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Agricultural and Rural Development in the 1980s and Beyond

Luther Tweeten

A large number of rural communities in the West rely on agriculture for much of their economic base. An examination of economic forces shaping agriculture and rural communities can provide some clues to the future of such communities. The purpose of this paper is to provide some clues.

Emphasis is on the contribution of agriculture to the rural economy. The contribution of rural nonfarm industries and the public sector is also recognized. Attention is given to public policies playing an important role in agriculture and other industries. Although the West is highlighted, the paper reflects the integration of that region into national and international markets and public policies.

Employment and Income Sources in Rural Counties

Direct contributions of agriculture and other sources to income and employment in metropolitan and nonmetropolitan counties are shown in Tables 1 and 2. Each job in agriculture as a farm proprietor, hired worker, or agricultural services worker directly accounted for 23 percent of the employment in totally rural counties and for 12 percent of employment in nonmetropolitan counties in 1979 (Table 1). The share of agriculture in income is less than in employment as noted in Table 2.[1]

Service industries such as transportation, trade, and finance exist in rural communities in part because of basic industries of agriculture, mining, and manufacturing. Employment and income multipliers for basic industries differ considerably by size of community, enterprise, or industry, and by distance from other communities (Tweeten and Brinkman). A rough approximation is a multiplier of 1.5 for a typical rural community and 2.0 for rural counties in aggregate. Based on the latter multiplier and on the data in Table 1, nearly one-half of the employment in totally rural counties and nearly one-fourth of the employment in nonmetropolitan counties were attributed to agriculture in 1979.

Other basic industries such as manufacturing are in rural counties in part because of raw materials and "part-time" labor available from farms. Manufacturing in 1979 accounted for 20 percent of employment in nonmetropolitan counties. Although agriculture is not as important to the economic base of rural communities as a whole as in prior years, it is the only major economic base in much of the Great Plains and western Corn Belt (Bluestone; Hoppe).

Like employment for 1979, personal income for 1975 in Table 2 shows strong similarities among sources between metropolitan and nonmetropolitan counties.

Regents Professor, Department of Agricultural Economics, Oklahoma State University, Stillwater.

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[1] Data are not for the same year because information in Table 2 was not available for 1979. However, other data for comparable earlier years support the conclusion in the text.

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TABLE 1. Composition of Employment in Metropolitan and Nonmetropolitan Counties, U.S., 1979.

Industry or Type	Metro-politan	Nonmetropolitan			
		Urbanized[a]	Less Urbanized[b]	Totally Rural[c]	Total Nonmetro-politan
Total Employment (1,000)	78,719	11,085	12,723	2,925	26,733
			Percent		
	100.0	100.0	100.0	100.0	100.0
Total Wage and Salary	93.4	89.3	81.1	72.1	83.5
Farm Employment	0.6	2.3	3.5	4.9	3.1
Ag Services	0.4	0.7	0.6	0.7	0.6
Forestry and Fisheries	0.03	0.1	0.1	0.1	0.1
Mining	0.5	1.3	2.4	3.0	2.0
Construction	4.4	4.2	3.9	4.2	4.0
Manufacturing	19.9	21.5	20.7	13.6	20.2
Transportation, Communication and Utilities	5.3	4.1	3.6	2.9	3.75
Wholesale Trade	5.5	3.4	3.4	2.7	3.3
Retail Trade	14.9	14.2	12.0	9.4	12.6
Finance, Insurance and Real Estate	5.5	2.9	2.3	2.0	2.5
Services	19.4	14.6	12.4	11.4	13.2
Gov't.: Civilian	3.0	2.5	1.6	2.2	2.0
Gov't.: Military	2.2	3.8	1.4	1.5	2.4
Gov't.: State and Local	11.8	13.9	13.3	13.5	13.6
Proprietors	6.6	10.7	18.9	27.9	16.5
Farm Proprietors	0.7	3.5	9.7	17.0	7.9
Nonfarm Proprietors	5.9	7.2	9.2	10.9	8.6

Source: Compiled by Economic Development Division, ERS, U.S. Department of Agriculture from basic data provided by the Bureau of Economic Analysis, U.S. Department of Commerce.

[a] Counties with more than 20,000 residents in urban places of more than 2,500 population.

[b] Counties neither in the "urbanized" or "totally rural" category.

[c] Counties with no city containing at least 2,500 residents.

Among nonmetropolitan counties, the West depended relatively more than other regions on government and less on transfer payments and manufacturing. Government and transfer payments combined to account directly for 29 percent of personal income in the West.

Personal income from all sources increased at a greater rate for nonmetropolitan counties than for metropolitan counties from 1968 to 1975. Except for transfer payments and mining, rates of growth for the nonmetropolitan counties in the West exceeded rates for nonmetropolitan counties in the United States both overall and among components. In nonmetropolitan counties, the rate of growth in earnings for agriculture, forestry, and fisheries exceeded the growth rate for any industry except mining. Among all income sources, transfer payments stand out as a major "growth industry."

The data in Tables 1 and 2 support an important conclusion: rural areas now depend on a diversified base of economic activity including agriculture.

Prospective Contributions of Agriculture to Rural Communities

Agriculture's contribution to rural communities depends on aggregate food and

TABLE 2. Personal Income, 1975, and Growth, 1968–75.

Composition of Income	U.S. Metropolitan		Nonmetropolitan			
			U.S.		West	
	1975	Growth 1968–75	1975	Growth 1968–75	1975	Growth 1968–75
Total Personal Income ($ Million)	979,267		278,268		41,919	
	Percent					
	100.0	78.6	100.0	98.0	100.0	115.4
Property Income	14.5	82.3	14.7	105.6	13.9	119.2
Net Transfer Payments	8.9	249.1	13.1	209.0	11.0	208.1
Earnings	76.6	68.3	72.2	84.6	75.1	105.6
Manufacturing	19.9	46.8	17.4	67.5	10.1	89.4
Government	13.8	85.4	13.7	88.2	17.9	97.0
Trade	13.3	70.9	10.5	83.6	10.6	98.9
Services	13.2	86.2	8.2	85.8	8.9	97.6
Transportation, Communications, and Public Utilities	5.8	77.0	4.1	90.6	5.0	105.4
Contract Construction	4.3	55.7	4.1	88.8	6.6	186.6
Finance, Insurance, and Real Estate	4.6	68.0	2.0	86.3	2.0	89.2
Agriculture, Forestry, and Fisheries	1.1	87.9	9.4	95.6	10.5	108.8
Mining	0.6	118.8	2.7	155.8	3.5	141.8

Source: Bluestone (pp. 3, 8).

fiber supply and demand and linkages to rural communities. Technology plays a key role in the linkage. Declining costs of transportation made it feasible for farm people to go farther to shop for jobs, goods, and services. Many small, bypassed communities have shrunk or disappeared. Roads and vehicles will continue to improve, but the principal impact of transportation and changing energy costs probably lies behind. The post-1970 rural renaissance in employment and population is broad based, and is apparent in small and large communities and in rural counties near and distant from metropolitan areas.

Two important dimensions of farming that influence rural communities are emphasized in this section. One is farm size, numbers, and population that determine community social activity tied to population. The second dimension is farm income and expenses that determine business activity tied to buying power. Projections of these dimensions will follow a review of the relationship between farm structure and community.

Impact of Farm Size on Communities

The famous Goldschmidt study of Arvin and Dinuba, California, generated early and nationwide interest in the relationship of farm structure to community socio-economic health. That interest continues. Not every farming configuration is equally desirable socially or economically (Sonka and Heady). What is good for farmers or rural communities is not necessarily good for society. Data in Table 3 show estimated economic impacts on prices, input, output, receipts, expenses, and farm numbers of sole reliance on large, medium, or small size farms. Results assume full adjustments have occurred in prices and quantities, but values are in 1981 dollars.

Market adjustments are presumed to be complete so that prices cover all costs of production. Because small farms are less

TABLE 3. Estimated Economic Impact of Adjusted U.S. Farming Structure Comprised Solely of Large Farms, Medium Farms, or Small Farms.

Item (Numbers in Parentheses are Percent of 1981)	Farm Size: Large Farms (Sales $200,000+)	Medium Farms (Sales $100,000–$200,000)	Small Farms (Sales $20,000–$40,000)	Actual 1981
Output ($ Billion)[a]	164	137	112	154
	(106)	(89)	(73)	(100)
Domestic	114	107	100	111
	(103)	(96)	(90)	(100)
Export	50	30	12	43
	(116)	(70)	(28)	(100)
Input ($ Billion)[a]	164	185	187	205
	(80)	(90)	(91)	(100)
Productivity (Output/Input)	1.00	0.74	0.60	0.75
	(133)	(99)	(80)	(100)
Parity Ratio (1910–14 = 100%)	54	73	90	61
	(89)	(120)	(148)	(100)
Receipts ($ Billion)	146	164	166	154
	(95)	(106)	(108)	(100)
Costs ($ Billion)	146	164	166	154
	(95)	(106)	(108)	(100)
Net Off-Farm Income ($ Billion)[b]	4	10	36	39
	(10)	(26)	(92)	(100)
Total Income and Outlays ($ Billion)	150	174	202	193
	(78)	(90)	(105)	(100)
Number of Farms (1,000)	243	868	3,274	2,436
	(10)	(36)	(134)	(100)

Source: For basic data, see Tweeten (March 1983).
[a] Domestic demand elasticity −0.2; export demand elasticity −1.5. Output and input are quantities weighted by actual 1981 prices.
[b] Same off-farm income per farm as in 1981.

productive per unit of input than are large farms, sole reliance on small farms requires 90 percent of 1910–14 parity to cover all resource costs. Large farms, which currently account for 50 percent of farm output and 5 percent of all farms, cover all costs with prices only 54 percent of parity.

Income and employment multipliers relating the farm to the community depend partly on forward linkages and farm output and partly on backward linkages and farm input. It is notable that aggregate farm output is greater with large farms, but farm input is greater with small farms. Input volume, even under the small farm scenario, is less than actual aggregate input volume in 1981 because the analysis assumes that inputs are freed from existing large numbers of low productivity farms with sales of under $20,000.[2] Also, our exports tend to be priced out of the market with only small farms.

Farm receipts, costs, and off-farm income further reveal impacts of farm structure on rural communities. Given time, all costs tend to equal all receipts.

[2] Input supply is assumed to be perfectly elastic within the range of outcomes considered. Overall land costs and soil erosion problems could be greater with small farms than with large farms.

Adding off-farm income to farm receipts (or costs) indicates that economic activity in rural communities would decline to about 78 percent of 1981 levels with only large farms and would be 5 percent above 1981 levels with only small farms. Differences between these estimates might be even greater for rural communities if adjustments were made for the greater proportion of purchases made in local communities with small farms compared with large farms. A system of only small farms with surplus labor compared with large farms implies more nonfarm economic base to provide off-farm jobs in rural communities. Large farms would tend to be two-family operations so 240,000 farms might have 480,000 families. Still, a system of small farms with one family per farm would support nearly seven times as many farm families (and social activity that depends on farm population) as would a system of large farms. In strictly economic terms, however, the gain to rural communities from a system of small farms is more than offset by higher food and other commodity costs to consumers owing to the lower economic efficiency of small farms. A system of even smaller farms than shown in Table 3 might provide more stimuli to rural communities, but the social cost would be huge in terms of lost exports and high food costs. Other disadvantages of small farms are detailed elsewhere (Tweeten, March 4, 1983).

Productivity estimates indicate that 26 percent more real input than was actually used in 1981 would have been required to produce the actual 1981 output solely with small farms. This figure contrasts sharply with the 9 percent less input with only small farms as shown in Table 3. The latter occurs because higher prices are required to cover all costs, reduce sales, output, and input.

Trends in Farm Size and Numbers

As noted above, farm size influences farm population and income and thereby the vitality of rural communities. Estimates have been made of the past and projected impact on farm size of four key elements—labor-saving technology, the opportunity cost of farm labor, off-farm income, and the gap between farm and nonfarm income per capita (Tweeten, 1981). Farming technology caused farms to grow 3–4 percent per year in each of the four decades from 1940 to 1980. Commercial farm firm growth from technology is projected to slow to no more than 3 percent annually by the year 2000.

Personal income of farm people will keep up with income of nonfarm people over time in a well functioning economy. Other things equal, this means the scale of farming must increase with real personal income per capita of nonfarm persons which advanced 3 percent per year in the 1960s and 2 percent per year in the 1970s. Growth of real per capita income in the United States has slowed and is projected to require farms to grow in size by only 1.0–1.5 percent per year between 1980 and 2000.

Combined technology and personal income gains required farms to grow 5–6 percent per year from 1940 to 1980. An offsetting force was nonfarm income of farm people from off-farm jobs, transfer payments, and other sources. Off-farm income growth nearly offset expansion pressures from technology and labor opportunity costs from 1940 to 1980. But growth in the share of income farm people receive from off-farm sources is expected to slow in the 1980s and 1990s.

Much of the net remaining growth in farm size from 1940 to 1980 is explained by farm expansion and consolidation to close the once huge gap between farm and nonfarm per capita income. The gap was mainly caused by the accumulated backlog of excess labor. Farm size expansion to close the accumulated income gap declined from 7 percent per year in the 1940s and from approximately 4 percent per year in the 1950s and 1960s to essentially zero in the 1970s. Success of the effort was

TABLE 4. Projected Increases in Demand and Supply for Farm Output from 1982 to 2000.[a]

Source	Demand			Supply (Productivity)
	Domestic	Export	Total	
RCA-USDA[b]	117 (0.9)	151 (2.3)	127 (1.3)	122 (1.1)
Tweeten	117 (0.9)	170 (3.0)	132 (1.6)	131 (1.5)
RFF, Constant[c]	115 (0.8)	164 (2.8)	135 (1.7)	— —
RFF, EEC Liberalized[d]	115 (0.8)	210 (4.2)	151 (2.3)	— —
NALS-USDA[e]	118 (0.9)	259 (5.4)	161 (2.7)	— —

Source: Table from Tweeten (March 1983).
[a] Quantity, year 2000 as % of 1982 (Annual increase, % in parentheses).
[b] Resource Conservation Act "moderate" estimates.
[c] Resources for the Future projection for crops with continuation of current EEC policies. My adding of domestic and export components gave a *total* demand index of 129 in year 2000 for 1.4 percent annual increase rather than the reported index of 135.
[d] Same as footnote (b) except my adding of domestic and export components gave total demand of 141 and 1.9 percent increase compared to the demand of 151 in year 2000.
[e] From National Agricultural Lands Study.

apparent even in the depressed farm economy of 1981. With farm prices only 61 percent of 1910–14 parity in that year, farmers' income from all sources averaged 88 percent of nonfarmers' income per capita. Because less disequilibrium in labor and other resources exists now than in the 1950s and 1960s, further closing the gap will not be an important source of farm growth in the future.

Based on the above factors, the average commercial farm is expected to grow approximately 3 percent per year to the year 2000, a slower rate than in the past. Data on economies of size indicate pressures for firm expansion and provide additional insight into future trends in farm size and numbers. Lower cost per unit of output for large farms than for small farms encourages expansion in size and reduction in numbers of farms. Most economies of size are realized on farms with sales of $100,000 or more (Tweeten, March 1981). However, some production and market economies extend beyond $100,000, providing incentives for even commercial farms to grow. Many small farms with high per unit costs remain, but an increasing proportion of these are part-time farmers who willingly now and in the future will support farming with off-farm income. Medium size farms are expected to account for a declining share of farm numbers and output. In competing with large and part-time small farms, medium size farms will be disadvantaged because of (1) cash-flow problems associated with the inflation cycle, (2) increasing risk in the face of less sophisticated risk management opportunities than on large farms, (3) less risk-reducing, off-farm income than on small farms, and (4) high asset requirements for an economic unit coupled with life-cycle financing arrangements on typical family farms.

Trends in Supply and Demand for Farm Output

Table 3 was comparative statics ignoring expected trends in supply and demand for farm output. Future trends in inputs purchased and products marketed through rural communities depend on trends in the aggregate supply-demand balance for farm output. Estimates from several sources of that balance are presented in Table 4. After productivity shifted the supply curve faster than the demand curve to the right in the 1950s, generating surpluses that carried well into the 1960s, demand grew faster than supply in the 1970s. The projections in Table 4 are varied, but in general indicate that farm output demand and supply may increase at nearly equal rates in the later 1980s and in the 1990s. The implication is that no strong upward or downward trend in real farm prices is foreseen. However, acute, unpredictable periods of surplus and low farm prices alternating with periods of shortage and high farm prices

are expected. Chances seem slim for persistent gains in demand relative to supply and in real farm prices helping to create a long-term boom in rural communities.

Contribution of Other Industries

If the market promises no boom for rural communities through agriculture, what is the potential for other industries and for public policies to improve the socio-economic future of rural communities? As noted earlier, rural areas on the whole are now highly integrated into the national and international economy, are highly diversified, and are not markedly different from metropolitan counties in economic structure.

Defining basic industries as those which bring dollars from outside, it is apparent in Tables 1 and 2 that mining and manufacturing as well as transfer payments for retirement or other purposes are vital components along with agriculture of the economic base for rural communities in the West and elsewhere. Payments from social security, medicare, and medicaid contribute substantially to the economic well-being of rural communities and their residents. The number of persons reaching retirement age will rise in forthcoming decades. The amenities of rural communities will attract many retirees.

Manufacturing was the largest source of increased employment among private industries in nonmetropolitan counties from 1968 to 1975 for the U.S. but not for the West (Bluestone). In manufacturing, the West finds it difficult to compete with the abundant, low-cost labor in the South, and and with the nearness to metropolitan population centers in the East. The performance of the far-West in high-tech industries has been impressive but such industries cannot be expected to add substantially to growth in the Mountain and Great Plains states. The conclusion is that the West will not look to any one industry as a major source of growth, but rather will look to diversified, though less spectacular sources, including recreation, mining, and government, as well as to agriculture and manufacturing.

Contribution of Public Policy

Attention now turns to public policy and its potentially strong impact on growth. The challenge is to devise public policies consistent with the interests of agriculture, rural communities, and the public at large. Immediate needs to revitalize the farming economy are (1) national and international economic progress (with stable prices) to boost demand especially for farm exports, (2) elimination of excess commodity stocks, and (3) no better than normal weather for crops. Agriculture and rural communities will be much influenced by national monetary-fiscal policies; by farm commodity program and credit policies; by community service, welfare, health, and education policies; and by work force policies.

Monetary-Fiscal Policy

The most pressing public policy requirement for economic health of farms, rural communities, and the economy at large is sound monetary-fiscal policy. That policy is now in disarray. To promote steady economic progress without inflation requires decisive movement towards a balanced federal budget and less erratic monetary policy. The money supply as measured by M1 or M2 has been increasing at a rapid rate since July 1982. Unless the rate is cut back, the inflation cycle will be fueled. The inflation cycle creates undesirable cost-price, cash-flow, and instability-uncertainty impacts on farmers, which I have detailed elsewhere (Tweeten, December 1980; 1983).

In recent years a tight monetary policy has been combined with expansionary, high-deficit fiscal policy. One result has been high real rates of interest damaging to both farm and nonfarm economies. High real interest rates impact unfavor-

ably on farmers directly. They impact indirectly through international linkages by attracting capital investment from abroad. The inflow of money raises the value of the dollar in international exchange markets. The result is more expensive U.S. wheat, corn, and soybeans to foreign buyers. A depressed U.S. economy imports less from other countries. Inability to export to us depresses economies abroad; those economies in turn import less from us. International recession and high real interest rates contribute to international financial crises.

Export Policy

The economic vitality of agriculture and its contribution to rural communities rests firmly on export markets. The business integrity of farmers willing to risk competing in unstable export markets deserves respect. Past actual and future possible export embargoes imposed by our government violate business trust and exacerbate an already high level of uncertainty in the farm economic environment. A federal policy of multinational reduction in trade barriers and encouragement of trade in general can help boost the farm and rural economies. Current trends toward protectionism likely will reverse as the world economic recovery progresses.

Commodity Programs and Payment-In-Kind

As best can be determined from a number of studies, the net long-term impact of commodity programs on farm structure has been minimal (Spitze *et al.*). However, commodity programs have greatly influenced demand for goods and services in rural communities during some years. Federal commodity support costs, including the payment-in-kind (PIK) program, are expected to total at least $21 billion in 1983. A community impact model (Woods *et al.*) for Oklahoma indicates that the PIK program reduced production input sales but added enough to net farm income and sales of consumption goods to provide *net* positive benefit to representative rural communities. Results are based on 20 percent higher net farm income and 6 percent reduction in production input purchases (U.S. Department of Agriculture, 1983). Communities will benefit from PIK induced stock reduction and higher commodity prices that will result after 1983.

Commodity programs of the cost and acreage magnitude seen in 1983 seem unsustainable. After stocks are reduced, commodity programs appear headed for revisions to reduce treasury costs and to permit our farm commodities to be price competitive in international markets. The impact may be to reduce farm income in the short run but increase it in the long run.

Resource Policies

The West is especially sensitive to policies that influence natural resource development and conservation. Key issues are government policies affecting energy, water, and land development and use. It is hazardous to forecast, but the future supply-demand projections for agricultural products suggest no severe public pressure to develop and subsidize new water projects for irrigation. The slowing demand for conversion of agricultural land to urban uses and the lack of success with past public programs to slow urban encroachment on to prime farmlands provide no basis from which to expect strong public measures to preserve agricultural lands.

Low farm prices, declining water tables, and rising energy (especially natural gas) prices have caused many acres in the Southern Plains to revert from irrigation to dryland farming. Meanwhile, irrigation is expanding in the Northern Plains.

A major study (Great Plains Associates, Chapter 5) of the Ogallala Reservoir recognizes that irrigated acreage will be sensitive to real farm prices. Continuation of

past downtrends in real farm prices would result in substantially fewer irrigated acres in the Reservoir by the year 2020. The most likely scenario of no significant upward or downward price trend points to a fairly close balance between decreased irrigated acres in the Southern Plains and increased irrigated acres in the Northern Plains (Great Plains Associates, Chapter 5).

A troublesome issue likely to receive continuing attention is use and ownership of federal lands in the West. Research needs to, but to my knowledge has not yet established, useful estimates of costs and benefits of privatizing federal lands. Would long-term economic, environmental, and recreational interests be better served with federal lands under public or under private ownership?

Research and Extension

Publically supported agricultural research and extension emphasizes development of scale-neutral technologies (Carter *et al.*). Mechanization research and application have had a major impact on farm structure and rural communities, but most of it comes from private firms and will continue even if public policy terminated such research in land grant universities.

Judicial decisions expected in California on mechanization research and development in land grant universities could have profound implications not only for mechanization but also for biological and other research that impacts on farms and rural communities. Agricultural research and extension have been high-payoff investments in the past and will be essential to keep farmers competitive in world markets in the future.

Rural Community Services

Some public programs influence farm and community structure by reducing costs of community services through technical assistance, low interest loans, and, in some cases, direct subsidies. Government subsidies to electrical, water, telephone, school bus, and other services encourage people holding nonfarm jobs to reside on small farms. Many such residents would choose to live in rural towns or cities if they had to pay the high, full economic, cost of bringing public services to their farm residence. The relative level of public subsidies to rural community services seems likely to fall. The net impact on rural communities from withdrawing such public subsidies could be small with fewer farm residents and more nonfarm residents.

Tax Laws

The nation's tax policies impact rural communities both directly and, through farm structure, indirectly. Federal tax policies need not but sometimes have favored corporations over sole proprietor business organizations, large farms over small farms, and capital over labor. Accelerated depreciation allowances and investment tax credits encourage substitution of capital for labor in production processes, thereby increasing farm size and decreasing farm numbers. A more resource-neutral tax policy could promote earnings and employment on farms, in rural communities, and in urban communities. Chances for such policies seem slim, however.

Work Force and Human Capital Policies

Nonfarm industries have been attracted to rural areas in part by low wage, nonunion labor. The importance of nonfarm jobs to rural counties and to farming is clear—two-thirds of total income of farm people is from off-farm sources.

Extension of the union shop, of high minimum wages, and of uneconomic environmental regulations to rural areas could remove the comparative advantage and abort the rural turnaround. On the

other hand, rural communities have much to gain from investments in human capital (education and training). Such investments must consider ability to pay and externality (spillover) dimensions in determining the proper mix and level of local, state, and federal funding of education, health, and welfare services.

Conclusions

Rural communities are now highly integrated into national and international markets and public policies. On the average, the economic base of rural counties is similar to that of urban counties although rural counties depend more on extractive industries. The economic destiny of both rural and urban communities depends heavily on federal monetary-fiscal policies to create efficient markets and promote economic progress at a stable general price level.

Farmers increasingly depend on the nonfarm sector for production inputs and off-farm jobs. With integration of farms, and hence rural communities, into national and international output and input markets, federal policies to keep international trade channels open become more important. Transfer payments are a large element in the rural areas. Rural communities offer natural amenities that will attract many retirees receiving transfer payments. If barriers are not erected to remove wage competition, rural areas can be expected to attract manufacturing but the Plains and Mountain states face formidable barriers.

The rural economy of the Great Plains and Mountain regions depends more on agriculture than do other regions. Trends in supply-demand balances and public policy for food and agriculture will be especially important for rural areas in these regions. The food and agriculture industry is unlikely to be dominated either by persistent surplus or by shortages. The most likely scenario is a somewhat flat trajectory of real farm prices with considerable variation around the trend during periods of abundant and short supplies. One exception would be if price supports are kept high to generate chronic surplus capacity. More likely, real price supports will drop to improve our competitive position in foreign markets and to reduce the need for supply control and large Treasury outlays.

The two principal problems of the farming industry seem likely to be (1) instability caused by nature, politics, and business cycles at home and abroad, and (2) cash-flow problems induced by inflation or high real interest rates, and by high cash costs of farm operation, ownership, and consumption.

Rural communities will benefit from farm output growing at about 2 percent annually on the average to year 2000. Farm numbers are expected to stabilize as the exodus of full-time small and intermediate size farms is approximately offset by growing numbers of large farms and small part-time farms.

The socio-economic vitality of rural communities depends partly on the structure of farms. Scenarios of sole reliance on small, medium, and large size farms were examined. A system of only small farms would bring only a modest increase in economic activity compared with the current farm size structure based on assumptions in this study. Loss of export markets would be a serious drawback of this strategy. A system of only large farms would have several drawbacks including loss of people and economic base for rural communities but would have the advantage of greater comparative advantage in world trade, lower consumer food costs, and probably less need for subsidies to agriculture.

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