Staff Paper Series

Staff Paper P75-8 April 1975

Nature and Extent of the Expansion of Corporations in American Agriculture

Philip M. Raup

Department of Agricultural and Applied Economics

University of Minnesota
Institute of Agriculture
St. Paul, Minnesota 55108

STAFF PAPER P75-8 APRIL 1975

Nature and Extent of the Expansion of Corporations in American Agriculture

Philip M. Raup

Paper presented at a conference on "New Developments in the Organization and Technology of Agriculture in East and West", University of Kiel, Germany, 18-19 November 1974

Nature and Extent of the Expansion of Corporations in American Agriculture*

Philip M. Raup
Department of Agricultural and Applied Economics
University of Minnesota

I. The Extent of Corporate Farming in the United States

Scattered efforts were made in the United States to organize large scale corporation farms in the last decades of the 19th Century and prior to the First World War. These were typically land speculation ventures, and most of the few that attempted serious farming operations did not survive. There are several dozen corporation farms in the United States that originated in the period from approximately 1890 to 1915. These are typically the "hobby farms" (steckenpferdebetriebe) of wealthy owners, or highly exceptional enterprises that reflect the dominance of one individual or one family. Prior to the Second World War there were almost no examples of large scale corporate farm production units in the United States that survived longer than the life time of their founders.

A large increase in the incorporation of farm businesses occurred after 1950, but the geographic distribution is very uneven. In the 48

---

* The term "corporation farm" refers to farm businesses involved in agricultural production and incorporated under the same state laws that regulate non-farm incorporated businesses. While state laws vary, they typically require that shares of stock be issued as evidence of ownership, that a board of directors be elected by the share-holders, that officers of the corporation be designated (usually a president, vice-president, secretary and treasurer), and that the board of directors meet at least once annually. A number of states permit "one-man" corporations, in which the roles of corporate director and corporate officer are exercised by a single individual.

contiguous states there are four regions of concentration in corporation land holding: The Pacific coast, the Mississippi delta, the coastal states of the Atlantic seaboard from Florida to Maine, and the cattle ranching states of the West.

Although the data are five years old, the Census of Agriculture in 1969 is the most recent source of comprehensive data on farm land holdings by corporations. The biggest concentration in 1969 was in Hawaii, where corporations held 60 percent of all land in farms, and accounted for 87 percent of all harvested cropland. Nevada was next, with 41 percent of all land in farms in corporate hands, followed by Wyoming (32 percent), Florida (32 percent), Arizona (31.5 percent), and New Mexico (21 percent). The figures ranged from 11 to 16 percent for the mountain and ranching states of Colorado, Utah, Idaho and Montana. In the Mississippi delta states of Arkansas, Louisiana and Mississippi, corporations controlled 6 to 10 percent of all land in farms, and from 8 to 13 percent in the densely settled states of the Atlantic seaboard from Delaware to Maine. In contrast, in the dairy region bordering the Great Lakes and in the Corn Belt, the highest concentration of land in corporation farms was in Nebraska (7 percent) and South Dakota (3.7 percent). In all other states in this "heartland" region corporate-held farm land was less than 3 percent of the area of land in farms. For the United States as a whole, corporations in 1969 held 8.8 percent of the area of land in farms, and accounted for 6.6 percent of the value of land and buildings in commercial farms (22, pp. 136, 138).

The term "corporation farming" is frequently used as a synonym of "large-scale farming". This is often very misleading. Some of the

largest farming enterprises are not incorporated. If the farm is incorporated, it may involve only the members of the farm family or it may include non-farming investors. The majority of farming corporations in the United States are of the "incorporated family farm" type. And the fact of "incorporation" is often less important than the nature of partnership arrangements that may be involved. It is true, however, that the biggest farms are usually controlled by corporations, even if the land is not in corporate ownership.

In another sense, the term "corporation farming" is used to refer to the entrance into agriculture of non-farming corporations, sometimes quite large and national or multi-national in scope. Exact statistics are lacking, but there are probably not more than 100 multi-product conglomerate corporations currently involved in agriculture production in the United States. Although their numbers are small, their share in the total area of land controlled by corporations is large. A survey by the U.S. Department of Agriculture in 1968 reported that corporations in the 48 states (excluding Alaska and Hawaii) that held 10,000 acres or more were only 8 percent of all farming corporations but held 71 percent of all corporate farm land. Corporations holding less than 1000 acres accounted for 58 percent of all farming corporations but held less than 5 percent of the land in corporate farms (17).

These studies refer to corporations actually owning or leasing farm land. Another type of corporate involvement in U.S. agriculture involves "contract farming" or vertical integration, in which the production of agricultural products is carried out under contracts between farmers and business firms supplying inputs (feeds, fertilizers, seeds)

or processing the products (vegetable and fruit processing, sugar cane and beet processing, cattle and poultry slaughter). These input-supplying or output-processing firms are typically corporations, but also typically do not own the farm land. Farming operations are usually in the hands of family type farmers, and thus the land involved in contract or vertically integrated types of farming arrangements is not reported in the statistics as under the control of "farming corporations".

Published statistics and census data on corporations with farming operations thus seriously understate the extent of corporate control over agricultural production and marketing. Table I shows the importance of the expansion of "contract farming" as distinguished from "corporation farming", from 1960 to 1970.

In total value of output, about 22 percent of U.S. agricultural production in 1970 was produced under contract or vertical integration. This percentage varied widely among crops and products. For livestock the estimate was 36 percent, while for crops it was only 14 percent. For sugar cane and sugar beets, the figure was 100 percent; for vegetables for processing and canning, 95 percent; and for citrus fruit, 85 percent. Among livestock products, 98 percent of milk for drinking was produced under contract or in vertically integrated enterprises, 97 percent of chicken broilers, 54 percent of the turkeys, 40 percent of the eggs, 22 percent of fed cattle, but only 2 percent of the hogs (the production of hogs under contract increased sharply after 1970).

The estimated impact of vertical integration and contract farming can be viewed in another way, in terms of land use. Five types of

Table 1: Estimated Percentage of Output Produced Under Forward Contracts and Vertical Integration in 1960 and 1970 (18, pp. 4-5)

Commodity	1960	1970
Feed grains	.5	.6
Hay and forage	.3	.3
Food grains	3.0	2.5
Fresh vegetables	45.0	51.0
Processing vegetables	75.0	95.0
Dry beans and peas	36.0	2.0
Potatoes and sweetpotatoes	70.0	70.0
Citrus fruits	80.0	85.0
Other fruits and nuts	35.0	40.0
Sugar beets	100.0	100.0
Sugar cane	100.0	100.0
Other sugar crops	7.0	7.0
Cotton	8.0	12.0
Tobacco	4.0	4.0
Oil-bearing crops	1.4	1.5
Seed crops	80.3	80.5
Miscellaneous crops	6.0	6.0
Total crops[a]	12.9	14.3
Fed cattle	13.0	22.0
Sheep and lambs	4.0	10.0
Hogs	1.4	2.0
Fluid-grade milk	98.0	98.0
Manufacturing-grade milk	27.0	26.0
Eggs	15.0	40.0
Broilers	98.0	97.0
Turkeys	34.0	54.0
Miscellaneous	4.0	4.0
Total livestock[a]	30.4	36.2

[a]Individual items weighted by relative values.

crops (feed-grains, hay and forages, food grains, dry beans and peas, and oil-bearing crops) accounted for 263 million of the total of 291 million acres of crops harvested in 1969, or over 90 percent. For these five crop types, the output produced under contract or vertical integration accounted for only slightly over 1 percent of the 263 million harvested acres (13, p.4; 19, p.41). Many of these crops, of course, were subsequently fed to livestock, for which the percentage produced under contract or vertical integration was much higher. Crops produced under contract are typically high in value and occupy relatively little land (processing vegetables, sugar beets and cane, potatoes, citrus fruit, nuts, seed crops). Among major field crops in terms of acres used, cotton was the only crop in which a significant fraction (12 percent) was contracted or produced in vertically integrated firms in 1970.

The degree of control over farm production exercised by input-supplying or output-processing corporations varies greatly with the product, and the nature of the contractual arrangements. At one extreme are chicken broiler producers, who typically do not own the chickens they feed and are usually obligated by their contracts to buy feed supplies from designated suppliers, and to sell the broilers only to specified processors. In place of an entrepreneur, the broiler producer has become "a piece-rate laborer who owns a broiler house" (usually mortgaged) (5).

In contrast, contract producers of some types of field crops (canning peas, canning corn, potatoes) are restricted by their contracts during a given production season, but have more bargaining power with their suppliers and processors because they usually have other possible uses for their land.

Feeders of livestock or poultry under contract usually have only two management options: remain in production at or near full capacity, or quit. There are no alternative uses for a cattle feedlot or a broiler house. Value added is low and capital costs are high, with the result that production planning is usually confined to "full speed ahead" or "dead stop". This has added an element of inflexibility in production adjustment to market demand and prices, in some types of contract farming.

Another measure of the importance of corporations in farming is provided by data from income tax returns. Income tax data on farming units are not directly comparable with those collected by the U.S. Department of Agriculture, or by the Bureau of the Census, but they do reveal a sharp upward trend in the proportion of farm income received by farming corporations. In 1957, sole proprietorships (individually operated units) reported 81 percent of all farm business receipts listed on income tax returns, partnerships 12 percent, and corporations 7 percent. In 1969, the share of sole proprietorships had fallen to 74 percent, partnerships to 11 percent, and the corporation share more than doubled, to 15 percent (3, p. 2).

These percentage shares refer to gross receipts, not value added, or net income. They are heavily influenced by the rapid growth in cattle feeding by corporations and by the large sums of money involved. The annual output of raw beef in 1973 in the United States exceeded the annual output of raw steel, in wholesale value (11, p. 57). Sales of cattle and calves accounted for 36.5 percent of total farm cash receipts in 1973. Engleman estimates that 54 percent of these receipts were from the sale

of fed cattle, and that 55 percent of fed cattle sales were from feedlots selling over 4000 head of fat cattle annually. These cattle sales from large, industrial type feedlots would thus account for 10.8 of total U.S. receipts from farm marketings. If sales by integrated producers of broilers, eggs, and turkeys are similarly computed they account for 4.2 percent of total farm cash receipts. Thus the value of gross sales by cattle feedlots selling over 4000 head and by integrated poultry producers accounted for 15 percent of gross receipts from U.S. farm marketings in 1973 (5, p. 20).

Receipts by farm corporations were also heavily concentrated in the larger firms. Corporations with gross business receipts of $1,000,000 and over accounted for only 5 percent of the number of farming corporations but had 45 percent of corporate farm business receipts, as reported in income tax returns for 1968 (3, p. 3).

III. Institutional Changes That Encouraged Corporation Farming Expansion After 1950

The rapid emergence of corporations in agriculture after 1950 was due in part to some peculiarities of systems of taxation and accounting in the United States. The federal tax on corporate income is at a basic rate of 22 percent, plus a surtax of 26 percent on corporate net income above $25,000. The tax rate is thus 48% for corporate income over $25,000. There is a separate federal tax on the income of individuals, which is graduated and progressive. For a married taxpayer in 1973, the federal tax began with a marginal rate of 14% on taxable income under $1,000 and increased to 25% in the $12,000--$16,000 bracket, 50% in the $44,000--$52,000 bracket, 60% at the $88,000--$100,000 bracket and 70% on income over $200,000. Dividends to corporate shareholders can be subject to "double taxation", first as income to the corporation and again as personal income to the stockholders. This creates an incentive for high-income investors to prefer corporations that retain profits in the business, rather than pay all profits as dividends.

An opportunity for tax avoidance is provided by the relatively low rates of taxation of "capital gains". The federal income tax on a capital gain from sale of an asset held more than six months (two years for beef cattle) is never more than 25% on the first $50,000 of capital gain. The rate increases to 35% on any capital gain exceeding $50,000. This favorable rate of capital gains taxation is available to individuals, but not in general to corporations. A married taxpayer with taxable income in 1973 of more than $24,000, for example

would have paid tax at a marginal rate of 36% on income in the $24,000--$28,000 bracket. If he received the income as capital gain, the tax is at a flat rate of 25% on the first $50,000 and 35% on any excess. A married taxpayer with more than $24,000 of taxable income would thus have found it increasingly beneficial to receive any additional income in the form of capital gain rather than as wages, salaries, or dividends. For taxable income exceeding $200,000 the marginal rate under the personal income tax is 70%, creating a strong incentive for high income taxpayers to receive income in the form of capital gain if at all possible.

Two events in the 1950's increased the significance of these differential tax rates on personal income and on capital gains. The first was the general rise in income levels. In 1940, there were 7,437,000 individuals in the United States with taxable incomes. This jumped to 38,187,000 in 1950, to 48,061,000 in 1960, and 59,316,000 in 1970. The proportion of taxpayers in high income tax brackets also increased rapidly. There were 84,000 individuals with taxable incomes of $50,000 and over in 1950, 125,000 in 1960, and 597,00 in 1972 (21). This led to an intensified search by high-income taxpayers for ways to reduce or avoid income tax liabilities.

The second event affecting the taxation of corporations and individuals was the addition of a chapter to the U.S. Federal Internal Revenue Code in 1958 permitting the organization of small business corporations. In general, these must have no more than 10 stockholders and only one class of stock. These are commonly referred to as "Subchapter S" corporations, and are taxed as if they were partnerships. Profits or losses can be passed through the corporation to the individual stockholders. Any

capital gains are eligible for the low capital gains tax rates of 25 to 35 percent. If the capital gain was received by the corporation, it would not qualify for these low rates.

These Subchapter S corporations were intended to give small businessmen the advantages of incorporation while still being taxed as individuals. In practice, Subchapter S corporations have been widely used to create "tax shelters" (7). Investors can pool their capital in a Subchapter S corporation, engage in risky ventures, and any profits or losses can be passed through the corporation to the individual stockholders. Capital gains received by individuals are taxed at the lower capital gains tax rates. Losses can be "carried back" for three years. If the loss exceeds the amount paid in taxes in the three preceding years, any excess can be "carried forward" for up to five years and used to reduce taxable income in future years.

The combination of a large number of taxpayers in relatively high income tax brackets and availability of the Subchapter S corporate device led to a rapid expansion in its use in agriculture, real estate development, and oil and mineral exploration. The United States Census of Agriculture in 1969, for example, reported a total of 21,513 farm corporations, of which 19,716 or 91% had no more than ten stockholders. Approximately one third of these were organized as Subchapter S corporations (22, p. 135).

The use of the "limited partnership" as a device to attract capital from non-farm investors also contributed substantially to increase in corporate activity in U.S. agriculture in the 1960's. The limited partnership is a complex form of business organization, providing some of the advantages of the corporation while preserving the legal form of a partner-

ship. A "general partner" manages the affairs of the business for a group of "limited partners" who pool their capital and give it to the general partner for management. The limited partners retain their tax status as individuals for any profit, loss, or capital gain. This limited partnership form of business organization is sometimes called an "investment fund", and many livestock feeding and breeding tax shelters are of this type.

The recent expansion of large scale cattle feedlots has been closely associated with use of the limited partnership device. As Matthews and Rhodes point out, the general partner is usually a corporation, designed principally to sell management services to the limited partners. "These corporate general partners are themselves often subsidiary offshoots of larger, more complicated corporate organizations. However, ... smaller corporate agricultural firms seeking the command of additional risk capital for their own purposes have commonly been the driving force in the numerous cattle feeding funds offered in the 1970's (10).

The limited partnership is also frequently used in promoting investment in citrus and other fruit orchards, vineyards, poultry, and in high-risk non-farming enterprises, especially real estate, and oil and gas exploration.

The recent popularity of corporations in agriculture is also due to the accounting rules that farmers are permitted to use. With few exceptions, ordinary business corporations are required to practice accrual accounting in income tax reporting. Expenses are deducted when accrued, income is reported as received when the right to the income is determined, inventories are valued at the beginning and end of the tax year, and differences in inventory value enter into the

calculation of taxable income. In contrast, farmers have been permitted to use a "cash basis" of accounting. The assumption is that farm records are inadequate to support an accrual accounting system. Moreover, farmers engage in biological production processes which multiply crops and animal during a tax year, creating difficult problems of inventory definition and valuation. Reporting on a cash basis instead of an accrual basis permits farmers to deduct as cash operating expenses any business outlay of money in a tax year even though the benefits may not be received until some future year.

An example will illustrate the importance of this feature. If a farmer has a large taxable income in one year but expects a lower income next year he can reduce his income tax liability by purchasing a large stock of supplies although he will not use these supplies until some future year. The entire cost can be deducted as a business expense in computing taxable income in the current year, thus reducing his income tax. This has been used extensively in the cattle feeding business by wealthy investors, often organized in a Subchapter S corporation or a limited partnership fund, who borrow money, invest in cattle, and prepay the feed cost. The entire feed bill can be deducted as a business expense in the tax year in which the investment is made. In the past, banks would typically lend 75 to 80 percnet of the purchase price of feeder cattle. The investor could use a relatively small capital investment to finance a large purchase of feeder cattle and to prepay the feed bill, and thus reduce his liability for income tax on any non-farm income he may have in that year. A married individual in 1973, for example, would have paid at a marginal rate of 60% on any taxable income received in

the bracket from $88,000 to $100,000. If he invested his income in excess of $88,000 in a limited partnership or small business corporation engaged in cattle feeding he could buy feeder cattle, prepay the feed bill, and deduct the entire feed bill as a "current operating expense". Since the taxpayer would have retained only forty cents on each dollar of income over $88,000 if he had reported the income and paid tax on it, he was in effect spending "forty cent dollars". When the cattle are sold, he will presumably have taxable income to report at that time. In the meantime, by deferring the payment of taxes he has received what amounts to an interest-free loan from the Internal Revenue Service. This practice is often jokingly referred to as the use of "IRS Loans", to finance cattle feeding.

The institutional setting in which the expansion of corporations in American agriculture has taken place is thus made up of several parts:

1) A sharply increased number of taxpayers in high income taxpaying brackets.
2) Internal Revenue Service rulings permitting farmers to use a cash basis in their accounting instead of the accrual method required of other businesses.
3) Internal Revenue Service regulations permitting losses or expenditures incurred in one type of business enterprise to be comingled with other income by an individual taxpayer in determining his tax liability in any one year.
4) The availability since 1958 of the Subchapter S corporation which has the limited liability features of a corporation but is taxed like a partnership.

5) The use of limited partnerships, whereby the general partner can sell his management services at generous fees to wealthy non-farm investors seeking tax shelters.

IV. Additional Explanations for the Expansion of Corporations in Farming

Three trends powerfully affected the attitudes of investors in the U.S. in the 1960's. The first was technological, created by the advances in agriculture that were later called the "Green Revolution". Beginning with hybrid corn and chickens before 1940, and expanded after 1945 by great improvements in genetics, plant and animal nutrition, and disease control, these new technologies in agriculture were given widespread publicity. The word "miracle" was often used to describe their consequences. An image was created of a new technological frontier, with unknown but great opportunities for quick profits. Agriculture in the 1960's became a "growth industry", in the jargon of stockmarket analysts.

The second trend grew out of the rapid urbanization of America between 1940 and 1970. Net migration out of agriculture was over 11 million in the 1940's and over 10 million in the 1950's (20). In 1920 the rural and urban populations were approximately equal. By 1970, three-fourths of the population was urban. The cities contained many people with a nostalgia for rural America. Rural imagery became an advertising aid. The young could wear blue jeans and the wealthy could invest in cattle feedlots or citrus groves.

It is impossible to quantify the importance of this rural attraction for urban investors, but it has been great. Promotional methods used for cattle feeding funds, limited partnerships in citrus groves, or Subchapter S corporations in hog feeding appealed to rural nostalgia as a major part of the selling methods. In the jargon of investment

analysts, this appeal has been called "schmalz". Its highest attraction was in cattle feeding, offering the city investor a chance to share vicariously in the mythology of the cowboy and the cattle ranch. Promotional literature for cattle feeding funds urged investors to "come out and look at their cattle". Cattle feeders in the Great Plains advertised that their feedlots were located near airports with runways long enough to accommodate the executive jet airplanes of their investors. It may have been schmalz but it was apparently effective. In 1973 it was estimated that approximately one-fourth of all beef produced in large (over 4000 head) feedlots in the United States was financed by tax shelters, primarily through limited partnership "funds" (12).

Beginning in the mid-1960's the third and most powerful psychological factor was introduced. This was fear of inflation. Throughout history, land has been the traditional inflation hedge for scared investors. When the Green Revolution began to lose some of its mystique, inflation fears replaced it as a stimulus to wealthy investors seeking a safe haven for their money in agriculture. Between 1967 and 1970 it became increasingly clear that financial commitments to the war in Vietnam and to space exploration were not being matched by equally heavy taxes or reduced consumption. Inflation was guaranteed. Some of the biggest agricultural investments by corporations date from this period. It is impossible to probe their motivation, but it seems highly probable that a desire to hold land as an inflation hedge played an important role.

V. Corporate Farming and the Separation of Ownership from Control of Capital

The expansion of corporation farming is one aspect of the continuing separation of ownership from control, in all phases of modern economic life. A conventional explanation for the growth of corporations is that limited liability is a necessary precondition for the procurement of large amounts of capital. This is undoubtedly an important part of the explanation. But access to superior management may be more important, in explaining the growth of corporate organizations in American agriculture.

Reimund studied 410 large multi-establishment firms that operated farms, with sales of $1.0 million and over in 1970 (15, pp. 20-23). Twenty-seven percent produced beef cattle. The next most frequent activity was vegetables, then poultry other than broilers, and fruits. In beef cattle feeding, the competitive advantage of tax-sheltered capital is a major reason for the recent growth of corporate enterprises. It is less clear that capital mobilization is the predominant explanation for corporate firms in vegetables, poultry and fruits. A more important explanation is the need for control in processing and marketing stages, and for highly technical management.

Reimund's analysis showed a sharp differentiation in the nature of vertical integration between firms producing beef and poultry and those producing cotton, cash grains, dairy products and range livestock. Vertical integration in beef feeding and poultry was typically associated with inputs, especially feed. In contrast, vertical integration in cotton, cash grains and range livestock concerned primarily the marketing or output side.

Among non-farm firms engaged in some type of agricltural activity, the most frequent farm production activities involved fruit, vegetables, poultry other than broilers, and beef cattle. These products have several common characteristics:

1) Capital in land is small compared to other capital requirements (trees, irrigation equipment, feeder-cattle, feeds).
2) The products are highly perishable.
3) Production processes are labor and management intensive.
4) Quality variations are great, and dominate marketing policies.

These products can be produced in factory-type systems that bring inputs together in a limited space, and apply industrial production-line techniques. Production is management, labor, and space intensive.

Cotton, cash grains and range livestock are space extensive. Relatively large amounts of capital must be invested in land, and production techniques do not permit concentration in space. Some non-farm firms (large multi-product businesses or conglomerates) do engage in production of these products, but their farming activities are often secondary to land development or land speculation goals.

It is highly significant, in this regard, that some of the largest vertically integrated firms engaged in cotton, cash grains and beef feeding have taken steps since 1971 to dispose of the land involved in their operations, while retaining control of a flow of products through leasing or contracting arrangements. Tenneco, one of the largest U.S. conglomerates engaged in farming activities, has sold major parts of its California lands to individuals or separate corporations, in some cases with a contractual arrangement under which the new land owners agree to market their products through a Tenneco processing or marketing subsidiary (9, p. 7).

In other cases, the primary goal of the non-farm firm from the beginning was to hold the land as a speculative investment. If investment in farming activities seemed likely to increase the value of the land, then some farming was attempted. But the main goal was sale of the land at a profit.

There is accumulating evidence that many non-farm firms that attempted farming operations in the late 1960's are now regretting their heavy investments in land. As long as land prices were increasing, they could show very attractive net-worth statements, but relatively little cash for dividends to stockholders. The dividend record of land investment firms has been very poor in recent years, and a number are in severe financial difficulties.

Poultry producers and cattle feeders are intensive users of land. But they depend on feed supplies from lands that are relatively extensively used. Field crops have not been congenial hosts either for corporation farming or for contract and vertically integrated production arrangements, as we have seen. Since 1972, the internal terms of trade within agriculture shifted in favor of field crops and against livestock feeding operations. The world-wide grain price increase set in motion by the grain purchases of the USSR shifted the terms of trade against those sectors of American agriculture in which corporation farming and vertical integration had made some of their greatest advances.

The burden of this shift was heaviest on beef feeding firms in forage-deficit areas, particularly in the southwestern states and southern Great Plains. Where possible, cattle feeders have reduced the grains and oil meals in their feeding rations, and increased the share of forages. But

for feedlots in forage-deficit areas this is difficult or impossible. As a result, many feedlots in the southwestern states and southern Great Plains are in serious financial difficulties. Some are closed, some are in bankruptcy, and those surviving are at the mercy of their bankers. Monfort of Colorado, Inc., with $55,500,000 borrowed on notes and bankers acceptances, noted in its 1973 financial report that "the Company is prohibited from paying cash dividends and in making certain types of investments without the consent of the lenders" (14).

In vegetables, fruit, nuts and other specialty crops there is an additional reason for the separation of land ownership and farm operation from marketing control. Even the best-capitalized processing and marketing firms find it burdensome to own all of the land needed to produce their supplies. They must also buy from independent producers. If the marketing firm is competing with its suppliers in actual farm production, this can make independent producers unwilling to sell to their competitor, the marketing firm. This is reportedly one reason why Tenneco in California, for example, decided to reduce farming operations and sell or lease out their land on long-term leases (16).

A part of the land-holding and farm operating strategy of large agricultural processing corporations is also dictated by their desire to control a part of their processing input, to give them bargaining power in negotiating contracts with suppliers. If the processor is completely dependent on contract suppliers, the producers can form a "suppliers union" or collective bargaining group, and threaten to cut off supplies. The bargaining strength of the processing or marketing firm is improved if the firm owns some land outright, or controls it under long-term lease.

VI. Some Questions Raised by the Expansion of Corporations in Agriculture

A. Distortions In Capital Investments

The greatest corporate activity in crop farming has been concentrated in regions that depend heavily on irrigation, and the engineering control of water. Corporate farms often achieve economic power by control of water, instead of land. By influencing the creation and administration of irrigation and land reclamation systems, they have affected the pattern of agricultural investment. 'California, Florida and the semi-arid ranching states provide outstanding examples.

Unlike most states, California law permits voting in water districts to depart from the traditional principle of one man, one vote, and be weighted instead by the value of land owned. In some districts, each owner, including corporations, has votes in proportion to dollars of land value, as assessed for property tax purposes. In other districts, only land owners can vote in matters pertaining to district organization and water management. Goodall and Jamieson cite the Tulare Lake Basin Water Storage District in California, in which 4 corporations farm nearly 85 percent of the land, and one corporation alone (the J. G. Boswell Corporation) is large enough to determine the outcome in any water district voting procedure (6, pp. 292-94).

The combination of tax shelters created with the aid of limited partnership or Subchapter S corporations, cash basis accounting, and low rates of taxation on capital gains has also promoted over-capitalization in some sectors of U.S. agriculture. Citrus, other tree fruits, and nut crops are examples. Prior to 1969 it had been possible to deduct "start-up" costs as

operating expenses in citrus and almond crops. The tax shelter feature was so attractive that excessive amounts of capital were being invested in these crops, leading to threats of overproduction and depressed prices. The owners of established groves successfully supported the addition of Section 278 to the U.S. Internal Revenue Code in 1969, requiring that expenses incurred in establishing new groves be capitalized, i.e. treated in depreciation accounts, and not deducted from current operating expenses. For citrus and almond groves, it is no longer possible to incur large "start-up" expenses that can be passed through to investors as deductions in determining taxable income. This privilege remains for other types of tree and vine crops (2, pp. 627-34).

The Executive Vice President of Monfort of Colorado, Inc., one of the oldest and largest cattle feeding firms, has called for an end to tax-shelter investments in cattle feeding, because of the danger that it will lead to "an industry structured on a tax loophole, and one that remains at the whim of the U.S. Congress" (because of the threat of a change in the tax laws) (1).

B. Instability of Capital Supply

Capital investments that depend on tax shelters are not only distorted but also unstable. This is particularly the case with limited partnerships. A key advantage of the limited partnership is that the taxpayer receives an interest-free loan of the amount of deferred taxes. Most of the limited partnership funds were created in the past five years. Many are currently (September 1974) in difficulty. If this source of capital is to be stable, new investors must replace those who drop out. Following the large losses in cattle feeding in 1973-74, and in some branches of poultry production, the attractiveness of the limited partnership to investors has dropped sharply.

The attractiveness of the limited partnership for the "general partner", i.e. the management corporation, can also change quickly. When non-farm investors have large incomes, tax shelters are very attractive. If non-farm income levels fall, the promised tax savings in limited partnerships fall even faster. It then becomes difficult for the "general partner" or management corporation to maintain the high fees for their services that they charged in the past.

This has led to some spectacular failures. One example is the American Agronomics Corporation, a developer of citrus groves in Florida, recently forced to dispose of 19,000 acres of Florida land to satisfy the claims of investors who had contracted to pay excessive management fees to the developer (23, 8, 4).

The limited partnership and similar tax shelter devices appear to be unusually sensitive to the ups and downs of the business cycle. The current economic recession in the United States will provide a needed test of the reliability of this form of financing for agriculture.

C. Loss of Shock-Absorptive Capacity

The expansion of corporation farming is closely associated with increasing specialization in U.S. agriculture. Corporate efficiency is greatest in production processes that can be standardized in relatively simple, repetitive tasks. The hierarchical structure of a corporation is least effective when many day-to-day decisions must be made that have important consequences for success or failure. Weather risks are a particular handicap. This is especially true in the Corn Belt, the Wheat Belt, and the dairy region surrounding the Great Lakes.

D. Emergence of Big-Tenant, Small-Landlord Problems

Many large farms have been created by renting land from family-type farmers whose age or financial weakness prevent them from expanding and modernizing their farms. A land tenure relationship is emerging that is new in the United States. The traditional stereotype of landlord-tenant relationship includes a large and powerful landlord and a small, defenseless tenant. This relationship is being reversed. Increasing amounts of farm land are controlled under leasing arrangements by large tenants, while the defenseless parties are the small land owners.

The legal structure in past generations sought to protect the tenant. A body of law and practices has accumulated that is now outmoded. Under many types of contract farming, vertical integration, or large scale corporate leasing, it is the landowning farmer that needs protection. This problem is especially acute in types of farming in which limited partnership shares sold to investors have included rights to land, as illustrated by the citrus example cited above.

The expansion of vertical integration and corporation farming has thus created a much more complex set of legal relationships affecting land owners and land users. Major changes will be needed in land tenure legislation, to avoid long-run problems of rigidity in the capacity of agriculture to adjust to economic change.

E. Rigidity, Diversity, and Concentration of Power

The expansion of corporation farming has been fed by two root-systems of motivation. One is the search by high-income investors for ways to shelter their non-farm income from taxation. The other is a search by large business corporations for ways to expand market power, either in input markets (feed, fertilizer, breeding stock) or in output markets (processing, slaughtering, wholesaling).

The ability of large firms to expand market power has been untintentionally promoted by the growing public concern with problems of pollution, environmental deterioration, and threats to health arising from increased use of chemicals. The control methods that have been introduced require large initial costs before any income can flow into the farm business from sale of products. These "front-loaded" costs are especially heavy in livestock and poultry production, dairying, and many types of fruit and vegetable crops.

One consequence is that a rigid agricultural structure is being created in which it is increasingly difficult for young farmers to get started, or for existing farmily-type farms to adjust their farming activities. Environmental protection and pollution control regulations in agriculture favor big farms, and discriminate against small ones. Costs of compliance are so great that only well-capitalized firms can bear the initial costs of establishment.

This structural bias is an outgrowth of urbanization. Agricultural products must be shipped so far and held so long in warehouses and stores that shelflife (ability to remain saleable for weeks and months) is the dominant quality criterion. The policing function becomes a major cost of production in a highly urbanized economy. This shifts the economic balance in favor of large-scale marketing firms and associated corporate farms. It is largely a function of the size and structure of cities and not of economies of size in farming.

One danger arising from large corporations is that they will use market power to influence prices. This remains a real threat. But the more likely consequence is that they will become rigid, bureaucratic, and unresponsive to changes in demand.

Diversity in farm size and structure is as valuable in agricultural institutions as is diversity in biological seed stocks and genetic raw material. Family-type farms in the United States have demonstrated their ability to adapt and capacity for self-renewal. Farming has not exhibited the problems of institutional old age and senescence that have characterized the railroads, or more recently the automobile industry. A mix of farm sizes and organizational forms has preserved flexibility, and provided opportunity for innovation and the development of managerial talent.

Continuity is a major advantage of a corporate structure. The life of the business firm is not dictated by the life span of a man. This can be a tremendous advantage in long-range planning. Will it be a seedbed in which continuity of control hardens into resistance to change? Will market power that permits control of supply and prices also lead to attempts to manipulate demand? Will brand-name advertising dominate the food sector? These are among the most important questions raised by the emergence of significant areas of corporate control in American agriculture.

REFERENCES

1. Beef, March 1973, "Monfort V.P. Asks End to Tax Shelter".

2. Carman, Hoy F., "Tax Loss Agricultural Investments After Tax Reform", American Journal of Agricultural Economics, Vol. 54, No. 4, Part I, November 1972.

3. Coffman, George, Farm Corporations--A Financial Analysis, U.S. Department of Agriculture, Economic Research Service, Agricultural Economics Report No. 241, July 1973.

4. Elia, Charles J., "Heard on the Street", (American Agronomics), Wall Street Journal, December 20, 1974, p. 27.

5. Engleman, Gerald, "The Changing Structure of American Agriculture: What Does It Mean for Farm Operators and Their Cooperatives?", paper prepared for the Graduate Institute of Cooperative Leadership, sponsored by the College of Agriculture, University of Missouri, Columbia, Missouri, June 17, 1974.

6. Goodall, M. R., and James B. Jamieson, "Property Qualification Voting in Rural California Water Districts", Land Economics, Vol. L, No. 3, August 1974.

7. Harl, Neil E., "Resource Allocation and Capital Accumulation in Corporations Under Subchapter S of the Internal Revenue Code", Farm Corporations and Their Income Tax Treatment, U.S. Department of Agriculture, Economic Research Service, Washington, D.C., April 1974.

8. Koshetz, Herbert, "19,000 Acres Sold by Agronomics", New York Times, September 4, 1974, p. 59.

9. Los Angeles Times, February 22, 1972, Part III, p. 7, "$42 Million Paid by Roberts Farms for Tenneco Land".

10. Matthews, Stephen F., and V. James Rhodes, "Agriculture and Limited Partnerships: Their Compatibility", Department of Agricultural Economics, University of Missouri, Columbia, Missouri, Paper No. 1974-27.

11. Maidenberg, H. J., "Financing Widens for Agriculture", The New York Times, May 22, 1974, p. 57.

12. Meisner, Joseph C., and V. James Rhodes, "Feedlot Economies of Size Revisited", Department of Agricultural Economics, University of Missouri, Columbia, Missouri, Ag. Econ. Paper No. 1974-33.

13. Mighell, Ronald L., and William S. Hoofnagel, Contract Production and Vertical Integration in Farming, 1960 and 1970, U.S. Department of Agriculture, Economic Research Service, Report No. 479, April 1972.

14. Monfort of Colorado, Inc., Annual Report, Greeley, Colorado, October 1973.

15. Reimund, Donn A., "Farming Enterprises of Large Multi-Establishment Firms", Marketing and Transportation Situation, U.S. Department of Agriculture, Economic Research Service, MTS-192, February 1974.

16. Thor, Eric, Personal communication from, Division of Agricultural Sciences, University of California, Berkeley, September 10, 1974.

17. U.S. Department of Agriculture, Economic Research Service, Corporations with Farming Operations, Agricultural Economics Report No. 209, June 1971.

18. U.S. Department of Agriculture, Economic Research Service, Contract Production and Vertical Integration in Farming, 1960 and 1970, ERS-479, April 1972.

19. U.S. Department of Agriculture, Economic Research Service, Major Uses of Land in the United States, Summary for 1969, Agricultural Economics Report No. 247, December 1973.

20. U.S. Department of Agriculture, Economic Research Service, Farm Population Estimates for 1973, ERS-561, August 1974.

21. U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1973 and preceding years, and annual IRS reports.

22. U.S. Department of Commerce, Bureau of the Census, 1969 Census of Agriculture, Vol. II, Chapter 3, August 1973.

23. Wall Street Journal, April 7, 1972, "American Agronomics Accused in SEC Suit of Illegal Sales Tactics".