

Some forces affecting our changing American agriculture

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Agriculture in the United States is vastly different from that of former years: it is becoming highly integrated with other sectors of the economy, has taken on international dimensions through expanded markets, is losing its special-treatment political status, is becoming industrialized, and has in other ways "come of age." The forces affecting these changes are no longer principally internal to agriculture but are being imposed from without.

Consider a few examples of powerful outside forces that indirectly but profoundly affect the structure of agriculture. U.S. monetary policy, for instance, as it fuels or brakes the inflation rate, has probably had more impact on agriculture than any direct policy of the USDA. Just one effect has been escalating land prices, created in part by investors seeking an inflation hedge. Environmentalists concerned about ecology and consumers concerned about food safety have spawned a proliferation of regulations affecting agriculture and the food industry. Lack of coordination among agencies administering the regulations creates uncertainties. Costs of compliance add substantially to production costs but not to productivity increases. Control of the decision-making process is diffused as it shifts away from farmers.

Fairly recent examples of interrelated forces seemingly far removed from agriculture, yet with direct impacts, are the formation of OPEC, increasing energy prices, and the devaluation of the dollar. The effects are mixed. Higher energy prices and even higher energy price expectations may lead to crop mix shifts. On the other hand, a cheaper dollar helps farm exports. Indeed, expanding markets have given to agriculture an international dimension; the one most important item contributing to a more favorable balance of payments is the volume of agricultural exports.

What was formerly a two-superpower

world has been replaced by a global economy with a number of participants, including the European Economic Community, OPEC, and multinational corporations. Tighter economic interdependence, however, has its costs as well as its benefits. Each participant—whether trading bloc, country, or multinational corporation—has different positions on direct government intervention; each has differing political and economic objectives. Although the U.S. has reaped the benefits of expanded markets, the cost has been greater price and income instability—an onerous burden to small, undercapitalized farmers. Furthermore, regional impacts are disproportionate because most significant trade gains have been in feed grains and cereals.

Increased concentration—fewer and larger firms—can be seen in every stage of the food system. The decline in numbers of commercial farms (30 percent between 1959 and 1974) and their increasing average size in acres (32 percent between 1959 and 1974) are well known. More attention and even emotionalism have been directed to increased concentration in production, but there are parallel trends in each of the other sectors of the food system. The number of food and kindred product manufacturing establishments declined a third between 1958 and 1972, and increased in size (from an average of four employees per establishment in 1959 to 56 in 1972). The average food processing plant became larger: there were 45 percent fewer plants with under 20 employees in 1972 than in 1954, and 28 percent more plants with over 500 employees. Similarly, one can see the demise of "Mom and Pop" grocery stores and eating establishments. The number of eating places with no hired employees fell 61 percent between 1954 and 1972; the number of grocery stores with no hired employees fell 60 percent. Grocery store chains with over 101 stores captured 29 percent of the total sales in 1954, 40 percent in 1972.

It is more difficult to get a picture of changes within the farm input supply sector because many of their products are not directed exclusively to agriculture. Over time, farmers have purchased more of their inputs rather than using what they produced themselves on the farm: since 1930 the purchased-input index increased 126 percent; the nonpurchased index declined 49 percent. The number of firms supplying purchased inputs to farmers has increased markedly (e.g., over 14 percent for farm machinery between 1954 and 1972). It is not possible, therefore, to see concentration in the input sector taking place just by looking at a few statistics. One may surmise that firms have been growing in size in this sec-

tor as in the entire economy, but increase in the number of firms in response to increasing demand for purchased inputs offsets the concentration effect.

Some argue that government policies directed toward the solution of various income, equity, and growth problems may have had the perverse effect of increasing concentration in all sectors of the food system. For example, large farms are perhaps better able to capture the benefits of price and income policies than are small farms. Special exemption from antitrust policies given to agricultural cooperatives may have indirectly encouraged concentration and integration in the farm supply and food markets. The effect of favored tax treatment for some agricultural investments encourages nonfarm interests to enter in order to take advantage of tax savings. This may increase concentration; smaller operations are usually bought up in the process, land prices are bid up, and, in some cases, an oversupply of certain commodities results.

Increased concentration in all sectors of the food industry and vertical integration mean that farm-level prices are determined less by the open market and more by contracts and other arrangements.

Today, two out of three farm families receive more than half their income from nonfarm sources. Partly as a result, there has been a slow but steady increase in the income of farm operators so that their earning-level is approaching that of workers in the nonfarm sector. Income of farm operators from nonfarm sources continues to increase and now makes up three-fifths of total income in the farm sector.

Another revealing trend, showing the reduced isolation of farmers from the rest of society, is the increasing numbers of farm operators who reside off the farm. According to the Census, almost 8 percent of commercial farm operators resided off their farms in 1959; by 1974, 19 percent lived elsewhere. Presumably, many farm families today have the best of both worlds—remaining in agriculture while supplementing their income with town employment and enjoying in-town amenities.

Meanwhile, as farmers become more like city dwellers, many urbanites are moving to the country seeking a rural way of life. The proportion of the total U.S. population on farms fell from 35 to less than 4 percent from 1910 to 1976; however, the number of people classified by the Census as "rural" (living in places with fewer than 2500 inhabitants) has been rather constant, constituting one-fourth of the total U.S. population. Non-metropolitan areas (counties not connected with nor containing a central

city of 50,000 or more inhabitants) in the 1970's have been experiencing faster growth rates than have metropolitan areas. The demographic shift that is taking place represents a reversal of one of the nation's best established long-term population trends and is profoundly influencing the composition of the rural population.

The migration to rural areas has generated conflicts between established residents and newcomers and between agricultural and nonagricultural interests. Of most direct concern is the land-use conflict, particularly at the urban-rural fringe where land values no longer reflect their agricultural use.

Competition for land for nonagricultural purposes, all the way from remote rural places to metropolitan borders, is only one of the strong external forces impacting agriculture by fueling the phenomenal land price escalation of the 1970's. From 1950 through 1972 the value per acre of U.S. farm real estate increased at a (nominal) rate of 5.6 percent annually, compared with a 2.8 percent rate for general prices. The increase in land values occurred despite a rather stable annual level of realized net farm incomes. In contrast to this earlier record of steady, but modest, increases in farm land values, per-acre values jumped sharply over the period from 1972 to 1977, at 16.5 percent per year compared with a general price increase of 7.1 percent. A tripling of land values has been reported for several corn belt states as farmers and others first responded to higher grain and soybean prices in 1973-74 and have continued to bid up farmland prices. Indeed, since 1971, capital gains from farmland have been substantially larger than net farm income.

In a market where generally less than three percent of the land changes hands annually, it is difficult to determine which of the many possible forces are really behind land value escalation. The major demand for farm land still comes from farmers expanding their operations. The world food crisis of 1972-73 and the growth of domestic and world markets have produced high commodity price expectations. Government actions such as higher support prices, credit write-offs, subsidizing, and preferential tax treatment, sometimes used to backstop producer decisions, become immediately capitalized into land values. Demands for land from new rural residents, suburban developers, conglomerate corporations, recreational and open-space users, foreign investors, and other nonfarm investors (speculators) also add fuel to the fire, although fewer acres are involved.

It is not as difficult to see some of the effects of land price escalation as it is to determine exact causes. The intense pressure toward a heavy reliance on capital markets in order to purchase land and equipment may pose a real threat to the existence of the family farm. The proportion of farmland transfers on which debt was incurred rose 52 percent between 1950 and 1977 and the ratio of debt to purchase price of credit-financed transfers rose from 57 percent in 1950 to 77 percent in 1977. Entry into agriculture has been made difficult by high resource costs (including land) and the growing size of operations which, even if land costs did not rise, would necessitate increased capital investments. With land appreciating at 16.5 percent per year, as it has since 1972, present land values will double in less than five years.

High farm real estate values have also made intergenerational transfer extremely difficult. Although aided somewhat by recent estate tax revisions permitting assessment on the basis of capitalized net rents rather than market values and allowing a larger deduction in computing estate taxes, "land-rich, cash-poor" heirs are still some-

times forced to sell in order to pay taxes and debts. Furthermore, extremely high land prices may have caused a disruption of the traditional unity between ownership and operation of farm units.

The changing interface between commercial agriculture and quasi-agricultural interests in rural areas and the rising capital requirements in farming suggest an emerging compromise in the form of a dual rural economy: (1) large commercial farm units (food and fiber factories), and (2) smaller farms, based on subsistence, part-time, retirement, or hobby interests. If such a structure is to emerge and diverse interests are to coexist in harmony, much remains to be done to resolve the conflicts and external pressures that are already disrupting the rural-urban fringe.

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Some Characteristics of the U.S. Agricultural and Food System
Selected Years 1910-1976

Characteristics	Units	1910	1930	1950	1960	1970	1976
Farm shares—U.S.							
Share farming/ national income	percent	N/A*	N/A	7.2	3.9	2.8	2.6
Share farm labor force/U.S. labor force	percent	30.9	21.2	11.6	7.9	4.0	3.2
Farm production							
Index of farm output	1967 = 100	43	52	75	90	105	117
Index of farm input	1967 = 100	86	101	105	101	99	101
Index of total productivity	1967 = 100	50	51	71	89	105	116
Input use:							
nonpurchased	1967 = 100	158	177	152	120	96	90
purchased	1967 = 100	38	50	71	86	103	113
Number of farms	1000	6,366	6,295	5,388	3,962	2,954	2,778
Land in farms	million acres	881	990	1,161	1,177	1,103	1,084
Avg. size of farms	acres	139	157	216	297	373	390
Avg. value/ acre	1967 = 100	24	31	43	72	117	244
Rural sector							
Total U.S. population	million	92	123	152	181	205	215
Farm population	million	32	30	23	16	10	8
Ratio farm/ total	percent	35	25	15	9	5	4
Rural population	million	49	54	54	54	54	N/A
Ratio rural/ total	percent	53	44	36	30	26	—
Income from farm sources/ total income (farm popula- tion)	percent	N/A	N/A	69	61	47	42
Per capita disposable per- sonal income: farm population/ nonfarm popula- tion	percent	N/A	N/A	65	56	75	82