarantee limits the lender's loss to 20 percent rather than 10 percent as is the case with other FmHA guaranteed loans. Loans are available for current purposes and to refinance old loans, all with extended repayment terms.

The increase in total farm nonreal estate debt during 1973 was moderated by the relatively small increase estimated for the nonreporting lenders, mostly those that provide farmers credit to purchase something. Starting in 1973, loans from these sources were estimated to have increased by a smaller percentage than those of the institutional lenders. Frequently, the sellers of many farm production items, particularly farm machinery, trucks, fertilizer, and feeds, encourage sales of their products by providing convenient credit for the purchasers. But in 1973, demands became intense, supplies were limited,

and prices were rising. Sellers provided relatively less credit and placed more restrictive terms on the credit they offered, causing buyers to make more purchases for cash or to borrow from banks or other institutional lenders. The proportion of total nonreal estate debt held by the nonreporting lender group was estimated to have declined to about 38 percent on January 1, 1974, from 41 percent at the beginning of 1973. This group, however, is still next to banks as the most important farm nonreal estate lender.

Regionally, the increase in nonreal estate loans of the institutional lenders was quite general over the nation (fig. 10). Increases over 1973 ranged from 23 percent in the Southern Plains to 15 percent in the Lake States and Delta States. If estimates of the loans of the nonreporting creditors were available by regions and were included in the percentages shown in figure 8, the increases generally would have been about one-third less than those shown.

Interest rates on nonreal estate farm loans moved sharply higher as 1973 progressed (fig. 11). By yearend, PCA rates typically were above 9 percent, a rise of more than 1.5 percentage points, while rural bank loans averaged around 8.5 percent, up 0.75 percentage point. Rates rose further in the first half of 1974.

Interest rates on PCA loans are largely determined by the cost of funds obtained by the Federal

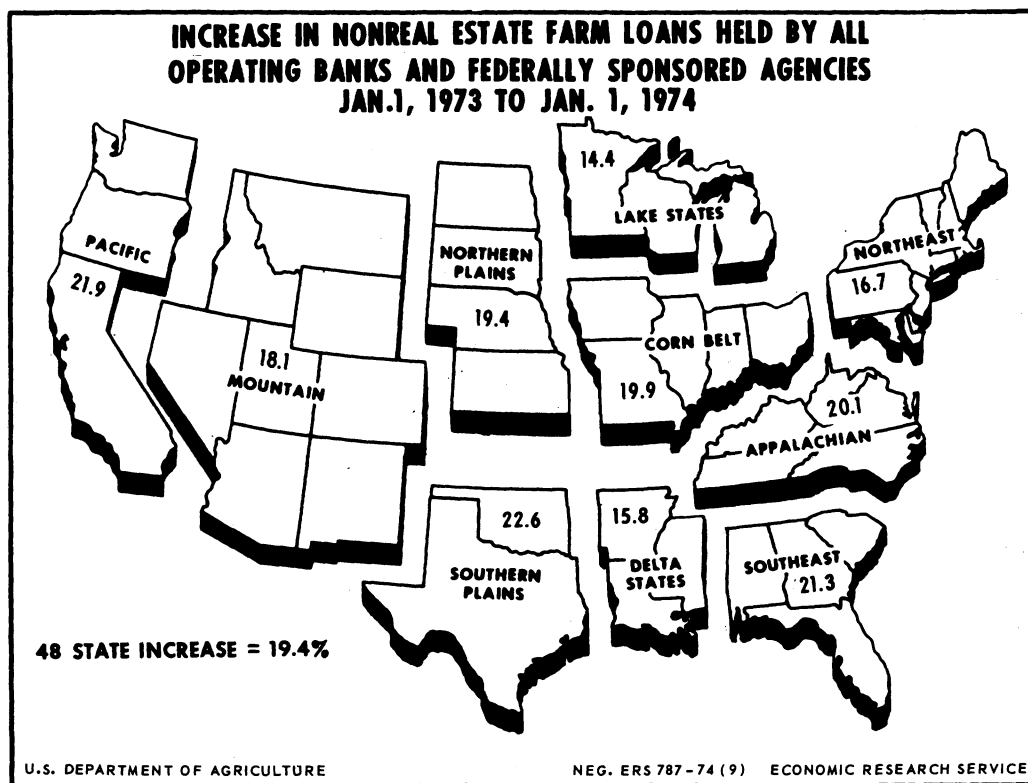


Figure 10

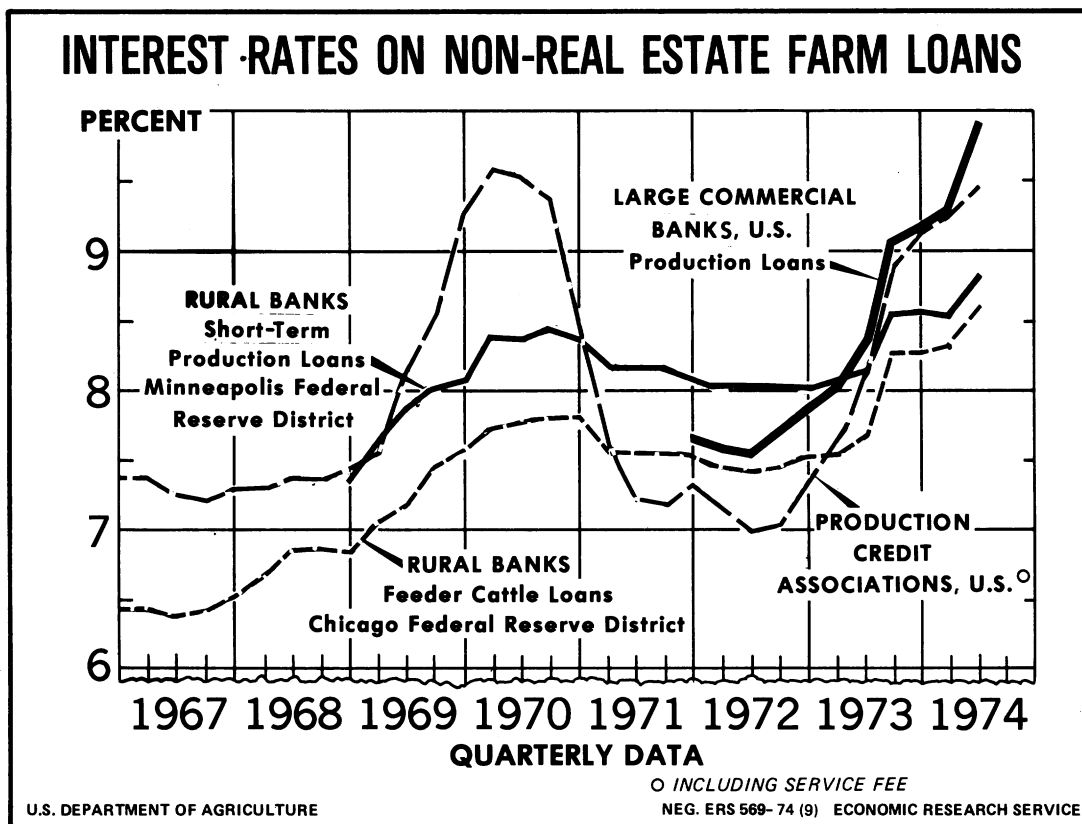


Figure 11

intermediate credit banks in the central money markets. Rates charged by rural banks have typically been less influenced by central money market rates, as evident in figure 11. Greatly influencing interest rates charged on farm loans by banks is the return that banks can obtain on their other loans and investments, and those returns increased in 1973.

Interest rates on FmHA nonreal estate loans, vary by program and by cost of funds to the agency. Rates on operating loans in 1973 averaged 6.25 percent, but in mid-1974, rates increased sharply to 8.75 percent. Rates charged on guaranteed loans also vary and are determined by the lender and by other FmHA policies.

### Farm Real Estate Debt

*This report contains substantial revisions in real estate debt beginning with 1966. Revisions were caused by: (1) including insured loans of the Farmers Home Administration with loans of that agency rather than with loans of other lenders as was done previously, and (2) changing the method of estimating loans held by individuals and other miscellaneous lenders.*

Farm real estate debt outstanding reached \$41.3 billion on January 1, 1974, up \$5.5 billion or 15 percent, from January 1, 1973, (table 14). Major reasons for the rapid increase in debt were the transfer of a record number of acres of farm real estate at prices which averaged 25 percent above the previous year, much of which was financed through loans, and a sharp increase in the volume of long-term loan funds used for capital investment.

Rising long-term interest rates through most of the year seemed to have had little effect on the flow of loan funds as farm operators and land buyers borrowed heavily from most lenders. The distribution of farm loans held by major lender groups has shifted substantially since the mid 1960's. At the beginning of 1974, Federal land banks held nearly 27 percent of the outstanding real estate debt, compared with about 20 percent in 1964, while, over the same period the share held by life insurance companies fell from nearly 23 percent of the total to less than 15 percent. Over the same time span, Farmers Home Administration, commercial banks, and miscellaneous lenders basically maintained their shares of the total volume at 8 percent, 13 percent, and 38 percent, respectively.

On January 1, 1974, loans held by individuals and other miscellaneous lenders were responsible for 44



**Table 14—Farm real estate debt: Amount outstanding by lender, January 1, 1960-74  
(50 States)**

Year	Federal land banks	Farmers Home Administration <sup>1</sup>	Life insurance companies <sup>2</sup>	Commercial banks <sup>3</sup>	Other (including sellers) <sup>4</sup>	Total farm real estate debt
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
1960.....	2,335	676	2,820	1,523	4,728	12,082
1961.....	2,539	723	2,975	1,592	4,992	12,820
1962.....	2,803	948	3,162	1,641	5,345	13,899
1963.....	3,024	1,058	3,391	1,870	5,824	15,168
1964.....	3,282	1,171	3,781	2,137	6,433	16,804
1965.....	3,687	1,285	4,288	2,417	7,218	18,894
1966.....	4,240	1,497	4,802	2,607	8,040	21,187
1967.....	4,915	1,663	5,214	2,770	8,516	23,077
1968.....	5,563	1,844	5,540	3,061	9,135	25,142
1969.....	6,081	2,054	5,764	3,333	10,165	27,397
1970.....	6,671	2,280	5,734	3,545	10,953	29,183
1971.....	7,145	2,440	5,610	3,772	11,378	30,346
1972.....	7,880	2,618	5,564	4,218	11,927	32,208
1973.....	9,050	2,835	5,643	4,792	13,437	35,758
1974 <sup>5</sup> .....	10,901	3,013	5,992	5,458	15,915	41,280

<sup>1</sup> Includes direct and insured farm ownership, farm housing, soil and water, and related real estate loans. Source: Data Division, Farmers Home Administration. <sup>2</sup> Source: Institute of Life Insurance. <sup>3</sup> Reported to FDIC 1972 to date—estimated

prior to 1972. <sup>4</sup> Estimated by Census of Agriculture, Agricultural Finance Survey benchmarks in 1960 and 1970. Annual changes from 1966 to date reflect changes in seller and other individual financing of real estate sales. <sup>5</sup> Preliminary.

percent of the increase in outstandings. Federal land banks accounted for 34 percent of the increase; banks, 12 percent; insurance companies, 6 percent; and FmHA, 4 percent.

Although lending activity in 1973 was particularly strong for most lenders, debt repayment by borrowers also increased sharply as they stepped up repayments from record farm incomes.

Interest rates on new farm mortgage loans from most lenders rose through most of the year, but seemed to stabilize during the last quarter and were at about the peak 1973 level as 1974 began. Federal land bank interest rates, however, dropped slightly in the first quarter of 1973, and held at that level until August 1973, when they began to climb.

With increased land values and higher costs of new construction, the average size of farm real estate loans made during 1973 rose to record levels.

The change in the shares of outstanding loans held by Federal land banks and life insurance companies mentioned earlier reflected substantial changes in the policies and regulations affecting Federal land bank lending and a slowing in the growth rate of funds available to life insurance companies for farm lending. Federal land bank lending increased as the banks moved toward the higher maximum loan limit of 85 percent of market value of land under lien and assumed a much more aggressive lending behavior. In addition, Federal land banks obtain substantial amounts of funds from central money markets to meet the loan demand, while life insurance companies are constrained in farm lending activity by their growth in earnings, premium receipts, rates

of repayment on old loans, policy loan demand, and other investment alternatives. All these things have caused growth in farm lending to be slower for the life insurance companies than for Federal land banks. Commercial bank farm lending typically reflects the growth in deposits and investment preferences, and since the Farmers Home Administration is a Government agency, its lending activity is directly influenced by Congress.

Table 15 shows farm real estate debt outstanding by lender for the 48 contiguous States and includes revisions back to 1960. The information will be useful to those maintaining the debt series on a 48-State basis.

### Proprietors' Equity in Farm Assets

Farm proprietors owned equity of \$394.7 billion in their farm assets on January 1, 1974, after gaining a record \$82.8 billion in one year, more than double the previous record \$36.6-billion gain in 1972.

Most of the equity growth was caused by the unusually sharp rise in value of farm real estate and the more moderate increase in farm mortgage debt (table 16). Almost three-fourths of the equity growth occurred in the farm real estate sector, about the same proportion that real estate equity represented of total equity.

Equity in farm assets other than real estate gained over \$23 billion from 1973, also a record. Since there is no way to tie the various farm nonreal estate debts to the asset items which have debt against them, it is impossible to know exactly which assets were mostly

**Table 15—Farm real estate debt: Amount outstanding, by lender, January 1, selected years, 1940-74  
(48 States)**

Year	Federal land banks <sup>1</sup>	Farmers Home Administration <sup>2</sup>	Life insurance companies <sup>3</sup>	Commercial banks <sup>4</sup>	Other (incl. sellers) <sup>5</sup>	Total farm real estate debt
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
1940	2,815	32	984	534	2,221	6,586
1945	1,562	196	938	450	1,795	4,941
1950	965	202	1,172	932	2,308	5,579
1955	1,280	378	2,052	1,161	3,374	8,245
1960	2,335	674	2,820	1,517	4,728	12,074
1961	2,538	720	2,975	1,587	4,992	12,812
1962	2,802	945	3,162	1,636	5,345	18,880
1963	3,023	1,054	3,391	1,867	5,824	15,160
1964	3,281	1,167	3,779	2,132	6,433	16,792
1965	3,686	1,281	4,285	2,411	7,218	18,880
1965	4,234	1,493	4,799	2,602	8,040	21,169
1967	4,908	1,659	5,211	2,765	8,516	23,059
1968	5,553	1,841	5,537	3,056	9,135	25,121
1969	6,071	2,051	5,761	3,328	10,165	27,376
1970	6,660	2,277	5,732	3,541	10,953	29,163
1971	7,128	2,437	5,608	3,768	11,378	30,320
1972	7,862	2,612	5,562	4,214	11,927	32,177
1973	9,017	2,829	5,640	4,784	13,437	35,708
1974 <sup>6</sup>	10,859	3,007	5,788	5,449	15,915	41,217

<sup>1</sup>Data prior to 1956 includes the debt held by the Federal Farm Mortgage Corporation and the Joint Stock Land banks. Excludes rural housing and farm related business loans. Source: Farm Credit Administration. <sup>2</sup>Includes direct and insured farm ownership, farm housing, soil and water, and related real estate loans. Source: Data Division, Farmers Home Administration.

<sup>3</sup>Source: Institute of Life Insurance. <sup>4</sup>Reported to FDIC 1972 to date—estimated prior to 1972. <sup>5</sup>Estimated by Census of Agriculture, Agricultural Finance Survey benchmarks in 1960 and 1970. Annual changes from 1966 to date reflect changes in seller and other individual financing of real estate sales. <sup>6</sup>Preliminary.

responsible for the equity gain. But probably some of the equity growth was in livestock since the increase in value per head was most likely not completely absorbed by additional debt against the animals. Too, indications are that more than the usual amount of machinery and motor vehicle purchases were paid for out of net farm earnings rather than through credit, thereby causing a greater increase in machinery and motor vehicle value than in the debt against them. Also, although the 1970 crop inventory value increased 50 percent over 1973, it is doubtful that debt against those crops went up much, if any. It is more likely that 1973 crop loans were paid off as early in the year as possible to held down interest expense.

The 25-percent increase in farm asset value and the slower 12-percent rise in farm debt during 1973 caused the debt-to-asset ratio to drop to 17.6 percent on January 1, 1974, from 19.4 percent a year earlier—the second consecutive drop in the farm debt-to-asset ratio since an uninterrupted rise began in 1958 (fig. 12).

The sharp increases in prices of farmland and commodities in late 1972 and 1973, which made asset values rise, and the lack of additional demand for loans, causing less of a rise in debt, meant lower debt-to-asset ratios. If farm prices drop or significantly slow their increases in the next year or so, farm debt will likely rise at a faster rate than asset value and the debt-to-asset ratio will again climb.

### Interest Charges

With farmers' use of borrowed funds increasing in 1973 and with interest rates higher, particularly on nonreal estate borrowings, interest charges to farmers rose 18 percent in the year (table 17). Charges were up 20 percent on nonreal estate loans, a greater increase than for the longer term real estate loans for two reasons. First, rates had increased more in short-term markets, and second, with their more rapid turnover, the higher rates on new short-term loans were more quickly reflected in charges.

Table 16—Proprietors' equity in farm real estate and nonreal estate assets, January 1, 1940-74<sup>1</sup>

Year (Jan. 1)	Farm real estate				Farm non-real estate			
	Value	Debt out- standing	Equity	Debt-to- asset ratio	Value	Debt out- standing <sup>2</sup>	Equity	Debt-to- asset ratio
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>
1940 .....	33,636	6,586	27,050	19.6	19,389	3,449	15,940	17.8
1941 .....	34,400	6,494	27,906	18.9	20,456	3,976	16,480	19.4
1942 .....	37,547	6,376	31,171	17.0	25,428	4,092	21,336	16.1
1943 .....	41,604	5,956	35,648	14.3	32,270	3,944	28,326	12.2
1944 .....	48,200	5,396	42,804	11.2	36,362	3,475	32,887	9.6
1945 .....	53,884	4,941	48,286	9.2	40,256	3,403	36,853	8.5
1946 .....	61,046	4,760	56,186	7.8	42,437	3,145	39,292	7.4
1947 .....	68,463	4,897	63,566	7.2	47,936	3,516	44,420	7.3
1948 .....	73,664	5,064	68,600	6.9	54,163	4,174	49,989	7.7
1949 .....	76,623	5,288	71,335	6.9	58,222	6,082	52,140	10.4
1950 .....	75,256	5,579	69,677	7.4	57,113	6,875	50,238	12.0
1951 .....	86,586	6,112	80,474	7.1	64,938	64,912	57,974	10.7
1952 .....	95,078	6,662	88,416	7.0	71,922	7,981	63,941	11.1
1953 .....	96,535	7,241	89,294	7.5	67,937	8,859	59,078	13.0
1954 .....	95,038	7,740	87,298	8.1	66,259	9,194	57,065	13.9
1955 .....	98,172	8,245	89,927	8.4	66,948	9,415	57,533	14.1
1956 .....	102,934	9,012	93,922	8.8	66,624	9,780	56,844	14.7
1957 .....	110,421	9,822	100,599	8.9	67,488	9,523	57,965	14.1
1958 .....	115,934	10,382	105,552	9.0	69,824	10,029	59,795	14.4
1959 .....	124,393	11,091	113,302	8.9	77,737	12,558	65,179	16.2
1960 .....	130,169	12,074	118,095	9.3	73,281	12,687	60,594	17.3
1961 .....	131,752	12,812	118,940	9.7	72,436	13,351	59,085	18.4
1962 .....	137,956	13,891	124,065	10.1	74,865	14,769	60,096	19.7
1963 .....	143,834	15,160	128,674	10.5	77,557	16,549	61,008	21.3
1964 .....	152,121	16,792	135,329	11.0	77,176	18,111	59,065	23.5
1965 .....	160,942	18,880	142,062	11.7	76,352	18,672	57,680	24.5
1966 .....	172,214	21,169	151,045	12.3	81,628	20,386	61,242	25.0
1967 .....	181,667	23,283	158,384	12.8	85,147	22,406	62,741	26.3
1968 .....	191,871	25,465	166,406	13.3	88,379	24,929	63,450	28.2
1969 .....	201,393	27,397	173,996	13.6	93,779	27,538	66,241	29.4
1970 .....	206,856	29,183	177,673	14.1	99,198	29,735	69,463	30.0
1971 .....	214,951	30,346	184,605	14.1	102,596	31,628	70,968	30.8
1972 .....	231,461	32,208	199,253	13.9	111,593	35,546	76,047	31.9
1973 .....	260,556	35,758	224,798	13.7	126,280	39,107	87,173	31.0
1974 <sup>3</sup> .....	325,339	41,280	284,059	12.7	153,437	43,016	110,421	28.0
1975 .....								

<sup>1</sup> Includes Alaska and Hawaii beginning with 1969. <sup>2</sup> Includes CCC loans. <sup>3</sup> Preliminary.

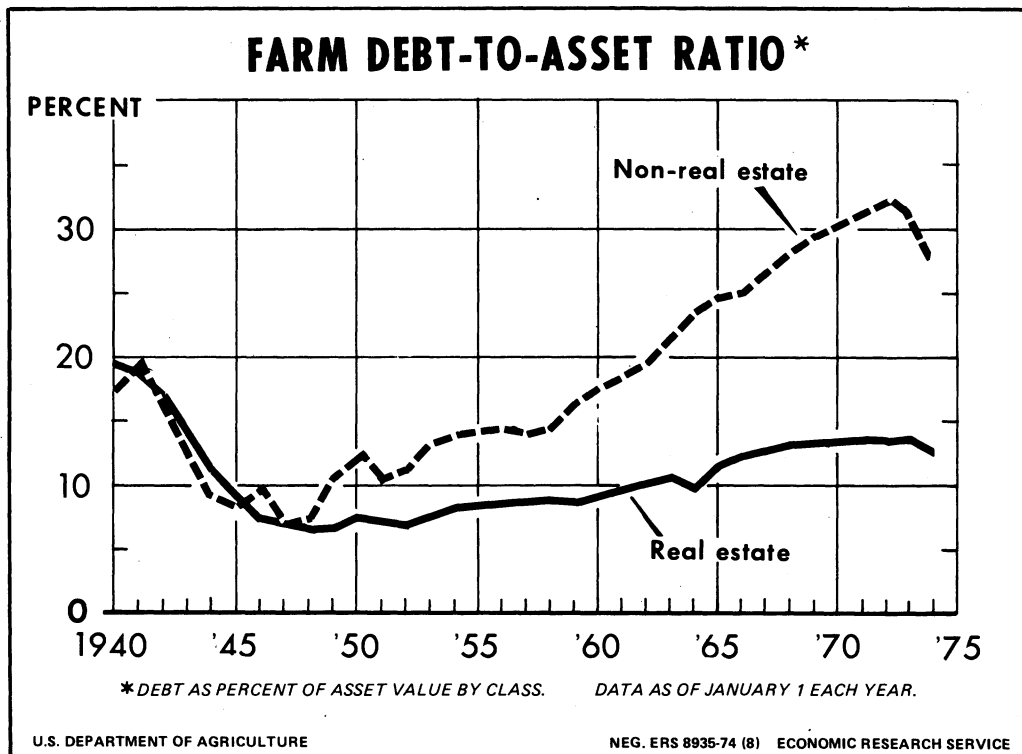


Figure 12

Table 17—Annual interest charges on the farm debt, selected years, 1960-73

Year	Total	Charges on farm mortgage debt	Charges <sup>1</sup> on nonreal estate debt owed to—				
			All lenders	Commercial banks	Production credit associations <sup>2</sup>	Farmers Home Administration	Merchants, dealers, and miscellaneous creditors
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
1960 .....	1,347	628	719	311	120	20	268
1965 .....	2,153	1,077	1,076	453	179	36	408
1968 .....	2,990	1,477	1,513	625	300	42	546
1969 .....	3,317	1,599	1,718	730	354	47	587
1970 .....	3,700	1,717	1,983	813	479	49	642
1971 .....	3,941	1,856	2,085	866	459	51	709
1972 <sup>3</sup> .....	4,331	2,066	2,265	942	483	49	791
1973 <sup>4</sup> .....	5,125	2,402	2,723	1,202	615	55	851
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Change							
1968-73 .....	72	63	80	92	105	43	56
1972-73 .....	18	16	20	28	27	22	8

<sup>1</sup> Includes service fees. Excludes interest charges on Commodity Credit Corporation price support loans and interest charges on debt for family living purposes. <sup>2</sup> In addition to

production credit associations, includes Federal intermediate credit bank loans to and discounts for livestock loan companies and agricultural credit corporations. <sup>3</sup> Revised. <sup>4</sup> Preliminary.

## FACTORS INFLUENCING THE 1974 BALANCE SHEET

*At least three factors—the general economy, level of farm income, and return on farm investment—can have a telling effect on the total value of farm asset inventory and the amount of debt outstanding at the beginning of the year. During 1973, the economy had its ups and downs, but it and high farm production together with strong international demand for farm products generally brought farmers record incomes and a much higher return on investment.*

### General Economic Situation

The inflation that began its economically corrosive growth in the mid-1960's continued persistently through 1973 as preventive measures proved ineffective in turning the tide. Gains in the struggle in some places were swept aside by unexpected outbreaks in other sectors.

In the first half of 1973, the unusually heavy demand for U.S. goods caused by increased spending by individuals and businesses was joined by sudden and inviting purchases from foreign buyers. The economy which was already running at almost full capacity, although that fact was not yet fully recognized by many business analysts, was called on for extra effort. Actual and anticipated higher prices for most goods and services achieved some gain in output. However, the \$133.9-billion increase in current dollar gross national product (GNP) in 1973 shriveled to a real gain of only \$46.7 billion when the fat caused by price rises was removed (table 18 and fig. 13).

Total employment rose sharply through the third quarter of 1973 as the nation's physical plants strained to satisfy demand. The unemployment rate continued the steady decline begun in late 1971, and in general, only the less skilled and least interested of the potential work force were without paying jobs. But as good as they may sound, that situation also added to the inflation problem.

As industry strived to meet demand, less efficient plants and machinery were utilized, which added to the employment rolls many jobseekers who had been bypassed earlier, including some who were inexperienced or otherwise less proficient than those already employed. That action produced almost no increase in productivity per worker, but it did cause higher unit labor costs. And compounding the situation, the added income from higher wages and new wage earners immediately began to enter the market and compete for goods and services, thereby adding still more upward pressure on prices (fig. 14).

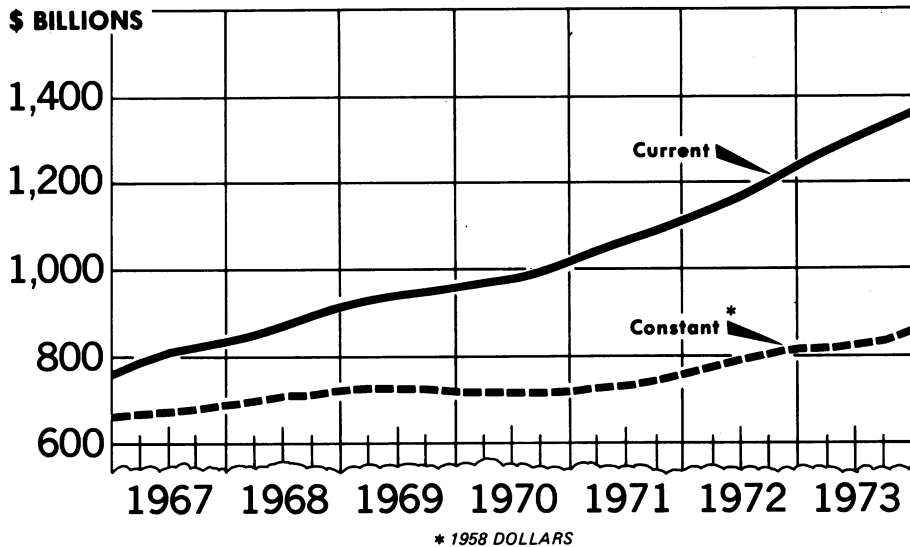
Much of the nation's total output in 1973 was siphoned off through purchases from foreign countries. The suspension of the U.S. dollar's convertibility into gold on August 15, 1971, which in effect was a devaluation, and the further devaluation of 10 percent in January 1973 would have made U.S. products a bargain in many foreign countries even in more normal times. But, 1973 was no more normal in many foreign countries than in the United States. Droughts and other natural phenomena in some countries, many with money to spend, precipitated a sharp increase in demand for U.S. goods, particularly farm products. In 1973, the value of agricultural exports increased 88 percent, compared with a 33-percent rise in nonagricultural exports. The gain in farm exports was enough to make them 25 percent of total exports in 1973, compared with a share of less than 20 percent in 1972. That increase in farm exports was an important factor in the value of total U.S. exports being larger than the value of total imports for the first time since 1970 (fig. 15). But the advantage to foreign countries of using U.S. produced goods created disadvantages for some in the United States.

The active foreign demand for U.S. output helped cause prices of many consumer goods to rise sharply. Price rises were common in 1972 but they seemed to take off with a vengeance in early 1973, and except for brief and sporadic periods, efforts by Government and the private sector failed to halt them (fig. 16). Food prices led the parade with most items hitting new highs in the fourth quarter of the year (fig. 17). Government price control mechanisms held price rises of most nonfood commodities to a slower rate of increase than food items and even eventually affected food prices. Although raw farm products were not covered by price controls, processed food items were. Therefore, for items requiring any kind of processing, the price controls finally backed up to the farm level. Fuel price rises were particularly steep late in the year and were brought on by the scarcity caused mainly by the Arab nations' embargo on crude oil.

Many farmers reaped early gains from sharply higher prices for feed grains, food grains, and soybeans, since most of those items required no processing and were, thereby exempt from price controls. Eventually, even that portion of the harvest going into processed feeds brought higher prices since much of the extra processing cost was allowed to be passed through to the consumer, and in the last quarter of 1973, livestock, dairy, and poultry farmers found feed expenses markedly higher than a year earlier.

Often, when sharp movements in supply, demand, or price occur in the business world, some segment

# GROSS NATIONAL PRODUCT



U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 8427-74 (8) ECONOMIC RESEARCH SERVICE

Figure 13

Table 18—Gross national product in current and constant dollars, selected years, 1940-73<sup>1</sup>

Item	1940	1950	1960	1965	1970	1971	1972	1973
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
Gross national product ..	99.7	284.8	503.7	684.9	977.1	1,055.5	1,155.2	1,289.1
Personal consumption expenditures .....	70.8	191.0	325.2	432.8	617.6	667.2	726.5	804.0
Durable goods .....	( 7.8)	( 30.5)	( 66.3)	(666.3)	( 91.3)	( 103.6)	( 117.4)	( 130.8)
Nondurable goods .....	( 37.0)	( 98.1)	(151.3)	(191.1)	(263.8)	( 278.7)	( 299.9)	( 335.9)
Services .....	( 26.0)	( 62.4)	(128.7)	(175.5)	(262.6)	( 284.9)	( 309.2)	( 337.3)
Gross private domestic investment .....	13.1	54.1	74.8	108.1	136.3	153.2	178.3	202.1
New construction .....	( 5.7)	( 28.6)	( 41.0)	( 52.7)	( 67.3)	( 80.6)	( 95.7)	( 106.4)
Producers' durable equipment .....	( 5.3)	( 18.7)	( 30.3)	( 45.8)	( 64.4)	( 66.5)	( 76.5)	( 87.8)
Change in business inventories .....	( 2.2)	( 6.8)	( 3.6)	( 9.6)	( 4.5)	( 6.1)	( 6.0)	( 8.0)
Net exports of goods and services .....	1.7	1.8	4.0	6.9	3.6	.8	-4.6	5.8
Government purchases of goods and services .....	14.0	37.9	99.6	137.0	219.5	234.3	255.0	277.1
Federal .....	( 6.0)	( 18.4)	( 53.5)	( 66.9)	( 96.2)	( 98.1)	( 104.4)	( 106.6)
State and local .....	( 8.0)	( 19.5)	( 46.1)	( 70.1)	(123.3)	( 136.2)	( 150.5)	( 170.5)
Gross national product in constant (1958) dollars .....	227.2	355.3	487.8	617.8	722.5	745.4	790.7	837.4

<sup>1</sup> Totals may not add due to rounding.

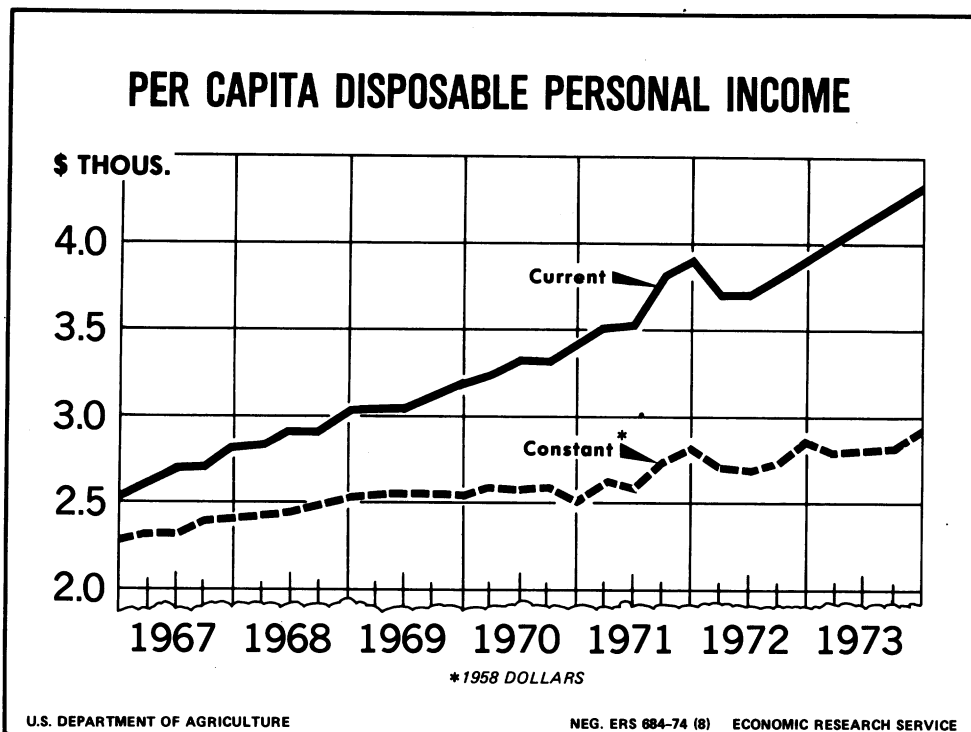


Figure 14

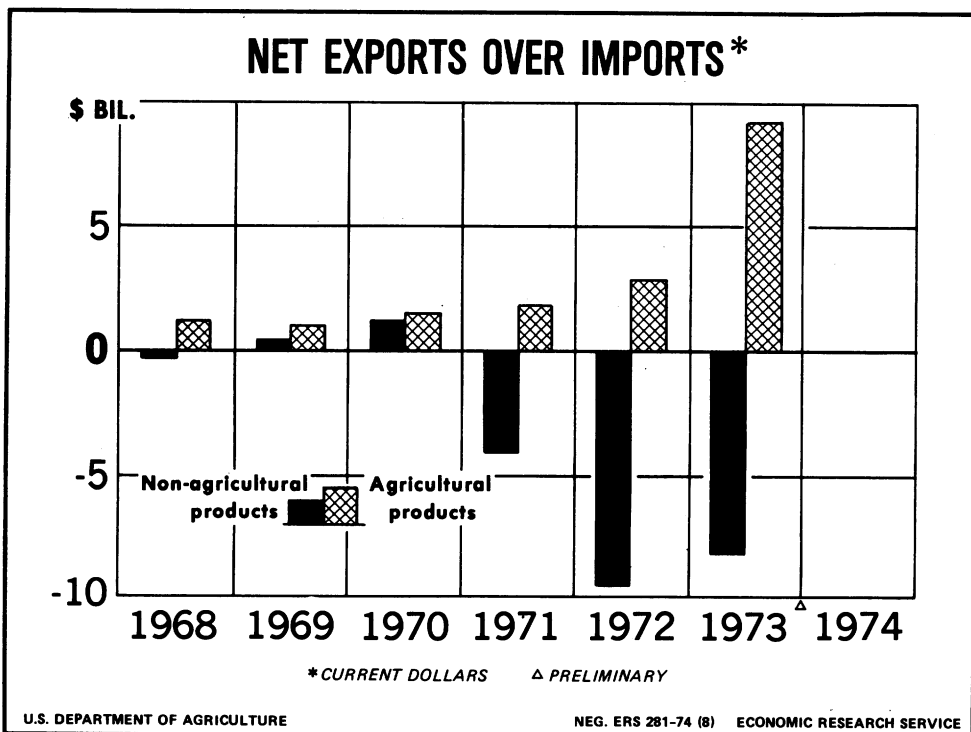


Figure 15

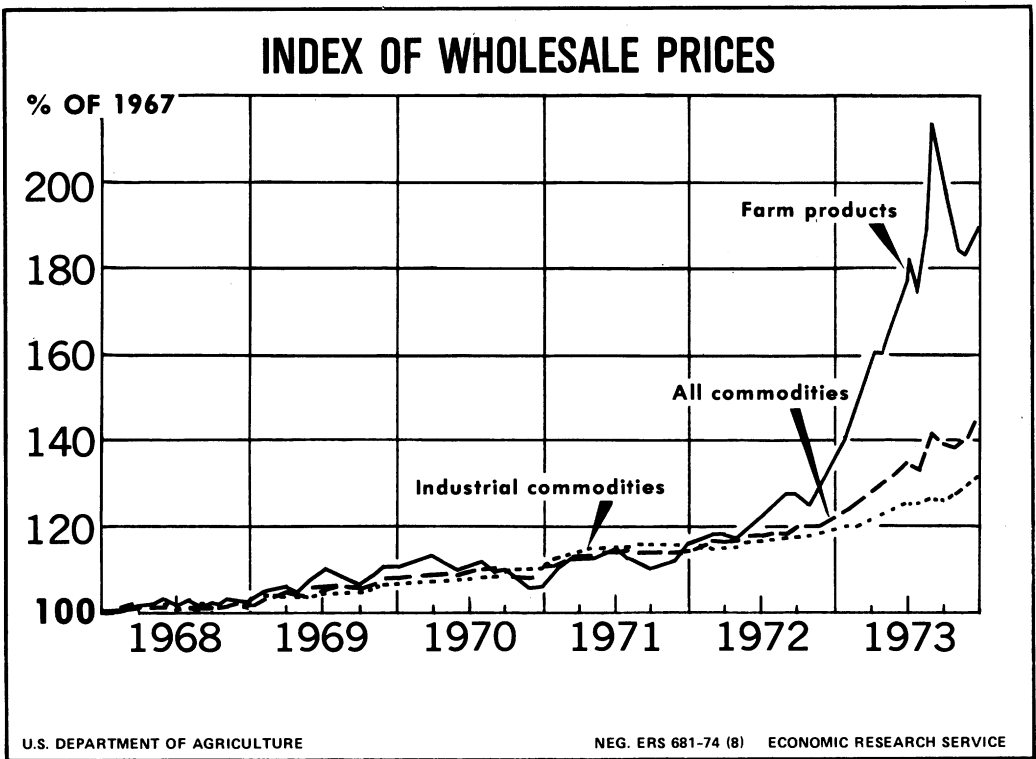


Figure 16

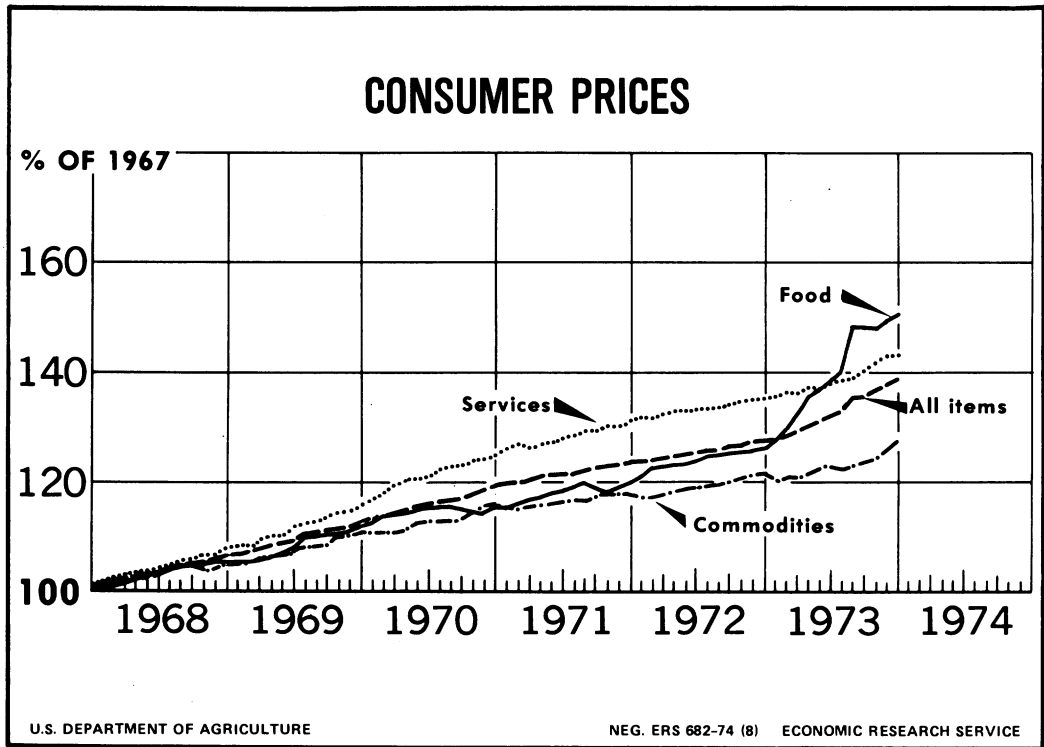


Figure 17



benefits from higher prices in the shortrun, and in 1973 that segment was most notably agriculture. Caught with high production and sharply higher prices at harvest time without a corresponding rise in costs of producing those particular crops, most farmers earned what for them were unusually high profits. However, as costs of higher priced inputs are used to produce the next crop, profits will probably not be nearly as high. Livestock feeders, dairymen and poultry feeders went through this phase in the last half of 1973. Until late summer, they sold at sharply increased prices animals and animal products produced on feed at late 1972 and early 1973 prices. But, once that high-priced selling spree was over and finished livestock prices declined plus replacements having to be fed higher priced feed, farmers' profit margin narrowed conspicuously.

The strain on banks for loans from the commercial and consumer sectors pushed interest rates to new highs (fig. 18). The money supply, controlled mainly by the Federal Reserve System, grew at widely varying rates during 1973 but averaged about 5.5 percent for the year, considerably less than the 8.3-percent growth rate of the year before. Apparently, many depositors withdrew savings from thrift institutions, mostly savings and loan associations and savings banks, and reinvested them at higher rates in commercial paper and U.S. Treasury bills, causing a shortage of home mortgage funds which, in

turn, caused a sharp downturn in housing starts, especially in the second half of the year.

But through all the economic turmoil in 1973, the United States gained in one important respect. For the last year or so, the U.S. dollar had experienced extreme pressure in international money markets mainly because foreign governments had little faith in America's commitment to stem inflation. Because of several factors, mainly the devaluation of the dollar, strong foreign demand for U.S. products, and high inflation rates in Europe and Japan, the United States vastly improved its trade balance, and much of the faith in the U.S. dollar was restored by the end of 1973. Interest rates in the United States rose sharply in the first half of 1973 and became competitive with foreign investments. The flow of money out of the United States slowed and eventually reversed itself, thereby strengthening the U.S. economy.

### Farm Income

In 1973, farmers received record receipts from marketings, and despite the highest production expenses ever, earned record realized net farm income totaling \$32.2 billion, some 84 percent above the previous high of \$17.5 billion set in 1972 (table 19). Realized net income per farm averaged \$11,332 in 1973, compared with \$6,105 in 1972 (fig. 19). The excellent farm income situation in 1973

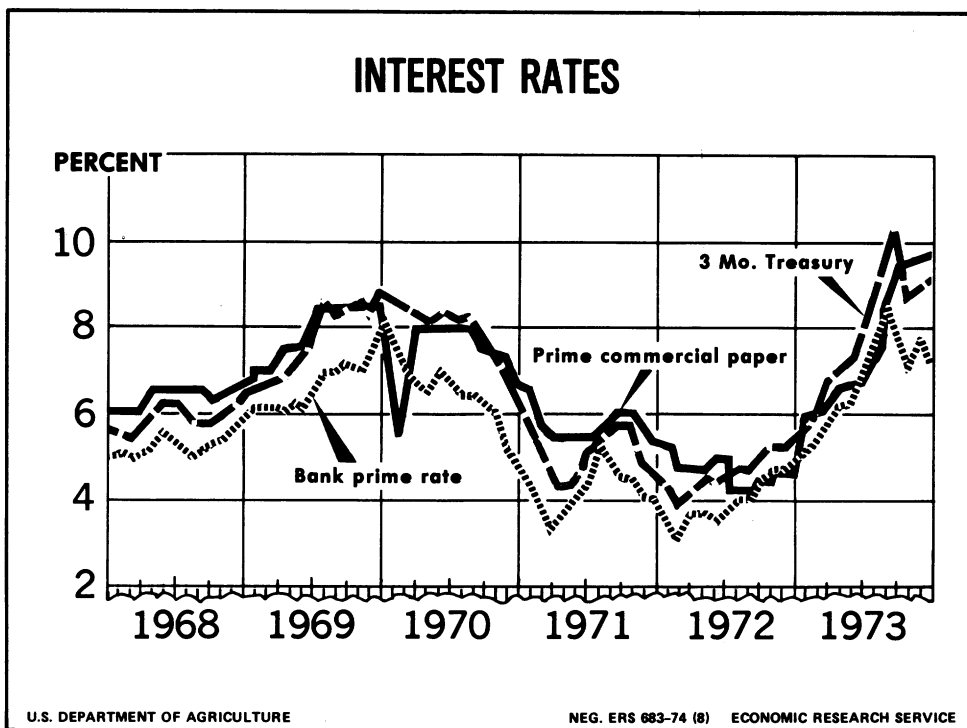


Figure 18

Table 19—Comparative income statement of U.S. agriculture, selected years, 1940-73<sup>1</sup>

Item	1940	1950	1960	1969	1970	1971 <sup>2</sup>	1972 <sup>2</sup>	1973 <sup>3</sup>	1974	1975	1976
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>
<b>Realized Net Farm Income of Farm Operators</b>											
Realized gross farm income:											
Cash receipts from farm marketings . . . . .	8,382	28,461	34,248	48,179	50,539	52,859	60,993	88,590			
Government payments to farm operators and landlords . . . . .	723	283	702	3,794	3,717	3,145	3,961	2,607			
Home consumption of farm products . . .	1,210	2,063	1,205	131	751	732	814	1,063			
Rental value of farm dwellings . . . . .	744	1,464	2,098	3,074	3,054	3,248	3,514	3,904			
Other farm income . . . . .	0	20	244	559	543	641	667	810			
<b>Total . . . . .</b>	<b>11,059</b>	<b>32,291</b>	<b>38,497</b>	<b>56,337</b>	<b>58,604</b>	<b>60,625</b>	<b>69,949</b>	<b>96,974</b>			
<b>Production costs:</b>											
Feed bought . . . . .	998	3,283	4,552	7,100	7,976	8,090	8,474	13,078			
Livestock bought, except horses and mules . . . . .	517	2,004	2,506	4,199	4,324	5,123	6,668	8,152			
Fertilizer and lime bought . . . . .	306	975	1,347	2,312	2,390	2,633	2,683	3,049			
Repairs and operation of capital items . . .	1,038	2,975	3,982	4,507	4,539	4,707	4,740	5,398			
Depreciation and other consumption of farm capital . . . . .	797	2,665	4,337	6,574	6,760	7,350	7,881	8,906			
Taxes on farm real estate and personal property . . . . .	451	919	1,530	2,712	2,928	3,071	3,189	3,321			
Seed bought . . . . .	197	518	519	871	927	1,072	1,122	1,638			
Wages to hired labor (cash and perquisites) . . . . .	1,029	2,811	3,062	4,152	4,349	4,367	4,617	5,166			
Net rent and Government payments to non-operator landlords <sup>5</sup> . . . . .	448	1,233	1,108	1,538	1,577	1,570	2,531	4,152			
Interest on farm mortgage debt . . . . .	293	264	628	1,599	1,717	1,856	2,066	2,402			
Miscellaneous . . . . .	784	1,808	3,847	6,616	7,085	1,764	8,457	9,484			
<b>Total . . . . .</b>	<b>6,858</b>	<b>19,455</b>	<b>27,418</b>	<b>42,180</b>	<b>44,572</b>	<b>47,603</b>	<b>52,428</b>	<b>64,746</b>			
Realized net farm income of farm operators <sup>6</sup> . . . . .	4,201	12,836	11,079	14,157	14,032	13,022	17,521	32,228			
Realized net farm income per farm (dollars) <sup>6</sup> . . . . .	662	2,273	2,796	4,720	4,750	4,477	6,105	11,332			
<b>Realized Net Farm Income of Proprietors</b>											
Realized net farm income of farm operators <sup>6</sup> . . . . .	4,201	12,836	11,079	14,157	14,032	13,022	17,521	32,228			
Net rent and Government payments to Non-operator landlords . . . . .	448	1,233	1,108	1,538	1,577	1,570	2,531	4,152			
Realized net farm income of proprietors <sup>6</sup> . . . . .	4,649	14,069	12,187	15,695	15,609	14,592	20,052	36,380			

<sup>1</sup> Includes Alaska and Hawaii beginning with 1969. <sup>2</sup> Revised. <sup>3</sup> Preliminary. <sup>4</sup> Machine hire and custom work and recreational income. <sup>5</sup> After subtraction of taxes, mortgage interest, and other expenses paid by landlords. <sup>6</sup> Realized net farm income excludes net changes in farm inventories.

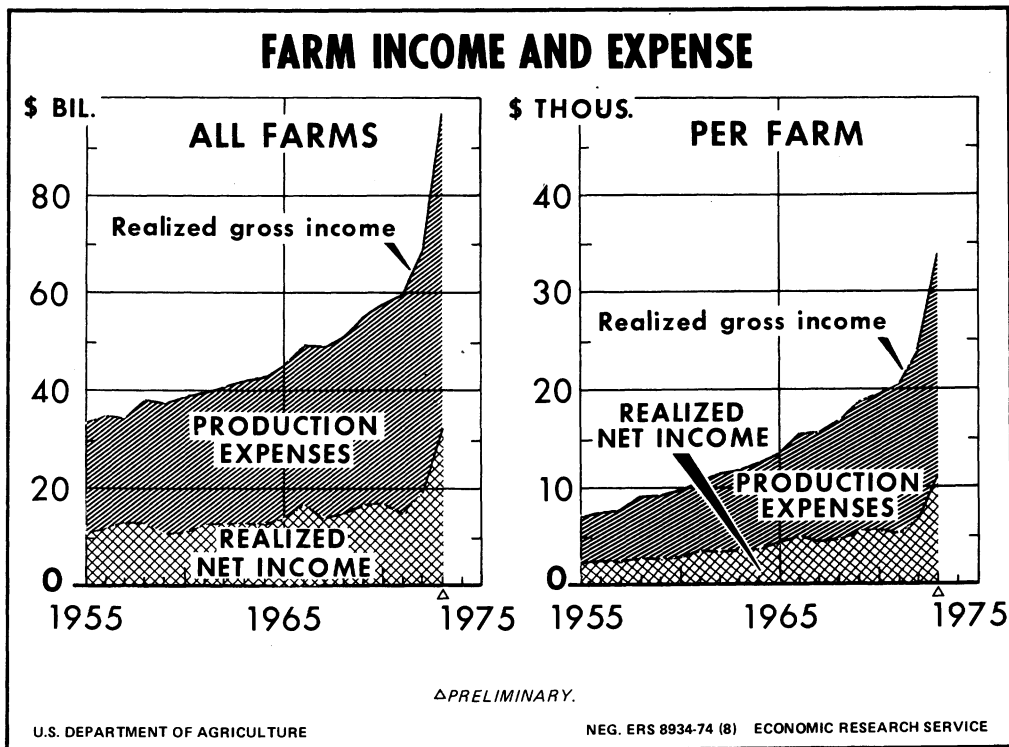


Figure 19

stemmed from high prices brought about by strong demand from both domestic and foreign buyers for many farm commodities.

In 1973, cash receipts from farm marketings soared to \$88.6 billion, up \$27.6 billion from 1972 (table 20). Crop sales totaled \$42.4 billion, up \$17.0 billion, and livestock receipts were \$46.2 billion, up \$10.6 billion. Sharply rising prices were the major cause of record high cash receipts as the physical volume of livestock, livestock products, and crops marketed increased only slightly. The index numbers of the volume of farm marketings and home consumption (1967=100) increased from 113 in 1972 to 116 in 1973.

Soybeans, corn, and wheat accounted for 68 percent of the rise in cash receipts from crops; corn marketings increased \$3.8 billion; soybeans, \$5.0 billion; and wheat, \$2.7 billion. Soybean marketings more than doubled in value from 1972 and registered the largest dollar increase of any crop or livestock commodity. Cattle and calves, dairy products, hogs, eggs, and broilers comprised over 95 percent of all livestock and livestock product marketings in 1972, thus accounting for \$9.9 billion of the increase in such marketings. Cash receipts from cattle and calves jumped \$4.5 billion, and cash receipts from hog marketings rose \$2.3 billion.

Table 20—Cash receipts from marketings of livestock and crops, 1971-73

Commodity	1971	1972	1973
	Million dollars	Million dollars	Million dollars
All Commodities .....	52,859	60,993	88,590
Livestock and products .....	30,583	35,653	46,244
Cattle and calves .....	15,043	18,246	22,739
Hogs .....	4,153	5,379	7,645
Sheep and lambs .....	319	352	384
Dairy products .....	6,811	7,135	8,071
Eggs .....	1,794	1,816	2,971
Broilers and farm chickens ..	1,583	1,743	2,880
Turkeys .....	586	630	1,048
Other livestock products <sup>1</sup> ..	294	352	506
Crops .....	22,276	25,340	42,346
Food grains .....	2,485	3,498	6,819
Feed crops .....	5,525	5,857	11,004
Cotton and cottonseed .....	1,487	1,837	2,729
Oil bearing crops .....	3,789	4,388	9,514
Tobacco .....	1,328	1,442	1,570
Fruit and tree nuts .....	2,311	2,518	3,276
Vegetables .....	3,011	3,321	4,294
Other crops <sup>2</sup> .....	2,340	2,479	3,140

<sup>1</sup> Ducks, geese, pigeons, wool, horses, mules, mohair, honey, beeswax, bees, and fur animals. <sup>2</sup> Sugar crops, greenhouse and nursery products, forest products, legumes and grass seeds, hops, mint, broomcorn, popcorn, hemp fiber and seed, and flax fiber.

The \$2.6 billion in direct Government payments farmers received in 1973 was down sharply from the \$4.0 billion received in 1972. The decrease was mainly caused by smaller payments received under the feed grain, wheat, and cotton programs as feed grain payments dropped \$703 million; wheat payments, \$382 million and cotton payments, \$95 million.

Farm production expenses of \$64.7 billion in 1973 were \$12.3 billion above those in 1972, the largest annual increase on record. Prices paid by farmers for production items, interest, taxes, and farm wage rates jumped 17 percent from a year earlier. For example, purchased livestock prices rose 28 percent, feed prices were up 52 percent, fertilizer prices increased 11 percent, and motor supplies including gasoline, rose 7 percent. Also helping to escalate farm production expenses was the fact that farmers had to purchase additional inputs because they planted about 10 percent more acres than in 1972.

### Farm Production Assets and Earnings

The market value of farm production assets reached \$393.1 billion as of January 1, 1974, 25 percent above the value at the beginning of 1973 (table 21). Rising real estate values accounted for 70 percent of the \$77.9-billion increase; sharply higher livestock prices and an increase of 5 percent in cattle inventories contributed another 15 percent; and the remaining 15 percent was caused by higher machinery values and increased stocks and prices for grains and feed stored on farms. For the first time on record, the value of livestock on farms on January 1, 1974, exceeded the value of farm machinery and equipment.

On January 1, 1974, production assets per farm were estimated at \$148,800. A year earlier, it was \$118,400 (table 22). Since 1969, asset values per farm have increased \$65,400, but \$30,400 of this increase occurred during a single year—1973.

Assets per farm worker rose by \$18,500 and reached \$90,600 on January 1, 1974, compared with \$50,000 on January 1, 1969 (table 23).

Although farmers' equities in production assets totaled more than \$245 billion at the beginning of 1973, farm earnings increased so sharply that the average return to equity for the year was 10.9 percent, more than double the 4.7-percent return in 1972 (table 24). Because of the high returns in 1973, asset values, particularly farm real estate, may rise rapidly throughout 1974. However, if net income declines from the record 1973 level, equity returns for 1974 will also be more modest.

**Table 21—Value of farm production assets, January 1, selected years, 1969-74**

Year	Farm real estate <sup>1</sup>	Live-stock <sup>2</sup>	Machin-ery and motor ve-hicles <sup>3</sup>	Other <sup>4</sup>	Total <sup>5</sup>
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
1969 . . . . .	181.6	20.3	27.8	7.8	237.3
1970 . . . . .	187.0	23.4	28.5	8.0	247.0
1971 . . . . .	194.9	23.7	30.6	8.1	257.2
1972 . . . . .	210.0	27.2	32.6	8.5	278.4
1973 . . . . .	236.5	34.2	34.9	9.6	315.2
1974 <sup>6</sup> . . . . .	295.7	45.7	39.5	12.1	393.1

<sup>1</sup> Farmland and service buildings, excluding operator's dwellings, as of March 1. <sup>2</sup> Excludes horses and mules. <sup>3</sup> Includes 40 percent of the value of automobiles on farms and 78 percent of the value of farm trucks and all other farm machinery. <sup>4</sup> Includes one-half of the January 1 inventory of feed crops, (excluding crops under CCC loans), all hay and forage stored on farms, and working capital needed to meet farm production expenses. <sup>5</sup> Detail may not add to total because of rounding. <sup>6</sup> Preliminary.

**Table 22—Average value of production assets per farm, January 1, selected years, 1969-74**

Year	Farm real estate <sup>1</sup>	Live-stock <sup>2</sup>	Machin-ery and motor ve-hicles <sup>3</sup>	Other <sup>4</sup>	Total <sup>5</sup>
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
1969 . . . . .	64,800	6,800	9,200	2,600	83,400
1970 . . . . .	66,700	7,900	9,600	2,700	86,900
1971 . . . . .	72,700	8,100	10,500	2,800	94,100
1972 . . . . .	79,500	9,500	11,400	3,000	103,400
1973 . . . . .	90,700	12,000	12,300	3,400	118,400
1974 <sup>6</sup> . . . . .	114,300	16,200	14,000	4,300	148,800

See footnotes to table 21.

**Table 23—Average value of production assets per farm worker, January 1, selected years, 1969-74**

Year	Farm real estate <sup>1</sup>	Live-stock <sup>2</sup>	Machin-ery and motor ve-hicles <sup>3</sup>	Other <sup>4</sup>	Total <sup>5</sup>
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
1969 . . . . .	38,300	4,300	5,800	1,600	50,000
1970 . . . . .	40,700	5,100	6,200	1,700	53,700
1971 . . . . .	43,100	5,200	6,800	1,800	56,900
1972 . . . . .	47,300	6,100	7,400	1,900	62,700
1973 . . . . .	54,100	7,800	8,000	2,200	72,100
1974 . . . . .	68,200	10,500	9,100	2,800	90,600

See footnotes to Table 21.

**Table 24—Return to equity in farm production assets from production income, 1969-73**

Year	Net income from production <sup>1</sup>	Imputed return to—		Interest on debt <sup>4</sup>	Residual earnings to equity in production assets	Equity in production assets <sup>5</sup>	Ratio of earnings to asset equity <sup>6</sup>
		Labor <sup>2</sup>	Management <sup>3</sup>				
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>
1969 .....	22,139	9,641	2,599	3,160	6,739	187,734	3.7
1970 .....	22,501	10,691	2,713	3,535	5,557	193,580	2.9
1971 .....	23,104	11,171	2,800	3,766	5,367	199,421	2.7
1972 .....	28,539	11,743	3,248	4,139	9,409	206,021	4.7
1973 .....	49,201	13,014	4,560	4,909	26,718	245,082	10.9

<sup>1</sup>Total net income of farm operators from farming plus cash wages and perquisites of hired labor, interest on real estate and non-real estate debt, and net rent to nonfarm landlords, minus the imputed interest portion of the rental value of farm dwellings. <sup>2</sup>Number of manhours needed for farm production times the averages wage of hired workers without room and

board. <sup>3</sup>Five percent of the total of cash receipts from farm production and Government payments. <sup>4</sup>Interest on real estate and non-real estate debt on dwellings. <sup>5</sup>Market value, January 1. <sup>6</sup>Calculated on the market value of equity in production assets, January 1.

Table 25—Balance Sheet of the Farming Sector, January 1, 1940-74<sup>1</sup>

Item	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
<b>ASSETS</b>																	
Physical assets:																	
Real estate .....	33.6	34.4	37.5	41.6	48.2	53.9	61.0	68.5	73.7	76.6	75.3	86.6	95.1	96.5	95.0	98.2	102.9
Nonreal estate:																	
Livestock <sup>2</sup> .....	5.1	5.3	7.1	9.6	9.7	9.0	9.7	11.9	13.3	14.4	12.9	17.1	19.5	14.8	11.7	11.2	10.6
Machinery and motor vehicles .....	3.1	3.3	4.0	4.9	5.4	6.5	5.4	5.3	7.4	10.1	12.2	14.1	16.7	17.4	18.4	18.6	19.3
Crops stored on and off farms <sup>3</sup> .....	2.7	3.0	3.8	5.1	6.1	6.7	6.3	7.1	9.0	8.6	7.6	7.9	8.8	9.0	9.2	9.6	8.4
Household equipment and furnishings .....	4.2	4.2	4.9	5.0	5.3	5.6	6.1	7.7	8.5	9.1	8.6	9.7	10.3	9.9	9.9	10.0	10.5
Financial assets:																	
Deposits and currency ..	3.2	3.5	4.2	5.4	6.6	7.9	9.4	10.2	9.9	9.6	9.1	9.1	9.4	9.4	9.4	9.4	9.5
U.S. savings bonds .....	.2	.4	.5	1.1	2.2	3.4	4.2	4.2	4.4	4.6	4.7	4.7	4.7	4.6	4.7	5.0	5.2
Investments in cooperatives .....	.8	.9	.9	1.0	1.1	1.2	1.4	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.2
<b>Total<sup>4</sup> .....</b>	<b>52.9</b>	<b>55.0</b>	<b>62.9</b>	<b>73.7</b>	<b>84.6</b>	<b>94.2</b>	<b>103.5</b>	<b>116.4</b>	<b>127.9</b>	<b>134.9</b>	<b>132.5</b>	<b>151.5</b>	<b>167.0</b>	<b>164.3</b>	<b>161.2</b>	<b>165.1</b>	<b>169.6</b>
<b>CLAIMS</b>																	
Liabilities:																	
Real estate debt .....	6.6	6.5	6.4	6.0	5.4	4.9	4.8	4.9	5.1	5.3	5.6	6.1	6.7	7.2	7.7	8.2	9.0
Nonreal estate debt to:																	
CCC <sup>5</sup> .....	.4	.6	.6	.8	.6	.7	.3	.1	.1	1.2	1.7	.8	.6	1.2	2.4	2.2	1.9
Other reporting institutions <sup>6</sup> .....	1.5	1.6	1.8	1.7	1.7	1.6	1.7	2.0	2.3	2.7	2.8	3.4	4.1	4.2	3.7	4.0	4.4
Nonreporting creditors <sup>7</sup> .....	1.5	1.7	1.7	1.5	1.2	1.1	1.2	1.5	1.8	2.2	2.3	2.8	3.3	3.5	3.1	3.2	3.5
<b>Total liabilities<sup>4</sup> ..</b>	<b>10.0</b>	<b>10.4</b>	<b>10.5</b>	<b>10.0</b>	<b>8.9</b>	<b>8.3</b>	<b>8.0</b>	<b>8.5</b>	<b>9.3</b>	<b>11.4</b>	<b>12.4</b>	<b>13.1</b>	<b>14.7</b>	<b>16.1</b>	<b>16.9</b>	<b>17.6</b>	<b>18.8</b>
Proprietors' equities .....	42.9	44.6	52.4	63.7	75.7	85.9	95.5	107.9	118.6	123.5	120.1	138.4	152.3	148.2	144.3	147.5	150.8
<b>Total<sup>4</sup> .....</b>	<b>52.9</b>	<b>55.0</b>	<b>62.9</b>	<b>73.7</b>	<b>84.6</b>	<b>94.2</b>	<b>103.5</b>	<b>116.4</b>	<b>127.9</b>	<b>134.9</b>	<b>132.5</b>	<b>151.5</b>	<b>167.0</b>	<b>164.3</b>	<b>161.2</b>	<b>165.1</b>	<b>169.6</b>
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Debt to asset ratio <sup>8</sup> .....	18.9	19.1	16.6	13.4	10.5	8.9	7.6	7.2	7.2	8.4	9.4	8.6	8.8	9.8	10.5	10.7	11.1

See footnotes at end of table.

Table 25—Balance Sheet of the Farming Sector, January 1, 1940-74<sup>1</sup>—Continued

Item	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	
<b>ASSETS</b>																			
<b>Physical assets:</b>																			
Real estate .....	110.4	115.9	124.4	130.2	131.8	138.0	143.8	152.1	160.9	172.2	181.7	191.9	201.4	206.9	214.9	231.5	260.6	325.3	
<b>Nonreal estate:</b>																			
Livestock <sup>2</sup> .....	11.0	13.9	17.7	15.2	15.5	16.4	17.3	15.8	14.4	17.5	18.9	18.8	20.2	23.4	23.8	27.3	34.1	45.8	
Machinery and motor vehicles .....	20.2	20.2	21.8	22.7	22.2	22.5	23.4	23.9	24.8	25.9	27.4	29.8	31.3	32.3	34.4	36.6	39.1	43.6	
Crops stored on and off-farms <sup>3</sup> .....	8.3	7.6	9.3	7.7	8.0	8.8	9.3	9.8	9.2	9.7	10.0	9.6	10.6	10.9	10.7	11.8	14.5	22.1	
Household equipment and furnishings .....	10.0	9.9	9.8	9.6	8.9	9.1	9.0	8.9	8.6	8.6	8.4	9.0	9.6	9.7	10.1	11.0	11.9	13.6	
<b>Financial assets:</b>																			
Deposits and currency ..	9.4	9.5	10.0	9.2	8.7	8.8	9.2	9.2	9.6	10.0	10.3	10.9	11.5	11.9	12.4	13.2	14.0	14.9	
U.S. savings bonds .....	5.1	5.1	5.2	4.7	4.6	4.4	4.4	4.2	4.2	4.0	3.9	3.8	3.8	3.7	3.6	3.7	4.0	4.0	
Investments in cooperatives .....	3.5	3.7	3.9	4.2	4.5	4.8	5.0	5.4	5.6	5.9	6.2	6.5	6.8	7.2	7.6	8.0	8.6	9.5	
<b>Total<sup>4</sup> .....</b>	<b>177.9</b>	<b>185.8</b>	<b>202.1</b>	<b>203.5</b>	<b>204.2</b>	<b>212.8</b>	<b>221.4</b>	<b>229.3</b>	<b>237.3</b>	<b>253.8</b>	<b>266.8</b>	<b>280.3</b>	<b>295.2</b>	<b>306.0</b>	<b>317.5</b>	<b>343.1</b>	<b>386.8</b>	<b>478.8</b>	
<b>CLAIMS</b>																			
<b>Liabilities:</b>																			
Real estate debt .....	9.8	10.4	11.1	12.1	12.8	13.9	15.2	16.8	18.9	21.2	23.3	25.5	27.4	29.2	30.3	32.2	35.8	41.3	
<b>Nonreal estate debt to:</b>																			
CCC <sup>5</sup> .....	1.5	1.2	2.5	1.1	1.4	1.9	2.0	1.9	1.5	1.4	1.2	1.4	2.7	2.7	1.9	2.3	1.8	.7	
Other reporting institutions <sup>6</sup> .....	4.5	5.0	5.7	6.7	7.0	7.5	8.5	9.5	10.0	11.1	12.4	13.7	14.6	15.8	17.4	19.6	21.9	26.2	
Nonreporting creditors <sup>7</sup> .....	3.5	3.8	4.3	4.9	5.0	5.4	6.0	6.7	7.1	7.9	8.8	9.8	10.3	11.2	12.3	13.7	15.4	15.9	
<b>Total liabilities<sup>4</sup> .....</b>	<b>19.3</b>	<b>20.4</b>	<b>23.6</b>	<b>24.8</b>	<b>26.2</b>	<b>28.7</b>	<b>31.7</b>	<b>34.9</b>	<b>37.5</b>	<b>41.6</b>	<b>45.7</b>	<b>50.4</b>	<b>55.0</b>	<b>58.9</b>	<b>61.9</b>	<b>67.8</b>	<b>74.9</b>	<b>84.1</b>	
Proprietors' equities .....	158.6	165.4	178.5	178.7	178.0	184.1	189.7	194.4	199.8	212.2	221.1	229.9	240.2	247.1	255.6	275.3	311.9	394.7	
<b>Total<sup>4</sup> .....</b>	<b>177.9</b>	<b>185.8</b>	<b>202.1</b>	<b>203.5</b>	<b>204.2</b>	<b>212.8</b>	<b>221.4</b>	<b>229.3</b>	<b>237.2</b>	<b>253.8</b>	<b>266.8</b>	<b>280.3</b>	<b>295.2</b>	<b>306.0</b>	<b>317.5</b>	<b>343.1</b>	<b>386.8</b>	<b>478.8</b>	
																<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Debt to asset ratios <sup>8</sup> .....	10.9	11.0	11.7	12.2	12.8	13.5	14.3	15.2	15.8	16.4	17.1	18.0	18.6	19.2	19.5	19.8	19.4	17.6	

<sup>1</sup> Includes Alaska and Hawaii beginning with 1969.

<sup>2</sup> Beginning with 1961, horses and mules are excluded.

<sup>3</sup> Includes all crops held on farms and crops held off farms by farmers as security for CCC loans. On Jan. 1, 1974, the latter totaled \$553 million. <sup>4</sup> Totals of

rounded data. <sup>5</sup> Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in this balance sheet. <sup>6</sup> Loans of all operating banks, production credit associations, the Farmers Home Administration, and discounts of the Federal

intermediate credit banks for agricultural credit corporations and livestock loan companies. <sup>7</sup> Loans companies, individual, and others. <sup>8</sup> Computed from unrounded data.

**Table 26—Balance sheet of the farming sector, selected years, January 1, 1940-1974<sup>1</sup>**  
(48 States)

Item	1940	1950	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>	<i>Billion dollars</i>
<b>ASSETS</b>																	
Physical assets:																	
Real estate .....	33.6	75.3	130.2	131.8	138.0	143.8	152.1	160.9	172.2	181.7	191.9	200.8	206.1	214.1	230.5	259.5	324.2
Nonreal estate:																	
Livestock <sup>2</sup> .....	5.1	12.9	15.2	15.5	16.4	17.3	15.8	14.4	17.5	18.9	18.8	20.2	23.4	23.7	27.2	34.0	45.7
Machinery and motor vehicles .....	3.1	12.2	22.7	22.2	22.5	23.4	23.9	24.8	25.9	27.4	29.8	31.3	32.3	34.3	36.6	39.1	43.6
Crops stored on and off-farms <sup>3</sup> .....	2.7	7.6	7.7	8.0	8.8	9.3	9.8	9.2	9.7	10.0	9.6	10.6	10.9	10.7	11.8	14.5	22.1
Household equipment and furnishings .....	4.2	8.6	9.6	8.9	9.1	9.0	8.9	8.6	8.6	8.4	9.0	9.6	9.7	10.1	11.0	11.9	13.6
Financial assets:																	
Deposits and currency ..	3.2	9.1	9.2	8.7	8.8	9.2	9.2	9.6	10.0	10.3	10.9	11.4	11.9	12.4	13.1	14.0	14.8
U.S. savings bonds .....	.2	4.7	4.7	4.6	4.4	4.4	4.2	4.2	4.0	3.9	3.8	3.7	3.7	3.6	3.7	4.0	4.0
Investments in cooperatives .....	.8	2.1	4.2	4.5	4.8	5.0	5.4	5.6	5.9	6.2	6.5	6.8	7.2	7.6	8.0	8.6	9.5
<b>Total<sup>4</sup> .....</b>	<b>52.9</b>	<b>132.5</b>	<b>203.5</b>	<b>204.2</b>	<b>212.8</b>	<b>221.4</b>	<b>229.3</b>	<b>237.3</b>	<b>253.8</b>	<b>266.8</b>	<b>280.3</b>	<b>294.4</b>	<b>305.2</b>	<b>316.5</b>	<b>341.9</b>	<b>385.6</b>	<b>477.5</b>
<b>CLAIMS</b>																	
Liabilities:																	
Real estate debt .....	6.6	5.6	12.1	12.8	13.9	15.2	16.8	18.9	21.2	23.1	25.1	27.4	29.2	30.3	32.2	35.7	41.2
Nonreal estate debt to:																	
CCC <sup>5</sup> .....	.4	1.7	1.1	1.4	1.9	2.0	1.9	1.5	1.4	1.2	1.4	2.7	2.7	1.9	2.3	1.8	.7
Other reporting institutions <sup>6</sup> .....	1.5	2.8	6.7	7.0	7.5	8.5	9.5	10.0	11.1	12.4	13.7	14.5	15.8	17.4	19.6	21.9	26.2
Nonreporting creditors <sup>7</sup> .....	1.5	2.3	4.9	5.0	5.4	6.0	6.7	7.2	7.9	8.8	9.8	10.3	11.2	12.3	13.7	15.4	15.9
<b>Total liabilities<sup>4</sup> .....</b>	<b>10.0</b>	<b>12.4</b>	<b>24.8</b>	<b>26.2</b>	<b>28.7</b>	<b>31.7</b>	<b>34.9</b>	<b>37.6</b>	<b>41.6</b>	<b>45.5</b>	<b>50.0</b>	<b>54.9</b>	<b>58.9</b>	<b>61.9</b>	<b>67.8</b>	<b>74.8</b>	<b>84.0</b>
Proprietors' equities .....	42.9	120.1	178.7	178.0	184.1	189.7	194.4	199.7	213.6	221.3	230.3	239.5	246.3	254.6	274.1	310.8	393.5
<b>Total<sup>4</sup> .....</b>	<b>52.9</b>	<b>132.5</b>	<b>203.5</b>	<b>204.2</b>	<b>212.8</b>	<b>221.4</b>	<b>229.3</b>	<b>237.3</b>	<b>253.8</b>	<b>266.8</b>	<b>280.3</b>	<b>294.4</b>	<b>305.2</b>	<b>316.5</b>	<b>341.9</b>	<b>385.6</b>	<b>447.5</b>
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Debt-to-asset ratio <sup>8</sup> .....	18.9	9.4	12.2	12.8	13.5	14.3	15.2	15.8	15.8	17.1	17.8	18.6	19.3	19.6	19.8	19.4	17.6

<sup>1</sup> Revised. <sup>2</sup> Beginning with 1961, horses and mules are excluded. <sup>3</sup> Includes all crops held on farms and crops held off farms by farmers as security for CCC loans. On Jan. 1, 1974, the latter totaled \$553 million. <sup>4</sup> Totals of rounded data. Nonrecourse CCC loans

secured by crops owned by farmers. These crops are included as assets in this balance sheet. <sup>6</sup> Loans of all operating banks, production credit associations, the Farmers Home Administration, and discounts of the Federal intermediate credit banks for agricultural

credit corporations and livestock loan companies. <sup>7</sup> Loans and credit extended by dealers, merchants, finance companies, individuals, and others. <sup>8</sup> Computed from unrounded data.



## BALANCE SHEET OF THE FARMING SECTOR, ALASKA, 1969-74

Carson D. Evans<sup>1</sup>

*Alaska is a relative newcomer and a lightweight in the farming arena but has shown rapid gains in the value of farm assets and equity in those assets in the last several years. Knowledge of farm asset inventory and debt level are two of the many important tools needed to appraise its present agricultural status and its potential.*

A balance sheet of the farming sector of a geographical region's economy depicts the total value of its farm assets, amount of debts and the remaining equity as if it were one large farm. By comparing these over periods of time, balance sheets provide a measure of change in their values and a measure of the sector's financial health. Even more importantly, when used with information on farm income and expense, they provide a basis for computing rates of return on farm investment. Until now, Alaska's farming sector has not had the advantage of such a measuring tool.

Commercial agriculture in Alaska has a relatively short history. Although the land mass was discovered by the Russian, Vitus Bering, in 1741 and by the English explorer, Captain James Cook, in 1778, furs, minerals, coal, and fish were the territory's main attraction for the next century. Even after the United States purchased Alaska from Russia in 1867, it took the Klondike gold discovery in 1897 to bring to

the world a new awareness of the territory and a hint of its potential wealth.

Around the turn of this century, sporadic attempts were made at farming, aimed mostly at supplementing the food supply of miners and railroad builders. The Homestead Act of 1898 was not written with the peculiar problems of Alaska in mind and was of little or no help in encouraging permanent settlers or commercial farming. Dogged perseverance kept a few farmers in the Matanuska Valley and ranchers on the Kenai Peninsula selling their commodities to railroad construction crews and miners until America's entry into World War I. That event quickly precipitated the almost total abandonment of farms and other industries in Alaska as men left for the States to support the war effort. It was not until the mid-1930's that commercial farming in Alaska began another round with the conception of the Colony in the Matanuska Valley.

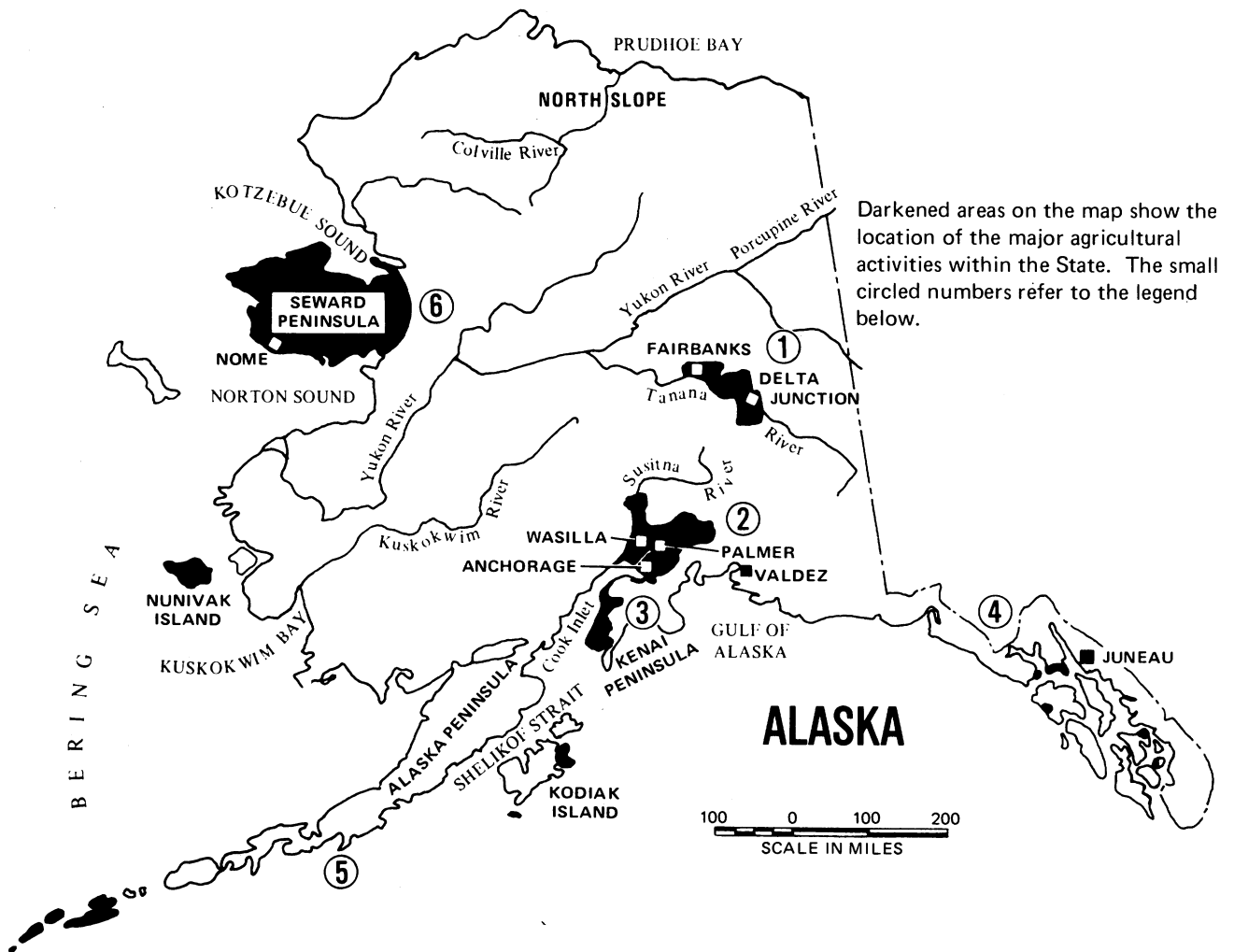
About 200 volunteer farm and rural families from Michigan, Minnesota, and Wisconsin were moved by the U.S. Government to settle as a corporation or "colony" in the Matanuska Valley, which is located in the south central part of the State, about 50 miles north of Anchorage (fig. 1). Their purpose was to form a permanent farming settlement. All sorts of experiences, mostly bad, plagued the group. Many quit and some were replaced. Nevertheless, by 1950 about 200 families were still there, and commercial farming was developing.

Over the years, other areas were also settled and farmed but not by a colony concept. Sections along the Tanana River southeast of Fairbanks around Big Delta and an area north of Fairbanks were developed for row cropping and for grain and hay production to feed poultry and livestock. Cattle ranching and some specialty crop farming developed on the Kenai Peninsula, where a slow but steady growth has occurred. Sheep ranching on the Aleutian Island chain is rather limited but has persisted. Reindeer production is located mostly on the Seward Peninsula and some islands in the Bering Sea.

Presently, the Matanuska Valley is the major farming area, accounting for about 60 percent of total cropland farmed and for all but one of the State's commercial dairy farms. More than 70 percent of Alaska's farm output is produced in this valley.

<sup>1</sup>The author acknowledges with appreciation the assistance of the many people who, in various ways, helped with this project, including those in the U.S. Department of Agriculture in Washington, D.C., and in Alaska, several commercial banks, the Farm Credit Administration, the University of Alaska, several departments of the Alaska State Government and farmers. James Wilson, loan supervisor, Alaska Agricultural Revolving Loan Fund, and George S. Crowther, manager, Alaska Rural Rehabilitation Corporation, furnished much of the debt data. The Alaska Experiment Station, Bulletin 35, *Financing Alaska's Farms*, by A. Dale Saunders, contained invaluable information in estimating some of the statistical benchmarks. Wayne C. Thomas, professor, University of Alaska, reviewed the manuscript and offered helpful suggestions. A special debt of gratitude is owed S.N. Severson, statistician in charge, Statistical Reporting Service, Palmer, Alaska, for his many services and data, his patience and encouragement, and for his review of the manuscript and helpful advice. However, the writer assumes responsibility for any errors or omissions.

# Major Farming Areas and Commodities Produced in Alaska



① Tanana Valley	② Matanuska Valley	③ Kenai Peninsula	④ Southeast	⑤ Southwest	⑥ West
OATS BARLEY HAY POTATOES CABBAGE CARROTS LETTUCE	OATS BARLEY HAY POTATOES CABBAGE CARROTS LETTUCE	OATS HAY POTATOES			
BEEF CATTLE HOGS CHICKENS EGGS MILK	BEEF CATTLE HOGS CHICKENS EGGS MILK	BEEF CATTLE HOGS CHICKENS EGGS	CHICKENS EGGS	BEEF CATTLE HOGS CHICKENS EGGS SHEEP	REINDEER

Figure 1

Farms along the Tanana River produce about 20 percent of total output and account for about one-quarter of the cropland.

Most of Alaska's farm commodities are consumed within the State, with the civilian population plus military posts providing ready markets. The price and quality advantage over many imported items usually assure reasonable farm prices for these commodities.

At the beginning of 1974, there were about 310 farm operators in Alaska farming approximately 65,000 acres of privately owned land, and leasing about 1,350,000 additional acres from the U.S. and Alaskan Governments.

### The Balance Sheet in General

At the beginning of 1974, the value of farm-related assets of farm operators and nonfarm landlords totaled \$41 million, having increased 14 percent from 1973 and 56 percent since 1969 (table 1 and fig. 2). From 1969 to 1974, values rose steadily, mainly following the course of farm real estate values (fig. 3). Similarly, the value of livestock, motor vehicles and machinery, and stored crops increased nearly 50 percent, although the dollar gain was less than half that of real estate. Financial assets changed little.

The \$13.6-million farm debt outstanding on January 1, 1974, was only slightly higher than a year earlier but two-thirds higher than at the beginning of 1969.

Between 1969 and 1974, proprietors' equity in farm assets climbed from \$18.2 million to \$27.4 million, or about 50 percent.

Asset components of the balance sheet showed little change in relative importance over the 5 years (table 2). Farm real estate debt and nonreal estate debt held about the same relationship until 1974 when the real estate portion increased sharply.

### Balance Sheet Components

#### Assets

*The value of privately owned farm real estate* including farmland and buildings, on January 1, 1974, was \$27.6 million, up \$3.0 million in the last year and \$10.5 million more than in 1969. As has been the case in the conterminous 48 States in recent years, the value of farm real estate equalled about two-thirds the value of all assets.

The average value per acre of \$425 disguises the fact that much of the farmland is worth much more and some much less; the range is probably from \$100 to \$2,000 per acre. Many farms, rather small in acreage and farmed intensively, are high priced, such as vegetable farms and greenhouse operations. On the other hand, land used for grain or grazing takes up much more acreage but is less productive and lower priced. Also, some tracts are in the first stages of clearing and development while others have been

farmed for many years. In areas close to the centers of population, the price of farmland is feeling the pressure of residential expansion. A prime example is the Palmer-Wasilla area about 50 miles north of Anchorage.

The main trans-Alaska oil pipe lines originating near Prudhoe Bay on the North Slope, running south past Fairbanks and ending at Valdez, will probably have little influence on the price of farmland, generally, in the near future. Some land on or near the pipe lines' rights-of-way or bordering construction workers' villages are exceptions, but these are few.

*Livestock and poultry* on farms January 1, 1974, were valued at \$4.5 million, 44 percent above 1973 and 60 percent higher than in 1969. Cattle made up about 80 percent of total livestock value at the beginning of 1974, with sheep and lambs accounting for about 16 percent, and hogs and poultry accounting for the remaining 4 percent.

The total number of cattle on farms showed only a slight increase since 1969, with beef cattle strongly outnumbering dairy animals. The story was the same for the dollar value of livestock until the increase in cattle value per head from \$280 in 1973 to \$405 in 1974 caused a sharp increase in total livestock value.

Most of the beef cattle are located in Southwest Alaska on Kodiak Island and the Aleutian Chain. Most dairy animals are in the Matanuska Valley. At the beginning of 1974, 16 dairies were operating in Alaska—15 in the Matanuska Valley and one in the Tanana Valley.

For the last several years, about 95 percent of the sheep have been on islands of the Aleutian Chain. Over four-fifths of all chickens were in flocks in the Matanuska Valley, with most of the remainder in the Tanana Valley. Farmers in these two regions also raise most of Alaska's hogs.

Alaskans provide a ready market for all the domestic meat, milk, and poultry produced in the State. In fact, the local demands is so good most beef cattle and hogs are sold as live animals directly to individuals, bypassing grocery supermarkets and other meat markets entirely. In those cases, the buyer usually contracts with a slaughter to kill and process the animals for him.

*The value of motor vehicles and machinery* on farms January 1, 1974, was \$3.5 million, about 9 percent above a year earlier but 59 percent above January 1, 1969.

Of the total value, trucks made up about 35 percent and tractors 25 percent. The value of other or miscellaneous farm machinery made up a smaller part of total value on Alaska's farms—about 40 percent—than was the case for the 48 conterminous States, which is usually about 55 percent. On many Alaskan farms, trucks and tractors were by far the more valuable pieces of machinery, the trucks for transportation of supplies and produce and the tractors for clearing land and tilling.

Table 1—Balance sheet of the farming sector, Alaska, January 1, 1969-1974

Item	1969	1970	1971	1972	1973	1974	Percentage change	
							1969 to 1974	1973 to 1974
	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Percent</i>	<i>Percent</i>
<b>ASSETS</b>								
<b>Physical assets:</b>								
Real estate .....	17,100	18,270	20,400	22,140	24,570	27,625	62	12
<b>Nonreal estate:</b>								
Livestock and poultry .....	2,821	2,912	3,017	3,207	3,140	4,515	60	44
Machinery and motor vehicles ...	2,400	2,500	2,700	2,900	3,300	3,500	59	9
Crops stored on farms .....	916	959	1,154	1,100	1,752	1,988	117	14
Household equipment and furnishings .....	2,000	2,000	2,000	2,000	2,000	2,000	0	0
<b>Financial assets:</b>								
Deposits and currency .....	434	456	499	541	559	640	48	14
U.S. savings bonds .....	135	132	133	144	144	151	12	14
Investment in cooperatives .....	529	515	533	554	546	591	12	8
<b>TOTAL .....</b>	<b>26,335</b>	<b>27,744</b>	<b>30,436</b>	<b>32,586</b>	<b>36,011</b>	<b>41,010</b>	<b>56</b>	<b>14</b>
<b>CLAIMS</b>								
<b>Liabilities:</b>								
<b>Real estate debt:</b>								
Federal land bank .....	915	935	842	1,532	1,816	3,410	273	88
Banks (all operating) .....	708	779	904	1,330	1,868	1,325	87	-29
Farmers Home Administration (Direct loans) .....	1,053	992	873	474	359	286	-73	-20
ARRC <sup>1</sup> .....	746	792	744	961	927	918	24	-1
ARLF <sup>2</sup> .....	832	810	1,260	1,913	2,187	2,377	186	9
Other .....	850	860	920	1,240	1,430	1,680	98	18
<b>Total real estate debt .....</b>	<b>5,104</b>	<b>5,168</b>	<b>5,543</b>	<b>7,450</b>	<b>8,587</b>	<b>9,996</b>	<b>96</b>	<b>16</b>
<b>Nonreal estate debt:</b>								
Banks (all commercial) .....	926	998	1,241	1,109	1,776	1,036	12	-62
Production credit association <sup>3</sup> ...	---	---	376	769	832	697	--	-16
Farmers Home Administration (Direct loans) .....	1,337	1,186	993	796	680	531	-60	-22
ARRC <sup>1</sup> .....	54	62	111	77	57	67	24	18
ARLF <sup>2</sup> .....	497	528	818	1,094	1,120	1,058	107	-5
Other .....	140	140	160	190	220	170	21	-23
<b>Total nonreal estate debt: ....</b>	<b>2,954</b>	<b>2,914</b>	<b>3,699</b>	<b>4,035</b>	<b>4,685</b>	<b>3,559</b>	<b>21</b>	<b>-24</b>
<b>Total debt .....</b>	<b>8,058</b>	<b>8,082</b>	<b>9,242</b>	<b>11,485</b>	<b>13,272</b>	<b>13,555</b>	<b>68</b>	<b>2</b>
<b>Equity .....</b>	<b>18,277</b>	<b>19,662</b>	<b>21,194</b>	<b>21,101</b>	<b>22,739</b>	<b>27,455</b>	<b>50</b>	<b>21</b>
<b>Debt-to-asset ratio (percent) .....</b>	<b>30.6</b>	<b>29.1</b>	<b>30.4</b>	<b>35.2</b>	<b>36.9</b>	<b>33.1</b>		

<sup>1</sup> Alaska Rural Rehabilitation Corporation. <sup>2</sup> Agriculture Revolving Loan Fund. <sup>3</sup> Data do not include aquatic loans.

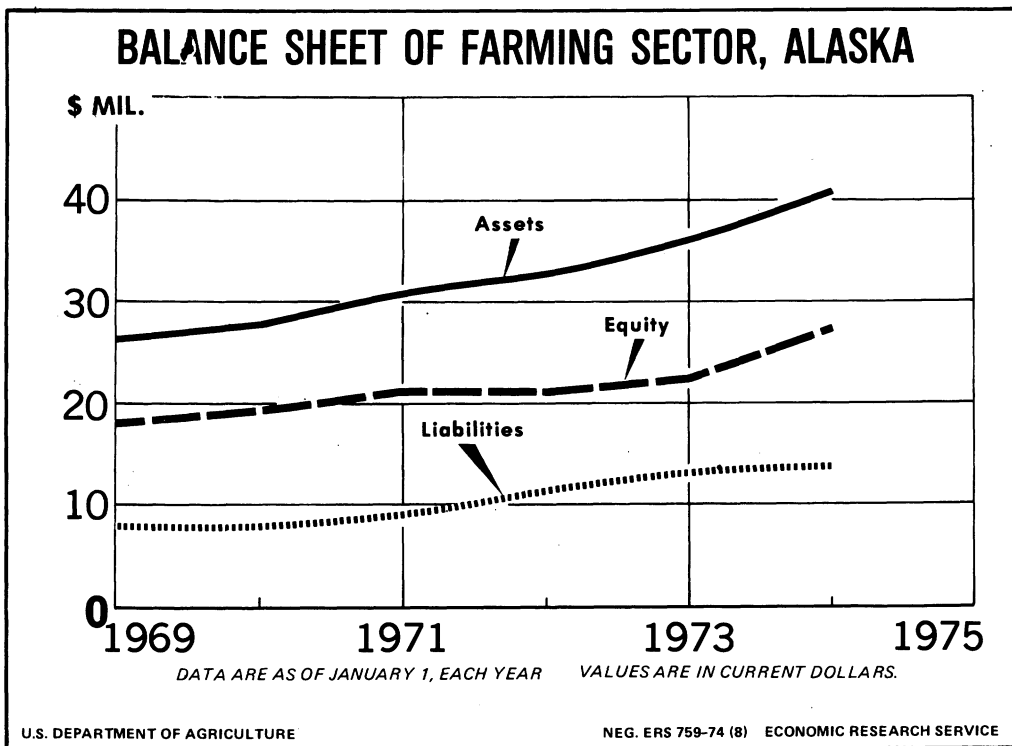


Figure 2

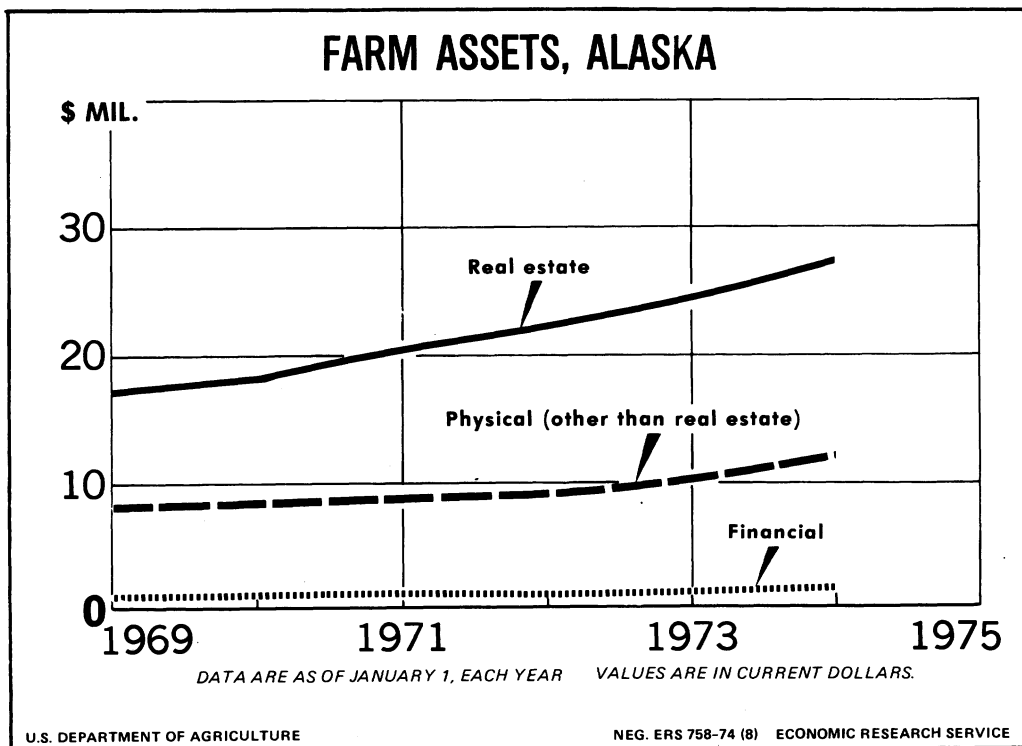


Figure 3

**Table 2—Balance sheet components as shares of total assets and liabilities,  
Alaska, 1969-74**

Item	1969	1970	1971	1972	1973	1974
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
<b>ASSETS</b>						
Physical assets:						
Real estate .....	65.0	65.9	67.1	68.0	68.3	67.4
Nonreal estate:						
Livestock and poultry .....	10.7	10.5	9.9	9.9	8.7	11.0
Machinery and motor vehicles .....	9.1	9.0	8.9	8.9	9.2	8.5
Crops stored on and off farms .....	3.5	3.5	3.8	3.4	4.9	4.8
Household equipment and furnishings .....	7.6	7.2	6.6	6.1	5.5	4.9
Financial assets:						
Deposits and currency .....	1.6	1.6	1.6	1.7	1.5	1.6
U.S. savings bonds .....	.5	.5	.4	.4	.4	.4
Investments in cooperatives .....	2.0	1.8	1.7	1.6	1.5	1.4
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>LIABILITIES</b>						
Real estate debt .....	63.3	63.9	62.5	64.9	64.7	73.7
Nonreal estate debt .....	36.7	36.1	37.5	35.1	35.3	26.3
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Due mostly to transportation costs, prices of farm motor vehicles and machinery were somewhat higher in Alaska than in the 48 conterminous States. Therefore, the total value would be slightly higher in Alaska than for the same number and kinds of items on farms in the conterminous 48 States.

*Crops stored* on Alaska's farms are limited to potatoes, oats, barley, silage, and hay. Except for potatoes, stored crops are used for animal feed and a small amount for seed. Carryover of feed into the new year usually ranges from 1/2 to 2/3 of production. Since feedstuffs are expensive to ship to Alaska, most purchases consist of protein supplements and feed concentrates although sometimes it is necessary to import some hay and grain, especially for dairies.

Most oats and barley are grown in the Tanana Valley, while the Matanuska Valley is the principal producer of silage and hay. Native grass is harvested for silage and hay and constitutes an important part of total feed stored.

Potatoes are harvested in late summer and are sold gradually until the next harvest. Usually, stocks on January 1 are 60 to 70 percent of total production. The Matanuska Valley is the principal potato-producing area with a larger acreage and higher yields than the average in the Tanana Valley, the other important potato area.

No farmer-owned crops are stored on or off farms in Alaska under Commodity Credit Corporation loans.

*The value of household equipment and furnishings* of Alaskan farmers has been about \$2 million for the last several years. As the number of farms declined slightly, prices of items in the households increased enough to hold total value relatively constant.

On January 1, 1974, *financial assets* totalled an estimated \$1.4 million, up slightly from 1973 and about 1/3 higher than in 1969. Currency and bank time and demand deposits of Alaskan farmers probably made up about one-half of their financial assets. In the 48 contiguous States, financial assets of farmers equaled about 6 percent of total farm asset value. For Alaska, the proportion was about 3 percent.

Estimates of U.S. savings bonds owned by Alaskan farmers place the value between 10 percent and 15 percent of total financial assets.

The net worth of farmers' cooperatives was estimated to be nearly \$0.6 million at the beginning of 1974, showing only a slight increase since 1969.

### **Liabilities**

Farm debt outstanding January 1, 1974, in Alaska totaled \$13.6 million. This was only slightly higher than 1 year earlier but over two-thirds higher than at the beginning of 1969. Farm mortgage debt accounted for the larger portion of the debt.

#### **Farm Real Estate Debt**

Farm debt secured by farm real estate totaled \$10 million outstanding at the beginning of 1974. Although the 1974 sum was nearly double the amount at the beginning of 1969, practically all the increase occurred in the last 3 years.

Alaskan farmers have had several sources of farm long-term credit, including the Federal land bank system, commercial banks, Farmers Home Administration, the Alaska Rural Rehabilitation

Corporation (ARRC), the Agricultural Revolving Loan Fund (ARLF), and miscellaneous sources, mostly individuals.

At the beginning of 1974, the Federal land bank was the largest single lender in Alaska, having almost doubled its 1973 volume and holding one-third of all farm mortgage loans. The ARLF, with 24 percent of the volume, was the second largest single sources of farm real estate loans, while commercial banks held about 13 percent, a smaller portion than for the last several years. Individuals, mostly sellers of farmland, held an estimated 16 percent of total farm real estate loans outstanding. In 1969, the Farmers Home Administration (FmHA) was the largest single lender but 5 years later was the smallest. The amount of loans held by FmHA actually declined by two-thirds from 1969 to 1974, while total farm mortgage debt doubled in volume. Life insurance companies, important farm mortgage lenders in most other States, held no Alaskan farm loans.

The ARRC and ARLF are lending agencies operating only in Alaska. The ARRC was organized by the Federal Government in 1935, about the time the Matanuska Valley Colony was begun, for the purpose of promoting rural rehabilitation. The corporation was supervised by the U.S. Department of the Interior until 1953 when all Federal control was relinquished. Since that time, it has operated under local administration, although still functioning statewide.

The ARLF was established and originally funded by the Alaska Territorial Legislature in 1953 for the purpose of creating a source of loans to promote agricultural development in areas where other lenders may be reluctant to make loans. The fund continued as a State program after Alaska gained Statehood in 1959.

There has never been a local Federal land bank association in Alaska presumably because of the relatively limited number of prospective borrowers. Instead, Federal land bank loans are made through a branch office of the Federal Land Bank Association of Mount Vernon, Washington.

Farm real estate loans in Alaska are made for purposes usually calling for long-term loans, but the typical loan there contains much more than the ordinary amount for land clearing and construction of dwellings and service buildings. Much of the land purchased for farming must be cleared of trees and the soil prepared for planting, a process which may take 3 to 4 years, or even longer.

### **Farm Nonreal Estate Debt**

Five lenders furnish most farm short- and intermediate-term loans in Alaska, all having been in operation for a number of years, except the production credit association which began service in 1970. Commercial banks have furnished about one-

third of the nonreal estate loans over the last 5 years, and ARLF about another one-third in the last several years. The Farmers Home Administration farm operating loan volume has shown a declining trend since 1969. Production credit association loans are made through the Northwest Livestock Production Credit Association, Portland, Oregon, since there is no local production credit association in Alaska. Usually short- and intermediate-term loans of the ARLF make up from 2 to 3 percent of all such loans outstanding. Estimates of credit supplied by merchants, dealers, individuals, and other miscellaneous lenders usually amount to about 5 percent of total farm nonreal estate loans outstanding in Alaska, a much smaller portion of the total than the usual 40 percent for the 48 contiguous States.

Purposes of short- and intermediate-term farm loans in Alaska are similar to those in other States. Loans are regularly made for farm operating expenses, purchases of equipment and livestock, and for minor homestead improvements. Repayment schedules are timed to coincide with expected farm income.

### **Equity**

Proprietors' equity in Alaska's farm assets at the beginning of 1974 was about two-thirds of the market value of those assets. For other years, the ratio of equity to assets ranged between 70 and 63 percent.

Equity in farm real estate accounted for about two-thirds of total equity, a somewhat smaller percentage than for the United States. In Alaska, the average ratio of real estate debt to real estate asset value on January 1, 1974, was nearly three times the 13-percent average for the United States as a whole (table 3). This situation may be partially explained by the shortage of farmers' liquid financial assets, thereby making it necessary for them to borrow heavily to acquire farmland and make improvements. Also, since most commercial farming in Alaska was begun after World War II, sufficient time has not elapsed for many farmers to repay original loans and pass on debt-free farms to heirs. The unique situation of having to clear trees and brush from much of the land purchased and having to wait several years for the land to begin paying for itself probably adds to the relatively heavy debt situation.

Equity in nonreal estate assets stayed about the same from 1969 until 1974, when the higher livestock value caused a sizable jump. Compared with the U.S. average at around 30 percent for the last several years, the nonreal estate debt-to-asset ratio for Alaska is just a little high, but much more in line than the ratio of farm real estate debt and assets.

The ratio of total farm debt to total value of farm assets in Alaska ranged from 29 percent to 37 percent during the 1969-74 period. Although it seems high

**Table 3.—Proprietors' equity in farm real estate and nonreal estate assets, Alaska, January 1, 1969-1974**

Year (January 1)	Farm real estate				Farm nonreal estate			
	Value	Debt out-standing	Equity	Debt-to-asset ratio <sup>1</sup>	Value	Debt out-standing	Equity	Debt-to-asset ratio <sup>1</sup>
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>
1969 .....	17.1	5.1	12.0	29.8	9.2	3.0	6.2	32.0
1970 .....	18.3	5.2	13.1	28.3	9.5	2.9	6.6	30.8
1971 .....	20.4	5.5	14.9	27.2	10.0	3.7	6.3	36.9
1972 .....	22.1	7.5	14.6	33.6	10.5	4.0	6.5	38.6
1973 .....	24.6	8.6	16.0	34.9	11.4	4.7	6.7	40.9
1974 .....	27.6	10.0	17.6	36.2	13.4	3.6	9.8	26.6

<sup>1</sup> Computed from unrounded data.

when compared with ratios of between 18 and 20 percent for the United States as a whole, much more would have to be known about individual financial factors such as total income, repayment capacity of the farms, loan terms and refinancing opportunities before any determination could be made as to whether Alaskan farmers as a group are too heavily indebted. No doubt, the debt-to-asset ratio of some

farmers is much higher than average, and for some, far less, but for the State average to be over 30 percent may strongly indicate that Alaskan farmers are unusually dependent on borrowed funds for their operations. Such a situation would argue for dependable credit sources administered by knowledgeable persons with the good of Alaskan farmers in mind.



## BALANCE SHEET OF THE FARMING SECTOR, HAWAII, 1969-74

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*Hawaii's commercial agriculture is 150 years old, and its farm assets now exceed \$1 billion, with farm real estate accounting for the lion's share. The comparatively low farm debt causes a low debt-to-asset ratio, much lower than the U.S. average and probably as low as that of any other State.*

A balance sheet of an area's farming sector compiles into one financial statement the value of farm-related assets, debts, and equity as if the area were a single large farm. Besides showing the values of the asset and debt components, it can also indicate the part of the area's total financial resources devoted to farming. Also, by comparing balance sheets over periods of time, changes in component values can be measured and even the financial health of the farming sector itself can be monitored. But most significantly, balance sheet information is indispensable in calculating rates of return on farm investment, the key to comparing the profitability of farming with that of various other industries. Hopefully, this balance sheet will serve Hawaii in these respects.

The farming sector of Hawaii is as different from that of the U.S. Mainland as the State is different from the other States. Its farming is unique because it is located in the mid-Pacific, about 20° north of the equator, and was formed from relatively recent volcanic action.

The Hawaiian Islands were discovered and settled by Polynesians about 1,500 years ago and

rediscovered by the English explorer, Captain James Cook, in 1778. Around the turn of the nineteenth century, the Islands were beginning to be used as convenient ports for whaling vessels. Early attempts at growing sugarcane commercially failed, but in 1832 a successful sugar company was established. Many of the ancestors of the present citizens were brought to the Islands to work on the sugarcane plantations.

Agriculture ranks among the top five Hawaiian economic forces—military, tourism, construction, manufacturing, and agriculture. Sugar is the single most important farming industry and pineapple is second.

Hawaii's boundaries contain more than 125 islands, of which eight are considered major ones (fig. 1). The total land area is about 4,128,000 acres, 16,000 of which are covered by lakes and streams. About half the land area is in farms or ranches, including not quite 400,000 acres of cropland. Practically all farmland not cultivated is in livestock pasture composed mostly of wild grasses introduced on the islands many years ago from other lands.

Differing in structure from those in other States, Hawaii's farms tend to be either large or quite small. Of the 3,900 farms reported by the 1969 Census of Agriculture, over half (52 percent) were less than 10 acres each, and 85 percent were less than 50 acres each. However, the latter group, although representing 85 percent of the farms, accounted for less than 2 percent of all the land farmed. At the other extreme, 94 percent of the farmland is in farms of 1,000 acres or more and is farmed by only 2 percent of the operators. Farms with the larger acreages produce sugarcane, pineapple, and beef and farms with the smaller acreages usually specialize in vegetables, fruit, flowers, dairy products, and poultry. Most of the farmland is in large tracts and owned by relatively few landholders who lease it to farm operators.

Hawaii produces all of the fresh milk and most of the fresh eggs it uses but only half the beef, one-third of the pork, and one-fourth of the chicken it consumes. Except for some grazing for beef cattle, practically all livestock feed must be imported, although efforts to produce a larger part of livestock feed and forage in the State are progressing.

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# MAJOR FARMING AREAS AND COMMODITIES PRODUCED IN HAWAII

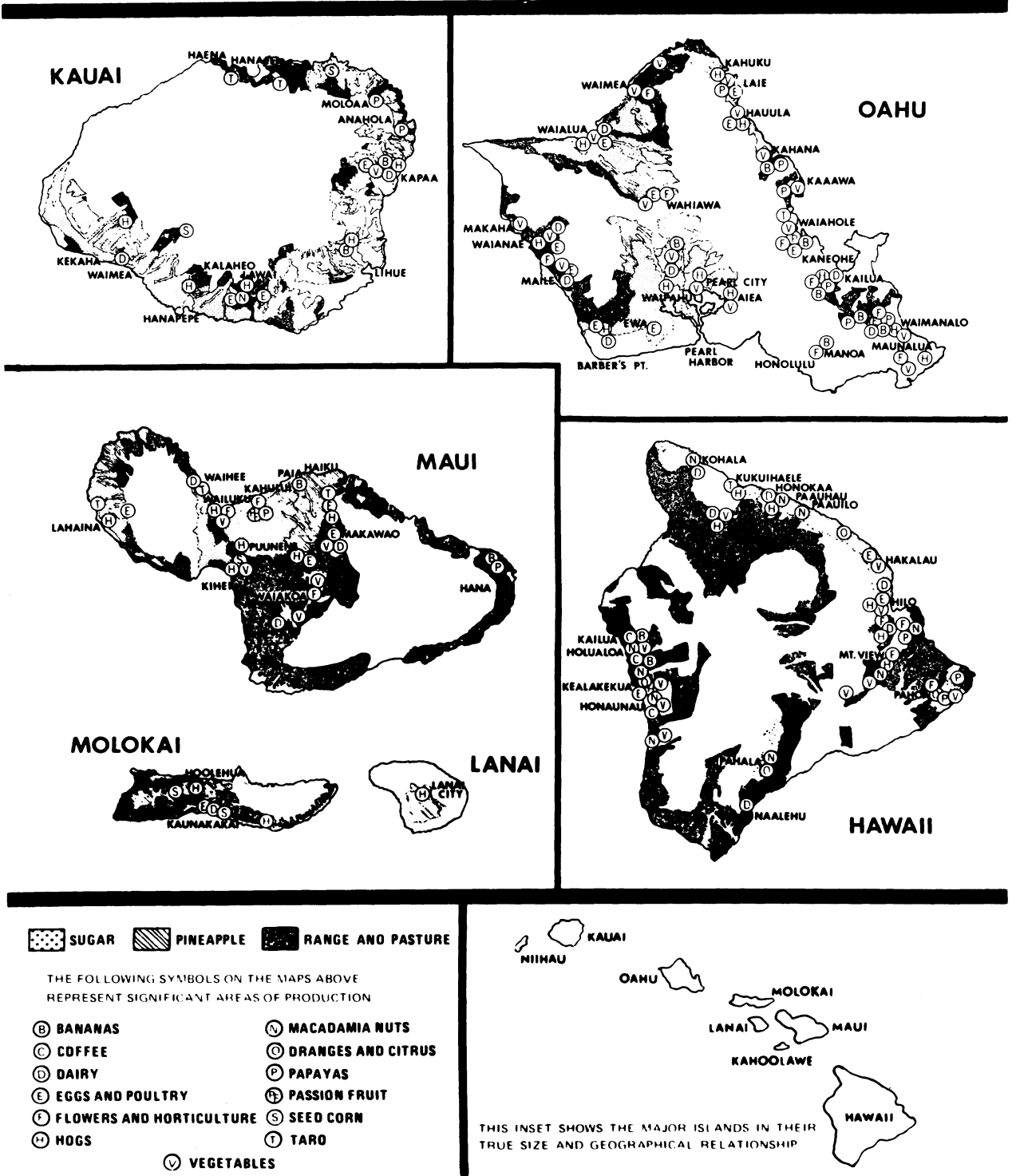


Figure 1

Reliance on water and air transportation for imports and exports, including interisland shipping, causes production and marketing costs of most products to exceed those for comparable products on the Mainland. Bulky items such as machinery, fertilizer, fuel, and livestock usually travel by ship or barge while less bulky but higher valued produce, such as fresh flowers and fruits and some other specialty items, go by air freight. Transportation costs may be more of a deciding factor in whether or not to locate certain farming enterprises in Hawaii than they are for farmers in many other States.

The unusually wide variations between the farming sector of the Mainland and that of Hawaii and the variations just as wide within Hawaii cause some difficulties in constructing a balance sheet of its farming sector. Because the bulk of the farming is sugarcane and pineapple and is farmed mostly by corporations operating vertically integrated businesses, it is important, but a knotty problem, to allocate capital assets and debts so those directly involved with farm production can be identified. For these reasons, this balance sheet of the farming sector of Hawaii will be subject to substantial revision as new information and data become available.

### **The Balance Sheet in General**

Farm assets in Hawaii were valued at \$1,337 million at the beginning of 1974 showing an increase of nearly 10 percent from the previous year and an 82-percent increase since 1969 (table 1 and fig.2). Changes in total value which followed a steady upward trend from 1969 to 1974, were influenced mostly by increases in the value of farm real estate (fig. 3). Compared with real estate, there was much less change in the value of other physical assets or financial assets.

Farm-related debt outstanding January 1, 1974, amounted to \$93 million, after increasing 15 percent in the last year and rising 87 percent since 1969.

Proprietors' equity in farm assets totaled \$1,224 million at the start of 1974, with the growth closely paralleling changes in the value of farm real estate.

The relative importance of the asset components of the balance sheet changed little from 1969 to 1974, but for liabilities, farm real estate debt grew from 51 percent of the total in 1969 to 69 percent in 1974 (table 2). Acceleration in farm real estate borrowing was probably due mostly to the rising prices of farmland and to the strong demand for rural housing loans.

### **Balance Sheet Components**

#### **Assets**

*The value of farm real estate*, including buildings, was estimated at \$1,152 million dollars on January 1, 1974, up 8 percent from a year earlier and up 89

percent since 1969. The average value per acre on January 1, 1974, was \$550, but this disguises the wide variation in farmland values. Over half the 2,100,000 acres of farmland is used for livestock grazing, and about 380,000 is cropland. Most of the cropland is planted in sugarcane and pineapple and is also the better quality farmland, although many of the smaller, more intensively farmed plots have been improved over the years and are now quite productive.

Practically all land in Hawaii, including farmland, is owned by relatively few landholders, and most farm operators lease land from them. Very few tracts are sold from these large parcels, thus making it difficult to arrive at per acre values. However, a few small tracts (1 to 5 acres), are sold occasionally. Most of these tracts in or near the larger cities, particularly Honolulu, to be used for farming are priced at \$20,000 to \$30,000 per acre, with some even higher. The fact that approximately 145,000 acres are irrigated also complicates the valuation because of the difficulty in valuing wells and other irrigation equipment and other installations. Too, due to the mountains and direction of the tradewinds, there are striking variations in soil and moisture conditions often within a few miles. For example, many thousands of acres of grazing land consist of sparse grass among lava rocks, where there is little rainfall. But just a mile or so away there may be lush pastures.

Most of the 2,000 farms of under 10 acres each specialize in certain flowers, vegetables, and fruits. The fields are farmed intensively year-round and productivity is relatively high, thereby increasing the land value. Dairy, hog, and poultry farms are close-confinement operations using relatively small acreages but having high values.

The price of farmland in Hawaii has trended generally upward for a number of years. In more recent years, the pressure for housing and other urban development has been increasing, and the scarcity of suitable land for residential use close to the centers of population, especially Honolulu, has pushed the sale and lease price of farmland sharply higher. In addition to the demand for housing for the State's inhabitants, the demand for tourist accommodations is also strong. Many of these facilities are being located at or near oceanside, which in many cases has also been the site of some of the better farming operations.

*The value of livestock and poultry on Hawaii farms and ranches* January 1, 1974, amounted to \$75.4 million, with cattle and calves representing 90 percent of total value, hogs about 6 percent, and chickens the remainder. The percentage breakdown by species was about the same as a year earlier, but the total value was up due mainly to much higher values per head. In 1974, total value was 72 percent higher than in 1969 and the share of cattle and calves was 4 percent more.

Table 1—Balance sheet of the farming sector, Hawaii, January 1, 1969-1974

	1969	1970	1971	1972	1973	1974	Percentage change	
							1969 to 1974	1973 to 1974
	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Thousand dollars</i>	<i>Percent</i>	<i>Percent</i>
<b>ASSETS</b>								
Physical assets:								
Real estate .....	610,900	723,000	835,600	936,000	1,067,000	1,152,000	88.6	8.0
Nonreal estate:								
Livestock and poultry .....	43,876	48,315	50,643	51,824	53,339	75,421	71.9	41.4
Machinery and motor vehicles .....	37,800	38,500	41,300	45,100	50,700	55,500	46.8	9.5
Household equipment and furnishings .....	9,000	5,000	5,000	5,000	5,000	7,000	-12.2	40.0
Financial assets:								
Deposits and currency .....	23,547	27,212	28,265	30,586	33,497	36,726	56.0	9.0
U.S. savings bonds .....	5,759	5,697	5,099	5,252	5,943	6,450	12.0	8.5
Investment in cooperatives .....	3,370	3,140	3,570	3,690	3,860	4,220	25.2	9.3
Total assets .....	734,252	850,864	969,447	1,077,452	1,219,339	1,337,317	82.1	9.7
<b>CLAIMS</b>								
Liabilities:								
Real estate debt:								
Federal land bank .....	9,695	10,012	16,198	16,597	31,068	40,768	320.5	31.2
Life insurance companies .....	2,300	2,200	2,000	1,900	2,841	3,887	69.0	36.8
Banks (all operating) .....	4,509	3,314	3,099	2,946	6,636	8,297	84.0	25.0
Farmers Home Administration (Direct loans) ..	2,205	1,934	1,729	1,365	1,183	764	-65.4	-35.4
State Farm Loan Program .....	1,803	2,057	2,266	2,296	2,893	3,059	69.7	5.7
Other .....	5,000	5,500	6,000	6,500	7,000	7,500	50.0	7.1
Total real estate debt .....	25,512	25,017	31,292	31,604	51,621	64,275	151.9	24.5
Nonreal estate debt:								
Banks (all operating) .....	9,779	11,107	10,931	10,521	10,996	9,934	1.6	-9.7
Production credit association .....	---	---	---	---	---	610	---	---
Farmers Home Administration (Direct loans) ..	969	889	785	740	812	883	-8.9	8.7
State Farm Loan Program .....	2,704	3,086	3,399	3,444	4,339	4,588	69.7	5.7
Other .....	10,700	12,000	12,000	11,800	12,900	12,800	19.6	-8
Total nonreal estate debt .....	24,152	27,082	27,115	26,505	29,047	28,815	19.3	-8
Total debt .....	49,664	52,099	58,407	58,109	80,668	93,090	87.4	15.4
Equity .....	684,588	798,765	911,040	1,019,343	1,138,671	1,244,227	81.7	9.3
Debt to asset ratio (percent) .....	6.8	6.1	6.0	5.4	6.6	7.0	--	--

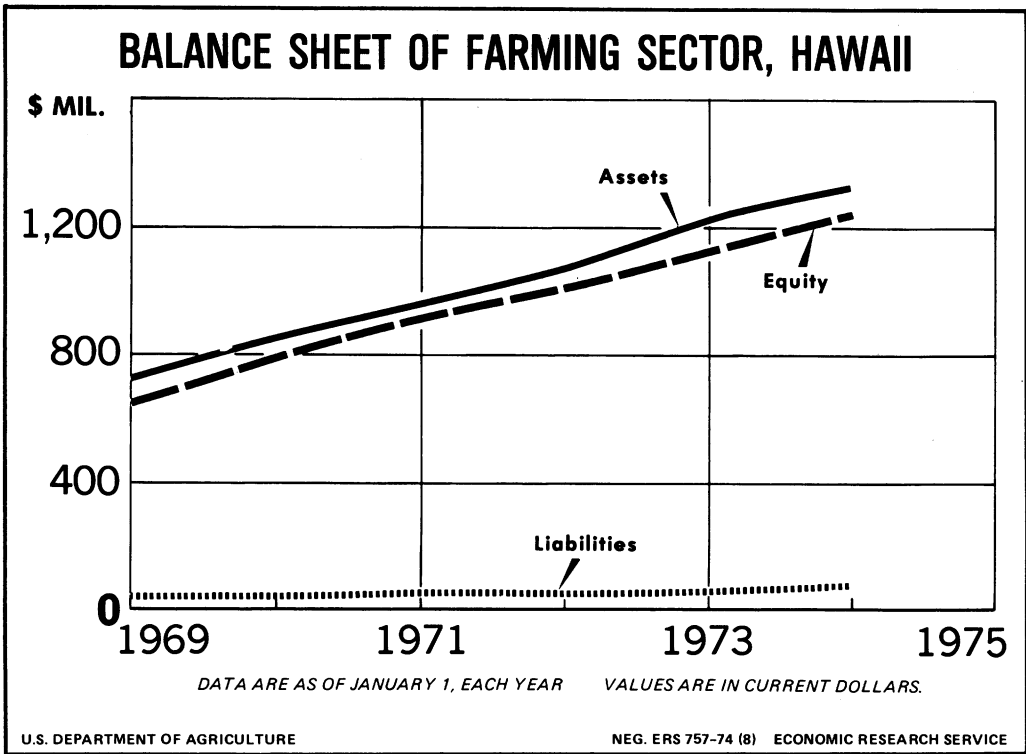


Figure 2

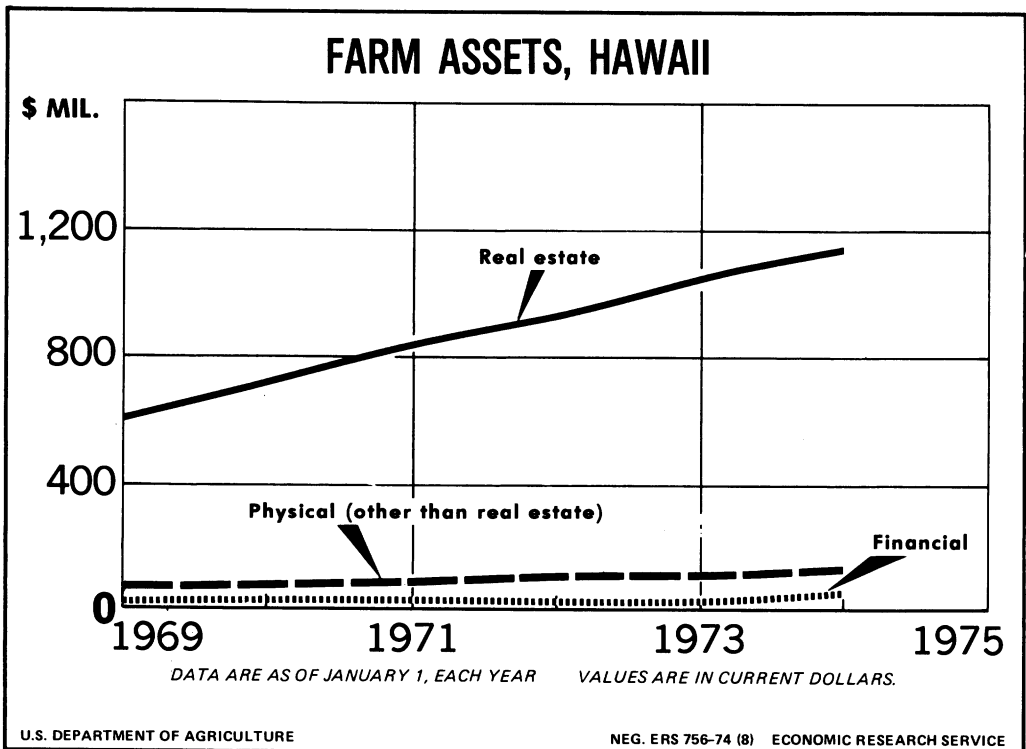


Figure 3

Table 2—Balance sheet components as shares of total assets and liabilities,  
Hawaii, 1969-74

Item	1969	1970	1971	1972	1973	1974
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
<b>Assets</b>						
Physical assets:						
Real estate .....	83.2	85.0	86.2	86.9	87.5	86.2
Nonreal estate:						
Livestock and poultry .....	6.0	5.6	5.2	4.8	4.4	5.6
Machinery and motor vehicles .....	5.1	4.5	4.3	4.2	4.2	4.2
Household equipment and furnishings .....	1.2	.6	.5	.5	.4	.5
Financial assets:						
Deposits and currency .....	3.2	3.2	2.9	2.8	2.7	2.7
U.S. savings bonds .....	.8	.7	.5	.5	.5	.5
Investments in cooperatives .....	.5	.4	.4	.3	.3	.3
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Liabilities</b>						
Real estate debt .....	51.4	48.0	53.6	54.4	64.0	69.0
Nonreal estate debt .....	48.6	52.0	46.4	45.6	36.0	31.0
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Beef animals outnumbered dairy animals by 11 to 1. Of the approximately 220,000 beef animals in Hawaii at the beginning of 1974, over three-fifths were located on the island of Hawaii and one-fifth on Maui, principally because these island have more land suitable only for pasture and grazing than the other islands. The only large feedlot operation is on Oahu. Since little feed grain is grown in Hawaii, most all of it has to be shipped in. Practically all beef produced in the State is consumed there and an equal amount imported.

Most dairy animals are located on Oahu. Milk cows can be easily confined there, and the proximity to Honolulu, the major market, is an advantage. Oahu is also the main location for hogs and pigs, although Hawaii and Maui have significant numbers. However, the State's production of pork is supplemented by almost twice as much shipped in from the Mainland.

Most egg-laying and broiler flocks are also located on Oahu near the Honolulu market, thus avoiding the expense of shipping broilers and eggs from other islands.

At the beginning of 1974, the value of motor vehicles and machinery on Hawaiian farms was an estimated \$55.5 million. Here again, the unique Hawaiian farm structure and practices complicate the problem of estimating these asset values. Growing the two most important field crops, sugarcane and pineapples, has been almost completely mechanized with large, specialized machines. In contrast, the many vegetable producers farming 1 or 2 acres might use a tractor and plows to prepare the ground for planting, but from then on most of the work is done by hand. So, going strictly by

the number of farms, the total value of vehicles and machinery may be less than would be expected.

Farmer-owned stored crops are almost nonexistent in Hawaii. Therefore, no value is entered in the balance sheet of the farming sector. Although a small volume of coffee and macadamia nuts may be in farmers' hands on January 1, it is not enough to record, and similarly, although much land is used for year-round livestock range and grazing, very little hay or silage is made.

At the beginning of 1974, household equipment and furniture on Hawaiian farms was valued at \$7.0 million, a figure considerably higher than in 1973, but \$2.0 million less than in 1969. Fluctuations in the number of farms and in the prices of items included in households were responsible for those changes.

Fragmentary data point to financial assets per farm in Hawaii being substantially higher than for the nation as a whole. Currency and bank deposits were estimated to total \$36.7 million on January 1, 1974, about 9 percent above 1973 and 56 percent more than in 1969. The above average liquid financial assets of Hawaiian farmers does not mean they are "well off", for the cost of living is above the average for the mainland States. Hawaiian farmers owned an estimated \$6.4 million in U.S. saving bonds at the beginning of 1974. This is about the same average per farm as in the nation as a whole. Although data are sparse, there is little reason to believe that Hawaiian farmers invest differently in U.S. savings bonds than other American farmers. The net worth of farmer cooperatives in Hawaii was estimated at \$4.2 million at the beginning of 1974. That was 9 percent above 1973 and 25 percent higher than in 1969. The 21 marketing and farm supply cooperatives located in

Hawaii have most of the cooperatives' net worth, but 18 rural credit unions scattered throughout the State also account for a substantial share. There are no Rural Electrification Administration electric or telephone cooperatives in Hawaii.

## Liabilities

At the beginning of 1974, farm debt in Hawaii was \$93.1 million, nearly double the amount of 5 years earlier and 15 percent higher than at the beginning of 1973.

*Real estate loans* outstanding January 1, 1974, made up 69 percent of all farm loans. In 1969 they accounted for close to one half. Farm mortgage loans showed uneven rates of change during 1969-74. The total amount dropped slightly from 1969 to 1970 but gained about 25 percent the next year. The largest increase was at the beginning of 1973 when total farm mortgage loans jumped almost two-thirds. They gained another 25 percent by January 1, 1974.

The sharp increase in total farm real estate loans in 1973 and 1974 was paced by the Federal land bank. Enactment of the Farm Credit Act of 1971 in December of that year paved the way for greater Federal land bank participation in financing rural housing, and at the same time, authorized Federal land banks to accept liens on leased farmland as security for loans instead of requiring liens on land actually owned by the borrower, as was the case previously. The new authorizations made it possible for the Federal land bank to make loans to some farmers and rural residents previously ineligible. Federal land bank loans in Hawaii are made through the Federal Land Bank Association of Lodi, California, as there is no local association in Hawaii.

Commercial banks have been active in farm mortgage lending in Hawaii for many years. Outstanding loans at the beginning of 1974 were one-fourth greater than for 1973 and nearly three times more than at the start of 1972. But even with the large increase from 1973 to 1974, bank loans still made up only 13 percent of the total farm real estate debt.

Although life insurance companies are a regular source of long-term farm credit in Hawaii, the amount of loans they held at the beginning of 1974 was only \$3.9 million, about 6 percent of the total farm mortgage debt outstanding and about the same proportion as for the last several years.

The Hawaii State Department of Agriculture administers a revolving fund for farm loans, including long-term loans. Established to serve as a source of credit to farmers not able to obtain credit from other sources at reasonable terms, the Hawaii Farm Loan Program may insure farm loans made by private lenders, participate with private lenders in farm loans, provide money to the Farmers Home Administration (FmHA) for that agency to make

insured loans, or it may make loans itself. At the beginning of 1974, the money provided by the State fund carried an interest rate of 6 percent.

The Farmers Home Administration operation in Hawaii reinforces somewhat the State Farm Loan Program besides carrying on an important lending function of its own. The amount of FmHA loans outstanding shown in table 1 include only direct loans, but the FmHA also holds insured real estate loans of about \$2 million. In recent years, most FmHA loans have been for rural housing.

Besides these institutional lenders which report information to the U.S. Department of Agriculture, there are other sources of farm real estate loans in Hawaii. The major nonreporting lender group consists chiefly of individuals who sell land and finance the transfer by taking back a mortgage or land contract or who loan for other purposes and take a farm real estate mortgage as security.

The amount of *farm nonreal estate debt* outstanding in Hawaii has not changed significantly since 1969. Until 1972, nonreal estate farm debt amounted to roughly half of total farm debt. But as the Federal land bank and commercial banks accelerated their farm mortgage lending in 1972 and 1973, nonreal estate loans accounted for a smaller portion of total farm debt.

Commercial banks are by far the largest nonreal estate farm lender in Hawaii and have maintained a fairly steady volume outstanding since 1969. Of the nine commercial banks operating in the State, five make farm loans.

The State Farm Loan Program, active in the short- and intermediate-term farm loan area, experienced rapid growth in loans during 1972 and 1973. As it does with farm long-term loans, the State Farm Loan Program works closely with private and Federally sponsored lenders in making available nonreal estate farm loans to farmers unable to obtain credit elsewhere.

The Farmers Home Administration has also been a stable source of short- and intermediate-term farm loans. Until several years ago, those FmHA loans usually carried a much lower rate of interest than loans from most private lenders. But because the interest rate on such FmHA loans in Hawaii and elsewhere recently has been pegged to the cost of money to the U.S. Government, their rate now approaches that of other lenders.

According to available data, individuals, merchants, dealers, and other miscellaneous lenders supply a substantial amount of short- and intermediate-term farm credit in Hawaii. The volume of such credit is estimated to equal about 80 percent of total farm loans made by the reporting lenders mentioned above; a proportion significantly higher than in most States. It is not known whether this indicates a need for more participation from regular lending institutions or whether it is a successful

custom or practice that has become established over the years.

The Hawaii Production Credit Association, the first PCA operating in Hawaii, was chartered in November 1973. Until that time loans through the Farm Credit System's short- and intermediate-term loan service were not available in Hawaii. Unlike the Federal land bank association serving Hawaii which is a part of an association located in California, the PCA is Hawaii based with a membership consisting entirely of Hawaiian borrowers. Although the Hawaii PCA had only \$610,000 in loans outstanding January 1, 1974, its loan volume is expected to increase rapidly over the next several years.

### Equity

Proprietors' equity in farm assets in Hawaii is estimated to have totaled over \$1 billion since 1972. The ratio of farm debt to value of farm assets ranged from 5 to 7 percent over the time period covered by this balance sheet of Hawaii's farming sector. There are few estimates for other individual States, but it is almost certain that Hawaii's farm debt-to-asset ratio ranks among the lowest, and could be the lowest, in

the Nation. The relatively high real estate value and low farm real estate debt account for much of the low debt-to-asset ratio. In fact, until 1974, the ratio of farm real estate debt to farm real estate value was never over 5 percent (table 3).

Undoubtedly, all Hawaiian farmers are not so well off financially as this low ratio implies. Some may be heavily indebted and others may have no farm related debt. Also, much of the equity in farm real estate is probably owned by large landholders not directly connected with a farming activity and with little or no debt secured by the farmland they own.

For 1969-74, the ratio of farm nonreal estate debt to the value of farm nonreal estate assets, ranged from 15 to 21 percent—a relationship some 3 or 4 times higher than for real estate debt and assets. But the nonreal estate debt and asset correlation may be more typical of Hawaiian farm operators than ratios which include real estate. The value of farm real estate in Hawaii is such a large part of total farm asset value and is owned to such a large extent by nonfarmers that the true picture might easily be misinterpreted. Normally, nonfarm landlords own few farm nonreal estate assets and owe only a small percentage of the nonreal estate farm debt.

**Table 3—Proprietors' equity in farm real estate and nonreal estate assets, Hawaii, January 1, 1969-1974**

Year (Jan. 1)	Farm real estate				Farm non-real estate			
	Value	Debt out-standing	Equity	Debt-to-asset ratio	Value	Debt out-standing	Equity	Debt-to-asset ratio
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Percent</i>
1969 .....	610.9	25.5	585.4	4.2	123.4	24.2	99.2	19.6
1970 .....	723.0	25.0	698.0	3.5	127.9	27.1	100.8	21.2
1971 .....	835.6	31.3	804.3	3.7	133.8	27.1	106.7	20.3
1972 .....	936.0	31.6	904.4	3.4	141.5	26.5	115.0	18.7
1973 .....	1,067.0	51.6	1,015.4	4.8	152.3	29.1	123.2	19.1
1974 .....	1,152.0	64.3	1,087.7	5.6	185.3	28.8	156.5	15.5