

FARMERS AND FARM PRODUCTION

CAPITAL INVESTMENT ON FARMS

TOTAL INVESTMENT

Farming in the Corn Belt requires a large investment of capital in land, buildings, machinery, equipment, and livestock. In a study of farm organization and production it is, therefore, desirable to make at least a brief analysis of the nature and structure of the farm capital investment.

For the purpose of this study, total capital investment was considered under three broad categories—land and buildings, machinery and equipment, and livestock. The total value of land and buildings was computed for the Corn Belt and regions, as well as per farm, by applying the average value per acre obtained in the Census for each economic subregion to the total acreage in farms for each respective subregion. The value of livestock used in this study is an inventory value computed by applying average values per head of horses and mules, cattle, calves, hogs and pigs, and chickens, to the respective numbers of these livestock reported on farms at the time of the 1954 Census enumeration. The average values per head were based on estimates for counties or groups of counties made by the Agricultural Estimates Division of the Agricultural Marketing Service.

Data on value of machinery were considerably less complete than those for land and livestock. The number of farms reporting was obtained in the 1954 Census for the following items of machinery, equipment, and facilities: Tractors, motortrucks, cornpickers, grain combines, pickup hay balers, field forage harvesters, power feed grinders, milking machines, electric pig brooders, automobiles, electricity, telephones, television sets, piped running water, and home freezers. Data on numbers were also obtained for the following: Tractors, motortrucks, automobiles, cornpickers, grain combines, pickup hay balers, and field forage harvesters.

The first step in estimating the value of machinery and equipment on farms in the Corn Belt was to obtain an average value for each of 9 specified machines—for tractors, motortrucks, automobiles, cornpickers, grain combines, pickup hay balers, field forage harvesters, power feed grinders, and milking machines. These average values per machine were estimated on the basis of information from various sources. On the basis of studies by the U. S. Department of Agriculture and agricultural colleges it was estimated that the total value represented by these 9 machinery items on farms would generally account for about two-thirds of the total value of machinery and equipment on the farm. Hence, to obtain the estimated total value of machinery and equipment on commercial farms, a factor of 150 (150 percent) was applied to the estimated total value of the 9 machines on all commercial farms. But in order to obtain these total-value figures for each economic class of cash-grain and livestock farms, a different factor was applied for each economic class. This was done in order to allow for differences in size and in age of machines on the different economic classes of farms. The adjustment factors used for each economic class were as follows: Class I, 185; Class II, 165; Class III, 150; Class IV, 142; Class V, 135; and Class VI, 130. The value of machinery and equipment was thus obtained for each economic class of farm, for the cash-grain farms and livestock farms, in regions of the Corn Belt.

The total capital investment on all commercial farms in the Corn Belt was estimated to be 35.2 billion dollars (table 29). About three-fourths of this figure, or 26.7 billion dollars, represented the investment in land and buildings. Machinery and equipment accounted for 4.8 billion dollars and livestock for 3.6 billion dollars. The distribution of total investment between cash-grain and livestock farms is affected, of course, by the relative numbers of these types in various regions.

TABLE 29.—TOTAL CAPITAL INVESTMENT, AND COMPOSITION OF INVESTMENT, ON COMMERCIAL FARMS IN THE CORN BELT AND COMPONENT REGIONS: 1954

Region and type of farm	Total capital investment	Composition of investment		
		Land and buildings	Machinery and equipment	Livestock
Total Corn Belt:				
All commercial farms.....	1,000 dollars 35,154,008	1,000 dollars 28,740,570	1,000 dollars 4,772,300	1,000 dollars 3,041,048
Cash-grain farms.....	12,898,528	10,568,160	1,603,157	637,210
Livestock farms ¹	15,949,876	11,026,004	2,062,172	2,262,700
Eastern Corn Belt:				
All commercial farms.....	7,224,803	5,623,622	1,048,209	552,972
Cash-grain farms.....	2,908,474	2,369,632	422,074	116,768
Livestock farms ¹	2,300,279	1,787,058	328,959	274,262
Central Corn Belt:				
All commercial farms.....	10,597,499	8,545,164	1,124,087	928,248
Cash-grain farms.....	4,082,457	4,286,974	496,130	199,353
Livestock farms ¹	4,419,840	3,288,324	526,764	604,752
Northern Corn Belt:				
All commercial farms.....	4,424,609	3,132,956	695,590	596,063
Cash-grain farms.....	1,125,425	867,697	182,244	75,484
Livestock farms ¹	1,844,460	1,243,406	279,561	321,493
Western Corn Belt:				
All commercial farms.....	8,362,851	6,208,210	1,127,503	1,027,138
Cash-grain farms.....	2,576,945	2,044,287	367,950	164,707
Livestock farms ¹	4,519,322	3,212,270	584,702	722,350
Southern Corn Belt:				
All commercial farms.....	4,544,246	3,230,617	777,001	536,627
Cash-grain farms.....	1,305,225	999,568	224,759	80,898
Livestock farms ¹	2,175,975	1,493,946	342,186	339,843

¹ Livestock other than dairy and poultry farms.

There is some indication that the value of land and buildings on cash-grain farms generally runs higher than that on livestock farms. For example, in the Central Corn Belt, cash-grain farms are 41 percent of all commercial farms and have a total value of 4.3 billion dollars of land and buildings, whereas livestock farms, being 43 percent of all commercial farms, have a value of 3.3 billion dollars in land and buildings.

The investment in machinery and equipment is greater than the investment in livestock on all the cash-grain farms as a group in every region. The value of machinery and equipment was larger than the investment in livestock on livestock farms in the Eastern and Southern Corn Belt. However, on livestock farms in the Central, Northern, and Western Corn Belt, the investment in livestock exceeds the investment in machinery and equipment.

A clearer picture of the size and composition of capital investment on farms can be obtained by looking at the averages per farm (table 30). The average investment per farm for all commercial farms in the Corn Belt in 1954 was estimated at \$44,094. Of this amount, 76 percent was the estimated value of land and buildings, 13.6 percent was machinery and equipment, and 10.4 percent was livestock. The investment per farm on both cash-grain and livestock farms was greater than the average for all commercial farms. It was pointed out above that the all-commercial farm category includes a number of dairy farms, poultry farms, general farms, and other miscellaneous types, in addition to the cash-grain and livestock farms. Land and buildings consistently accounted for a larger percentage of the total capital investment on cash-grain farms than on livestock farms, reflecting the larger actual investment in land and the smaller actual investment in livestock on cash-grain farms. In general, livestock farms would have a greater actual value of investment in buildings than farms of the cash-grain type. The highest percentage of investment in land and buildings is found on cash-grain farms in the Central Corn Belt where this category accounts for 86 percent of the total average capital investment per farm. The lowest percentage accounted for by land and