

THE PEOPLE AND THE INSTITUTIONS: AN ECONOMIC ASSESSMENT

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Since the early 1980s, U.S. agriculture has been suffering through the effects of the convergence of two powerful sets of forces: (1) a huge and concentrated debt burden that has assumed awesome proportions for indebted individuals and firms in the unfriendly economic environment of the 1980s (Harl 1986c)¹ and (2) the persistence of a capacity to overproduce for both domestic use and the amount that can be moved into export channels under current economic conditions. The combined forces have been unparalleled in magnitude and unrivaled in the speed with which they impacted the sector.

The problem of overproduction has continued for more than a half century and shows no sign of abating. In fact, the limited opportunities to increase the demand for agricultural products and the probabilities for substantial increases in supply through the introduction of new technology over the next two decades promise to exacerbate that aspect of the problem.

The magnitude and concentration of the debt load for U.S. agriculture are phenomena of short-run proportions. Either through payment, debt restructuring or the discharge of indebtedness, the debt burden will very likely shrink to manageable proportions over the next three to five years.

The General Setting

Rapid economic and social change in agriculture is not a new phenomenon. Since the beginning of recorded history, agriculture has been adjusting to conditions of greater efficiency. As a consequence, the percentage of the population and the percentage of the capital stock required to produce needed food and fiber products have declined steadily. The decline has been especially marked since the 1930s as developments in plant and animal breeding and machinery and chemical usage, and improvements in farmers' management ability have combined to cause an acceleration in the movement of labor out of the sector. Agriculture has truly been a development

sector as the industry has “downsized” itself in relative terms, freeing labor and capital for use in the nonfarm economy. The development occurring in agriculture has been enormously beneficial to the general economy, permitting the allocation of resources to a burgeoning service sector and to high technology manufacturing and product development. However, had agriculture been frozen by the implementation of highly protective policies in the condition it was in in the early 1920s at the beginning of two decades of severe economic trauma, society could have been denied the resources needed to support the enormous development effort of the past half century.

What is now occurring in agriculture in terms of firms failing, because equity is exhausted or operating credit is denied, has little to do with efficiency and does not represent a continuation of the long-term trend toward greater efficiency in agriculture. In fact, the firms now at risk are some of the most efficient in the industry and are operating at or near the minimum point on the long-term average total cost curve except for one factor: the amount of debt held is excessive as measured by the economic environment of the 1980s. Those who survive are not necessarily the most efficient and in fact tend to be the older, more cautious farmers with smaller operations and little or no debt. Thus, the phenomenon cuts across farm and ranch firms in a highly arbitrary manner.

The data are making it increasingly clear that agriculture is going through the most wrenching financial adjustment in a half century. Not since the 1930s have issues of debtor distress gripped rural America as they have in the 1980s.

- In several agricultural states, land values have dropped by as much as 60 percent since 1981, cutting enormous amounts of collateral value and wealth from balance sheets and increasing the economic vulnerability of even those who survive.
- The numbers of farm foreclosures, forfeitures of land contracts and defaults on notes have reached levels not seen since the days of the Great Depression.
- The level of emotional trauma being suffered by indebted farmers and small business persons is a tragedy of awesome proportions.

The scope of the problem is much broader than farms. Although economic stress gained a foothold among the more heavily indebted farmers, the phenomenon has escalated rapidly so that today it threatens to engulf the entire rural community. Diminished economic vitality in rural communities, as purchases have been deferred and employment lost, has led to failing businesses, unpaid property taxes and reduced ability to support governmental services. The effects on school districts, health care delivery systems, local units of government and other rural area institutions have tended to lag the

effects on farm firms but are nonetheless substantial and in some rural areas may lead to a significant reduction in the quality of life.

The data make it clear that although the severity varies from area to area and the upper Midwest has suffered the most, agricultural stress virtually blankets the country.

Why the Problem Exists

Finger pointing and accusations of culpability do little to remedy the plight of rural communities. But in choosing remedial policy instruments, it is important to recognize the roots of the problem. Two principal categories of forces are responsible for much of the economic woes of agriculture: (1) federal policies that created an economic environment highly unfavorable for agriculture and other sectors that are both capital intensive and export sensitive and (2) forces operating at the farm or ranch level that moved some firms into a "window of vulnerability" which, combined with the unfavorable economic environment, was sufficient to move the firms inexorably toward insolvency.

Federal policies. Three federal policies operating over nearly two decades created an economic environment that, in the 1980s, has been highly unfavorable for agriculture. A relatively low cash rate of return for many farm assets, a high level of capital intensity for U.S. agriculture and sensitivity to changes in export supply and demand conditions in the international farm commodity markets have magnified the impacts of these policies upon farm firms.

- The first such federal policies were those enacted over five different federal administrations that treated inflation as an expected part of economic life. The relatively high rate of inflation resulting from the budget strains of the Viet Nam conflict was compounded by the effects of rapid increases in energy costs after 1972. By the late 1970s, the persistence of inflation in the economy had led to widespread efforts at accommodation. The most common strategy for accommodating inflation was to index one's economic fortunes to the rate of inflation. Thus, Social Security benefits and taxes were indexed, presidential authority was granted to adjust federal civil service compensation levels, basic compensation levels in many labor union contracts were indexed and, beginning in 1985, the entire income tax system was indexed.

Farmers, unable to index with the same degree of effectiveness, in some instances accelerated the purchase of capital assets in the face of consistent increases in the cost of machinery and equipment and in the price of land. The differential effect of the two responses to inflation became painfully clear in the early 1980s. Indexing is a benign strategy in an era of declining rates of inflation. Anticipating

the purchase of capital assets is not benign and leaves the purchaser with financial commitments to be met.

The experience of the inflationary era of the 1960s and 1970s makes it clear that an enormous price is paid when expectations about conditions that should be viewed as aberrational in nature harden into a belief that the condition is permanent.

- The second important factor was the decision by the Federal Reserve Board in October of 1979 to wring inflation out of the United States economy. The action to limit the supply of credit led almost immediately to high nominal interest rates which eventually served to dampen the level of economic activity. In the first half of the 1980s, inflation dropped from the 13 to 15 percent range to 3 to 4 percent. Thus the gains from inflation, which were substantial during the decade of the 1970s, were dramatically reduced, leaving farm debt to be serviced largely from current income.
- The third significant factor contributing to an unfavorable economic environment for agriculture in the 1980s appears to have been enactment of the Economic Recovery Tax Act of 1981. The 1981 legislation was enacted with the realization that an estimated \$872 billion in revenue would be cut from the federal tax system through fiscal year 1986. Cuts of that magnitude assured massive federal budget deficits.

The result of these policies has been an economic environment of low inflation and record setting real interest rates boosted by tight credit and strong private sector demand for capital. For agriculture, the result has been (1) a strong dollar that in recent months has set records against other currencies and that has cost U.S. agriculture dearly in terms of exports of farm commodities, (2) high interest rates that have greatly increased the cost of production for indebted farmers and (3) falling land values as potential investors have been confronted with the reality of 8 to 12 percent real interest rates and the reassessment of land as an alternative investment in the economic environment of the 1980s.

Factors contributing to farmer vulnerability. In the economic environment of the last four or five years, any factor that made a farmer vulnerable by increasing the debt load was sufficient to assure economic difficulty. It was the resulting "window of vulnerability" that set the stage for financial stress.

- Beginning farmers are almost always vulnerable the first several years of operation. Part of the uniqueness of family farms is that families accumulate most of the equity capital for the firm from earnings. The result is economic vulnerability during the first several years of life of farm firms. That has certainly been

the case in the 1980s. This factor alone assures that we are in danger of losing much of a generation of young farmers.

- Adverse weather conditions have been costly to farmers affected. In some areas beginning in 1980 unusual weather conditions, both too wet and too dry, resulted in loss of part or all of a crop.
- Losses in cattle feeding in the 1970s and even losses in hog production in more recent time have increased debt loads and, thus, vulnerability. For about half of the months over the last five years, hog production has been at a loss. Losses in cow-calf enterprises in recent years have been perhaps less visible but no less devastating.
- Expansion to bring a family member into the operation has increased debt loads. The economics of farming in recent years has encouraged the continuation of family operations with ownership and management transferred to the next generation.
- Major purchases of land, machinery or livestock facilities in the late 1970s and early 1980s also increased economic vulnerability.

Any event or series of events that placed a farmer in the window of vulnerability has proved to be economically devastating. Once in the window of vulnerability, the firm was moved toward insolvency at a breathtaking pace by high real interest rates.

Nature and Severity of the Farm Financial Problem

Never in the history of U.S. agriculture have problems of debtor distress occurred where there was greater heterogeneity in financial condition among farmers and ranchers.

Amount and distribution of debt. The amount of debt in U.S. agriculture has increased dramatically since 1950 as shown in Figure 1 (U.S. Department of Agriculture 1985). Farm debt outstanding in 1950 totaled \$11.2 billion, rising to more than \$216 billion nationally in 1983 before commencing a decline in 1984 as some debt was paid off or otherwise discharged and as the economic environment discouraged the contracting of new debt.

The rate of increase in personal, business and federal government debt has been similar as shown in Figure 2.

Extent of financial stress. As of January, 1986, approximately 22 percent of the farmers nationally had debt-to-asset ratios of greater than 40 percent and were responsible for about 66 percent of the farm debt (U.S. Department of Agriculture 1986). In general, it has

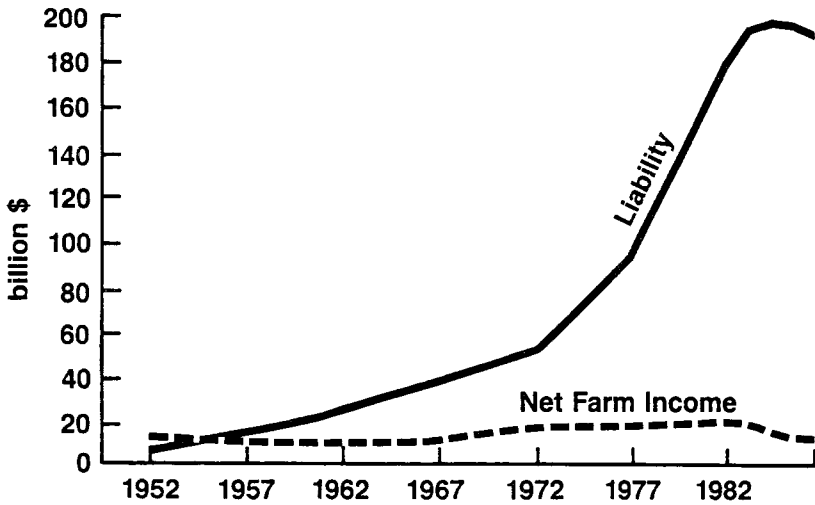


Figure 1: Net Farm Income and Liabilities
 Source: U.S. Department of Agriculture 1985

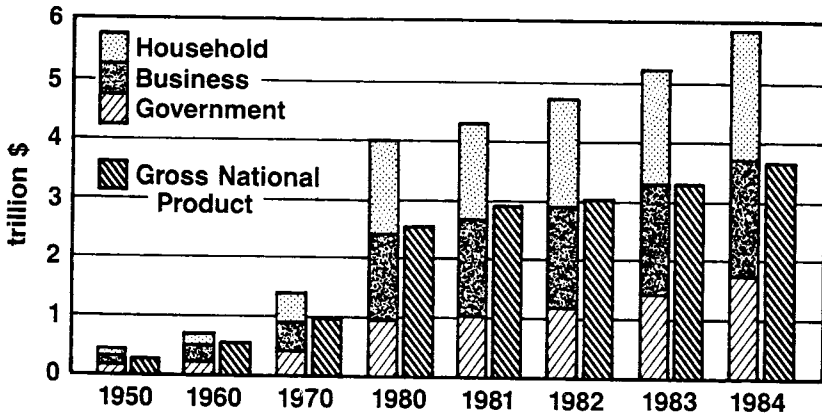


Figure 2: National, Personal and Business Debt.
 Sources: Federal Reserve Board and U.S. Dept. of Commerce

been thought that farmers with debt-to-asset ratios below 40 percent would be able to service their debt and pay other costs when due even in a setting of real interest rates prevalent in the mid-1980s and the rates of return for agricultural assets common in the mid-1980s (Reinsel and Reinsel 1986). Recent data raise a question about that assumption with some below the 40 percent line moving toward insolvency.

Table 1. Percentage of Farms and Debt to Asset Ratio for Each Region and for the United States, January, 1986.

| | 41-70 | | 71-100 | | Over 100 | |
|-----------------|-------|------|--------|------|----------|------|
| | Farms | Debt | Farms | Debt | Farms | Debt |
| Northeast | 9.3 | 27.3 | 3.3 | 23.0 | 1.4 | 9.1 |
| Lake States | 19.1 | 35.2 | 7.3 | 37.8 | 6.4 | 18.9 |
| Corn Belt | 15.6 | 35.7 | 5.6 | 37.1 | 5.1 | 16.7 |
| Northern Plains | 17.6 | 34.0 | 8.8 | 40.1 | 6.8 | 19.8 |
| Appalachian | 6.7 | 23.0 | 1.1 | 25.6 | 1.5 | 13.7 |
| Southeast | 9.8 | 37.8 | 3.4 | 28.7 | 2.6 | 15.3 |
| Delta States | 7.7 | 29.0 | 3.0 | 41.8 | 5.8 | 28.6 |
| Southern Plains | 9.0 | 25.4 | 3.2 | 26.8 | 3.0 | 15.9 |
| Mountain States | 16.0 | 36.4 | 4.9 | 24.6 | 2.9 | 9.8 |
| Pacific States | 10.5 | 31.8 | 4.0 | 30.2 | 2.1 | 10.7 |
| United States | 12.7 | NA | 4.6 | NA | 4.0 | NA |

Source: *Financial Characteristics of U.S. Farms, January 1, 1986*, Agr. Inf. Bull. No. 500, Econ. Res. Service, U.S. Department of Agriculture, August, 1986, App. Tables 8, 12.

Moreover, the problem in some regions is substantially more serious than the national data indicate. A January, 1985, survey in North Dakota indicated that 36 percent of the farmers had debt-to-asset ratios in excess of 40 percent, held 37 percent of the assets and accounted for 74 percent of the debt. Table 2 shows the Iowa data as of January, 1984.

Table 2. Financial Condition of Sample Iowa Farmers by 1984 Debt-to-Asset Ratio, January, 1984.

| | Debt-to-Asset Ratio | | | | | All Farms |
|----------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | 0-10 | 11-40 | 41-70 | 71-100 | Over 100 | |
| Operators (percent) | 38 | 37 | 19 | 4 | 1 | |
| Assets (percent) | 31 | 42 | 24 | 3 | 1 | |
| Debt (percent) | 4 | 39 | 47 | 8 | 2 | |
| Average age | 59 | 53 | 47 | 45 | 47 | 54 |
| Average assets per farm | \$503,000 | \$694,000 | \$745,000 | \$470,000 | \$217,000 | \$615,000 |
| Average debt per farm | \$11,000 | \$160,000 | \$383,000 | \$375,000 | \$262,000 | \$156,000 |
| Average equity per farm | \$492,000 | \$534,000 | \$362,000 | \$95,000 | -\$45,000 | \$459,000 |
| Acres Owned (average) | 233 | 298 | 271 | 172 | 131 | 261 |
| Acres Rented (average) | 121 | 189 | 306 | 382 | 198 | 193 |

Source: *1985 Iowa Farm Finance Survey*, Iowa Department of Agriculture, Iowa State University and Iowa Crop and Livestock Reporting Service.

In Iowa more than one-third of the farmers, averaging 59 years of age, had little or no debt as of January, 1984, with debt-to-asset ratios of 10 percent or less. Slightly more than one-third (37 percent)

had debt-to-asset ratios of 11 to 40 percent. In general, it has been thought that the 11- 40 percent group would be able to stabilize their financial condition although the upper quarter of that group was encountering financial stress. The remaining 24 percent of the operators were severely impacted and were moving toward insolvency or were already insolvent. Balance sheet data for Iowa as of January, 1985, are shown in Tables 3 and 4.

Table 3. Distribution of Operators, Assets, and Debt of Sample Farmers, by 1985 Debt-to-Asset Ratio, January, 1985.

| | Debt-to-Asset Ratio | | | | | All Farms |
|---------------------|---------------------|-------|-------|--------|----------|-----------|
| | 0-10 | 11-40 | 41-70 | 71-100 | Over 100 | |
| Operators (percent) | 35 | 32 | 21 | 7 | 4 | |
| Assets (percent) | 29 | 34 | 28 | 7 | 2 | |
| Debt (percent) | 2 | 25 | 48 | 17 | 8 | |

Source: 1985 Iowa Farm Finance Survey, Iowa Department of Agriculture, Iowa State University and Iowa Crop and Livestock Reporting Service.

Table 4. Financial Condition of Sample Iowa Farmers by 1984 Debt-to-Asset Ratio, January, 1985.

| | Debt-to-Asset Ratio | | | | | All Farms |
|--------------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | 0-10 | 11-40 | 41-70 | 71-100 | Over 100 | |
| Average assets per farm | \$411,000 | \$578,000 | \$625,000 | \$347,000 | \$171,000 | \$506,000 |
| Average debt per farm | \$18,000 | \$170,000 | \$388,000 | \$336,000 | \$244,000 | \$161,000 |
| Average equity per farm | \$393,000 | \$408,000 | \$237,000 | \$11,000 | -\$73,000 | \$345,000 |
| Average loss of equity in 1984 | -20.1% | -23.6% | -34.5% | -88.4% | | |

Source: 1985 Iowa Farm Finance Survey, Iowa Department of Agriculture, Iowa State University and Iowa Crop and Livestock Reporting Service.

The data indicate that a movement has occurred of borrowers in the 41-70 percent category into the over 70 percent group. Moreover, a significant number from the 11- 40 percent category have moved into the 41-70 group. On the average, farmers who were in the 71-100 percent debt-to-asset ratio category as of January 1, 1984, lost \$84,000 (88.4 percent) of their equity during 1984. Thus, the rate of deterioration in financial condition has been great. Even those in the 0-10 percent debt-to-asset category on January 1, 1984, lost 20.1 percent of their equity in 1984, principally because of declines in asset values.

The U.S. Department of Agriculture (U.S. Department of Agriculture 1986) estimates that about 20 percent of all farms with annual sales in excess of \$40,000 had both negative cash flow and a debt-to-

asset ratio of more than 40 percent as of January, 1986. Just over 48 percent of all U.S. farms were experiencing a negative or zero cash flow as of that date. About 750,000 farms reported a negative cash flow, with the largest number (595,000) having debt-to-asset ratios of 40 percent or less (U.S. Department of Agriculture 1986).

A survey of nine Midwest states in early 1986 confirmed that the financial condition of farmers has continued to deteriorate (Wisconsin Agricultural Reporting Service 1986). As shown in Table 5, 28.1 percent of the farmers reported debt-to-asset ratios in excess of 40 percent. In Iowa, the figure was 38.3 percent.

Table 5. Comparison of Debt to Asset Ratios For All Farms Among States

| States | Average debt/asset ratio | Percent of farmers with debt/asset ratio | | | Percent quitting 1986 |
|--------------|--------------------------|--|-------------------|--------------|-----------------------|
| | | Less than 40 | Between 40 and 69 | More than 69 | |
| Illinois | .308 | 70.6 | 18.2 | 11.2 | 5.0 |
| Iowa | .369 | 61.7 | 22.1 | 16.2 | 4.9 |
| Kansas | .318 | 69.2 | 18.3 | 12.5 | 5.6 |
| Michigan | .286 | 76.9 | 17.6 | 5.5 | 4.3 |
| Missouri | .247 | 78.8 | 14.1 | 7.1 | 6.0 |
| Nebraska | .343 | 63.2 | 23.0 | 13.8 | 6.4 |
| North Dakota | .347 | 62.2 | 23.1 | 14.7 | 3.0 |
| Ohio | .212 | 82.8 | 12.6 | 4.6 | 5.0 |
| Wisconsin | .262 | 74.7 | 18.7 | 6.6 | 4.4 |
| Nine states | .294 | 71.9 | 18.1 | 10.0 | 5.1 |

Source: *Midwest 1986 Farm Finance Report*, Wisconsin Agricultural Reporting Service, Madison, Wisconsin.

Of the farmers reporting debt, 45.6 percent in Iowa (and an average of 38.1 percent for the nine states) were above the 40 percent mark as shown in Table 6.

The nine Midwest states reported that 10.3 percent of the farmers were delinquent on real estate loans and 12.3 percent were delin-

Table 6. Farm Assets and Debt in Midwest States

| Item | State | | | | | | | | | Nine States |
|----------------------|-------------------|------|------|------|------|------|------|------|------|-------------|
| | IL | IA | KS | MI | MO | NE | ND | OH | WI | |
| | Thousands dollars | | | | | | | | | |
| Average Total Assets | | | | | | | | | | |
| All farms | 380 | 367 | 282 | 347 | 228 | 426 | 447 | 287 | 357 | 334 |
| Farms with debt | 420 | 392 | 314 | 413 | 253 | 457 | 470 | 326 | 404 | 369 |
| Average Total Debt | | | | | | | | | | |
| All farms | 117 | 135 | 90 | 99 | 56 | 146 | 155 | 61 | 94 | 100 |
| Farms with debt | 159 | 179 | 131 | 151 | 94 | 181 | 188 | 104 | 133 | 142 |
| Debt-to-Asset Ratio | | | | | | | | | | |
| All farms | 30.8 | 36.9 | 31.8 | 28.6 | 24.7 | 34.3 | 34.7 | 21.2 | 26.2 | 29.4 |
| Farms with debt | 37.8 | 45.6 | 41.7 | 36.5 | 37.0 | 39.6 | 40.0 | 31.8 | 32.9 | 38.1 |

Source: *Midwest 1986 Farm Finance Report*, Wisconsin Agricultural Reporting Service, Madison, Wisconsin.

quent on non real estate loans as shown in Table 7. Kansas reported the highest delinquency rate on real estate loans (17.6 percent) with Michigan showing the highest delinquency rate on non real estate loans (15.6 percent).

Table 7. Status of Debt

| Item | State | | | | | | | | | Nine States |
|---------------------------|-------|------|------|---------|------|------|------|------|------|-------------|
| | IL | IA | KS | MI | MO | NE | ND | OH | WI | |
| Real Estate Loans | | | | Percent | | | | | | |
| Farms with loans | 53.6 | 56.7 | 51.2 | 54.4 | 46.4 | 59.4 | 63.6 | 45.7 | 57.9 | 53.2 |
| Farms delinquent on loans | 11.6 | 11.9 | 17.6 | 9.7 | 10.0 | 8.2 | 11.6 | 6.2 | 7.0 | 10.3 |
| Non-Real Estate Loans | | | | | | | | | | |
| Farms with loans | 60.4 | 62.1 | 57.4 | 50.9 | 43.9 | 67.8 | 73.1 | 43.0 | 52.0 | 55.0 |
| Farms delinquent on loans | 14.3 | 14.5 | 13.4 | 15.6 | 9.9 | 9.7 | 12.5 | 7.2 | 14.6 | 12.3 |

Source: *Midwest 1986 Farm Finance Report*, Wisconsin Agricultural Reporting Service, Madison, Wisconsin.

By focusing on the farm business, Lines and Morehart found the state of financial stress to be much greater than reported when off-farm income is eliminated and account is taken of inventory changes, depreciation and unpaid family labor. In that analysis, 70 percent of all farms and 40 percent of commercial farms had "poor financial health" and were in "serious financial difficulty." As the authors note, "policies grounded in the concept that the economic well-being of farm businesses includes off-farm income, foster a farm sector dependent upon off-farm income and unable to pay all its expenses" (Lines and Morehart, p. 16).

The financial condition of farm and ranch firms may also be evaluated on the basis of return to equity. As can be seen from Table 8, 29.1 percent of the operators have an estimated return to equity of less than -.05 percent (U.S. Department of Agriculture 1986). Those operators hold about 17.9 percent of the assets but are responsible for more than 36 percent of the debt. At the same time, more than 44 percent of the U.S. farm operators had a return to equity of greater than 5 percent. That group held more than 42 percent of the assets and about 46 percent of the farm debt.

The data make it abundantly clear that enough assets and debt are held by farmers who are unstable economically to assure that further weakness in land and machinery (below 1986 levels) is likely unless (1) farm incomes rise substantially, (2) real interest rates for agricultural lending decline significantly or (3) major public-sector intervention efforts are implemented to stabilize the agricultural sector.

Table 8. Distribution of Farm Operators, Debt, and Assets by Household Return to Equity for the United States, January 1, 1985^a.

| Region | Insolvent Farms | Less Than -.21 | -.20 to -.11 | -.10 to -.06 | -.05 to .04 | .05 to .09 | .10 to .19 | Greater than .19 | All Farms |
|--------------------------------|-----------------|-------------------|-----------------|-----------------|----------------|---------------|---------------|---------------------|-----------|
| Percent operators ^b | 4.0 | 9.2 | 7.8 | 8.1 | 26.4 | 10.8 | 12.3 | 21.4 | 100.00 |
| Percent debt ^c | 16.2 | 9.67 | 5.05 | 5.45 | 17.75 | 9.22 | 11.9 | 25.0 | 100.00 |
| Percent assets ^d | 2.79 | 4.4 | 4.5 | 6.3 | 39.5 | 13.1 | 13.5 | 16.0 | 100.00 |

Source: U.S. Department of Agriculture. *Financial Characteristics of U.S. Farms, January 1, 1986*. Washington DC: Agr. Info. Bull. No. 500, Table 5, Aug. 1986.

^aReturn to equity is net cash income from the farming operation plus nonfarm income minus estimated living allowance divided by operator farm equity.

^bPercent of U.S. farms.

^cPercent of U.S. operator debt.

^dPercent of U.S. operator assets.

The impact of debtor distress on lenders has been substantial. In 1985, the Farm Credit System incurred a \$2.7 billion loss, the largest one-year loss of any U.S. financial institution. A total of 68 agricultural banks failed in 1985 out of a total of 120 failed banks. The concentration of debt among the most heavily indebted farmers indicates that further deterioration of the financial condition of lenders is a virtual certainty. As shown in Table 9, a total of almost \$38

Table 9. Debt Owed By Farm Operators

| Lender | Debt-to-Asset Ratio, January 1, 1986 | | | | |
|--------------------------|--------------------------------------|--------|--------|----------|----------------------|
| | 0-40 | 41-70 | 71-100 | Over 100 | Total |
| | Million dollars | | | | |
| Commercial banks | 12,007 | 10,508 | 4,284 | 4,263 | 31,072 |
| Federal Land Banks | 8,164 | 8,936 | 5,380 | 2,663 | 25,142 |
| FmHA | 2,626 | 4,833 | 3,538 | 6,035 | 17,082 |
| Production Credit Assns. | 3,704 | 2,951 | 1,116 | 1,037 | 8,807 |
| Commodity Credit Corp. | 2,652 | 2,988 | 1,467 | 1,146 | 8,253 |
| Other individuals | 5,042 | 3,950 | 2,092 | 1,544 | 12,628 |
| Others | 2,847 | 2,378 | 1,089 | 823 | 7,136 |
| Merchants and dealers | 766 | 446 | 317 | 330 | 1,860 |
| Other farmers | 386 | 258 | 410 | 364 | 1,419 |
| All farms | 38,195 | 37,248 | 19,692 | 18,205 | 113,389 ^a |

Source: U.S. Department of Agriculture. *Financial Characteristics of U.S. Farms, January 1, 1986*. Washington, DC: Agr. Info. Bull. No. 500, Table 10, Aug. 1986.

^aUSDA acknowledges that the figure given for "operator debt" is about \$91 billion less than that for the sector with about \$39 billion in "unexplained differences" (U.S. Department of Agriculture 1986, p. 33).

billion of debt is held by farm operators with debt-to-asset ratios in excess of 70 percent (U.S. Department of Agriculture 1986, Table 10). For operators with debt-to-asset ratios above 40 percent, the figure is more than \$75 billion (U.S. Department of Agriculture 1986). Com-

mercial banks hold about 27 percent of operator debt (see Table 10) but almost 61 percent of those loans are held by operators above a 40

Table 10. Distribution of Debt Owed by Farm Operators

| Lender | Percentage of operator loans | Percentage of their loan portfolio owed by operators over 40 percent debt-to-asset ratio |
|---------------------------|------------------------------|--|
| Commercial banks | 27 | 61 |
| Federal Land Banks | 22 | 68 |
| FmHA | 15 | 84 |
| Production Credit Assn's. | 8 | 58 |
| Commodity Credit Corp. | 7 | 68 |
| Other individuals | 11 | 60 |
| Others | 6 | 60 |
| Merchants and dealers | 2 | 59 |
| Other farmers | 1 | 72 |

Source: U.S. Department of Agriculture. *Financial Characteristics of U.S. Farms, January 1, 1986*. Washington, DC: Agr. Info. Bull. No. 600, Table 11, Aug. 1986.

percent debt-to-asset ratio. Just under 14 percent of their debt is owed by insolvent farmers.

- Federal Land Banks, with 22 percent of operator debt, have 68 percent held by operators above the 40 percent line. Just over 10 percent of their debt is owed by insolvent farmers.
- The Farmers Home Administration (FmHA), holding 15 percent of the debt, has 84 percent concentrated in the hands of operators with debt-to-asset ratios in excess of 40 percent. More than 35 percent of the debt held by FmHA is owed by insolvent farmers.
- For Production Credit Associations, with 8 percent of the operator debt, 58 percent is held by operators with debt-to-asset ratios above 40 percent. Just under 12 percent of their debt is owed by insolvent farmers.

As loan losses have mounted, farm lenders, in their role as brokers of funds, have "socialized" the costs involved by maintaining farm loan interest rates several points above normal equilibrium rates. This has been made possible by the diminished competition in rural areas among lenders as loan losses have risen. As a consequence, borrowers not in financial difficulty are paying a substantial part of the costs of those unable to pay principal and interest when due (Gabriel and Prentice).³

Unless something dramatic is done or circumstances change, as many as one-third of the nation's farmers will move to insolvency, taking down their lenders, their suppliers and other merchants and inflicting incalculable damage upon the fabric of rural communities. Discharged indebtedness goes ricocheting through local communities

with the unsecured creditors suffering the greatest losses. However, with the weakness in land and machinery markets, even secured creditors are, in reality, only partially secured as collateral values have slipped below loan balances.

Is Further Federal Intervention Needed?

Federal intervention is not new to U.S. agriculture. Since 1933, the economic fortunes of agriculture in this country have been shaped by federal legislation. The Food Security Act of 1985 and the Farm Credit Amendments Act of 1985 represent additional intervention by the federal government.

A key question at this juncture: Is further intervention necessary or, if not necessary, desirable?

Need for further intervention. Both in light of the inability of the farm bill to stabilize agriculture, and in light of the limited scope and effect of the farm credit legislation, further action by Congress will be needed *if agriculture is to be stabilized in the near term*. Under a policy of no further intervention, stability would eventually occur but the private and social costs accompanying such a policy would be high. A March, 1986, publication by the General Accounting Office (GAO) reports that a policy of no further intervention would result in (1) 21 percent of farm assets (\$136 billion) being sold for restructuring purposes, (2) 57 percent of the debt (\$91 billion) being liquidated, (3) 25 percent of the farm operators going out of business and an additional 23 percent selling some assets to remain in business and (4) \$11 billion of debt being written off. As the GAO report points out, "Significant economic and social upheavals, particularly in the Midwest, might result. The capacity of asset markets, institutions and rural communities to adjust gradually to such changes is highly questionable" (p. 69).

The costs of intervention should be compared, not to the costs saved from nonintervention, but to the private and social costs likely to be incurred if nothing further is done. Further intervention would help to protect the already large investment of public funds made in the 1985 Food Security Act. The financial situation in agriculture is of sufficient scale and severity to suggest that consideration of public intervention is justified (Harl 1986c). In general, if the benefits from intervention (on a present value basis) exceed the costs of intervening, it is appropriate to consider intervention.

Principles of intervention. Any intervention should be governed by agreed-upon principles. The following are suggested for the United States:

- Intervention should be as broad as the problem giving rise to the intervention effort. Thus, intervention should not be just for

the Farm Credit System (comprised of 37 banks organized into twelve Farm Credit Districts with a total loan portfolio of more than \$65 billion) which is currently the driving force behind public intervention in the United States. Although the Farm Credit System is in grave financial condition, many commercial banks involved substantially in lending to farmers face similar problems. If intervention were to be undertaken at the level of lenders, the program of intervention should reasonably extend to all lenders. Otherwise farmers with identical farm operations and debt loads would be treated differently, depending upon who their lender was. Thus, competitive equilibrium would likely be disturbed, perhaps irrevocably.

- Intervention should preferably be directed at stabilizing farmers as borrowers. Because of the interrelationships involved among borrowers, lenders, merchants and local units of government, the problem is clearly a systems problem that calls for a systems solution. Intervention efforts designed to benefit borrowers at the expense of lenders, as with the classic 1930s era mortgage foreclosure moratoria, have the potential to do a great deal of damage to the financial system.

With that thought in mind, it is clear that if farmers are not stable, lenders are unlikely to be or become stable. If farmers as borrowers are made substantially stable, then others—lenders, suppliers and rural communities generally—should also become stable. It would be an extremely costly venture to attempt to stabilize lenders if farmers are not substantially stable.

- Intervening on behalf of lenders could be justified on the grounds of expediency in avoiding collapse of the lending system by keeping lenders in a viable state. The result, after an initial period of adjustment, could be reduced cost of credit to all borrowers, not just those in financial difficulty. This poses the question of whether intervention should be targeted.
- To limit the cost of intervention and to avoid perceptions of unfair treatment of farmers over nonfarmers (many of whom are also in financial trouble), targeting of benefits from intervention is necessary. Widespread public acceptance of realistic, hard-headed, equitable intervention efforts can reasonably be expected. But little public acceptance is likely if benefits flow heavily (even though not exclusively) to farmers not in financial difficulty. It is acknowledged that targeting of benefits from intervention poses fairness problems of a different sort as farmers who are not under serious financial stress may resent benefits flowing to those in financial difficulty.
- Programs of intervention should be flexible in nature such that if economic circumstances change, the program could be altered or terminated. This argues against heavy up-front expenditures

and in favor of annual maintenance expenditures of a program of intervention.

- Public intervention should not interfere unreasonably with adjustment and economic efficiency and should be governed by realistic long-term expectations as to demand-supply, price and profitability relationships. A major benefit of intervention is avoidance of “overshooting” of equilibrium conditions.
- It is not unreasonable to request assistance from the general public, but the public’s investment in intervention should be protected if economic circumstances were to change and agriculture were to return soon to profitability or land values were to increase substantially for other reasons.
- Agriculture is not the only sector of the economy experiencing serious economic difficulty. Any sector or subsector that is both capital intensive and export sensitive is suffering from the effects of high interest rates, a strong dollar and weak demand in countries pressed to keep their debt obligations serviced. Most of the sectors or subsectors experiencing stress, other than agriculture, can more easily respond to financial pressure by reducing output to obtain relief as to price. Because no single producer in agriculture is sufficiently large to influence price, reduction of output is less likely without intervention. In general, society benefits from this feature of agriculture in the form of greater output and lower product prices than would be the case otherwise. However, occasionally agriculture needs help in adjusting if serious economic damage is to be avoided from overproduction.

Evaluating programs of intervention. An almost infinite array of public sector interventions is possible for most policy problems. This is certainly the case with the current financial crisis in agriculture. Although evaluations are difficult to make, inasmuch as proposals are understandably diverse in their basic features and characteristics, it is essential to an objective review and appraisal that proposals be evaluated on the basis of an agreed-upon set of criteria. For the farm financial crisis, it is suggested that the set of criteria include, for both intervention and nonintervention, (1) the direct and indirect costs to taxpayers and consumers, (2) who receives the benefits from intervention, (3) whether the proposal is likely to stabilize the farming sector and whether reasonable stability is likely to be extended to lenders and suppliers, (4) who bears the risks of further declines in asset values, (5) who bears the risks of future changes in interest rates and other costs of production, (6) who receives the benefits of future increases in asset values, (7) whether the proposal encourages necessary resource adjustment and promotes economic efficiency, and (8) the administrative costs expected to be associated with the implementation and operation of the specific proposal.

In the case of the farm financial crisis, intervention is viewed as a means to facilitate the adjustment process, minimize the costs of adjustment and avoid the consequences of over adjustment or the overshooting of what should be equilibrium conditions. If present economic conditions continue, resource adjustment at the firm level will be needed under any reasonable scenario of intervention. In the event that the economic environment were to return to more favorable economic conditions for agriculture, the amount of adjustment needed would be proportionately less.

The eight criteria identified above are discussed elsewhere in substantial detail (Harl 1986c).

Possible Programs of Intervention

No public intervention. A policy of no intervention could be followed with the burden of adjustment left to borrowers, lenders and others to pursue available remedies. Lenders would be expected to foreclose on real estate mortgages; proceed with remedies under the Uniform Commercial Code in the event of default on obligations with personal property as collateral; forfeit the rights of defaulting buyers under installment land contracts; and work out repayment arrangements under informal compositions with borrowers. Among the latter are voluntary, privately-arranged restructuring efforts as principal balances are written down or interest rates are reduced or both. Heavily indebted farmers at or approaching insolvency would be expected to file for bankruptcy under U.S. Bankruptcy Code Chapter 7 (liquidation) or Chapters 11 or 13 (reorganization) options, voluntarily turn over assets to creditors in satisfaction of debt obligations or sell assets and apply the proceeds of sale on amounts owed.

In some areas of the United States, a policy of nonintervention probably would not create unacceptable levels of economic trauma. However, available data indicate that in some areas substantial economic costs would be incurred in terms of loss of wealth, failure of financial institutions, insolvency by suppliers and shrinkage of the economic and social base of rural communities. The effects of a policy of no further intervention are outlined in the March, 1986, GAO report discussed above (General Accounting Office 1986).

Debt restructuring with loan guarantees. The debt restructuring program announced by President Reagan on September 18, 1984, was an effort in meeting the debt problems of commercial agriculture in the United States (Harl 1986b).⁴ If a farmer could show cash flow equal to 110 percent of costs and debt service on a projected basis, and the lender were to write down at least 10 percent of the principal value of the loan, a guarantee of up to 90 percent of the remaining principal balance could be obtained from FmHA. This program, the Debt Adjustment Program (DAP), was intended for loans classified as substandard by the lender's supervising agency. The rules specified

that, if necessary, the lender would have to write down more than the initial 10 percent of principal to meet the cash flow requirements. Loans with adequate security generally do not require a write down by the lender to obtain a guaranty under the regular loan guaranty program. Announcements on February 6 and 22, 1985, of modifications in the program reduced the cash flow requirement for eligible participants from 110 percent to 100 percent of projected cash flow and permitted lenders to take the required principal write down in the form of interest rate reductions to borrowers spread over several years.⁵ Moreover, assurances were given that additional loan guaranty authority would be made available if needed. However, it became apparent in March, 1985, that loan guaranty authority was not available to restructure real estate loans.⁶ Loan guaranty authority was available to restructure loans over seven years with the possibility of a balloon payment. Final regulations were published on February 15, 1985.⁷

If available for real estate loans and with adequate amounts of loan guaranty authority, debt restructuring through federal loan guarantees would provide buoyancy to land and machinery markets to help the asset restructuring that must take place to occur on a rational basis. Loan guarantees only minimally interrupt and distort economic relationships and represent a good solution in many ways. The farmer is encouraged to remain with debt obligations on a deferred payment basis rather than to file for bankruptcy or use other remedies.

An "upside" eligibility test is imposed by requiring a significant write down of interest or principal or both by lenders. Borrowers who are likely to be able to service outstanding debt and stabilize their financial condition would not be admitted to the program. The "downside" eligibility test, rendering ineligible those who have no reasonable likelihood of surviving financially, is administered in the form of the cash-flow requirement.

One of the most difficult features of DAP arose in dealing with outstanding unsecured debt. The rules specifically required that the loans remaining after the debt restructuring must be adequately secured.⁸ Moreover, the rules required that the plan submitted deal with all debt, secured as well as unsecured. The secured and unsecured creditors were expected to negotiate for write-offs and repayment terms which might have been made different by the security position of creditors.

Facilitating land holding and financing. Because of the importance of interest rates in any effort to stabilize farm and ranch firms, one approach would be to channel state and federal funds directly into interest rate reductions for farm loans. At the same time, there is a need for assets, particularly farmland held by those so heavily in-

debted that retention of the assets is infeasible, to be insulated from the market.

It is believed that the two functions, interest rate reductions and a "holding tank" for farm assets, should be joined in one entity if possible (Harl 1986a, 1984). Unless the economic environment changes dramatically very soon, major adjustments in organization of farm and ranch firms must take place to reflect the realities of the 1980s. Farmers should be encouraged to develop realistic cash flow/reorganization plans that will, if possible, stabilize the firm. Some interest rate reductions (on the order of 3 to 5 percentage points) should be available to assist in making the cash flow/reorganization plans feasible. If the firm cannot be stabilized under those conditions, changes in enterprises, management approaches and asset ownership may be necessary.

The proposal for formation of an Agricultural Financing Corporation (AFC) has two major components. One component, referred to below as Component B, would provide the supplemental financing for "buying down" interest rates on farm loans for feasible cash flow/reorganization plans on a targeted basis but with an expectation that interest subsidies would eventually be repaid with some interest on amounts advanced. Component A would provide a mechanism for acquiring the assets, notably farmland, given up by farmers who are unable to develop a feasible cash flow/reorganization plan short of asset liquidation. This entity could acquire land (1) subject to foreclosure or bankruptcy, (2) from lenders holding land in inventory or (3) from farmers who are unable to service the real estate debt. The land would be rented back to the farmer at a reasonable rental and the farmer would be encouraged to repurchase the land as soon as possible.

Although various possible designs of entities would appear to be feasible, a federally chartered corporation, similar in some respects to the U.S. Commodity Credit Corporation, would be the basic vehicle. It is anticipated that the corporation, referred to here as the Agricultural Financing Corporation, would have a governing board that would be broadly representative of production agriculture, public and private sector lending and agribusiness firms and with significant consumer and taxpayer representation.

It is important to note that both components, an interest rate buy-down and a holding tank for farm assets, were included in the 1985 legislation. With adequate funding and if open to all lenders, the capital corporation could serve the holding tank function given appropriate "marching orders." The \$490 million of funds for interest buy-downs (over three years) is about one-twentieth enough funds for that purpose.

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NOTES

- 1Some firms, because of unusually capable management, unusually good production records or unusually favorable price for output have returns to equity high enough to be economically and financially stable even with debt-to-asset ratios above 40 percent.
- 2For the criteria for classifying farm businesses into seven categories, see Lines and Morehart, note 9, Table 1. Categories six and seven were considered to include firms with "poor financial health."
- 3Some commentators focusing only on the macro side of the farm debt crisis, seem to have ignored this response by those suffering losses.
- 4See Fed. Reg., 49 (1984): 41,220, 41,223. The announcement outlined a four-part initiative. See also FmHA Instructions, Exhibit B to 1980-B, Code of Fed. Reg., 7 (1985): 1980.200.
- 5See Fed. Reg., 50 (1985):9987, 9988-91.
- 6Loan guaranty authority, since March, 1985, has not been available to restructure real estate loans even though the regulations clearly provide for the restructuring of farm ownership (real estate) loans as well as farm operating (non real estate) loans. See Fed. Reg., 50 (1985): 6880, 6881: "To meet the expected needs of DAP, a significant amount of funds available for guaranteeing FO and OL loans will be made available for this program."
- 7The regulations were amended in late 1985 to add a line of credit authority for guaranteed operating loans. Fed. Reg., 50 (1985): 39,880.
- 8FmHA Instructions, Exhibit B to 1980-B, Code of Fed. Reg., 7(1985): § 1980.200. The concepts were first discussed in Harl, Neil E. "Draft Proposal for Interim Land Ownership." Ames: Iowa State University, Nov. 27, 1984.