1972

A decade of change: observations concerning the trends and financing of Montana's beef cattle industry 1960-1970

Jon Marchi
The University of Montana

A DECADE OF CHANGE

OBSERVATIONS CONCERNING THE TRENDS AND FINANCING OF MONTANA'S BEEF CATTLE INDUSTRY 1960 - 1970

By

Jon Marchi

B.S., University of Montana, 1968

Presented in partial fulfillment of the requirements

For the degree of

Master of Science in Business Administration

UNIVERSITY OF MONTANA

1972

Approved by:

Maurice C Johnson
Chairman, Board of Examiners

Dean, Graduate School

July 24, 1972
Date

7-27-72

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

Graph

CHAPTER I

HISTORICAL PERSPECTIVE

> Uncertainty of rain and grass and certainty of price fluctuation have made the cattle industry the most speculative of businesses. J. Frank Dobie, The Longhorns.

The cattle business has long held a special fascination for a substantial number of Americans. The concept of open space, freedom of activity, and the general ruggedness of the cowman's life still has great appeal to the average citizen. Cattlemen have long been accused of not running a ranch as a business enterprise, but rather as a way of life. There is, no doubt, some truth to that accusation, but one simply has to work on a cattle ranch and most of the so-called glamour of the business soon fades. Few jobs are more physically exhausting, mentally discouraging, and emotionally confusing than running a cattle operation. Nevertheless, the older conservative ranchers stay with it through thick and thin, the speculator continues to jump in and out of the business, and young boys continue to dream of becoming cattlemen.

The cattle industry in the western portion of the United States began around 1845 and was fairly well extended over this whole area by 1885. Perhaps the best description

of the rapid establishment of the western cattle industry follows:

> The first step was made when the Spaniards and Mexicans established their ranches in the Nueces country of Southern Texas, where natural conditions produced a hardy breed of cattle that could grow wild; the second step occurred when the Texans took these herds and learned to handle them in the only way they could have been handled - on horseback; the third step was taken when cattle were driven northward to market; the fourth came when a permanent depot was set up in Abilene which enabled trail-driving to become standardized; the fifth took place when the overflow from the trail went west to the free grass of the Great Plains.[1]

The livestock industry in Montana began in 1833 with the establishment of the early fur forts. However, the first permanent herds were probably not started until 1845 when Father De Smet brought in forty-six head of cattle near St. Mary's Mission in the Bitterroot Valley.[2] Increasing demand for beef caused by the large influx of population into the Territory, the coming of the military, and the creation of Indian reservations began giving impetus to Montana's fledgling cattle industry. By December, 1869, cows and calves on hand in Montana were conservatively valued at nearly $1,000,000.[3]

---

[1]Walter Prescott Webb, The Great Plains (New York: Grosset & Dunlap, 1931), p. 244.

[2]Merrill G. Burlingame and K. Ross Toole, A History of Montana, Vol. I (New York: Lewis Historical Publishing Co., Inc., 1957), p. 311.

[3]Ibid., p. 313.

The great trail drives began during this period. The majority of the cattle were brought from the state of Texas and trailed via the Dodge City Trail through Kansas, Nebraska, and Wyoming or the Goodnight Trail through New Mexico, Colorado, and Wyoming. Literally thousands of these cattle were destined for Montana's fertile mountain valleys and limitless dryland range. Many other cattle were trailed into Montana from Oregon and southern California. The Mormon War beginning in 1847 gave considerable impetus to non-Mormons for moving their herds out of Utah and neighboring states. Some of these herds made Montana their final stopping point. The outstanding fact that remains is that this whole area was transposed to cow country so quickly. As Webb so aptly puts it:

> The spread of the range and ranch cattle industry over the Great Plains in the space of 15 years (1866-1880) - the movement was fairly complete in ten or twelve - is perhaps one of the outstanding phenomena in American history.[4]

At about this time eastern financiers became attracted to the cattle industry in the west. Books such as General Brisbin's, The Beef Bonanza; or, How to Get Rich on the Plains, vastly increased such interest. Soon cattle

---

[4]Webb, The Great Plains, p. 225.

companies (usually set up as corporations) were springing up all over the western plains. Montana attracted many of these enterprises because of the exciting talk of Montana's natural cow country and because of written reports such as Brisbin's: "Montana is well named, for it is a succession of high mountains and broad valleys. The grazing cannot be excelled in any country in the world . . . and it is fair to say that no better beef can be found."[5] Of course, what the eastern, and sometimes foreign, investors were after was profit. This, also, was well described by many observers. For example, profit figures of 21 per cent to 33 per cent of total capital utilized in the range cattle business during 1872 were widely reported.[6] A large portion of the money invested in cattle at that time was borrowed, as it still is today. Theoretically, therefore, astronomical profits were to be realized on a small investment of equity capital coupled with a large debt position.

It soon became apparent that it took substantial sums of money simply to keep a large cattle operation running. Labor costs, replacement stock, and improvements to the ranch all contributed to increased capital requirements.

---

[5]General James S. Brisbin, The Beef Bonanza; or, How to Get Rich on the Plains (Philadelphia: J.B. Lippincott & Co., 1881), p. 37-38.

[6]Ibid., p. 163.

As one authority on the early financing of the cattle industry described the situation: "Once a new manager walked across the threshold of his office, a glance at his books was enough to inform him that his first duty was to write to his directors for more capital. Supplication after supplication from range managers dropped into the mail slots of Wall Street offices."[7] Borrowed capital became increasingly important and necessary. Up until the mid-1880's bankers, along with the rest of the business community, accepted short-term cattle loans with little discrimination. In fact, Gressley's research of "dozens of ledgers and hundreds of letters" between bankers and cattlemen led to the inescapable conclusion that the western range cattle industry during the last two decades of the 19th Century operated basically on borrowed capital.[8]

Capital was not cheap. Some of the western banks charged extremely high interest rates. A survey of the literature available indicates that interest rates ranged from 10 per cent to 38 per cent on an annual basis. A typical cattle loan was discounted at closing. For example, a cattleman might go to a bank to borrow $10,000

---

[7]Gene M. Gressley, Bankers and Cattlemen (New York: Alfred A. Knopf, 1966), p. 141.

[8]Ibid., p. 145.

for six months. The interest charged might be 18 per cent plus a 10 per cent commission, all being deducted in advance. Thus, the borrower would walk out of the bank with $8,100 and a copy of a $10,000 promissory note due in six months. Eastern banks were considerably more reasonable concerning their interest charges than were their western counterparts. The average interest rate for the decade of the 1880's charged by eastern banks for cattle loans or loans secured by cattle was 8 1/2 per cent.[9] Because of this tremendous variation in interest rates and because many of the investors in the cattle industry were Easterners, most of the western cattle financing was provided by eastern financial institutions.

The cattle industry continued to expand in Montana up until the tragic winter of 1886-87. This devastating winter has been credited by many historians for ending the era of free grass, good profits, and the open range system of running unsupervised cattle. The winter was the most severe season ever recorded on the Great Plains. Long spells of bitter cold (40° to 50° below zero was common) coupled with heavy snowfall when the cold would temporarily subside, transformed Montana from a cattle empire to a cattle graveyard. When the chinooks finally

---

[9]Ibid., p. 161.

came during the late spring the tally was taken. A full 50 per cent loss on all pilgrim cattle (cattle trailed from the Southwest) and about a 20 per cent loss on native cattle were the final figures.[10]

The bulk of eastern capital began to flow back to Wall Street. By 1900 few Easterners were associated with the western cattle industry. The vacuum created in cattle financing by this hurried departure began to be filled by cattle loan companies (usually affiliated with commercial banks) and the large regional banks. These sources gave way to local commercial banks and government sponsored lending agencies beginning in the 1920's. The financing situation is still composed of this mix today. This study will concentrate on the financing of Montana's beef cattle industry and illustrate the tremendous importance of this industry to the state's economy.

Montana's cattle industry is now almost completely locally owned and operated. Most eastern capitalists still probably feel the way H.J. Tilford (the Louisville distiller) did when he made this memorable quote just before the turn of the century: "I intend (now) sticking to the making of bourbon, something I at least know a

---

[10]Barbara Fifer Rackley, "The Hard Winter, 1886-1887," Montana, The Magazine of Western History, XXI, No. 1 (Winter, 1971), p. 50.

little about. You fellows that make money on the range deserve every nickel."[11]

[11]Gressley, Bankers and Cattlemen, p. 275.

CHAPTER II

THE CURRENT NATURE OF THE INDUSTRY

> Montana cattle operations vary greatly from area to area and even from ranch to ranch. In the eastern half of the state much of the area is suitable only for grazing. Cattle constitute the major source of agricultural, and frequently of total, income in many localities. Maxine C. Johnson, Beef Cattle in the Montana Economy, 1961.

From the earliest experience with Montana's range, it soon became apparent that it possessed certain advantages over that of neighboring states. Montana's altitude is lower and the terrain is more broken by stream beds and sub-irrigated meadows. Natural protection from wind and the harsh winter storms is plentiful. The grasses are more varied in kind and have greater adaptability to the seasons.[1]

Today, Montana's vast range lands coupled with its fertile mountain valleys continue to support a viable and expanding cattle industry. However, Montana does have certain inherent disadvantages in the production of beef cattle. Although the grass is concentrated and nutritious, Montana's grazing season is a short one. The winters are

---

[1]Burlingame and Toole, A History of Montana, p. 313.

cold and long. Even with ample timber and natural shelter for protection, cattle must be fed during the winter months. On the rougher lands calf crop percentages are not as good as those of our warmer competitors (for example, South Dakota and Texas). Montana ranchers rarely have much of a problem obtaining water for their stock. In some southern states stock water availability can be a serious problem. Nevertheless, the severe cost disadvantage of having to feed cattle through most of the winter outweighs many, if not all, of Montana's other attributes. Harold Oppenheimer made this point in 1961: "Grazing seasons are short and winter feeding is costly . . . annual maintenance on a cow now runs around $70.00 and fluctuates directly with the price of hay from district to district, which is the main element of cost."[2]

Before beginning the discussion concerning the impact of agriculture and beef cattle on Montana's economy, it is necessary to describe more completely Montana's cattle industry today. Basically, there are five different types of cattle operations existing in the state. The first and most important is the cow-calf ranch. This type of enterprise can be defined as a ranch consisting principally of

---

[2]Harold L. Oppenheimer, Cowboy Arithmetic (Cattle as an Investment) (Danville, Illinois: The Interstate Printers and Publishers, Inc., 1961), p. 30.

grazing land with the major source of income being derived from the sale of weaner calves. In Montana, cow-calf ranches must either put up their own hay or buy an adequate supply for winter feeding purposes. The herd normally consists of one breed of mother cows and a sufficient number of bulls to service the cows. On the rougher dryland range found throughout eastern Montana, one bull may be required for every 25 cows; in the fertile irrigated valleys, one bull may be able to service 50 cows. Calves are normally born early in the spring, March and April being the favorite months. The calves are run with their mothers through the summer and early fall and are sold directly after being weaned, usually in October or November. A good-to-choice grade calf weighs from 300 to 500 pounds at weaning. The weight is contingent upon the mother's milk producing capacity, the condition of the range, and whether the calf received supplemental (creep) feeding. Calves are sold by the pound in one of three ways: at local public auction markets; or to order (contract) buyers who visit the ranch and offer a specific bid; or are shipped east to one of the nation's large auction markets found in Sioux City, Omaha and other large mid-western cities. Some ranchers are now calving in the fall and selling the next fall. Advantages such as a better calf crop percentage (elimination of the danger

of late spring storms) and heavier weights seem to outweigh the disadvantage of increased winter feeding costs in some areas of the state.[3]

The second type of cattle operation existing in the state, the cow-yearling operation, has essentially the same characteristics as the one just described. A cow-calf operation is the basis for producing sales of yearling cattle (and sometimes two-year olds) instead of selling the calves as weaners. This type of enterprise is favored if extensive winter feeding is not required because adequate fall and winter roughage exists on the range. The primary advantage is that the cattle sold attain much heavier weights simply because they are held longer. Also, the rancher has some flexibility as to when he wants to sell, depending on the current price trend in the cattle market.

The third type of cattle operation in the state is one which continues to fall in and out of favor. It is particularly popular with speculators because the time duration is fairly short and less management is required in comparison with a cow-calf operation. This type of enterprise is known as the yearling operation. It consists of buying calves in the early spring (March, April and May), running them on grass through the grazing season,

---

[3]G.A. Davis and R.O. Wheeler, Fall Calving in Montana, Bulletin 649 (Bozeman, Montana: Agricultural Experiment Station, Montana State University, December, 1970), p. 3.

and selling the cattle as feeders or stockers (600 to 800 pounds) in October or November, before the first heavy snows begin to fall.

The primary advantages of such an operation are that no winter feeding is required; death losses are less than operating a cow-calf ranch (no calving problems); and all the land can be utilized for grazing purposes because it is not necessary to cut hay. However, there are also some very real disadvantages. The primary one is that the price of calves normally peaks during the same months that the yearling operator is buying his cattle and, accordingly, the price of cattle usually bottoms out during the fall months when it is necessary for the yearling man to sell his cattle. Secondly, the cattle must gain well on the summer pasture. Most operators shoot for two pounds per animal per day, though 1.25 to 1.50 pounds per day is usually the norm. Very rarely does this operator sell his cattle for the same price he bought them for; in fact, he hopes that his "spread" will not be more than 5¢ per pound loss in selling price as compared to purchasing price. With good management and adequate grass a yearling operator can make a profit with a 5¢ per pound spread simply because the weight gain more than compensates for the price loss. However, if the price drops more than 5¢ per pound and the cattle do not gain adequately, rarely does this individual make

a profit. This type of operation is popular with the speculator because he can lease summer pasture without having to make a heavy investment in land and machinery and, if he has an adequate financial statement, it is possible to secure a large loan to be used for the acquisition of the cattle.

The fourth type of cattle operation in Montana is what is commonly known as the feedlot enterprise. As will be shown later, Montana ranchers have been placing an increasing number of cattle on feed in the state. Feedlots are basically operations that use limited space to feed formulated rations to cattle. Wheat and barley are the most popular feeds used in the state, though corn and corn silage are gaining increasing popularity, especially in the Yellowstone Valley. The normal feedlot operation consists of placing yearling cattle on feed at approximately 650 to 800 pounds in weight and selling the cattle for slaughter at 950 to 1250 pounds some 90 to 180 days later. The cattle are held and fed in large pens, receiving all of their nutritional needs from the processed feed supplied on a daily basis.

Feedlots are categorized by the per head capacity of the particular operation. Many mid-western feedlots can handle 20,000 to 40,000 head of cattle at one time. In Montana, 470 feedlots were reported in 1969. Of these,

only 55 had a capacity of over 1,000 head; ten of these were able to handle 10,000 to 40,000 cattle.[4] Thus, the feedlot business in Montana is of far less importance to the beef cattle industry in the state than are the other types of operations already described.

The fifth type of cattle operation in the state is one which has continued to maintain the state's status as one of the best cattle producing areas in the world. This operation is known as the purebred business. Purebred operators are in the business of supplying quality seed stock (bulls and heifers) to commercial cattlemen in order to improve the quality of their herds. Montana has produced some of the outstanding purebred herds in the nation and continues to be highly regarded for its excellent registered herds of Hereford and Angus cattle. The raising of purebred cattle is a highly complex and technical business. Expertise is necessary not only in the feeding and caring for of the cattle, but also a good knowledge of genetics, past "bloodlines" and the current trends taking place within the industry is required to successfully operate a purebred cattle business. Few statistics are available which adequately analyze the state's purebred cattle industry. However, one has simply

---

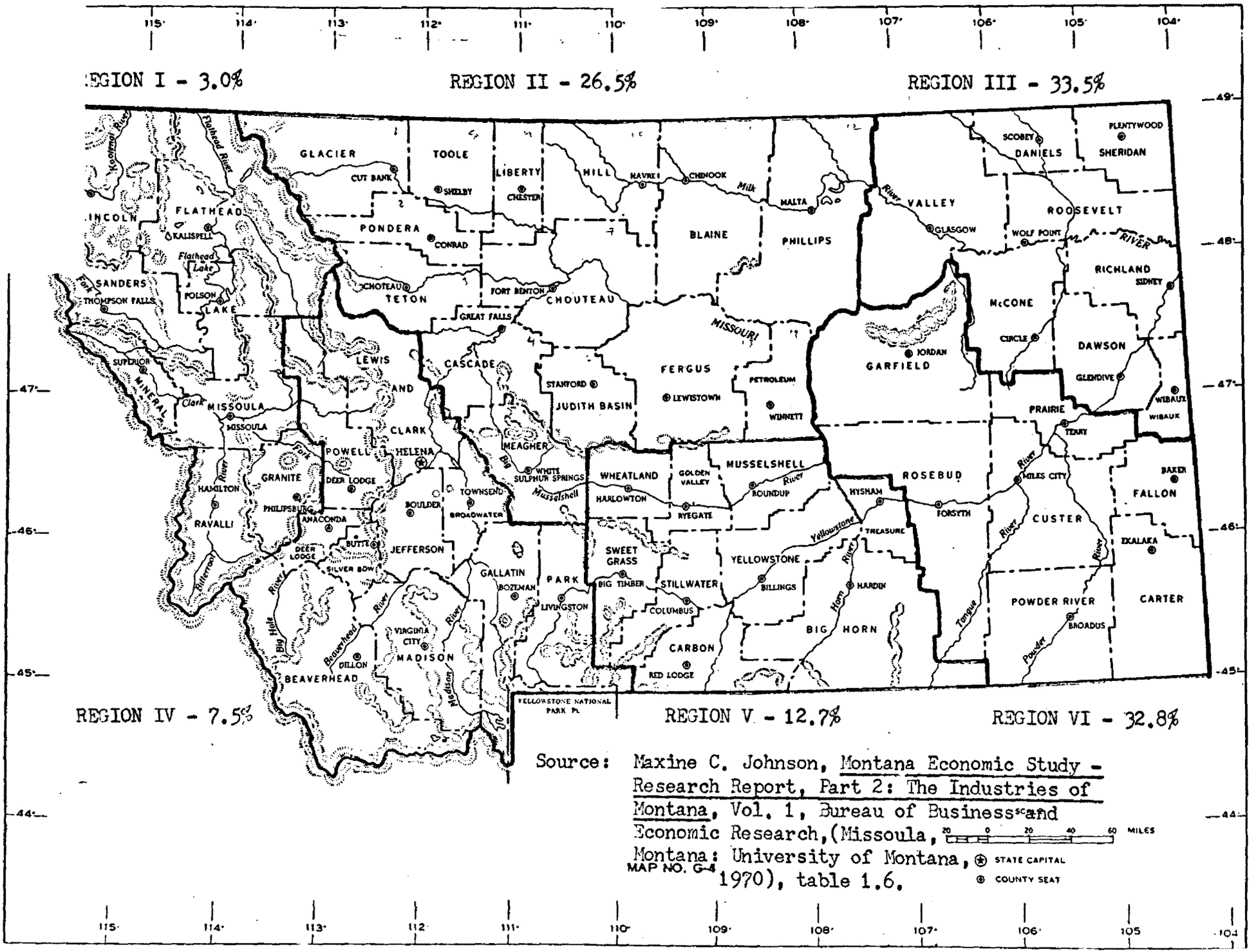
[4]Maxine C. Johnson, Montana Economic Study - Research Report, Part 2: The Industries of Montana, Vol. 1, Bureau of Business and Economic Research (Missoula, Montana: University of Montana, June, 1970), p. 1.56.

to thumb through one of the national trade journals, such as the "Aberdeen Angus Journal," and observe all of the Montana herds that are advertised to acquire a great appreciation for the importance of this specialized sub-industry in the state.

Having defined the five major types of cattle operations in the state, the next step is to examine the impact of agriculture, and particularly the beef cattle industry, on Montana's economy. Map I depicts the percentage of total earnings derived from agriculture on a statewide regional basis. Earnings, as opposed to income, indicates the revenue received by those individuals engaged in the business of farming or ranching, including farm proprietors' income and farm wages. The Montana Economic Study divided the state into six economic regions for purposes of more detailed analysis. It is interesting to note the variation in agricultural earnings from region to region. For example, Region I which is one of high mountains and small valleys with extensive lumbering activity only obtained 3.0 per cent of its total earnings from agriculture. Region III, on the other hand, consisting of level plains and productive land derived 33.5 per cent of its total earnings from agriculture.

To put Montana's agriculture economy in perspective, one should be familiar with a few basic facts. In 1960

MAP I
PERCENTAGE OF TOTAL EARNINGS DERIVED FROM AGRICULTURE
MONTANA ECONOMIC REGIONS, 1966



Source: Maxine C. Johnson, Montana Economic Study - Research Report, Part 2: The Industries of Montana, Vol. 1, Bureau of Business and Economic Research, (Missoula, Montana: University of Montana, 1970), table 1.6.

MAP NO. G-4

farm employment was 17.1 per cent of the state's total employment. By 1969 this figure had decreased to 13.0 per cent.[5] Montana's farms and ranches produce two major products: beef and wheat. The demand for wheat has long since stabilized, and prices have continued to decline since 1964. Cattle are assuming greater importance as a source of income for Montana's ranchers. The statewide percentage of total earnings which were derived from agriculture stood at 16.5 per cent in 1966.[6]

Map II indicates the number of farms and sizes of farms existing in designated areas of Montana for the years 1949, 1959, and projected for 1975. Area 3b consists of ranches with an average size of 4437 acres in 1959. This area is perhaps one of the most famous "cow country" regions in the west. This is the region of the Powder River Country, long familiar to the readers of western history. Table I indicates the importance of beef cattle to the particular regions outlined in Map II.

Montana continues to be an important producer in the nation's total beef cow herd. In 1969, Montana produced 4.4 per cent of the nation's beef calf crop. Furthermore, the state has maintained continued moderate expansion of

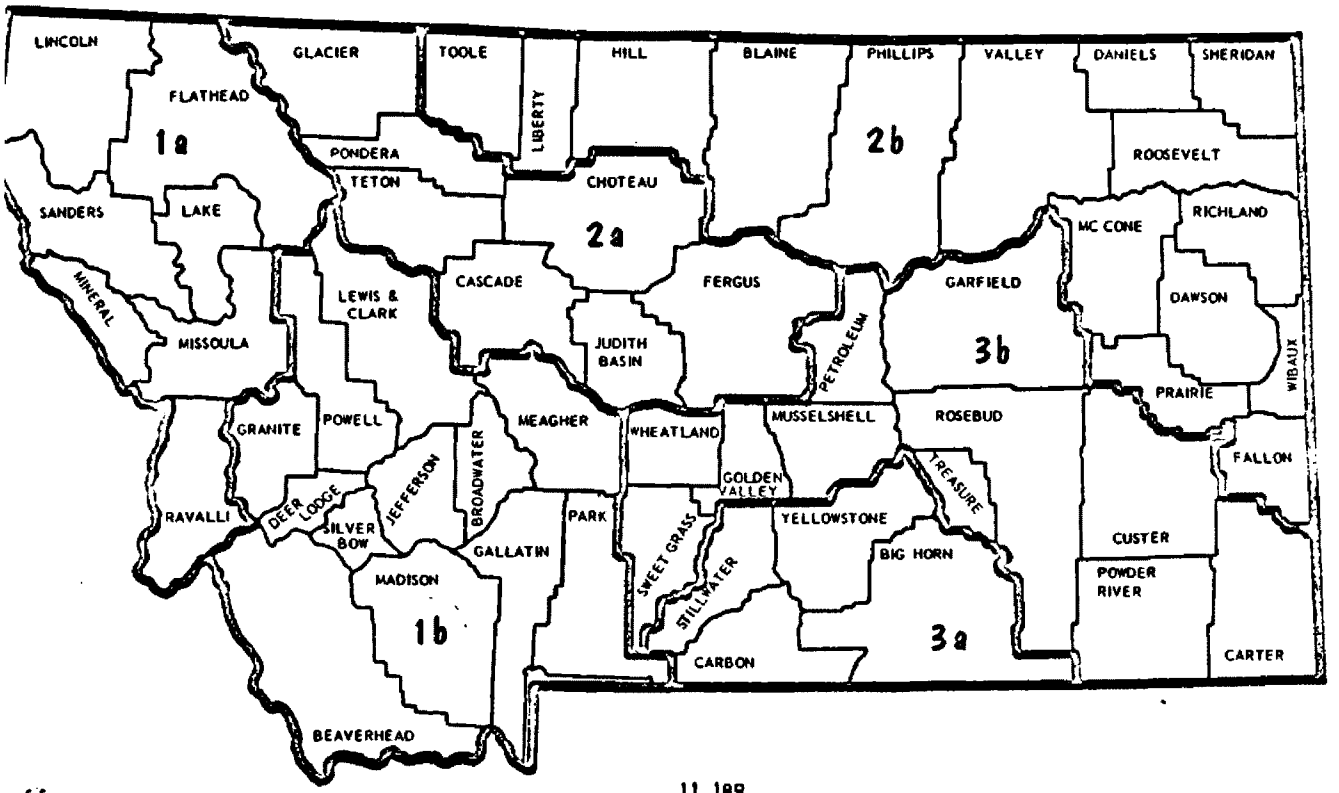
---

[5]Maxine C. Johnson, Montana Economic Study, p. 1.2.

[6]Ibid., p. 1.30, table 1.6.

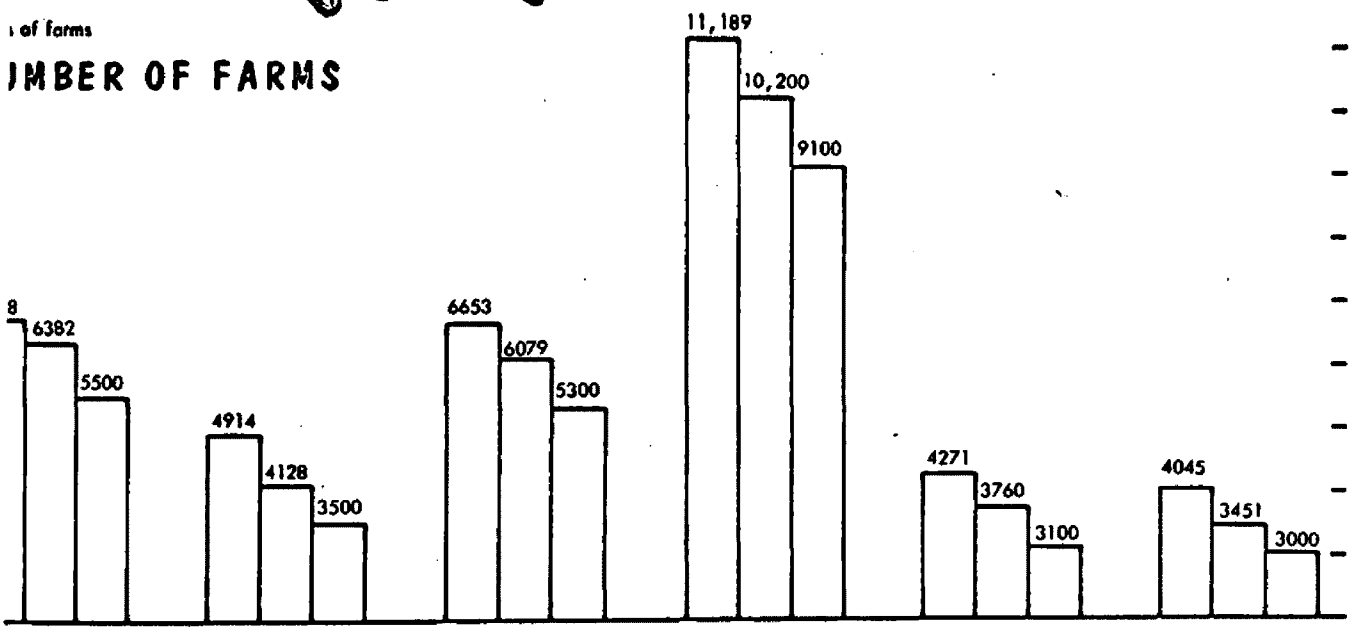
MAP II

IBER AND SIZE OF MONTANA FARMS BY AREAS, 1949, 1959, AND PROJECTED 1975.



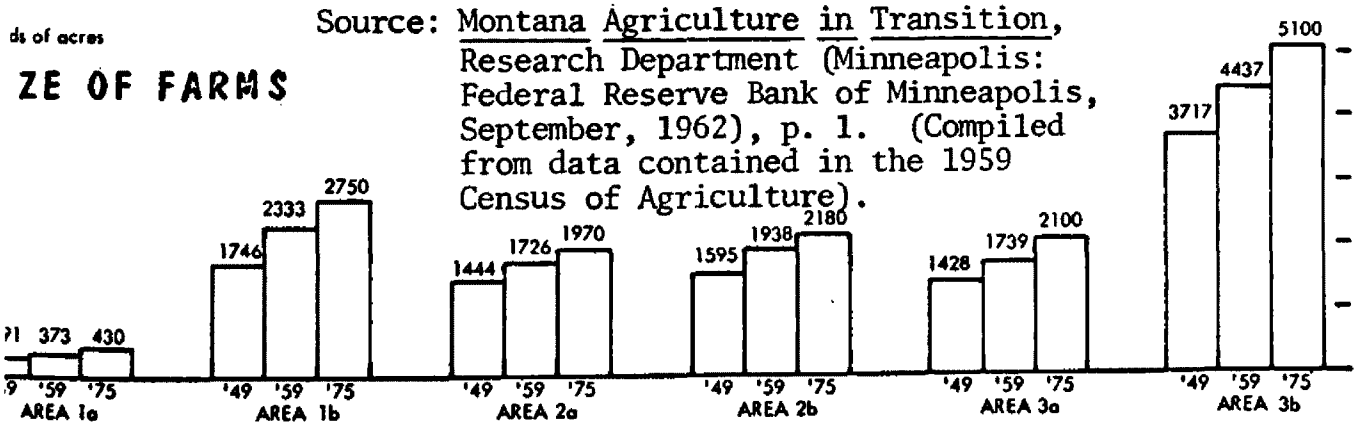
of farms

JMBER OF FARMS



ds of acres

ZE OF FARMS



ures for 1975 are preliminary estimates

Source: Montana Agriculture in Transition, Research Department (Minneapolis: Federal Reserve Bank of Minneapolis, September, 1962), p. 1. (Compiled from data contained in the 1959 Census of Agriculture).

TABLE I

SOURCES OF MONTANA FARM INCOME BY AREAS, 1959

Percentage of Total Income Derived From Specific Products

	Area 1a	Area 2a	Area 3a	Area 1b	Area 2b	Area 3b
Beef cattle and calves	37	20	44	56	22	62
Wheat	14	62	20	14	58	12
Barley	2	9	n/a	2	7	n/a
Sheep & lambs	1	2	4	5	3	7

NOTES: Areas are the same as those in Map II.

Other farm products not listed but which are of importance in some areas of the state are sugar beets, milk, livestock other than beef cattle and sheep, and some grain crops other than wheat and barley.

Source: Montana Agriculture in Transition, Research Department (Minneapolis: Federal Reserve Bank of Minneapolis, September, 1962), p. 2. (Compiled from data contained in The 1959 Census of Agriculture).

its beef calf production trend for the past twenty years (1949-1969). Only six states produced a greater share of the nation's beef calf crop during 1969:[7]

State	Percentage of 1969 National Beef Calf Crop
Texas	15.2
Oklahoma	5.8
Nebraska	5.3
Missouri	5.1
Kansas	5.0
South Dakota	5.0
Montana	4.4

(Map III illustrates this situation in greater detail).

Chapter III will explain the importance of the beef cattle industry to Montana's economy. One of the reasons that beef cattle production is so important to the state is obvious. Of Montana's 93.4 million acres, over 60 per cent or 56.3 million acres were classified as pasture or rangeland at the beginning of the 1960's.[8] At that time, the beef cattle industry in Montana employed 15,000 people and represented an investment of $1 billion.[9] There is no doubt that the industry employs fewer people today, but as will be shown in Chapter III, it has more than maintained its importance in Montana's agricultural economy.

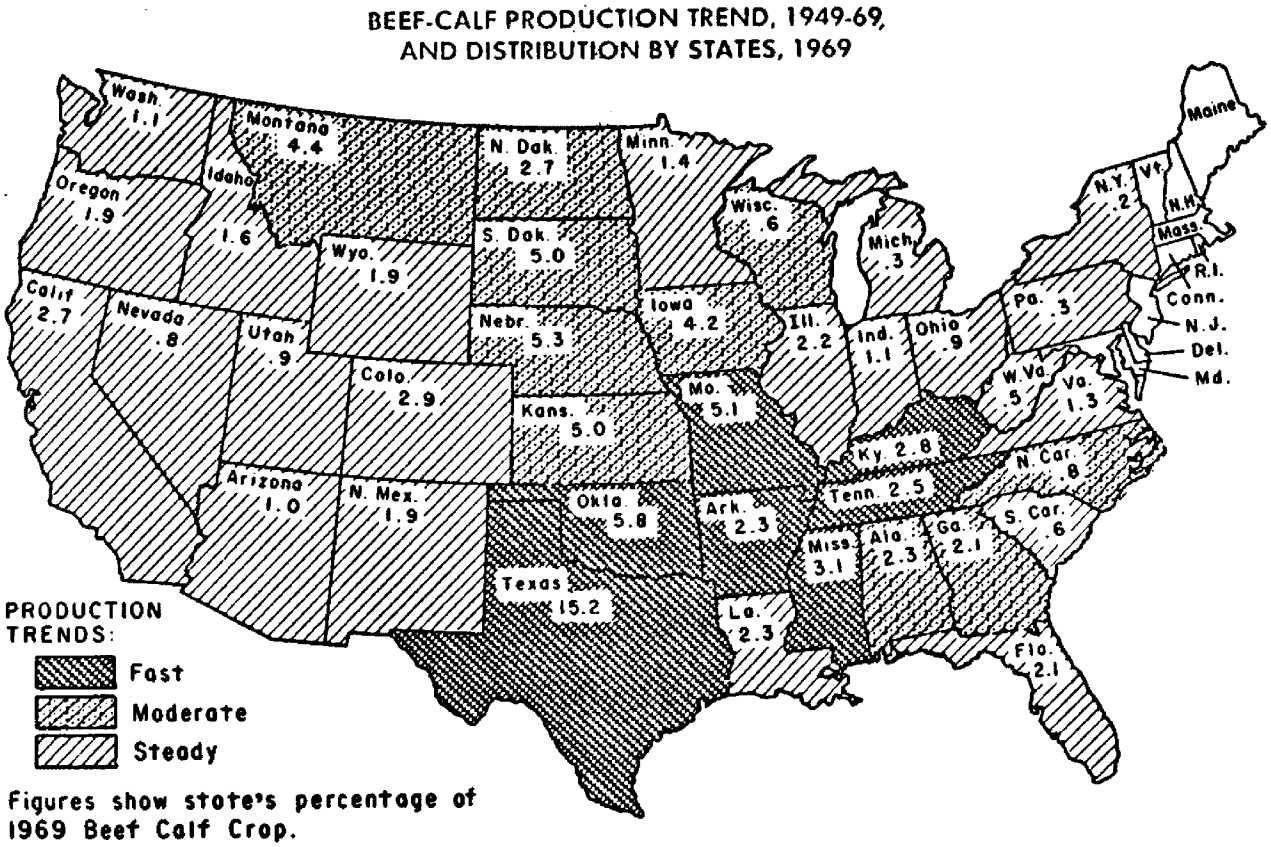
---

[7]Gene L. Swackhamer and Blaine W. Bickel, "Cattle Feeding in the Tenth District: Development and Expansion," Monthly Review, Federal Reserve Bank of Kansas City, (April, 1970), p. 19.

[8]Maxine C. Johnson, Beef Cattle in the Montana Economy, Regional Study No. 14, Bureau of Business and Economic Research (Missoula, Montana: University of Montana, June, 1961), p. 1.

[9]Ibid., p. 3.

MAP III



Source: Gene L. Swackhamer and Blaine W. Bickel, "Cattle Feeding in the Tenth District: Development and Expansion," Monthly Review, Federal Reserve Bank of Kansas City, (April, 1970), p. 19. (Compiled from Western Livestock Marketing Information Project Data, United States Department of Agriculture).

CHAPTER III

THE TRENDS IN MONTANA'S BEEF CATTLE INDUSTRY

> Beef is by far the most important agricultural commodity produced in the United States - accounting for approximately a fourth of all cash receipts from farm marketings. Raymond J. Doll, "Economic Growth and the Beef Industry," Monthly Review, Federal Reserve Bank of Kansas City, February, 1970.

The previous chapter explained some of the significant aspects of Montana's current cattle industry. Types of cattle operations now existing in the state were also described. The chapter concluded with regional maps and tables illustrating the importance of agriculture and, specifically, the beef cattle industry in certain areas of Montana. This chapter will continue the theme of examining the state in terms of its cattle industry. However, the chapter will concentrate on facts and figures pertaining to the decade in question, 1960-1970. The chapter will thoroughly familiarize the reader with certain important trends that took place during the 1960's and, thus, provide an adequate background for the succeeding chapter which will concentrate solely on the financing of Montana's cattle industry during the decade under examination.

An important trend in recent years throughout Montana is the changing nature of land use. Chapter II graphically demonstrated the consolidation of Montana's smaller farms into larger operating units (Map II). However, this is not the only trend taking place in the state which is directly tied to the land. During the early 1900's Montana's agricultural situation consisted of a wide array of diversified crops on many farms. As the mid-1900's approached, agricultural land use began changing to a more concentrated group of crops on a smaller number of farms. During the past several years a very pronounced trend has been toward a decreasing number of total cropland acres in favor of pastureland and livestock production on still fewer farms.[1] This trend has been occurring because of stabilized grain prices, increasing costs of production, and continuing government policy concerning grain crops.

An important characteristic of the state's agricultural economy is that Montana farmers and ranchers, on the whole, are more prosperous than their national counterparts. For example, in 1968 Montana ranked ninth among the fifty states in total net income per farm.[2] Perhaps the major

---

[1]Walter G. Heid, Montana Farm Adjustments and their Economic Effects on Farm Income, 1954-1967, Bulletin 629 (Bozeman, Montana: Agricultural Experiment Station, Montana State University, April, 1969), p. 23.

[2]Maxine C. Johnson, Montana Economic Study, p. 1.29.

reason for this is that the average Montana farm or ranch has much more acreage than does the average farm nationally and, secondly, Montana ranchers depend greatly upon the sale of beef for a substantial portion of the cash receipts received from marketings. The nationwide increasing demand for beef (causing increasing live cattle prices in the latter half of the 1960's) is primarily responsible for the Montana rancher's continued strong net income per farm. Because of rapidly growing incomes and relatively high employment during the 1960's, the domestic demand for beef increased sharply. Beef certainly is among the elite of farm commodities. Consumers have been demonstrating their taste and preference for beef by steadily increasing their per capita consumption. Table II serves as an excellent illustration of this point. It is interesting to note that only beef and poultry have shown substantial gains in per capita consumption during the decade of the 1960's. When this increasing per capita consumption of beef is coupled with an increasing total population, it is obvious that the demand for beef increased sharply during the decade under study.

Another concurrent trend exhibited throughout the industry during the 1960's was that of increased fed cattle marketings and, consequently, a decline in marketings of other than fed cattle. Up until the late 1950's a large

TABLE II

PER CAPITA MEAT CONSUMPTION, UNITED STATES, 1960-1969

(IN POUNDS)

YEAR	Beef	Veal	Pork	Lamb & Mutton	Poultry
1960	85.0	6.1	64.9	4.8	34.1
1961	87.7	5.6	62.0	5.1	37.4
1962	88.8	5.5	63.5	5.2	36.9
1963	94.3	4.9	65.3	4.8	37.5
1964	99.8	5.2	65.3	4.2	38.3
1965	99.3	5.2	58.5	3.7	40.8
1966	104.0	4.5	58.0	4.0	43.8
1967	105.9	3.8	63.9	3.9	45.7
1968	109.4	3.6	66.0	3.7	45.1
1969	110.7	3.3	64.7	3.4	47.1

Sources: Raymond J. Doll, "Economic Growth and the Beef Industry," Monthly Review, Federal Reserve Bank of Kansas City, (February, 1970), p. 4.

Livestock and Meat Situation, Economic Research Service, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, May, 1970), p. 37.

percentage of cattle were "grass-fat" when sold for slaughter. Feedlots were important then but still only finished about one-half of all cattle sold for slaughter. Today, on a national basis, feedlots finish a full 70 per cent of all cattle slaughtered. This trend is particularly important to Montana cattlemen because it means an increasing demand for feeder cattle and calves. This continually growing consumer demand for fed beef as opposed to grass-fat beef helped to provide an excellent outlet for Montana's feeder cattle during the 1960's. Montana's ranchers seem to be most efficient at producing feeder cattle: thus, the 1960's on the whole was a good decade to be in the cow-calf or yearling business. (Table III further illustrates this important national trend).

A third important nationwide trend which indicates the changing nature of livestock agriculture is that of declining dairy cattle inventories and increasing beef cattle inventories. In the year 1960, 69 per cent of all cattle on hand in the United States were classified as beef cattle. At the end of the decade (1969), over 81 per cent of all the cattle in the country were classified as beef cattle.[3] Interestingly, at the end of the decade there were almost as many beef cattle on farms and ranches

---

[3]Livestock and Meat Situation, Economic Research Service, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, May, 1970), p. 37.

TABLE III

FED CATTLE MARKETINGS IN THE 39 MOST IMPORTANT FEEDING STATES, 1960-1970

(In Millions)

YEAR	Number of Head Marketed	Fed Cattle Marketings as a Percentage of Total Slaughter
1960	13.6	52
1961	14.6	55
1962	15.4	57
1963	16.8	60
1964	18.3	58
1965	18.9	57
1966	20.6	60
1967	22.0	64
1968	23.0	66
1969	24.9	70
1970 (est.)	26.0	72

Source: Livestock and Meat Situation, Economic Research Service, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, May, 1970), p. 32.

as there were total cattle at the beginning of the decade. Montana's ranchers raise primarily beef cattle; the state is not known as an important milk producing area. The figures in Table IV include all cattle in the United States and in Montana. This table indicates that Montana is slightly, but steadily, holding a greater portion of the nation's cow herd. The interesting phenomena indicated here is the tremendous growth in cattle numbers on Montana's ranches during the decade (32.5 per cent increase from 1960-1969) as compared to an increase of 14.1 per cent for the United States as a whole.

Montana's cattle have consistently maintained a higher value per head compared to all cattle in the United States. Perhaps the primary reason for this is because of the excellence of our purebred industry which supplies a large percentage of the bulls used on commercial cattle ranches. These bulls provide both heavier and better quality cattle. Graph I demonstrates this greater value per head for Montana cattle. This graph also reflects the major price changes in live cattle marketings that took place during the 1960's. A major limitation of this graph is that all types of cattle are included.

Another very important indicator of the increasing importance of the beef cattle industry to Montana's

---

[3]Livestock and Meat Situation, p. 37.

TABLE IV

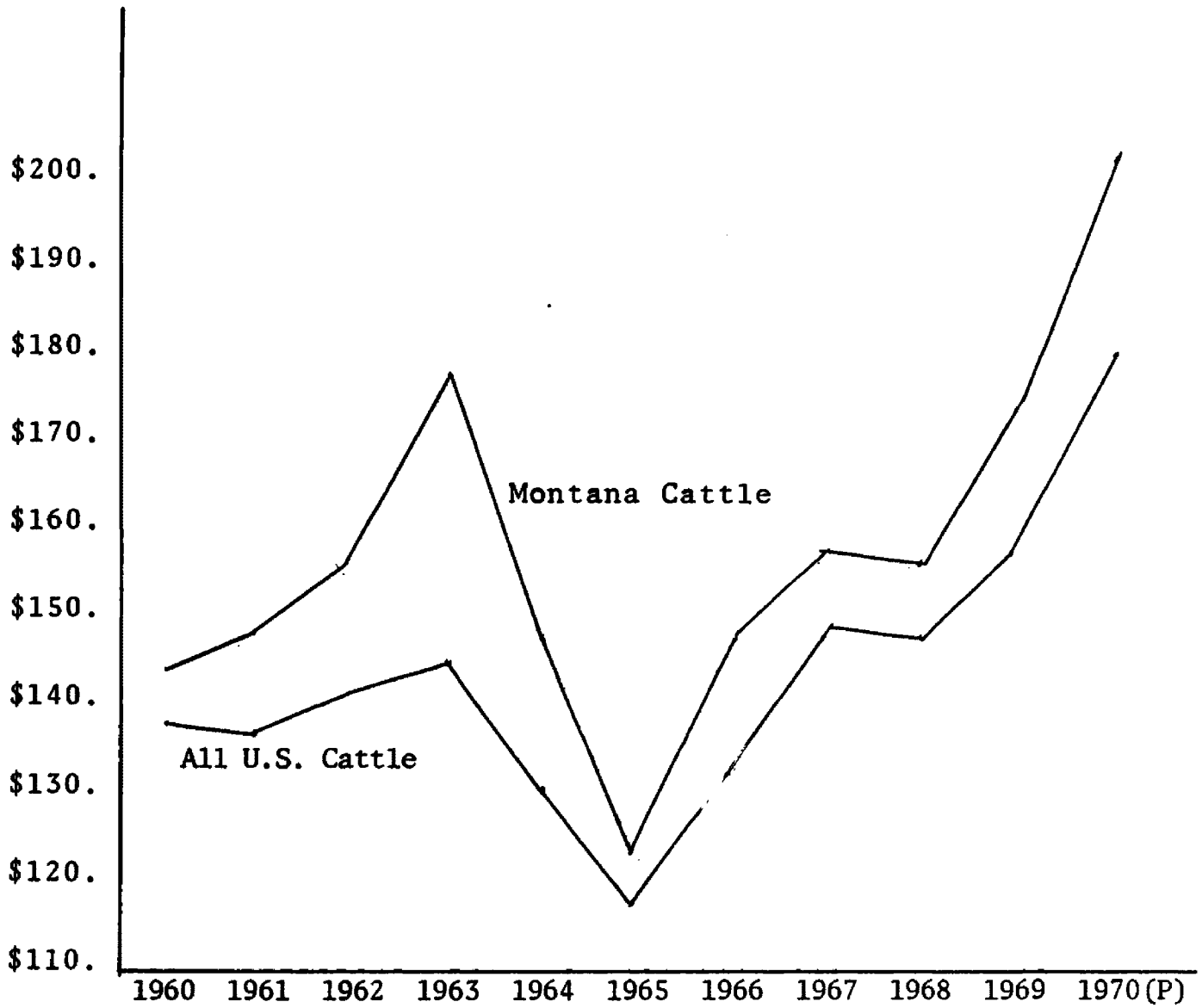
ALL CATTLE AND CALVES ON HAND IN THE UNITED STATES AND IN THE STATE OF MONTANA, 1960-1969

YEAR	U.S. Total	Montana Total	Montana's Percentage of U.S. Total
1960	96,236,000	2,246,000	2.2
1961	97,319,000	2,155,000	2.2
1962	100,002,000	2,133,000	2.1
1963	103,736,000	2,325,000	2.2
1964	106,743,000	2.627,000	2.4
1965	107.152,000	2,758,000	2.5
1966	108,862,000	2,841,000	2.6
1967	108,645,000	2,869,000	2.6
1968	109,152,000	2.984,000	2.7
1969	109,885,000	2.984,000	2.7

Source: Agricultural Statistics, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, annual editions 1961 through 1970), Table 458, each edition.

GRAPH I

VALUE PER HEAD OF ALL U.S. CATTLE AND OF ALL MONTANA CATTLE, 1960 - 1970



Source: Agricultural Statistics, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, annual editions 1961 - 1970), Table 458, each edition.

agriculture economy, as well as its overall economy, is the cash receipts that farmers and ranchers receive from the sale of cattle and calves. Table V compares the growth of cash receipts received from the sale of beef cattle in Montana and in the United States. Montana's proportion of the United States' total remained at a near constant 1.9 per cent to 2.3 per cent throughout the decade. Montana's percentage increase in cash receipts derived from the sale of cattle was slightly less (64.1 per cent) compared to the United States as a whole (69.4 per cent). This can be largely attributed to Montana's cattlemen holding back a greater percentage of replacement heifers in order to increase the size of their herds. Table IV well substantiates this reasoning.

As indicated in Chapter II, Montana is not a strong cattle feeding state. However, the state did make substantial increases in the number of cattle on feed during the 1960's. Unfortunately, accurate figures are not available for the United States as a whole in terms of numbers of cattle on feed because of the changing definition of "cattle feeding states." Specifically, up until 1961, only 26 states were reporting accurate figures of cattle on feed; during 1962 and 1963, 28 states reported these figures; from 1964 to 1968, 32 states were reporting figures; and after 1968, 39 states were reporting cattle

TABLE V

CASH RECEIPTS FROM THE SALE OF CATTLE AND CALVES (BEEF AND VEAL) IN THE UNITED STATES AND IN MONTANA 1960 - 1969

Total Cash Receipts

YEAR	United States	Montana	Montana's Percentage of U.S. Total
1960	$ 7,395,641,000.	$178,326,000.	2.4
1961	7,573,264,000.	166,048,000.	2.2
1962	8,156,025,000.	160,707,000.	1.9
1963	8,079,314,000.	137,338,000.	1.7
1964	7,767,890,000.	154,445,000.	1.9
1965	8,916,847,000.	190,905,000.	1.9
1966	10,442,598,000.	235,386,000.	2.3
1967	10,550,998,000.	216,892,000.	2.1
1968	11,270,641,000.	261,503,000.	2.3
1969	12,520,000,000.	292,253,000.	2.3

Percentage Increase in Total U.S. Cash Receipts, 1960-69 69.4

Percentage Increase in Total Montana Cash Receipts, 1960-69 64.1

Source: Agricultural Statistics, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, annual editions 1961 through 1970), Table 466 and others, each edition.

on feed statistics. A comparison between national trends and Montana's trend would be inaccurate, therefore, simply because of the changing nature of United States "cattle-on-feed" statistics. However, it has been estimated that the growth in cattle feeding during the 1960's averaged close to a 7 per cent annual increase nationwide.[4] Cattle on feed in Montana increased at about this same rate. Graph II illustrates this growth. Again, Montana's cattle feeding industry is relatively unimportant nationally. During 1969, 39 states reported 12.5 million cattle on feed; Montana's share of this number was only 120,000 cattle, or less than 1 per cent of the total.[5]

Montana has been experiencing greater and greater reliance on its cattle industry for cash receipts received from the sale of agricultural products. During the decade under study this trend was particularly strong. Table VI well identifies the trend. The significant fact which can be derived from this table is that cash receipts from the sale of cattle and calves increased by twelve percentage points over the decade while wheat sales decreased by twelve percentage points in relation to the total receipts of all

---

[4]Donald Seaborg, "Beef Cattle: Next 10 Years," Livestock and Meat Situation, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, May, 1970), p. 34.

[5]Agricultural Statistics.

GRAPH II

NUMBER OF CATTLE ON FEED AS OF JANUARY 1, MONTANA

1960-1969

Source: Agricultural Statistics, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, annual editions 1961 through 1970), Table 462, each edition.

TABLE VI

CASH RECEIPTS FROM FARM MARKETINGS BY SELECTED COMMODITIES

MONTANA, 1960-1969

(In Millions)

YEAR	All Livestock & Livestock Products	Percentage of All Commodities	Cattle & Calves	Percentage of All Commodities
1960	$222.1	54.5	$174.7	42.9
1961	211.6	58.9	162.3	44.8
1962	205.9	50.6	156.9	38.6
1963	193.2	46.2	145.1	34.6
1964	201.8	53.2	153.6	40.5
1965	243.1	58.1	192.5	46.0
1966	389.2	56.9	234.5	46.1
1967	268.9	57.6	216.9	46.5
1968	319.4	63.4	264.9	52.6
1969	352.7	66.0	292.3	54.7

YEAR	Wheat	Percentage of All Commodities	Total All Commodities
1960	$132.9	32.6	$407.3
1961	104.2	28.9	365.3
1962	143.1	35.1	407.1
1963	168.0	40.1	419.0
1964	114.9	30.3	379.6
1965	106.6	25.5	418.3
1966	141.8	27.9	507.9
1967	131.5	28.2	466.7
1968	122.5	24.3	503.5
1969	107.3	20.1	534.2

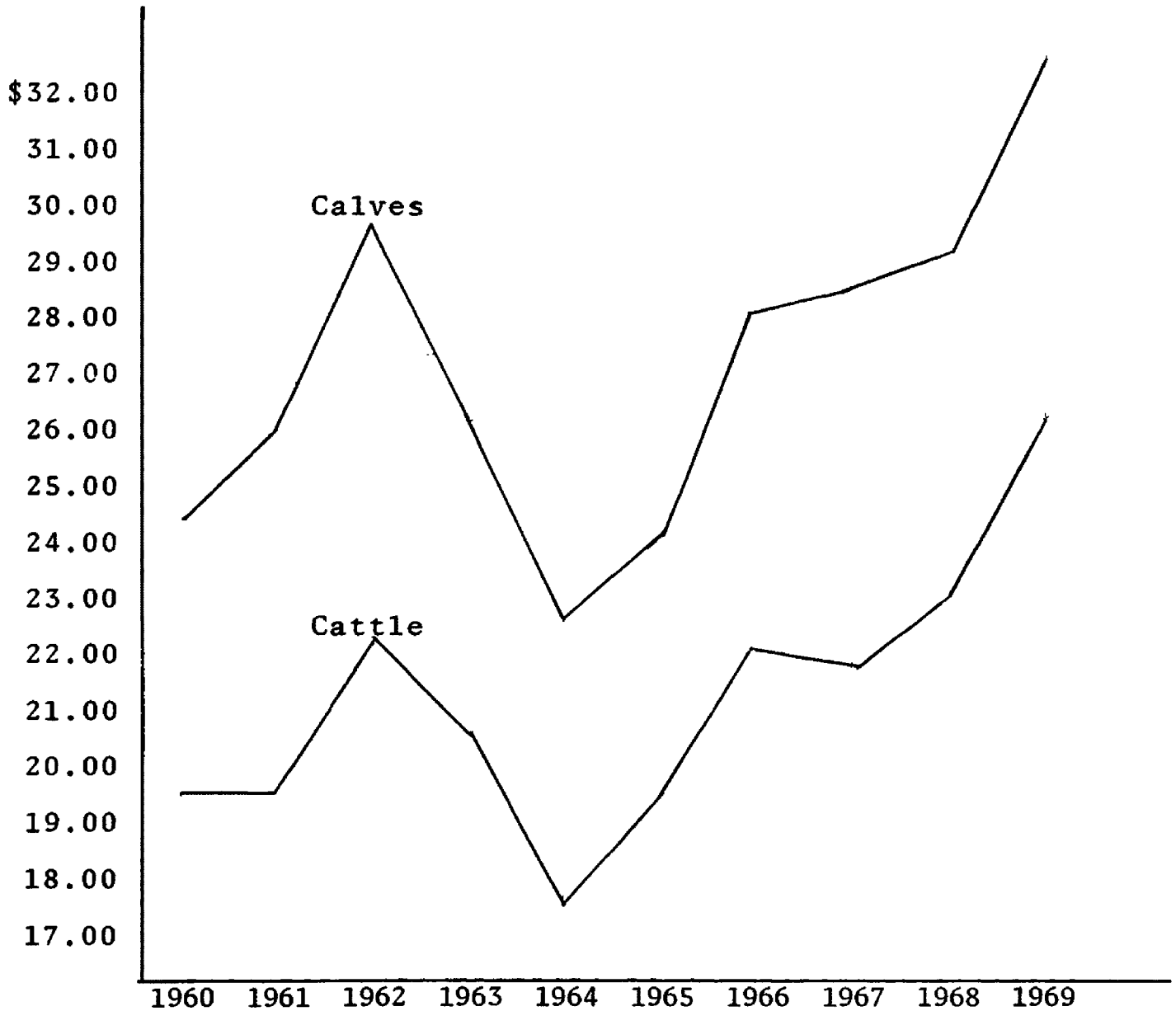
Source: Montana Agricultural Statistics, Montana Department of Agriculture and United States Department of Agriculture (Helena, Montana: Montana Statistical Reporting Service, 1962, 1964, 1967, 1970), Table titled "Cash Receipts From Farm Marketings by Commodities," each edition.

farm commodities. Of course, increased cattle prices and stable wheat prices had some effect upon these cash receipts in the later years of the decade. Graph III depicts the average price per 100 pounds received from the sale of Montana cattle during the 1960's. A close examination of this graph and Table VI would indicate that price changes made approximately a 50 per cent contribution to the increasing cash receipts from the sale of cattle and calves in the state. The other half of the contribution simply came from the increasing number of cattle sold by Montana cattlemen. Specifically, from 1964 (the lowest price year) to 1969 (the highest price year) cattle and calf prices rose by 44 per cent. However, cash receipts from the sale of cattle and calves increased by 90 per cent during the same period.

Montana sells a substantial portion of its cattle each year to out-of-state buyers. Most of these cattle are placed in large feedlots in the midwestern states. Iowa consistently buys from 10 per cent to 25 per cent of all Montana cattle sold to out-of-state buyers. The other states purchasing significant numbers of Montana cattle, in order of importance, are Nebraska, Washington, Minnesota, and Illinois. The figures changed moderately for out-of-state marketings of cattle during the decade. In 1960 some 1.2 million cattle were sold to out-of-state buyers;

GRAPH III

AVERAGE PRICE PER 100 POUNDS RECEIVED FROM THE SALE OF MONTANA CATTLE AND CALVES 1960-1969



Source: Montana Agricultural Statistics, Montana Department of Agriculture and United States Department of Agriculture (Helena, Montana: Statistical Reporting Service, 1962, 1964, 1967, 1970), Table titled "Cash Receipts From Farm Marketings by Commodities and Prices Received," each edition.

during 1969, 1.5 million cattle were sold. In-state movements of cattle underwent slightly more change during the same period. During 1960, 680,000 cattle were sold; in 1969, well over 1,000,000 cattle were sold in the state.[6] These figures are not highly reliable because they include cattle which may have been sold by one Montana rancher to another and then re-sold later to an out-of-state buyer. However, they do given an important indication of the significance of cattle exports to Montana's economy.

During 1969 the regular five year census of agriculture was conducted throughout the nation. At that time it was determined that there were 16,586 livestock ranches in the state. The average size of the ranch was 2,521 acres; the average value of the land and buildings was appraised at $150,213. The average value per acre of land was judged to be $59.57.[7] A very interesting result of this census was the analysis of cattle ranches in the state. It was estimated at the time that there were 15,806 ranches raising cattle and calves in Montana. Table VII illustrates the structure of the state's cattle ranching

---

[6]Montana Cattle Movements - 1970, Montana Crop and Livestock Reporting Service (Helena, Montana: Montana Department of Agricultural Statistics, August, 1970), Table 4, page 6.

[7]1969 United States Census of Agriculture, Statistics For States & Counties, Montana, Vol. I, U.S. Bureau of the Census (Washington, D.C.: U.S. Government Printing Office, 1971), p. 1, 2 Montana.

TABLE VII

NUMBER OF CATTLE AND CALVES SOLD OF DIFFERENT SIZES OF RANCHES

MONTANA, 1969

Farms Selling	Number of Ranches Selling Cattle & Calves	Total Number of Cattle & Calves Sold by These Ranches
1 to 19 head	2,735	28,619
20 to 49 head	4,360	143,537
50 to 99 head	3,780	268,218
100 to 199 head	2,882	398,573
200 to 499 head	1,541	454,693
500 or more head	508	627,038
Total	15,806	1,920,678

Source: 1969 United States Census of Agriculture, Statistics For States & Counties, Montana, Vol. I, U.S. Bureau of the Census (Washington, D.C.: U.S. Government Printing Office, 1971), Table 17.

industry. As indicated in the table, by far the largest number of cattle were sold from ranches in the 200 or more head category. This is significant because it means that, on the whole, Montana's cattlemen operate large ranches and that such ranches must be operated in a business-like manner to remain profitable in the competitive beef industry.

This chapter has one more important objective in providing the reader with an adequate background knowledge of Montana's changing cattle industry during the 1960's. That objective is to make a fairly detailed examination of the costs involved in operating a cattle ranch. The most reliable figures available are those pertaining to the cow-calf operation. Because Montana's cattle industry is still basically composed of cow-calf ranches, these figures are particularly pertinent. The cow-calf business is not known for large profits, especially when one figures the return on the required investment. An economic unit has been defined as a ranch which is sufficient in acres and numbers of cattle to provide an adequate income to service the family requirements along with the creditors, and also permit a nominal return to the capital investment.[8] Ranches are

---

[8]Grant W. Perry, "Banking the Cow-Calf Loan in Eastern Oregon" (Unpublished Master's thesis, Pacific Coast Banking School, University of Washington, March, 1957), p. 31.

normally categorized by the number of animal units that they are able to support. In the cow-calf business, an animal unit is defined as the acreage required to keep one cow (and raise her calf) for one year. Thus, a ranch with a capacity of 100 animal units would have sufficient land to provide for all the summer grazing and winter feeding of a 100 head cow herd. Some eastern Montana ranches require 30 to 40 acres to support each cow; in highly productive irrigated areas of the state only 2 1/2 acres may be necessary to accomplish the same job.

The Economic Research Service of the United States Department of Agriculture has been conducting a series of surveys pertaining to the costs and returns of western livestock ranches on the northern great plains. The area under study includes Montana. Unfortunately, a state by state breakdown is not available. However, the figures are broken down by types of ranches. At the middle of the decade (1965) the figures for the average beef cattle ranch in the western states were as follows:[9]

Acres in ranch	4,500
Cattle on the ranch	174
Livestock investment	$22,520.
Total ranch investment	$90,650.
Gross ranch income	$15,544.
Net ranch income	$ 7,599.

---

[9]Wylie D. Goodsell and James R. Gray, Costs and Returns - Western Livestock Ranches, 1965, Economic Research Service, United States Department of Agriculture (Washington, D.C.: U.S. Government Printing Office, May, 1966), p. 6.

These figures do not include an allowance for rent or lease payments, interest expenses and mortgage payments, if any. Interestingly, the net income figure works out to an average hourly wage rate of 81¢ to the operator and family members working on the ranch. However, this 81¢ figure is accurate only after deducting charges amounting to an average rate of 4 per cent on invested capital.[10]

Montana State University published a study pertaining to this subject in 1970. In the study actual operating expenses for cattle ranches in the northern great plains were determined. The figures in Table VIII are for the year 1967. The interesting point made by this table is not only that it is expensive to carry one animal unit for a year, but that the interest expense for each animal unit amounts to almost 20 per cent of the total expense of that unit. This particular expense is the largest item of all the operating expense items. With this point and the background information presented in this chapter in mind, it is now time to turn to the discussion of financing Montana's beef cattle industry.

---

[10] Ibid.

TABLE VIII

OPERATING EXPENSES OF TWO CATTLE RANCH SIZES FOR THE NORTHERN GREAT PLAINS, 1967

Expense Item	Under 200 Animal Units	Over 200 Animal Units
	Dollars/AU	Dollars/AU
Labor	$ .41	$2.90
Feed	8.60	8.44
Machine Hire	2.34	1.42
Supplies	5.20	2.87
Repairs & Maintenance	5.32	3.21
Veterinary	1.01	1.01
Fuel	6.68	4.22
Taxes	6.22	6.15
Insurance	1.77	1.14
Interest	9.57	9.38
Water	2.54	1.35
Rent	3.37	4.98
Freight	.80	.74
Auto	.80	.56
Miscellaneous	1.03	1.09
TOTAL (excluding interest)	$46.09	$40.08
TOTAL (including interest)	$55.66	$49.46

Source: R.O. Wheeler, The Range Cattle Industry of the Northern Great Plains - A Comparison of Production Rates Between 1958 and 1967, Bulletin 643 (Bozeman, Montana: Montana State University and United States Department of Agriculture, August, 1970), p. 14.

CHAPTER IV

FINANCING THE INDUSTRY

> Loans using cattle and feed as security are historically as old as the country itself, and up until the last 50 years were the main form of commercial paper for 90% of the banks west of the Mississippi. Possibly because of this long background and tradition, many of the oldest and most conservative banks take chances on cattle paper that they wouldn't think of doing on most other forms of collateral. Harold L. Oppenheimer, Cowboy Arithmetic (Cattle as an Investment), 1961.

The last chapter familiarized the reader with the important developments that took place in Montana's cattle industry during the 1960's. The chapter was designed to provide the necessary background information concerning Montana's cattle situation in the most recent decade. Specific and reliable data pertaining to the amount of beef cattle loans made by the different financial institutions throughout Montana for the decade of the 1960's is not available. Nevertheless, this chapter will highlight the important characteristics of cattle financing in the state. The chapter will begin with a general analysis of cattle financing, move to specific discussions of the two most important financial institutions in the industry (commercial banks and Production Credit Associations), and

continue with relevant comments pertaining to cattle financing in Montana.

Ranching, as contrasted with farming, entails a larger amount of capital in proportion to the gross value of the output. This situation exists because two factors of production must be purchased in the ranching business. Specifically, both the land and cattle can be considered factors of production. As in farming, the typical rancher also has a large investment in machinery. Tractors, mowers, balers, rakes, and some basic farming type machinery are necessary in order to operate efficiently. Because of the increased capital needs required for cattle ranching, it is the rare operator whose balance sheet does not show some kind of debt. A recent study showed that in the Mountain region of the United States (includes Montana) the typical "meat animal ranch" had incurred debt as a percentage of assets ranging from 53 per cent for the large incorporated ranches to 30 per cent for the small unincorporated ranches.[1] Debt obviously plays a very important part in the cattle industry.

This thesis is primarily concerned with that debt which is used to finance the acquisition of cattle. Unfortunately, many of the statistics available break

---

[1]Allen G. Smith, "Corporate and Noncorporate Farm Borrowers - Some Financial Aspects," Agricultural Finance Review, Economic Research Service, United States Department of Agriculture, Vol. 30 (Washington, D.C.: U.S. Government Printing Office, July, 1969), p. 71.

down farm and ranch debt only by the type of security used. Cattle have long been considered good security by bankers for loaning money to ranchers for purposes other than purchasing cattle. It is not unusual for a PCA (Production Credit Association) to loan money to a rancher for operating expense purposes and to secure the loan by filing a "security agreement" on his cattle at the local courthouse. Thus, cattle are many times used for security for loans that do not involve the direct acquisition of cattle. It has been mentioned that cattle are usually considered "good" security for purposes of loaning money. This is normally the case; however, using cattle as security does entail some very real disadvantages. Specifically, cattle are mobile and it is easy to sell great quantities in a short period of time. Secondly, mortality insurance on cattle is too expensive. Fire insurance on a $50,000 building would be absolutely required by a bank when a construction or mortgage loan is obtained, but mortality insurance on $50,000 worth of cattle is simply unheard of. Thirdly, the management function is critical in the cattle business. The value of the cattle can deteriorate 20 per cent in a few short weeks if the rancher's pastures begin getting

short on water or feed.[2] Finally, on the large eastern Montana ranches it is impossible for a loan inspector to check his security by counting the number and noting the condition of cattle on hand. These ranches are simply too large and too rough to be able to find all the cattle except when a concentrated effort is made by many ranch hands to round them up into one area. In Montana, the most important item in the bank's security agreement is the rancher's brand (the only recognized legal form of identification in the state) which must be currently registered in his name by the State Brand Inspection Office. A second important item is the legal description of the ranch where the secured cattle are running. It is necessary that the security agreement be recorded in each county where the cattle will be located.

As has been demonstrated, the largest part of Montana's cattle industry is in the cow-calf business. A typical cow-calf ranch requires seasonal operation lines of credit and also usually requires funds of a capital nature necessary for the purchase of livestock and other capital items. Most bankers feel that it is more logical to depend upon a calf crop as security than it does to use some other

---

[2]Oppenheimer, Cowboy Arithmetic, p. 135.

form of security, such as crops which tend to have a high production hazard. Many bankers have established an arbitrary maximum on the amount they wish to invest in cattle loans on an animal unit basis. This system has been reported to be a successful one, and certainly a practical one. However, the banker must realize that no two cow "set-ups" are the same and that common sense and judgment must be employed in determining what the maximum amount of loan per animal unit should be in each individual case.[3]

Various forms are used in processing a cattle loan by a financial institution. Of course, the three C's (character, capability, and capacity) are still very important in analyzing an individual's loan request. A financial statement of the individual's position is critical. The statement must be current and list all the assets and debts by types and amounts. Normally, cattle are further broken down by type and age of animal, along with the current market price of each type of animal. An inspection report by the bank's livestock inspector verifies the kind and number of cattle on hand and any other major assets that have been listed on the financial statement. Banks are becoming more sophisticated in loaning money to cattlemen. Unless the

---

[3]Perry, "Banking the Cow-Calf Loan in Eastern Oregon," p. 55.

client has been an old and trusted customer of the bank, a budget of operating expenses and projected incomes is also required by the loan committee. If the loan is granted, the bank's job is by no means finished. Cattle loans are known for the fluctuations in the value of the cattle used as security. Such loans never remain constant; they literally get better or worse by the hour. It is imperative that the lending officer practice continual follow-up of his cattle loans in order to detect any substantial regression which may be taking place.

The cattle market is perhaps one of the only true free competition situations still existing in the United States. Cattle prices are determined almost solely by supply and demand. The market, of course, is not a perfect one. Many sellers exist for every buyer. However, there are enough buyers, and certainly enough sellers, to create a market very close to pure competition. Demand for cattle is determined by general considerations such as the size of the population, the level of employment, and personal income. The most important specific consideration is the demand for beef. As illustrated in Chapter III, this demand grew substantially during the 1960's. Supply is determined by the number of ranchers who buy and hold increasing or decreasing numbers of replacement stock in order to produce more or less calves and, thus, ultimately increase or decrease the size of the nation's cowherd. In

periods of rising cattle prices, ranchers tend to begin the cycle of producing more and more calves. This cycle has been accurately labeled the cattle cycle and it has been defined as the recurring alternation of buildup and reduction of cattle numbers depending on the price trend. As with most such cycles, a time lag is involved. The length of time required to produce and rear a calf for market tends to give the cycle its up and down movements. This time is now considered to be about 15 months. Historically, the cattle industry has moved through expansion phases lasting from six to eight years and then contraction phases running from four to ten years in length.[4] In the early financing of cattle, the granting and calling of loans tended to occur at precisely the wrong time in relation to the cattle cycle; that is, many debacles occurred, the worst being the years 1920-21 and again in 1931-32. Today, banks have a better understanding of the cattle industry and are certainly more tuned to the current status of the industry, thanks mostly to the government's timely reporting service which gives an accurate indication of cattle numbers, expected future cattle numbers, and probable price trends.

---

[4]Harold F. Heinecke, "The Role of the Commercial Bank in Financing the Beef Cattle Industry." (Unpublished Master's thesis, Pacific Coast Banking School, University of Washington, March, 1955), p. 22.

This chapter is primarily concerned with the analysis of the two primary sources of cattle loans in the state: commercial banks and PCA's. Other sources do exist and should be briefly mentioned. Private sources most certainly provide a source of credit for the industry. Unfortunately, few statistics are available concerning their contribution. Most private sources consist of dealers and merchants who have specific items for sale such as farm machinery or cattle and are often willing to give liberal credit terms in order to make sales. Of course, to cover the additional costs of selling on credit they usually charge slightly higher prices. The F.H.A. (Farmers Home Administration) also provides some funds for cattle loans. In order to get an F.H.A. loan the applicant must prove his inability to get adequate credit from other lenders in the area. As will be shown later, F.H.A. loans are not a significant part of Montana's agricultural financing picture.

The most significant trend in the agricultural financing field is the astounding rate of increase in agricultural debt on a year to year basis. Table IX shows this dramatic increase in non-real estate farm debt for the United States during the decade under study. Non-real estate debt includes debt used for the purchase of livestock, machinery, and other related items, including the financing of operating expenses.

TABLE IX

NON-REAL ESTATE FARM DEBT OUTSTANDING

UNITED STATES, 1960-1970

(In Billions)

JANUARY 1 EACH YEAR	Non-Real Estate Debt	Dollar Change in Debt During Year	Percentage Change in Debt During the Year
1960	$11.5		
1961	12.0	$ .5	3.8
1962	12.9	.9	7.9
1963	14.5	1.6	12.3
1964	16.2	1.7	11.7
1965	17.1	.9	5.8
1966	19.0	1.8	10.8
1967	21.2	2.2	12.0
1968	23.5	2.3	10.6
1969	24.9	1.3	5.7
1970	27.0	2.1	8.8

NOTE: Percentage change in debt during the year has been computed from unrounded data.

Source: Agricultural Finance Review, Economic Research Service, United States Department of Agriculture, Vol. 31, supplement (Washington, D.C.: U.S. Government Printing Office, December, 1970), p. 1.

With this point in mind, it is now time to turn to a more detailed examination of the two primary lenders in the cattle financing field.

PCA's are a relatively recent development in the agricultural finance field. In 1916 Congress passed the Farm Loan Act which created twelve Federal Land Banks for the purpose of making mortgage loans on farms. After the agricultural depression of 1920-21, The Agricultural Credit Act of 1923 was enacted. This law created twelve FICB's (Federal Intermediate Credit Banks) which were designed to discount short and intermediate term paper from commercial banks, livestock loan companies, and farm cooperatives. Unfortunately, the system was hampered by lack of cooperation and limited funds. Following the depression of 1929, the Farm Credit Act of 1933 was passed. This act established the Production Credit Association. PCA's were designed to be individual credit cooperatives making direct loans to farmers and ranchers. They were to use the already existing FICB's for discounting purposes. The Farm Credit Act of 1953 made the PCA organization a part of the Farm Credit Administration which is now an independent agency of the executive branch of the U.S. Government. On January 14, 1969 all the remaining government capital originally used to fund the PCA organization was retired. The whole system is now completely farmer owned and has a net worth of well

over two billion dollars.[5] The Farm Credit System raises its necessary capital by issuing paper known as Farm Credit Securities and selling it on the open market. These securities are not obligations of the U.S. Government, but their reputation has been so good that interest rates have been within 1/4 of 1 per cent of U.S. Treasury securities.[6] Some 453 local PCA's exist throughout the United States with twelve FICB's servicing them. Montana has eleven PCA's operating in the state and, as will be shown later, they do a substantial amount of Montana's agricultural financing.

In the major studies of cattle financing that were surveyed, it was found that commercial banks still handle the greatest percentage of cattle loans of all financial institutions. However, there is considerable regional variation. As one author put it: "In some areas PCA's did more of the financing (for cattle) - banks did almost all in other areas. In a few instances, operators were using the local bank for credit up to its loan limit and using the PCA for overlines which were frequently large."[7]

---

[5]The Farm Credit System in the 70's, The Report of the Commission on Agricultural Credit, Farm Credit Administration (Washington, D.C.: U.S. Government Printing Office, 1970), p. 3.

[6]Ibid., p. 2.

[7]Swackhamer and Bickel, "Cattle Feeding in the Tenth District: Development and Expansion," p. 15.

The two big problems that commercial banks face with financing are their loan limitations and the liquidity of the loan. Cattle are a very expensive capital item to purchase and it sometimes only takes a few hundred head before a smaller bank has reached its legal lending limit. Cattle tend to become illiquid when prices begin to fall because the rancher would rather hold as long as possible unless the bank forces him to liquidate. Interest rates for cattle loans are generally higher and not as flexible as are those for somewhat comparable "city" loans.[8] In 1966 the average loan by a commercial bank in Montana was costing the rancher 7.24 per cent in interest. A PCA was charging somewhere between 5.0 per cent and 7.5 per cent for the same loan that year, depending on the specific borrower and his past history.[9] Types of borrowers can be divided into four general classifications:

1. Experienced cattlemen who specialize in raising cattle and who have little or no other business interests.
2. Stock farmers who combine cattle raising with other phases of agriculture such as wheat production.

---

[8]Gene L. Swackhamer and Raymond J. Doll, Financing Modern Agriculture: Banking's Problems and Challenges (Kansas City: Federal Reserve Bank of Kansas City, 1969), p. 2.

[9]Agricultural Finance Review, Economic Research Service, United States Department of Agriculture, Vol. 31, supplement (Washington, D.C.: U.S. Government Printing Office, December, 1970), pp. 38-39.

3. Residents of towns and cities who are principally tradesmen or professional men who have undertaken a cattle-raising venture.

4. Rank beginners in the cattle business who are attracted by purported "quick profits" or for other reasons.[10]

Both banks and PCA's generally divide loans into two classes - secured and unsecured. Today, very few cattle loans are made on an unsecured basis unless the borrower shows a very substantial unencumbered equity. Margin is quite important in making a cattle loan. A commercial bank will normally loan 70 per cent of the value of the cattle. The PCA limit is usually about 75 per cent. However, for some borrowers, the full 100 per cent of the cost of the cattle may be advanced. Margin requirements are determined by six basic factors:

1. The type of cattle loan - breeder, stocker, or feeder.

2. The term of financing required - less than one year or one year or more.

3. The character, experience, capability, and capital of the borrower.

4. The adequacy of the equipment, facilities, and feed supplies.

5. The cost of the feeding or grazing operation.

---

[10]Livestock Financing, American Bankers Association Agricultural Commission (New York: American Bankers Association, 1954), p. 11.

6. The price of the cattle and the prevailing economic conditions.[11]

Breeder or cow-calf loans are normally made for a one year period with renewal of a certain portion expected. Stocker loans are made for the anticipated period of time necessary to finish the animal to slaughter weight. The renewal agreement for cow-calf loans is only a gentleman's agreement and is not legally binding. However, as one study found, a borrower who makes reasonable progress is seldom refused a renewal.[12] This study also revealed some interesting borrower characteristics that banks and PCA's consider important. Table X lists these characteristics in order of importance.

Up to this point, this chapter has given a general analysis of the financing methods utilized by Montana's cattle industry. Also, the two most important financial institutions have been generally discussed. Before proceeding to more specific facts concerning each of these institutions, it is appropriate to examine the relative changes in the financing picture for these financial institutions during the decade of the 1960's. Again, non-real estate loans to farmers will be used because these

---

[11]Bert L. Sellin, "Financing the Beef Cattle Industry." (Unpublished Master's thesis, Pacific Coast Banking School, University of Washington, March, 1949), p. 39.

[12]Agricultural Production Credit in Montana, Circular 233 (Bozeman, Montana: United States Department of Agriculture with Montana State College, April, 1961), p. 5.

TABLE X

RELATIVE IMPORTANCE OF BORROWER CHARACTERISTICS RANKED BY THE TWO MAJOR LENDERS MONTANA, 1960

Commercial Banks	Production Credit Associations
1. Ambition	1. Financial Progress
2. Management Practices	2. Management Practices
3. Financial Progress	3. Ambition
4. Farming Experience	4. Loan History
5. Loan History	5. Farming Experience
6. Financial Backing	6. Cooperativeness
7. Scale of Operation	7. Scale of Operation
8. Buying Habits	8. Buying Habits
9. Cooperativeness	9. Financial Backing
10. Mechanical Skills	10. Level of Family Living

Source: Agricultural Production Credit in Montana, Circular 233 (Bozeman, Montana: United States Department of Agriculture with Montana State College, April, 1961), p. 10.

figures are the only truly accurate ones available. Table XI illustrates the amount of non-real estate credit extended to farmers and ranchers in the state by the three largest lenders. The most significant trend which can be derived from this table is the rapid increase in non-real estate loans during the decade under study. The second important trend exhibited is that of the changing importance in financing Montana's agricultural needs by the two major financial institutions. Specifically, the following statistics indicate the share of the market that each financial institution held:

Percentage of Total Non-Real Estate Credit, Montana

	January 1, 1960	January 1, 1970
Commercial Banks	69	64
PCA's	25	30
F.H.A.	6	6

It is obvious that PCA's are making significant inroads into the commercial bankers' share of the agricultural credit market in Montana. This trend is also occurring on a national basis. Montana's financing mix is very similar to that of all states. For example, on January 1, 1970, PCA's financed about 30 per cent of all United States agricultural non-real estate loans. Commercial banks financed about 66 per cent of these types of loans.[13] The amount of

[13]Agricultural Finance Review, Economic Research Service, United States Department of Agriculture, Vol. 32, supplement (Washington, D.C.: U.S. Government Printing Office, January, 1972), p. 23.

TABLE XI

NON-REAL ESTATE LOANS TO FARMERS

OUTSTANDING AMOUNTS REPORTED BY PRINCIPAL LENDING INSTITUTIONS

MONTANA, 1960-70

(In thousands)

JANUARY 1 EACH YEAR	Commercial Banks	PCA's	F.H.A.
1960	$ 76,327	$27,436	$ 6,900
1961	91,479	28,777	7,500
1962	85,916	32,260	10,600
1963	114,619	36,082	13,700
1964	124,093	44,827	17,000
1965	140,472	53,153	20,388
1966	153,595	59,767	22,700
1967	171,917	73,856	26,500
1968	174,893	70,668	21,334
1969	184,097	79,141	20,605
1970	198,305	94,243	17,666

Source: Agricultural Finance Review, Economic Research Service, United States Department of Agriculture, Volumes 26, 27, 30, 31, 32, supplements (Washington, D.C.: U.S. Government Printing Office, years 1966-1972), Tables 15, 16, and 17 each volume.

non-real estate loans increased by 177 per cent from 1960 to 1970 for the United States as a whole; Montana's rate of increase was slightly more accelerated at 181 per cent.[14]

Commercial banks have been only reasonably successful in holding a fair share of their business in the farm lending field. Their future depends on their desire to compete and their ability to adjust. PCA's furnish the bulk of the competition and will continue to do so. PCA's have been seeking new business aggressively; have reduced their operating costs; and are becoming well noted for improved loan service.[15] Banks have long operated under the old concept of farm lending which means that all the rancher's loans are "cleaned up" at the end of the season, after the cattle have been sold. This system is undergoing change by many of the more progressive banks throughout the state. Nevertheless, the change has not been as rapid as have PCA's innovations. Specifically, PCA's require detailed budgeting (monthly income and expense analysis) of not only the business aspect of the ranch, but also of the living expenses of the family. PCA's further require a detailed statement of how the borrowed funds are to be used and of how they will be repaid. On the whole, banks have

---

[14] Ibid.

[15] 14th National Agricultural Credit Conference - Proceedings (New York: The American Bankers Association, 1965), p. 1, Address: Robert S. Smith, "The Changing Competition for Farm Loans."

not kept pace with the PCA's in this area of lending money to cattlemen.

Commercial banks do have a break when it comes to making cattle loans. The National Banking Act limits the size of any individual loan that a bank can make to 10 per cent of the bank's net unimpaired capital and surplus, unless the loan is secured by livestock, in which case the limit is 25 per cent. In 1966 the Federal Reserve System conducted a nationwide agricultural loan survey. The results were rather surprising. Considering that farm loans represented only 5 per cent of total outstanding loans in June, 1966, it was found that 44 per cent of all commercial banks had 1/4 or more of their outstanding volume in agricultural loans; 22 per cent of all banks had more than 1/2 of their loans in agriculture. The problem is that most of these banks relying so heavily on agricultural loans are the smaller banks in rural areas. For example, the survey found that overline requests (loan requests which exceed the bank's legal lending limit) in farm loans were running at 14 per cent of all banks. More than one-third of all banks use participation agreements with other lending institions (principally correspondent banks) to meet these overline requests. On a national basis, 53 per cent of the volume of participation agreements were for livestock purposes, primarily feeder cattle.

Another significant trend observed was the number of borrowers operating meat animal farms. This figure increased 59 per cent from 1956 to 1966, while cash grain farmer-borrowers remained unchanged.[16] This study did not break down the information compiled on a state by state basis. Nevertheless, the trends observed are pertinent and significant to this study.

Even though PCA's are perhaps more professional in their approach to the agricultural lending field, banks (as has been shown) still retain the majority of the business. One major reason for this is that most banks employ agricultural loan specialists (PCA's employ only agricultural specialists). In 1965 it was found that a full 72 per cent of all banks in the western part of the United States had one or more agricultural specialists working in the bank.[17] Bankers also cite their unique advantages in serving local ranchers as another important reason. Because a bank can provide complete financial services at one location it is more convenient for stockmen to patronize the local commercial bank. Finally, bankers

---

[16]"Bank Financing of Agriculture," Federal Reserve Bulletin (June, 1967), p. 929.

[17]"Trends in Agricultural Banking," Report of the Mid-Year 1965, Agricultural Credit Survey, Agricultural Commission (New York: American Bankers Association, 1965), p. 13.

have simply been in the cattle financing field longer than have the PCA's. Most banks have built up a long and continuing relationship with their rancher-borrowers that neither the bank nor the rancher have any desire to disrupt.

Table XII illustrates the importance of non-real estate agricultural loans made by Montana's commercial banking system. The significant fact illustrated by this table is the continuing importance of agricultural loans to the state's commercial banking industry. Throughout the past decade non-real estate loans to farmers and ranchers were consistently responsible for about 25 per cent of the total loan volume of Montana's commercial banks. In comparing this loan volume to the figures cited in Chapter II (Map I) it is obvious that the financing of agriculture by commercial banks is a very important business in certain areas of the state. Unfortunately, no specific data is available for beef cattle loans.

A further examination was made of the significance of non-real estate agricultural loans for particular sizes of commercial banks. All insured commercial banks were categorized by size in accordance with their total deposit base. The following figures are for all such banks in

TABLE XII

NON-REAL ESTATE AGRICULTURAL LOANS BY ALL COMMERCIAL BANKS

MONTANA, 1960-1969

(In millions of dollars)

YEAR as of 12/31	Total Net Loans & Discounts	Non-Real Estate Ag. Loans	Percent of Total Loans	Ag. Loans National Banks	Ag. Loans State Banks (FED members)	Ag. Loans State Banks (Non-FED members)
1960	$377	$ 92	24	$37	$34	$21
1961	383	86	23	35	33	18
1962	452	115	23	46	43	26
1963	509	124	22	54	46	24
1964	563	140	25	61	50	29
1965	626	154	24	70	52	32
1966	659	160	24	73	52	35
1967	709	175	25	80	57	38
1968	777	184	24	85	59	40
1969	849	198	24	90	64	44

Source: Assets, Liabilities, and Capital Accounts of Commercial and Mutual Savings Banks, Federal Deposit Insurance Corporation (Washington, D.C.: U.S. Government Printing Office, annual reports, 1960 through 1970 used), Montana statistics each issue.

Montana for the years ending in 1960 and 1969.[18]

Percentage of Non-Real Estate Agricultural Loans to Total Loans All Montana Commercial Insured Banks by Total Deposits

YEAR	0-1.9 million	2-4.9 million	5-9.9 million	10-24.9 million	25-over million
1960	55	36	28	17	10
1969	37	36	34	32	11

The interesting trend exhibited here is the percentage increase in agricultural loans compared to total loans by banks in the 5 million dollar to 25 million dollar deposit category. The trend can be attributed to the increasing use of participation agreements with smaller banks and because Montana's banks are simply getting larger; that is, a two million dollar bank in 1960 increased in size to a five million dollar bank by 1969.

Turning now to a more detailed examination of the Production Credit Associations operating in the state during the decade of the 1960's, some interesting facts are revealed. Specifically, in order to be eligible to borrow money from a PCA the applicant must be a farmer or rancher (individual, partnership, or corporation) who owns land or is engaged in the business of farming or livestock production. Loans must be made in each particular PCA's territorial area; competition among PCA's is prohibited. PCA's operate under the

---

[18]Patricia P. Douglas, The Montana Banking Study (Minneapolis: Federal Reserve Bank of Minneapolis, 1972), derived from data used in this study.

authority of the Farm Credit Administration and are authorized to make short and intermediate term loans (up to seven years) to qualified farmers and ranchers for general agricultural purposes and other requirements that the borrowers may have which are related to their farm business and family needs. An acceptable plan for repaying the loan must be submitted with the loan application. Interest rates are variable and fluctuate directly with the cost of obtaining funds on the open market. Thus, though a rancher may sign a note with the PCA at a 7 per cent interest rate, he is fully briefed that his interest rate will be adjusted upward or downward on a monthly basis in accordance with money market movements.[19]

Unfortunately, as with commercial banks, there exists no detailed information concerning cattle loans specifically for the PCA organizations operating in Montana during the 1960's. Both personal interviews and detailed research indicate that it was impossible to get figures on the breakdown of PCA loans prior to 1970. After 1970, the PCA's established a computer operation which, among other things, categorizes loans as to type. Extensive interviews with the personnel at the Western Montana Production Credit

---

[19]Rules and Regulations for Production Credit Associations, Farm Credit Administration (Washington, D.C.: U.S. Government Printing Office, 1957), p. 1.

Association in Missoula (branch office in Kalispell) did reveal some interesting current information. It was found that loans for cattle make up the bulk of all loans made by the Western Montana PCA (western Montana agriculture is predominantly cattle). The figures are as follows:

	December 31, 1970	December 31, 1971
Total Number of All Loans	336	351
Number of Loans for Cattle	242	264
Percentage of Cattle Loans	72	75
Total Amount of Loans Made	$9,200,000	$9,900,000
Total Amount of Cattle Loans	$6,600,000	$7,500,000
Percentage of Cattle Loans	72	75

These figures include only loans made for the financing of beef cattle. 90 per cent to 92 per cent of these cattle loans are cow-calf loans; the remainder are yearling operation loans. No feedlot operations are financed by the Western Montana Production Credit Association. The personnel at this particular PCA emphasized that the trend since 1960 has been significantly toward more beef cattle loans.[20]

---

[20]Kenneth Ruby, Assistant Manager, Western Montana Production Credit Association, private interview, Missoula, Montana, April 5, 1972.

A PCA borrower is required to maintain a cash deposit called an "equity reserve" equal to 5 per cent of the total loan commitment. Normally, the client borrows the equity reserve along with the loan funds. Interest is charged on the total amount. If a borrower repays the loan in full, the equity reserve may be refunded to the borrower or kept in the borrower's account for future use. The decision is the customer's. A further requirement is that Class B stock equal to 5 per cent of the outstanding balance of the loan must be held by the borrower. Again, the money necessary to purchase this stock may be borrowed from the PCA and added to the loan request. Class B stock can be easily resold to the PCA at cost once the loan has been repaid. Class B stock entitles the member to voting privileges in the organization. This stock can be converted to Class A stock which pays an annual 5 per cent dividend. However, Class A stock cannot be used to fulfill the requirement of holding 5 per cent of the loan's outstanding balance in PCA stock.

The Western Montana PCA was further interviewed as to its policies concerning beef cattle loans. Generally, this PCA wants to see a 20 per cent payback of principal annually on cow-calf loans. Loans are only made for one year, but renewal is automatic if the borrower makes this kind of progress. The PCA examines very carefully the loan-to-

value ratio on cow-calf loans. It ascertains the complete debt load (real estate, machinery, etc.) on each cow (animal unit) for the individual's ranching operation. Rarely does it finance a cow-calf operation if the total debt load exceeds $400 per cow. However, if the borrower has substantial other income, the PCA will raise this limit to $650 - $700 per cow. Yearling operations are financed for the duration of the expected operation. Normally this period is between six to eight months. The PCA requires a 25 per cent equity in the cattle to be financed. Thus, 75 per cent of the purchase price of the cattle can be borrowed from the PCA.[21]

Table XIII illustrates the phenomenal growth of PCA's during the decade of the 1960's. From data contained in this table, it is possible to determine the percentage increase in total of the loans made in the United States and Montana for the ten year period. From 1960 to 1970 all PCA's in the U.S. experienced a 219 per cent increase in the total amount of funds loaned. PCA's in Montana grew at almost the same rate, the figure being a 216 per cent increase. One other rather important trend can be observed from this data and other data obtained from the same sources. This trend is one of a steadily increasing

---

[21]Royal McConkey, Manager, Western Montana Production Credit Association, private interview, Missoula, Montana, April 13, 1972.

TABLE XIII

NUMBER OF BORROWERS AND AMOUNT OF LOANS MADE BY PRODUCTION CREDIT ASSOCIATIONS UNITED STATES AND MONTANA

December 31, 1960, 1965, 1970

	1960	1965	1970
Total Number of Borrowers, U.S.	336,001	366,414	364,391
Total Number of Borrowers, Montana	3,703	3,990	4,187
Total Amount of Loans Made, United States	$2,607,399,000	$4,135,519,000	$8,276,660,000
Total Amount of Loans Made, Montana	61,916,000	103,819,000	195,850,000
Percentage Increase in Amount of Loans, U.S. (period to period)		58	102
Percentage Increase in Amount of Loans, Montana (period to period)		68	88

Sources: 27th Annual Summary of Operations, Production Credit Associations, Farm Credit Administration, Accounting and Budget Division (Washington, D.C.: U.S. Government Printing Office, 1961), p. 19.

32nd Annual Summary of Operations, PCA's, Farm Credit Administration, Accounting and Budget Division (Washington, D.C.: U.S. Government Printing Office, 1966), p. 23.

Production Credit Associations - Summary of Operations, 1970, Farm Credit Administration, Production Credit Service (Washington, D.C.: U.S. Government Printing Office, 1971), p. 18.

loan size per individual borrower. Specifically, the figures are impressive:

	1960	1965	1970
Average Size Loan per Customer All PCA's in Montana	$16,720.	$26,020.	$46,775.

From 1960 to 1970 the average loan per customer increased by 180 per cent. Thus, the substantial bulk of the PCA's tremendous growth in Montana has consisted of larger and larger loans to a slightly increasing clientele.

A rather comprehensive survey was done in 1966 concerning the types of loans all PCA's were making. Of all the types of loans made by Montana Production Credit Associations, over 50 per cent were expressly for the purpose of buying livestock, primarily cattle. The figures for 1966 looked like this:

Percent of Loans used to buy feeder livestock, Montana	9.6
Percent of Loans used to buy other livestock, Montana	46.6
Total Loans used for livestock purposes	56.2 [22]

From the statistics obtained in Chapter II and Chapter III, one can make the relatively safe assumption that probably 90 per cent of these livestock loans pertained to beef cattle.

---

[22] Production Credit Association Borrowers and Their Loans, 1966, Farm Credit Administration, Research and Information Division, Bulletin CR-10 (Washington, D.C.: U.S. Government Printing Office, September, 1968), Table 13.

Thus, during 1966, a full 50 per cent of all PCA loans in Montana were most probably used for beef cattle financing purposes.

This chapter presented a detailed analysis of the financing of Montana's cattle industry during the decade of the 1960's. Particular emphasis was placed upon the examination of the relative importance of the two major financial institutions serving Montana's cattlemen. Also, the role of both commercial banks and Production Credit Associations in financing beef cattle was examined. The next chapter will discuss the expected future trends in the financing of non-real estate agricultural credit. As has been amply illustrated in this chapter, the credit needs of agriculture expanded extremely rapidly during the 1960's. This growth is expected to continue through the 1970's. Chapter V will review this growth and comment on expected future trends in the beef cattle industry.

CHAPTER V

THE FUTURE OF THE BEEF CATTLE INDUSTRY AND ITS CREDIT NEEDS

> It certainly cannot be contended that a nation has adequate capital in agriculture simply because it has a more efficient agriculture than another nation. Gene L. Swackhamer, Financing Modern Agriculture: Banking's Problems and Challenges, Federal Reserve Bank of Kansas City, 1969

Before beginning the discussion concerning the future of agricultural credit in the United States, an examination will be made of the expected future trends in the beef cattle industry. As illustrated in Table II, the per capita consumption of beef substantially increased during the past decade. It is anticipated that consumption will continue to rise through the 1970's at a rate slightly less than during the 1960's. Meat substitutes now offer little competition to beef, and this situation is not expected to change much during the next several years. However, by the end of the decade (1980), technical developments could lead to considerably expanded use of meat extenders.[1] The increasing United States population coupled with this anticipated increase in per capita

---

[1] Livestock and Meat Situation, p. 37.

consumption of beef should continue to produce a healthy demand for beef.

Beef output during the 1970's will continue to increase. As has been shown, beef production rose about 5 per cent per year in the 1960's. However, because of some limiting factors, such a strong rate of increase during the 1970's does not appear likely. Fed cattle marketings continued to rise steadily as a percentage of slaughter during the 1960's reaching an estimated 72 per cent in 1970 (Table III). This percentage will probably increase to 83 per cent sometime during the late 1970's and then stabilize. The continuous supply of aged cows culled from beef and dairy herds will limit the percentage of fed cattle marketings to this figure.[2] Assuming that no drastic political action (such as price controls) is taken, the only other major limiting factor in beef output growth during the next several years will be the supply of feeder cattle. It is expected that the demand for feeder cattle will remain very strong throughout the 1970's. In fact, it is anticipated that by the late 1970's cattle feeders will be feeding every suitable animal available. All the slack will have been taken up.[3] As

---

[2] Ibid., p. 32.

[3] Ibid., p. 34.

one survey indicated, feedlot operators agreed that the supply of feeder cattle will become a critical factor long before the supply of feed grains becomes inadequate.[4] Not only is the consumer's demand for beef expected to create this problem of finding adequate feeder cattle, but so is the rancher's demand for replacement heifers in order to continue to increase the size of his cow herd. It is expected that beef cow numbers will continue to increase during the next several years. This rate of increase will probably only be about one-half of what it was during the 1960's; a 2 per cent to 2 1/2 per cent annual growth rate being predicted. Because the nation's cow herd cannot grow fast enough to supply both the feedlot and replacement heifer demands, it is expected that the growth in cattle feeding will rise less than the 7 per cent annual increase experienced from 1959 to 1969.[5] With these projections in mind, one can predict that the nation's cattle inventory will number about 130 million head in 1980 as compared to 110 million head in 1969 (Table IV).

These expected growth trends will produce both

---

[4]Blaine W. Bickel, "Cattle Feeding in the Tenth District: Operating Characteristics," Monthly Review, Federal Reserve Bank of Kansas City, (June, 1970), p. 8.

[5]Livestock and Meat Situation, p. 34.

favorable and unfavorable results. On the favorable side, the people who are in the business of producing and raising feeder cattle (which most Montana cattlemen are) should expect to receive higher prices and greater demand for their cattle during the coming years. However, this continually increasing demand is now causing and will continue to cause adjustment problems in a beef industry which is undergoing rapid expansion. Most of these adjustment problems are related to an increasing need for credit. This situation is well explained by a noted beef economist:

> Growth in the beef industry, combined with the impact of changing technology, is influencing both the amount of credit and kinds of financing required. Commercial banks and other credit sources in many parts of the nation are being confronted with new types of problems in financing the different stages of cattle production. Furthermore, many related businesses, such as the packing industry, are also being developed or relocated. These changes are having a noticeable effect on economic growth in many areas and on financing institutions serving these areas.[6]

The primary problem anticipated is that of finding or creating additional credit for the beef industry's future needs. As indicated in Chapter IV, both Production Credit Associations and commercial banks expanded their credit supplies to agriculture tremendously during the 1960's.

---

[6]Raymond J. Doll and Blaine W. Bickel, "Economic Growth and the Beef Industry," Monthly Review, Federal Reserve Bank of Kansas City, (February, 1970), p. 10.

The 1970's will experience this same credit expansion phenomenon. It is feared by some authorities that the whole financial system serving agriculture's intermediate-term credit needs may become overloaded and, thus, begin limiting expansion in both the beef cattle industry and the other related agricultural industries. Table XIV illustrates the annual capital flow of agriculture in the United States. The significant anticipated change is the decrease in net farm income as a source of capital. This decrease is expected to be compensated for by an increasing amount of debt supplied by banks, individuals, and the Farm Credit Administration.

The Farm Credit Administration has anticipated this trend of increasing demand for credit and is looking into ways to meet these credit needs. In fact, one authority feels that PCA's could easily end up supplying the lion's share of intermediate-term credit, with country banks having a greater share of the smaller farm operating loan business.[7] PCA's are already considering the idea of providing other related financial services such as consulting on financial management questions, help with estate planning, help in setting up partnerships, and advice

---

[7]The Farm Credit System in the 70's, p. 18.

TABLE XIV

ANNUAL CAPITAL FLOW OF UNITED STATES AGRICULTURE

FOR SELECTED PERIODS

	1960-64	1965-69	Projected 1970-74
Average Annual Capital Flow	$7.9 billion	$10.8 billion	$15.2 billion
Sources of Capital (percentages)			
Increases in debt	31.7	36.7	45.7
Capital Consumption allowances	11.4	11.0	10.6
Net Farm Income	35.4	31.2	23.8
Non-Farm Income	21.5	21.1	24.0
Supplies of Loanable Funds			
Commercial banks	26	25	24
Cooperative Credit System (PCA's, etc.)	19	25	27
Life insurance companies	12	9	9
Dealers and individuals (non-real estate)	18	20	19
Individuals (real estate)	22	21	21

Source: Gene L. Swackhamer, "Agriculture's Future Credit Needs and the Farm Credit System," Agricultural Finance Review, Economic Research Service, United States Department of Agriculture, Vol. 32 (Washington, D.C.: U.S. Government Printing Office, August, 1971), p. 9.

concerning landlord-tenant contracts. The ultimate objective of the FCA is to be able to provide, with reasonable convenience, the complete credit needs of farmers and ranchers. The Farm Credit Administration is considering a number of proposals necessary to insure the adequacy of credit in the future. Among these is the idea of selling a single security for all farm credit agencies on the open market and stretching out the maturities of this paper in order to reduce the rollover of debt and make it easier to raise new funds.[8]

Commercial banks were long regarded as being uninterested in term loans for the purchase of equipment or breeding livestock. Bankers who were not interested in these three to seven year loans frequently gave as a reason the attitude of examiners and supervisory authorities. Interestingly, most supervisory authorities deny any prejudice against a well-planned and managed term loan.[9] As has been explained in Chapter IV, most banks still make only a one year loan for the purpose of purchasing breeding cattle and then anticipate renewal of a portion of the loan.

Usually in the case of agricultural banks, the deposit base consists almost entirely of deposits generated within

---

[8]Ibid., p. 78.

[9]Ibid., p. 90.

the bank's trade area. Very frequently the fastest growing, most credit demanding areas are capital deficit areas and the local deposits simply do not grow as fast as the loan demand. Correspondent banking relationships and participation agreements with other banks help fill this gap. However, these procedures can be time consuming and they are not always utilized. PCA's do not have this problem because they obtain their funds from the national money markets. This is why most authorities feel that banks will continue to supply funds for traditional seasonal type agricultural financing, and this will continue to be the most important activity of agriculturally inclined commercial banks. It is not expected that these banks will make great strides in financing other types of agricultural credit.[10] Finally, it is anticipated that very few rural banks are likely to be able to finance the emerging agricultural industries (for example, meat packing) in their own communities satisfactorily with their own resources. They will need to associate themselves with the broad financial community in order to meet the total farm credit requirements for the area that they serve. This whole problem area has been with us for some time. As one researcher put it:

---

[10] Ibid., p. 93.

> The worthiness of agricultural credit is unquestioned and its increasing need will become more demanding in the immediate future. The problems of undercapitalization, increased costs of operations, and uneconomical units are not insurmountable but, rather, are a challenge to the livestock producer, the agricultural technician, and the banker.[11]

In summary, short and intermediate term credit needs for the beef cattle industry both in Montana and in the United States are expected to increase for the next several years. These needs will result from increasing beef production and feeding operations necessary to meet the demand for beef. At this point, it looks as if the rancher producing feeder calves and yearlings is in the best position in the industry because of the continuing strong demand for these types of cattle. Commercial banks and Production Credit Associations are expected to continue to be the most important suppliers of funds to the beef cattle industry, with PCA's probably assuming a greater share of the agricultural loan market. This organization has the built-in advantage of easier and better access to more loanable funds, and the local units are continuing their tradition of being more innovative in the short and intermediate term loan business than their chief competitors, the commercial banks. However, in order to supply the huge

---

[11]Perry, "Banking the Cow-Calf Loan in Eastern Oregon," p. vi.

anticipated credit needs of farmers and ranchers during the next several years, both the PCA's and the commercial banks must be willing to provide increasing amounts of credit.

B I B L I O G R A P H Y

BIBLIOGRAPHY

BOOKS

American Bankers Association. Agricultural Committee. Agricultural Credit and Related Data, 1965. New York: American Bankers Association, 1965.

American Bankers Association. Agricultural Committee. 14th National Agricultural Credit Conference Proceedings. Denver, Colorado: American Bankers Association, 1965.

Bennett, Russel H. The Compleat Rancher. New York: Rinehart and Co., 1946.

Brisbin, General James S. The Beef Bonanza: or, How to Get Rich on the Plains. Philadelphia: J.B. Lippincott & Co., 1881.

Burlingame, Merril G., and Toole, K. Ross. A History of Montana. New York: Lewis Historical Publishing Co., Inc., 1957.

Commission on Money and Credit. Report of the Commission. Federal Credit Agencies. New Jersey: Prentice-Hall, Inc., 1963.

Evans, Carson D.; Warren, Forest G.; Allen, Philip T.; Smith, Allen G.; Reinsel, Robert D. The Balance Sheet of the Farming Sector, 1971. Washington, D.C.: U.S. Government Printing Office, December, 1971.

Farm Credit Administration. The Report of the Commission on Agricultural Credit. The Farm Credit System in the 70's. Washington, D.C.: U.S. Government Printing Office, March, 1970.

Federal Deposit Insurance Corporation. Assets, Liabilities, and Capital Accounts of Commercial and Mutual Savings Banks. Washington, D.C.: U.S. Government Printing Office, annual volumes, 1961-1970.

Gressley, Gene M. Bankers and Cattlemen. New York: Alfred A. Knopf, 1966.

Johnson, Maxine C. Montana Economic Study - Research Report, Part 2: The Industries of Montana. Vol. I. Missoula, Montana: Bureau of Business and Economic Research, University of Montana, 1970.

Montana Department of Agriculture, and United States Department of Agriculture. Montana Agriclutural Statistics. Volumes IX, X, XI, XIII. Helena, Montana: Statistical Reporting Service, 1962, 1964, 1967, 1970.

Oppenheimer, Harold L. Cowboy Arithmetic (Cattle as an Investment). Danville, Illinois: The Interstate Printers and Publishers, Inc., 1961.

Osgood, Ernest Staples. The Day of the Cattleman. Minneapolis: University of Minnesota Press, 1929.

Tostlebe, Alvin S. Capital in Agriculture: Its Formation and Financing Since 1870. New Jersey: Princeton University Press, 1957.

United States Bureau of the Census. 1969 United States Census of Agriculture, Statistics for States and Counties, Montana. Vol. I. Washington, D.C.: U.S. Government Printing Office, 1971.

Webb, Walter Prescott. The Great Plains. New York: Rinehart and Co., 1946.

BOOKLETS, PAMPHLETS, AND CIRCULARS

American Bankers Association. Agricultural Committee. Agricultural Lending Agencies. New York: American Bankers Association, 1961.

American Bankers Association. Agricultural Committee. Better Agricultural Banking. New York: American Bankers Association, 1963.

American Bankers Association. Agricultural Commission. Livestock Financing. New York: American Bankers Association, 1954.

American Bankers Association. Agricultural Committee. "Trends in Agricultural Banking." Report of Mid-Year 1965. New York: American Bankers Association, 1965.

Davis, G.A., and Wheeler, R.O. Fall Calving in Montana. Bulletin 649. Bozeman, Montana: Montana State University and United States Department of Agriculture, December, 1970.

Doll, R.J., and Castle, E.N. Financing Agriculture Through Commercial Banks. Kansas City: Federal Reserve Bank of Kansas City, 1954.

Douglas, Patricia P. The Montana Banking Study. Minneapolis: Federal Reserve Bank of Minneapolis, 1972.

Farm Credit Administration. Farmers' Needs for Intermediate-Term Credit. Bulletin CR-6. Washington, D.C.: U.S. Government Printing Office, October, 1954.

Farm Credit Administration. Production Credit Association Borrowers and Their Loans, 1966. Bulletin CR-10. Washington, D.C.: U.S. Government Printing Office, September, 1968.

Farm Credit Administration. Production Credit Associations - Characteristics of Loans and Member Borrowers. Bulletin CR-9. Washington, D.C.: U.S. Government Printing Office, July, 1963.

Farm Credit Administration. Production Credit Associations - Summary of Operations, 1970. Washington, D.C.: U.S. Government Printing Office, 1971.

Farm Credit Administration. Rules and Regulations for Production Credit Associations. Washington, D.C.: U.S. Government Printing Office, 1957.

Farm Credit Administration. 27th Annual Summary of Operations, Production Credit Associations - 1960. Washington, D.C.: U.S. Government Printing Office, 1961.

Farm Credit Administration. 32nd Annual Summary of Operations, PCA's 1965. Washington, D.C.: U.S. Government Printing Office, 1966.

Federal Reserve Bank of Minneapolis. Research Department. Montana Agriculture in Transition. Minneapolis: Federal Reserve Bank of Minneapolis, September, 1962.

Federal Reserve Bank of Minneapolis. Research Department. 1970 Annual Statistical Review - Ninth Federal Reserve District. Minneapolis: Federal Reserve Bank of Minneapolis, 1971.

Goodsell, Wylie D., and Gray, James R. Costs and Returns of Western Livestock Ranches, 1965. United States Department of Agriculture. Economic Research Service. FCR-37. Washington, D.C.: U.S. Government Printing Office, May, 1966.

Hartson, Clive R., and Menzie, Elmer L. Montana Cattle Movements. Bulletin 584. Bozeman, Montana: Montana State College, January, 1964.

Heid, Walter G., Jr. Montana Farm Adjustments and Their Economic Effects on Farm Income 1954-1967. Bulletin 629. Bozeman, Montana: Montana State University and Montana Agricultural Experiment Station, April, 1969.

Johnson, Maxine C. Beef Cattle in the Montana Economy. Regional Study No. 14. Missoula, Montana: Bureau of Business and Economic Research, University of Montana, June, 1961.

Montana Crop and Livestock Reporting Service, and United States Department of Agriculture. Montana Cattle Movements - 1970. Helena, Montana: Statistical Reporting Service, 1970.

Swackhamer, Gene L., and Doll, Raymond J. Financing Modern Agriculture: Banking's Problems and Challenges. Kansas City: Federal Reserve Bank of Kansas City, 1969.

United States Department of Agriculture with Montana State College. Agricultural Production Credit in Montana. Circular 233. Bozeman, Montana: Montana State College, April, 1961.

Wheeler, R.O. The Range Cattle Industry of the Northern Great Plains - A Comparison of Production Rates Between 1958 and 1967. Bulletin 643. Bozeman, Montana: Montana State University and United States Department of Agriculture, August, 1970.

PERIODICALS

"Bank Financing of Agriculture." Federal Reserve Bulletin, June, 1967.

Bickel, Blaine W. "Cattle Feeding in the Tenth District: Operating Characteristics." Monthly Review, Federal Reserve Bank of Kansas City, June, 1970.

Bickel, Blaine W. "Farm Participation Loans in the Tenth Federal Reserve District." Monthly Review, Federal Reserve Bank of Kansas City, October, 1968.

Doll, Raymond J., and Bickel, Blaine W. "Economic Growth and the Beef Industry." Monthly Review, Federal Reserve Bank of Kansas City, February, 1970.

Doll, Raymond J. "Cattle Feeding in the Tenth District: Financing." Monthly Review, Federal Reserve Bank of Kansas City, July-August, 1970.

Lee, John E., Jr. "The Money Market - Is It Adequate for the Needs of Today's Agriculture." Agricultural Finance Review, Vol. 32, August, 1971.

"Ranching in the Rockies." Monthly Review, Federal Reserve Bank of Minneapolis, October, 1961.

Seaborg, Donald. "Beef Cattle: Next 10 Years." Economic Research Service, United States Department of Agriculture. Livestock and Meat Situation, May, 1970.

Smith, Allen G. "Corporate and Noncorporate Farm Borrowers - Some Financial Aspects." Agricultural Finance Review, Vol. 30, July, 1969.

Swackhamer, Gene L., and Erickson, Donald H. "Agriculture's Future Credit Needs and the Farm Credit System." Agricultural Finance Review, Vol. 32, August, 1971.

Swackhamer, Gene L., and Bickel, Blaine W. "Cattle Feeding in the Tenth District: Development and Expansion." Monthly Review, Federal Reserve Bank of Kansas City, April, 1970.

United States Department of Agriculture. Economic Research Service. Agricultural Finance Review. Vol. 26, supplement; Vol. 27, supplement; Vol. 30, supplement; Vol. 31, supplement; Vol. 32, supplement; 1966, 1967, 1970, 1971, 1972.

UNPUBLISHED MATERIALS AND INTERVIEWS

Federal Reserve Bank of Minneapolis. Computer Printout for 10 year period 1960-69, "Ninth Federal Reserve District Summary of Assets and Liabilities."

Heinecke, Harold F. "The Role of the Commercial Bank in Financing the Beef Cattle Industry." Unpublished Master's thesis, Pacific Coast Banking School, March, 1955.

McConkey, Royal, Manager. Western Montana Production Credit Association. Private interview: Missoula, Montana, April 13, 1972.

Melichar, Emanuel, Senior Economist. Division of Research and Statistics. Board of Governors of the Federal Reserve System, Washington, D.C. Letter: May 5, 1972.

Myllymaki, Gene, Senior Field Representative. Western Montana Production Credit Association. Private interview: Missoula, Montana, April 5, 1972.

Pedersen, C.E. "Beef Cow Lease Arrangements and Their Financing." Unpublished Master's thesis, Pacific Coast Banking School, April, 1967.

Perry, Grant W. "Banking the Cow-Calf Loan in Eastern Oregon." Unpublished Master's thesis, Pacific Coast Banking School, March, 1957.

Ruby, Kenneth, Assistant Manager. Western Montana Production Credit Association. Private interview: Missoula, Montana, April 5, 1972.

Sellin, Bert L. "Financing the Beef Cattle Indsutry." Unpublished Master's thesis, Pacific Coast Banking School, March, 1949.