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The Future of Agricultural Credit

by

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THE FUTURE OF AGRICULTURAL CREDIT*

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The future of agricultural credit is heavily dependent upon two separate and somewhat independent factors (1) what happens to profitability within agriculture and to decision-making attitudes within the sector and (2) developments in capital markets generally. The latter is beyond the scope of this paper.

With respect to the first factor, it is important to note that the agricultural sector has emerged from more than two decades of less than rational fiscal and monetary policies with two serious problems. The first problem is a non-sustainable debt load, concentrated heavily on about one-third of the farmers;[1] the second problem is global overproduction of basic agricultural products.[2] Viewed prospectively, the first problem is short-term in nature and is expected to persist for two to three more years. The second problem is long-term and stretches into the future with no end in sight.

Viewed retrospectively, U.S. agriculture has been through nearly a decade of economic and financial turmoil. The principal causes of the turmoil have come from outside the sector.[3] Indeed, a major thrust of U.S. farm policy has been to counter the unfriendly economic environment generated by the policies contributing to inflation in the 1960's and 1970's, the restrictive monetary policy of the late 1970's and early 1980's, and the highly stimulative fiscal policy of the current decade.[4] The impact of these policies on domestic interest rates, the value of the dollar, trade patterns, resource values and the institutions providing credit to agriculture has been dramatic and has caused long-term ef-

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1. *See* Harl, *The Architecture of Public Policy: The Crisis in Agriculture*, 34 U. KAN. L. REV. 425 (1986).

2. *See* Harl, The Two Crises in U.S. Agriculture: Causes and Possible Solutions, Occasional Paper No. 10 (1987) (available from Bureau of Economic Studies, Macalester College, St. Paul, Minn).

3. *See* Harl, The Farm Debt Crisis of the 1980's, Ch. 2 (Iowa State University Press (unpublished)).

4. *Id.*

fects on U.S. agriculture.

In 1987, net farm income of $44.9 billion reached record levels in nominal terms and near-record levels in real terms due principally to generally favorable crop yields, continuation of government price support benefits, record-setting hog profits and better cattle profitability than enjoyed in recent years. In many areas, farmland values increased for the first time in six years.[5] By the end of 1987, farm debt had declined by more than 25 percent since the peak of 1983. In 1988, U.S. agriculture suffered through one of the greatest droughts in the history of modern-day agriculture which threatened the financial recovery launched in 1987. In light of the changes that have occurred in the agricultural sector during this decade, the major issue is what the impact on agricultural credit will be through the end of this century.

I. THE GENERAL SETTING

It is not new for agriculture to be subjected to rapid economic and social change. Over time, agriculture has adjusted to conditions of greater efficiency with a steady decline in the percentage of the population and the percentage of the capital stock required to produce needed food and fiber products. The decline has been especially marked since the 1930's as developments in plant and animal breeding and machinery and chemical usage, and improvements in the level of management ability of farmers, have combined to cause an acceleration in the movement of labor out of the sector. Agriculture has been a development sector as the industry has "downsized" itself in relative terms, freeing labor and capital for use in the non-farm economy. The development occurring in agriculture has been beneficial to the general economy, permitting the reallocation of resources to a burgeoning service sector, high technology manufacturing and product development, and other sectors and subsectors.

A. The Debt Problem

What has occurred in agriculture in the past five years in terms of firms failing because equity was exhausted or operating credit was denied has had little to do with efficiency, however. In fact, many of the firms at risk have been among the most efficient in the industry. The

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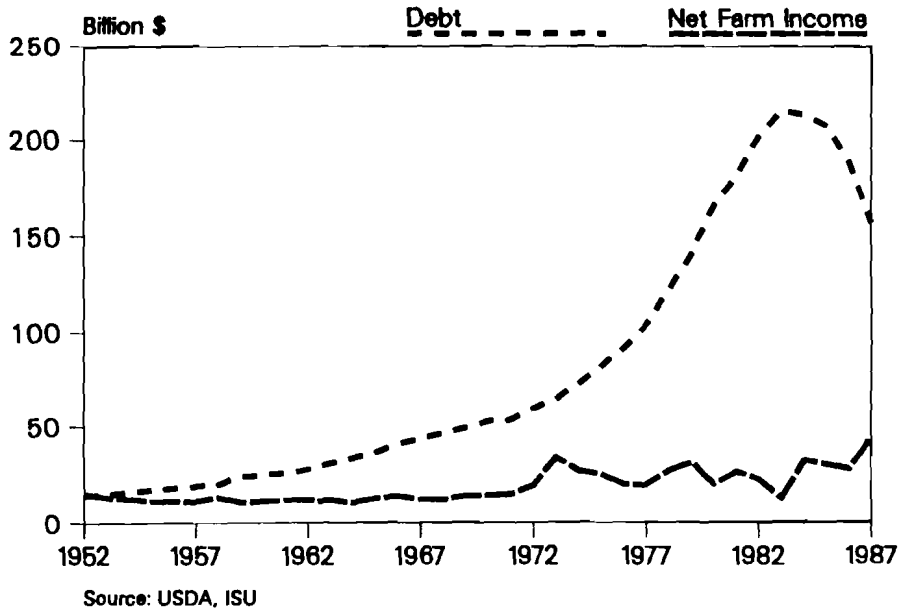
5. U.S. Dep't. of Agriculture, *Agricultural Resources: Agricultural Land Values and Markets, Outlook and Situation Report*, AR-10, Econ. Res. Serv. (June 1988, Table 1)(average decline of 32% from 1982-1987). *See* 1987 *Iowa Land Value Survey*, FM-1825, Iowa State Univ. Extension (March 1988).

distinguishing feature has been the amount of debt held which has been excessive as measured by the economic environment of the 1980's.

The amount of debt in U.S. agriculture increased dramatically after 1950 as shown in Figure 1.[6] Total farm debt outstanding in 1950 totalled $13.1 billion, rising to over $217 billion nationally in 1982, before commencing a decline in 1984 as some debt has been paid off or otherwise discharged and as the economic environment has discouraged the contracting of new debt.[7] Total debt stood at about $188 billion at the end of 1986 and dropped to about $158 billion at the end of 1987.[8]

Figure 1. Net Farm Income and Debt.



The rate of increase in personal, business and federal government debt has been similar as shown in Figure 2.[9]

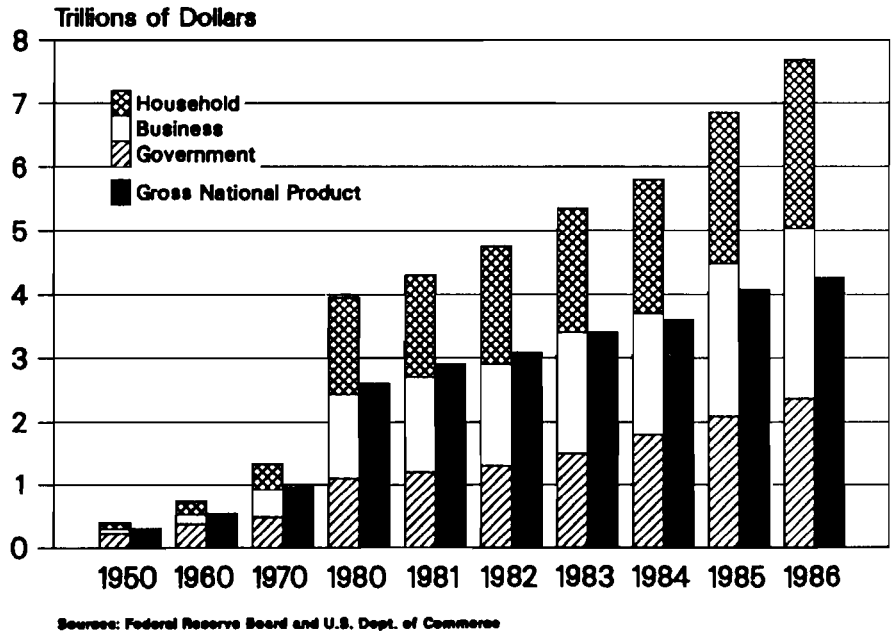
6. U.S. Dep't of Agric., *Financial Characteristics of U.S. Farms* (Jan. 1985), Agric. Info. Bull. No. 495, Econ. Res. Serv. (July 1985, Table 1). The latest available data are published in U.S. Dep't of Agric., *Financial Characteristics of U.S. Farms* (Jan. 1988), Agric. Info. Bull. No. 551, Econ. Res. Serv. (Dec. 1987).

7. U.S. Dep't of Agric., Economic Indicators of the Farm Sector, Nat'l. Fin. Summ. (1986), Econ. Res. Serv. (Dec. 1987).

8. Estimate based upon unpublished data from the U.S. Department of Agriculture including Commodity Credit Corporation debt.

9. *See* Econ. Rep. of the Pres., Tables B-67, B-75, B-76 (U.S. Gov't. Printing Office 1988).

Figure 2. National, Personal and Business Debt (in trillions of dollars).



B. Extent of Financial Stress

As of January 1987, nearly 22 percent of U.S. farmers had debt-to-asset ratios of greater than 40 percent and were responsible for more than 67 percent of the farm debt.[10]

10. U.S. Dep't of Agric., *Financial Characteristics of U.S. Farms* (Jan. 1987), Agric Info. Bull. No. 525, Econ. Res. Serv. (Aug. 1987)(App. Table 30).

Table 1. Percentage of Farms and Debt to Asset Ratio for Each Region and for the United States, January, 1987.

	Debt to Asset Ratio								
	41-70			71-100			Over 100		
	Farms	Assets	Debt	Farms	Assets	Debt	Farms	Assets	Debt
Northeast	10.9	7.6	33.8	[a]	[a]	[a]	[a]	[a]	[a]
Lake States	18.1	20.6	34.9	8.4	9.4	24.7	5.1	3.8	17.2
Corn Belt	13.9	17.4	34.3	6.5	6.1	18.8	5.0	3.8	17.2
Northern Plains	20.2	19.7	34.4	8.0	8.1	22.2	4.7	2.6	13.3
Appalachian	8.0	7.1	33.2	2.0	1.8	13.7	1.9	0.7	7.7
Southeast	10.6	12.9	29.7	1.6	9.2	33.4	4.6	1.3	11.9
Delta States	9.4	10.7	26.8	4.5	4.9	18.7	5.4	2.1	19.0
Southern Plains	10.7	9.4	35.2	3.0	1.6	9.1	2.5	1.6	20.1
Mountain States	11.5	14.7	35.0	4.2	3.9	14.1	3.5	1.6	10.4
Pacific States	10.4	34.0	34.9	4.2	5.0	18.3	2.4	0.7	7.1
United States	13.0	14.1	34.0	5.0	5.1	19.2	3.7	2.0	13.9

Source: *Financial Characteristics of U.S.Farms, January 1, 1987*, Agr. Inf. Bull. No. 525, Econ. Res. Service, U.S., Dep't of Agriculture, August, 1987, App. Tables 30, 33.

[a] Data insufficient for disclosure.

In terms of both income and solvency, USDA classifies farms into four groups:[11]

> Favorable (debt-to-asset ratios of 0.40 or less and positive income);
> Marginal income (debt-to-asset ratios of 0.40 or less and negative income);
> Marginal solvency (debt-to-asset ratios of more than 0.40 and positive income);
> Vulnerable (debt-to-asset ratios of more than 0.40 and negative income).

Table 2 shows the distribution of operators, assets and debt among the four classes.

Table 2. Distribution of Operators and Debt by USDA Classification.

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Operators	47.41	30.96	11.12	10.51
Debt	22.66	10.27	32.06	35.02

Source: *Financial Characteristics of U.S. Farms, January 1, 1987*, Agr. Inf. Bull. No. 525, Econ. Res. Service, U.S., Dep't of Agriculture, August, 1987, Table 11.

The data make it abundantly clear that enough assets and debt are held by farmers who are unstable economically to assure that liquida-

11. *Id.* at Table 11.

tion of collateral and loan restructuring are likely to continue unless farm incomes increase further, real interest rates for agricultural lending decline significantly or major public-sector intervention efforts are implemented to assist the most heavily indebted borrowers.

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.[12] The loss for 1986 totalled $1.9 billion. With the help of creative accounting, the loss was reduced to $17 million in 1987. Agricultural banks accounted for 68 of the 138 banks that failed in 1986.[13]

The vulnerability of lenders relates to their exposure to financially troubled borrowers because commercial banks in 1986 held more than 29 percent of operator debt with more than 61 percent of those loans held by operators above a 40 percent debt-to-asset ratio. Moreover, just over 11 percent of their debt was owed by insolvent farmers.[14] Federal Land Banks, with just over 20 percent of operator debt, had more than 67 percent held by operators above the 40 percent line.[15] Nearly 13 percent of their debt was owed by insolvent farmers.

The Farmers Home Administration (FmHA), holding just over 14 percent of the debt, had more than 84 percent concentrated in the hands of operators with debt-to-asset ratios above 40 percent.[16] More than 30 percent of the debt held by FmHA was owed by insolvent farmers.

Production Credit Associations had just over six percent of the operator debt, and slightly more than 60 percent was held by operators with debt-to-asset ratios above 40 percent.[17] A total of 12 percent of their debt was owed by insolvent farmers.

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12. Annual Report of the Farm Credit System (Dec. 31, 1985).

13. E. Melichar, *Farm Credit Developments and the Financial Conditions of Agricultural Banks: A Preliminary Report for the National Agricultural Credit Committee*, Board of Governors of the Fed. Res. Sys., Table 14 (Mar. 16, 1987).

14. *See* U.S. Dep't of Agric., *supra* note 11, at Table 16.

15. *Id.*

16. *Id.*

17. *Id.*

Table 3. 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	29.3	61.5
Federal Land Banks	20.3	67.3
FmHA	14.3	84.4
Production Credit Assn's	6.4	60.4
Commodity Credit Corp.	7.3	60.8
Merchants and dealers	1.1	59.5
Life insurance companies	2.7	78.6
Other individuals	12.6	64.0
Other lenders	6.1	69.6

Source: *Financial Characteristics of U.S. Farms, January 1, 1987*, Econ. Research Serv., U.S., Dep't of Agriculture Agr. Inf. Bull. No. 525, August, 1987, Table 16.

II. The Sharing of Losses

During the past five years, agricultural finance in the United States has been dominated by efforts to minimize the sharing of losses. The amount and concentration of debt, clearly in a downward trend since 1983, suggest that the loss-sharing process will likely continue for another two to three years before substantial equilibrium is reached.

A. The Loss Sharing Process

As collateral values have fallen and cash flows have proved to be inadequate, lenders have been thrust into the unaccustomed role of "brokering losses." The brokering of losses occurs as losses are shared among the borrower who is in default and unable to make payments, the lender, other borrowers, and the federal government.

The sharing of losses by the borrower and the lender are traditionally straightforward and to be expected. After default on loan obligations, the borrower often loses all assets other than exempt property. With respect to any residue of loss remaining, the lender loses to the extent collateral values are less than the amount owed.

In the current era, however, the sharing of losses is no longer completely traditional. This change is attributable to legislative modification of the rules governing losses. Borrowers not in financial jeopardy are contributing to the adjustment process as interest rates remain elevated to cover loan losses and to reflect diminished lending competition in rural areas.

The federal government has also participated in loss sharing di-

rectly through FmHA loan guarantees and indirectly as farm subsidy payments have risen to record levels and have added income buoyancy to the loss sharing process. Rather than implement a debt relief program on a targeted basis, it appears that Congress' response to the agricultural debt problem was the Food Security Act of 1985, which left price support program provisions somewhat more generous than otherwise would have been the case.

This "socialization" of losses is, to a degree, inconsistent with the traditional view that borrowers unable to repay principal plus interest suffer the consequences. In recent years, the process has necessarily and inescapably involved more participants because of the nature and magnitude of the problem.

B. Rules Governing Loss Sharing

From the beginning of the recorded history of lending, the institutional system has furnished the rules governing remedies upon default and the realization of creditors' rights. The traditional creditors' remedies have included foreclosure and forfeiture; recently, Uniform Commercial Code default procedures have been added. Debtors have never been totally without rights, however, and in the modern era have been eligible for bankruptcy (Chapter 7 liquidation, Chapter 11 reorganization, and Chapter 13 rehabilitation). In the 1930's, 28 states enacted statutes providing for moratoria on farm real estate mortgage foreclosure.[18]

In the 1980's, the moratorium has received relatively little attention, perhaps because of the adverse impact on lenders and the realization that other intervention approaches could be fashioned to achieve better relief for debtors.

One of the more successful interventions has been mandatory mediation, enacted in Iowa,[19] Minnesota,[20] and considered in several other states. Early in the process, it was apparent that lenders, in pursuing their traditional remedies, were provoking greater losses to themselves

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18. Benton, *Iowa's Mortgage Moratorium Statute: A Constitutional Analysis*, 33 DRAKE L. REV. 303, 309 n.40 (1984).

19. IOWA CODE § 654A (1989) (mediation available to individual farmers (including partners), family farm corporations, and authorized farm corporations which own agricultural property).

20. MINN. STAT. §§ 583.20- 583.32 (Supp. 1989) (eligible debtor must own or lease at least 60 acres and have at least $20,000 in gross sales in agricultural products in preceding year). *See* Northern State Bank of Thief River Falls v. Efteland, 409 N.W.2d 541 (Minn. Ct. App. 1987) (debtor not eligible for mediation under the Farmer-Lender Mediation Act where the debtor had abandoned farming for three years and farm was hog raising operation covering 26 acres).

than would be needed in the form of principal forgiveness or interest rate reduction to make the borrower economically and financially stable. Mediation is a rational procedure to force the parties to examine both sides of the issue, and hopefully, to reach agreement on a rational outcome.

Chapter 12 bankruptcy,[21] discussed below in more detail, has become a part of the loss sharing process and enables eligible farm debtors to write down debt to collateral value if necessary to make the debtor stable. The amount of debt above collateral value is treated as unsecured debt which is substantially discharged. Under a typical Chapter 12 plan, less than 10 percent of the unsecured debt is paid.

III. Impact of Financial Stress on Structure

The data indicate that the annual net entrance of farmers with beginning ages up to age 34 declined by about 40 percent in the 1978-82 period as shown in Table 4.[22] Indeed, the decline in the number of commercial farms in the 1978-82 period is attributable to a substantial degree to the decreased net entry of younger operators. With the responsiveness of farm operators to nonfarm employment opportunities decreasing with age, this result is not surprising.

Table 4. Annual Change By Beginning Age of Farm Operators

	Age						
	Up to 24	25-34	35-44	45-54	55-64	65 plus	Total
1974-78	13,494	15,458	12,361	1805	-8272	-15,693	19.154
1978-82	11,358	6,420	1,050	-6716	-12,801	-13,731	-14,421

Source: *U.S. Dep't of Commerce, Bureau of the Census*

The financial stress of the mid-1980's impacted younger farm operators more severely than older operators.[23] Table 5 shows asset, debt and equity distribution by age of operator and also financial indicators by age of operator.

21. Bankruptcy Judges, United States Trustees and Family Farmer Bankruptcy Act, Pub. L. No. 99-554, 100 Stat. 3088 (1986).

22. U.S. Dep't of Commerce, *1982 Census of Agriculture* Tables 5, 44, 48 (Oct. 1984).

23. U.S. Dep't of Agric., *Financial Characteristics of U.S. Farms* (Jan. 1986), Agric. Info. Bull. No. 500, Econ. Res. Serv. (Aug. 1986).

Table 5. Financial Characteristics by Age of Operator, 1986

Age	Assets (Percent of Total)	Debt	Equity	Debt to Asset Ratio of 0.4% or Less	Debt to Asset Ratio of 0.4% or Less and Positive Cash Flow
Under 35	10.84	17.81	8.81	55.13	30.33
35-44	21.09	28.58	18.91	66.99	30.24
45-54	24.69	26.57	24.14	78.53	34.13
55-64	25.77	20.77	27.22	89.39	47.95
Over 64	17.61	6.27	20.92	96.53	47.15

Source: *U.S. Dep't of Agriculture, Financial Characteristics of U.S. Farms, January 1, 1986, Agric. Info. Bull. 500, August, 1986.*

As of early 1986, operators under age 45 held about 32 percent of the assets, were responsible for more than 46 percent of the debt, but had less than 28 percent of the equity. Operators age 55 or older held about 43 percent of the assets, were responsible for about 27 percent of the debt, and held more than 48 percent of the equity. Over the next fifteen years, a high proportion of the assets held by the group age 55 or older is expected to be acquired in some manner by a younger generation of operators.

However, only about one-third of the operators under age 45 are in a position to acquire additional assets by purchase. The outcome is expected to be (1) inheritance of assets by younger operators, thus strengthening their economic position; (2) purchase of some assets by financially strong younger operators; (3) retention of some assets by retired operators and their heirs; (4) acquisition of some assets by nonfarm investors. The amount of assets passing into each category will likely depend upon the income level in agriculture, attitudes toward financial risk, and perceptions of nonfarm investors about the attractiveness of farm assets as an investment.

After the experiences of the 1980's, it is anticipated that future operators will be substantially more risk averse than was the case in the 1970's. Therefore, some increase in nonfarm ownership of farm assets seems likely over the next two decades despite the fact that overproduction of basic agricultural commodities will likely keep resource earnings depressed for the next several years.

Arrangements developed to transfer ownership of resources and management from generation to generation are likely to be more reflective of minimum risk strategies than occurred during the 1970's. Rather than leveraging purchases of assets, which is strongly en-

couraged in inflationary times, arrangements enabling on-farm heirs to acquire interests as funds are available are more likely in the 1990's. An example of the type of arrangements likely to flourish in the future is the corporate model wherein there is a gradual acquisition of stock by purchase, gift, and as part of employee compensation plans.

IV. CURRENT ISSUES IN FURTHER INTERVENTION

A. Chapter 12 Bankruptcy

When legislation enacting Chapter 12 of the U.S. Bankruptcy Code was signed into law on October 27, 1986 (effective November 26, 1986),[24] it marked the most significant national step in farm debtor-creditor relations since the Great Depression.

Except for the 1984[25] federal Debt Adjustment Program (announced administratively), and the 1985,[26] 1986,[27] and 1988[28] legislation directed to the rapidly weakening condition of the Farm Credit System, the governmental response to the plight of the most heavily indebted U.S. farmers has been mostly at the state level. It is not surprising that the states have responded most to the farm debt problem. The balance of rights between debtors and creditors has traditionally been a matter of state law; therefore, developments in the area of real estate mortgage foreclosure, mortgage foreclosure moratoria, and mandatory mediation have occurred at the state level. In addition, modification of the rights of creditors to pursue deficiency judgments, rights of debtors to reacquire property lost to creditors, and amendments to property exemption rules also have been addressed by the states.

Chapter 12, which realigns the rights of debtors and creditors, does so on a uniform basis within the context of federal bankruptcy law. The degree of utilization of Chapter 12, assuming that it survives constitutional challenge, will depend upon the present and future economic condition of U.S. agriculture, the approach taken by the bankruptcy courts in approving Chapter 12 plans, and whether the Internal Revenue Code is amended to create a new tax entity for Chapter 12 filers.[29]

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24. *See* Bankruptcy Act *supra* note 21.
25. *See* 49 Fed. Reg. 41220 (1984)(amended by 50 Fed. Reg. 6880, 39880 (1985)).
26. Farm Credit Act Amendments, Pub. L. No. 99-205, 99 Stat. 1678 (1985).
27. Farm Credit Act Amendments, Pub. L. No. 99-509, 100 Stat. 1878 (1986).
28. Agricultural Credit Act of 1987, Pub. L. No. 100-233, 101 Stat. 1620 (1988).
29. *See* Faiferlick and Harl, *The Chapter 12 Bankruptcy Experience in Iowa*, 9 J. AGRIC.

Chapter 12 offers an additional bargaining tool encouraging a rational approach to loan review and liquidation. It is becoming clear that it is not prudent to force liquidation of a loan causing a loss of perhaps 40 percent, when forgiveness of a lesser amount of principal would make the borrower economically and financially stable. For those who can be made stable, survival is a realistic expectation.

Chapter 12 does not increase the loss taken by lenders, but it does cause the loss to be taken sooner than the lender or the lender's examiners would have required, and it precludes the lender from recovering more if the borrower's economic position improves. In addition, the lender loses some of the control traditionally held over the default-liquidation processes.

Ongoing research at Iowa State University confirms that the influence of Chapter 12 goes well beyond the substantial number of filings shown in Table 6. Moreover, the availability of Chapter 12 is influencing debtor-creditor negotiations outside bankruptcy.[30]

Table 6. Number of Chapter 12 Filings in the North Central Region Since November 26, 1986.

	Number As Of										
	1-31-87	3-31-87	5-31-87	7-31-87	9-30-87	11-30-87	1-31-88	3-31-88	5-31-88	7-31-88	9-30-88
IL	46	121	179	233	250	282	301	329	350	369	373
IN	30	74	153	199	216	292	322	339	351	365	376
IA	73	188	264	290	308	329	350	360	379	387	396
KS	59	102	139	210	244	275	299	312	323	334	342
MI	18	48	87	137	148	166	181	194	216	220	232
MN	46	69	91	120	126	142	154	155	168	173	180
MO	18	109	172	206	225	246	281	298	332	350	361
NB	96	220	409	491	556	578	626	674	704	722	741
ND	25	51	74	87	113	140	167	179	188	202	209
OH	23	87	142	163	187	203	227	243	267	272*	272*
SD	106	208	315	438	512	410**	502	525	544	552	560
WI	38	89	129	154	179	199	213	226	241	250	258
	578	1,366	2,154	2,728	3,064	3,262	3,623	3,834	4,064	4,196	4,300

* Through 6-30-88 only.

** Incorrect data given, corrected 1-31-88.

The widespread influence of Chapter 12 has helped to build the case for intervention benefits favoring lenders. Borrowers may become stable through interest payment assistance (generally received from the government) or by being the beneficiary of principal forgiveness or interest write down by lenders.

TAX'N & L. 302, 334 (1988).

30. *Id.* at 333.

B. Farm Credit System Legislation

Legislation was enacted in early 1988[31] providing for restructuring of Farm Credit System and Farmers Home Administration loans where restructuring is no more costly to the lender than foreclosure or liquidation.[32] Other provisions concerned cost-sharing assistance (up to $500,000 per state on a 50:50 cost-share basis) for state mediation programs,[33] and protection of Farm Credit System stock held by borrowers with an assurance of continued redemption at par.[34] In addition, the Farm Credit System Insurance Corporation (to function as an FDIC-type fund) was created to assure payment of interest and principal on System obligation.[35] There was also modification of joint and several liability on System obligations,[36] creation of a secondary market in farm real estate loans to help lenders achieve diversity in their loan portfolios long-term,[37] and financial assistance to the Farm Credit System through issuance of obligations with interest payment assistance from the federal government.[38] Moreover, there was a restructuring of the Farm Credit System and merger of units within the System.[39] In addition to providing immediate financial relief to the most heavily burdened districts, the most significant short-term effects are likely to come from the provisions encouraging restructuring of FmHA and FCS loans rather than foreclosure or informal liquidation. These provisions complement Chapter 12 bankruptcy and are expected to produce results similar to Chapter 12 without the costs and paperwork of bankruptcy filing.

V. Adjustments Needed to Deal with Overproduction

It is clear that the fortunes of U.S. agriculture are heavily dependent on whether agricultural exports rise substantially above current levels. If that does not occur, long-term efforts must be made to increase demand for U.S. farm products or reduce supply by removing

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31. Agricultural Credit Act of 1987, Pub. L. No. 100-233, 101 Stat. 1568 (1988).

32. Pub. L. No. 100-233, § 102, 101 Stat. 1568, 1574 (1988) (FmHA loans), Pub. L. No. 100-233 § 615, 101 Stat.1568, 1678 (1988) (Farm Credit System Loans).

33. Pub. L. No. 100-233, § 501, 101 Stat. 1568, 1662 (1988).

34. Pub. L. No. 100-233, § 101, 101 Stat. 1568, 1572 (1988).

35. Pub. L. No. 100-233, § 302, 101 Stat. 1568, 1610 (1988).

36. Pub. L. No. 100-233, § 303, 101 Stat. 1568, 1620 (1988).

37. Pub. L. No. 100-233, § 702, 101 Stat. 1568, 1686 (1988).

38. Pub. L. No. 100-233, § 201, 101 Stat. 1568, 1585 (1988); *see also* Pub. L. No. 100-233, § 204, 101 Stat. 1568, 1605 (1988) (creation of Federal Farm Credit Banks Funding Corporation to handle issuance of system obligations).

39. Pub. L. No. 100-233, § 401, 101 Stat. 1568, 1622 (1988).

more land and capital from the agricultural sector.

The prospects in the short-term for increasing the U.S. share of global markets in basic agricultural commodities are modest. In an environment of global over-production, competitors in export markets are expected to reduce price at least at the same rate as the United States while continuing to sell all commodities produced. Many countries must sell all commodities produced because of intense pressures from debt loads which require export earnings to pay the interest. In addition, many exporting countries lack facilities to store commodities.

The long-term possibility of increasing the U.S. share of global markets will depend on whether U.S. costs of production are significantly below those of other countries, and, if not, whether the United States has the political will to make up the difference.

It is increasingly apparent that demand and supply cannot be balanced at present price levels. The markets are sending clear signals that, under current economic conditions, U.S. agriculture is utilizing too many resources to produce too much food in terms of effective demand.

A. Prospects for Increasing Demand

The opportunities for increasing the demand for food are not abundant. At least a dozen countries would like to increase caloric intake, and at least three dozen would like to upgrade diets. The problem is that these countries cannot afford to eat better, until they enjoy higher levels of economic activity. The problem results from low income marked by low personal productivity of many individuals in those countries. Quite simply, they cannot produce enough goods of the type demanded by the rest of the world.

The best interests of U.S. agriculture would be served by supporting an accelerated pace of development in the Third World. If the U.S. maintains a comparative advantage in food production, the U.S. should end up supplying at least part of any increase in food demand.

The possibilities for increasing industrial utilization of farm commodities are uncertain. When energy prices are at low levels, that solution is received with less enthusiasm because many industrial uses involve petroleum substitutes.

B. Reducing Supply

If demand does not increase substantially, the only alternative to burgeoning surplus stocks is to decrease production. The amount of

land and capital devoted to agricultural production must therefore be reduced.

C. *Reducing the Number of Farmers or Land*

There is very little connection between the number of people in agriculture and the level of aggregate production. Reducing the number of farmers by 10 percent would have very little impact on total production. However, the amount of land in production does affect the aggregate level of output. For more than five decades, the removal of land has been the principal means of dealing with overproduction in the United States.

Land can be removed from production in two ways: by paying land owners to idle land or by letting the market system idle land as commodity prices fall with the least productive land leaving intertilled crop production first. Paying landowners to idle land on an annual basis or with multi-year land retirement is the least painful route to removing land from production but that approach creates a highly visible target for budget cutters. If land is removed from production by market forces, it will mean that profitability everywhere must be squeezed so that profitability totally disappears from the least productive land. When commodity prices drop below the point where the revenue does not cover variable costs, land goes out of intertilled crop production.

Whether government retreats from involvement in crop production decisions by "decoupling" subsidy payments from levels of crop production or by reducing target prices, production decisions would be made on the basis of market prices for commodities. Consequently, revenue from crop production (not counting decoupled subsidy payments, if any) would decline everywhere, rents would fall, and land values would come under pressure until there was less profitability for crop production on the least productive land than for the next most profitable use for the land. The least productive land would then transition out of intertilled crops to a less intensive use, presumably to grazing land. Depending upon the area, some might transition to wasteland. At least, the increase in supply of grazing land would assure that the least productive grazing land, mostly in the arid west, would decline in value.

Rather than having 70 to 80 million acres of farm land out of production on a checkerboard-pattern there could be close to that many acres which would transition to a lower-valued use. However, the more productive land would not be among those acres moving to a lower-valued use because the transition would tend to be concentrated in areas with highly erodible, lower productivity land which has thinner soils

and lower rainfall.

This movement of land to a less intensive use would spell economic pain for producers. Beyond that, those geared up to sell inputs to or purchase outputs from a crop-based agriculture also would have to adjust.

D. Reducing the Supply of Capital

Capital is more mobile and generally flows toward the greatest profitability. Thus, capital is not likely to flow into a sector with depressed earnings unless it is induced by tax shelter incentives, or investment occurs in connection with a government public works program.

Agriculture does not need tax-induced investment that would increase aggregate output. Increased output brings a disproportionate drop in price and in profitability. Therefore, the attack on tax shelters in the Tax Reform Act of 1986[40] was justified.

It is important to note that investment in an activity can have the same effect on aggregate output whether made by an outside investor or by a farmer. Many anti-tax shelter measures affect farmers as well as outside investors and may in fact have a greater impact on output because of effects on farmers. For the same reasons, agriculture does not need public works programs which would increase total output for commodities in surplus.

VI. PLANNERS HAVE BEEN WRONG BEFORE

One need only look back three decades to find sobering evidence of massive miscalculations by experts in estimating food demand and supply. In the 1950's and early 1960's, much discussion focused on the need to "set the fifth plate" as rapid population growth threatened to engulf food supplies. In the early 1970's, the U.S. Secretary of Agriculture was exhorting farmers to "plant fence row to fence row." In 1980, a leading agricultural economist was quoted as stating that:

> better days are just around the corner. The agricultural sector in general has the most optimistic outlook than it has had in the last 80 years . . . . Rising land prices will lift farm prices in the future and . . . inflation will continue to drive up land prices. Also, the use of farmland for non-agricultural uses will force farm prices up as land becomes more scarce . . . growing world population will continue to boost demand for food, which will help increase farm prices. Fur-

40. Pub. L. No. 99-514, 100 Stat. 2085 (1986).

ther, the world's per capita income is also increasing which should allow developing countries to purchase more U.S. grain.[41]

Current projections, made in an era of global overproduction in basic food commodities, may also turn out to be wide of the mark. While it is not possible to be specific about the magnitude of possible error in current projections, we can at least identify the principal areas of uncertainty.

Population growth rates are major determinants of food demand, particularly in developed countries. A return to human fertility levels of the 1950's and earlier would alter projections. In addition, the pace of economic activity in the world is a major factor affecting the demand for food. A return to the economic growth patterns of the 1970's would have relatively little impact on the demand for food in the United States, but sharply higher levels of income in Third World countries would boost the demand for food substantially.

Interruption of oil flows from the Middle East would strengthen the demand for agricultural products as substitutes for petroleum. However, adverse weather conditions in the major crop producing regions of the world would shrink supplies. While weather patterns of the last few years have been unusually favorable for food production, the probabilities are relatively low that adverse weather will be a major factor affecting global supply.

Moreover, the discontinuance of the use of herbicides, insecticides or chemical fertilizers because of perceived health hazards is also unlikely, but could affect agricultural output if controls or limitations materialize. Also, plant diseases on a widespread basis, such as the corn leafblight problem of the 1970's, could occur and limit output of affected crops. Finally, major disasters leading to multi-year land retirements from nuclear accidents, while again low in probability, should also be included in developing world food policy. Several accidents along the lines of the Chernobyl incident would affect the world food supply.

Overall a planning approach is needed in which agriculture is a full-fledged participant along with major world financial, economic and political interests.

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41. Knudson, *Darkest Before the Dawn,* Des Moines Register, Nov. 6, 1981, quote by Dr. Earl O. Heady.

VII. Expected Impacts on Credit

The future of agricultural credit is heavily tied to the future of the agricultural sector. Agriculture is likely to be dominated in the short-term by continuing efforts to deal with the problem of too much debt, concentrated in too few hands. In the long-term, the problem of excess production capacity will likely dominate with prospects for pressure on resource earnings for some time.

As a heavy user of credit, agriculture must remain firmly connected to the capital markets. Thus, there are twin messages for agriculture. First, institutional developments that tend to isolate agriculture from capital markets should be evaluated carefully with an eye toward anticipating the adverse impacts on the sector. Second, changes in capital markets (which are indeed likely) are expected to be transmitted almost immediately to the agricultural sector.

A. Barriers to Capital Flow

Over the past half century, various barriers to the free flow of capital have been erected in agriculture. State-level restrictions on non-resident alien investment,[42] corporate ownership of farmland,[43] and corporate operation of farm businesses[44] have come to play a role limiting capital flow in the sector. Tax shelter investing in agriculture increased during the same period with capital introduced into the sector. Legislation beginning in 1969[45] and continuing through 1986[46] was enacted to curb the economic attraction of tax shelter activity in agriculture. Indeed, the Tax Reform Act of 1986[47] represented the greatest attack on tax shelters in the agricultural sector since enactment of the federal income tax in 1913.

A major reason for enacting curbs on capital flow in agriculture and a supporting reason for attacking tax shelters has been concern about the changing structure of the sector. Implicit in the moves are

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42. *See generally*, 13 N. Harl, *Agricultural Law* § 123.02(4) (1988).

43. *See generally*, 6 N. Harl, *Agricultural Law* § 51.04(2) (1988).

44. *Id.*

45. Tax Reform Act, Pub. L. No. 91-172, 83 Stat. 487 (1969) (revision of hobby loss provisions); Tax Reform Act, Pub. L. No. 94-455, 90 Stat. 1525 (1976); Revenue Act, Pub. L. No. 95-600, 92 Stat. 2890 (1978); Economic Recovery Tax Act, Pub. L. No. 97-34, 95 Stat. 172 (1981); Tax Equity and Fiscal Responsibility Act, Pub. L. No. 97-248, 96 Stat. 324 (1982); Tax Reform Act, Pub. L. No. 99-514, 100 Stat. 2085 (1986); Omnibus Budget Reconciliation Act, Pub. L. No. 100-203, 101 Stat. 1330 (1987).

46. Pub. L. No. 99-514, 100 Stat. 2085 (1986).

47. *Id.*

policy objectives of neutralizing perceived scale advantages of large scale agriculture and discouraging absentee ownership.

Some parts of agriculture, notably hog production, seem poised for dramatically higher levels of concentration over the next decade. Further concentration in broiler production and cattle feeding is also likely to occur. Shifts in structure are expected to be substantially greater in these areas than in crop production, although sharp increases in the average size of crop production unit is anticipated over the next decade.

The debate over structure is likely to be intense over the next five to seven years with consideration given to even more elaborate mechanisms to influence the size and ownership of farm and ranch firms. By the mid 1990's, that concern may will recede with society resigning itself to the inevitability of economic forces driving the sector. Even so, the family-farm orientation of agriculture is expected to continue to be dominant through the end of this century.

B. Secondary Market

The emergence of the secondary market in the Agricultural Credit Act of 1987 (enacted in 1988)[48] is expected to have major impacts on agricultural credit in the 1990's and beyond. As part of the long-term management of agricultural credit, the 1988 legislation creates a Federal Agricultural Mortgage Corporation as part of the Farm Credit System. An eligible institution may originate loans secured by agricultural real estate and sell the loans into the FAMC secondary market. FAMC provides guarantees for the timely payment of principal and interest on pools of qualified loans.

The effects of the secondary market are expected to be both profound and subtle. The secondary market, to the extent it is utilized, will provide competition for existing land lenders, particularly the Federal Land Banks. Indeed, aggressive use of the secondary market could create substantial problems for the Federal Land Banks in rebuilding capital and returning to sound economic and financial health. The secondary market also will enable all land lenders to manage their loan portfolios more effectively in terms of risk and diversity. The real test of the risk-sharing model implicit in the secondary market will not come until the next major economic downturn in agriculture, probably some time in the next century.

One expected outcome of the operation of a secondary market in farm real estate loans over time is the partitioning of borrowers on the

48. Pub. L. No. 100-233., § 702, 101 Stat. 1568, 1686 (1988).

basis of equity position and soundness as it relates to the risk posed for the lender of default on obligations. Access to the secondary market is expected to be limited to borrowers who are better credit risks both because of statutory requirements and because of a desire by those involved with managing the secondary market to minimize the chance of default on obligations. Borrowers with modest equity positions or who are otherwise viewed as posing a significant risk are unlikely to be permitted to participate in the secondary market.

The expected result, after a few years' operation, will likely be the emergence of two risk pools of farm real estate loans. There will be a pool for those in the secondary market, posing relatively low risk of default, and another pool for those unable to qualify for the secondary market who will pose a higher risk of default. If and when agriculture encounters a period of severe economic turbulence, similar to the 1980's, the outcome could well be quite different than the "risk-sharing" that occurred in this decade. The presence of the lower risk borrowers in a separate market could mean that the effects of defaults of the higher risk group would be spread among a narrower group than occurred in the 1980's. The more secure borrowers would not be available to help to "socialize" the losses as happened in the 1980's. This would be an advantage for the low risk borrowers, but could pose a serious problems for those lending to the higher risk group.

The outcome, over time, is expected to be higher interest rates for higher risk borrowers. While the cost of operating the secondary market will be an offsetting factor, the advantage to low-risk borrowers of being separated from the higher risk group could be substantial.

C. Low Cost Credit

Economic theory tells us that low cost inputs lead to excessive use. Indeed, that was the case with credit in the 1970's. In real terms, after taking inflation into account, the cost of funds was often in the one to two percent range in the 1970's and there were several months when the real cost of credit was actually negative.

The cost of credit was low for some in the 1970's because of government credit programs. Credit was made available at below-market rates for beginning farmers, those with limited resources[49] and those who had suffered crop losses or other casualties.[50] Excessive use of credit was a factor contributing to the debt problems for agriculture in

49. 7 C.F.R. § 1943.4(g) (1988).

50. Emergency Agricultural Credit Act, Pub. L. No. 95-334, 92 Stat. 429 (1978).

the 1980's. An important lesson from the past two decades is that low cost credit may help individuals get started in farming or in working out from under a crushing debt burden. However, low cost credit can be an economic trap, a fact that is rarely mentioned in discussion of credit policy. Moreover, low cost credit encourages expansion with the result that price and profitability are disproportionately affected by changes in aggregate supply.

In the 1990's and beyond, attention should be given to development of a rational credit policy that takes into account the disadvantages of subsidized credit. Programs offering low cost funds should be limited to those instances in which there is an overriding objective being served that more than offsets the negative features of low cost funds.

D. Risk Aversion

Agriculture, along with the rest of the economy, is occasionally confronted with aberrational conditions. Inflation in the 1960's and 1970's was clearly aberrational, but was allowed to continue long enough that it caused many rational decision makers to believe that inflation would always be present in the economy. As a consequence, many borrowers and most lenders abandoned or modified guidelines forged in less-forgiving times.

Other conditions have likewise created aberrational states. The increase in demand for products during wartime and the run-up prices because of adverse weather are examples of unusual conditions. The same factor was at work in the 1980's as investors in fixed income securities came to believe that 16 percent interest on an insured basis was a permanent condition. High interest rates proved to be no more sustainable than the inflationary rates of the 1970's. In agriculture, long-term product prices will continue close to the cost of production in marginal operations. If profits rise, farmers typically expand production which brings price decreases as supply increases. Similarly, if losses occur, farmers cut back on production causing prices to rise as supply falls. Therefore, when prices rise sharply, as happened in 1972-73, the message should be clear that the price rise is aberrational; therefore, farmers should take advantage of the better times, but beware of making investments on the assumption that improved economic conditions will continue. The capacity of agriculture to expand production is awesome. Moreover, it is well to keep in mind that increases in profitability are likely to be capitalized into land values.

The lessons learned in the 1980's appear to have created a genera-

tion of farmers who will be more risk averse than any group since the 1930's. It may be two generations before farmers return to the attitudes of the 1970's with respect to risk. Farmers will discount aberrational conditions more heavily, will likely make relatively less use of credit, and will expand less rapidly than was the case in the 1970's.

Whether expansion will occur by making use of equity provided by others is an important question. The economic pressure to achieve economies of scale in production (and in purchasing of inputs and in sale of outputs) is expected to be strong for the foreseeable future. The economic pressure will collide with the reluctance to expand by the use of borrowed funds. The question of expansion with equity funds of others is a possibility. Equity capital may be available to agriculture, but the availability will depend heavily upon the relative level of expected economic risk and return among alternative investment opportunities. Persistent over-production in the agricultural sector depresses factor earnings and discourages capital inflows. Equity capital may be utilized by farmers, but it will depend upon attitudes within agriculture with respect to the sharing of control, the division of earnings and the importance of decision making independence. The use of non-farm equity capital may increase between now and the end of the century but the increase is expected to be modest.

E. More Leasing

One traditional way to make capital available in agriculture has been through leasing. In 1935, the amount of land farmed by those who were tenants had risen to 31.9 percent of all land in farms as the proportion of land owned by those who farmed it declined.[51] By 1954, the percentage of land farmed by those who were tenants had dropped to 16.4 percent.[52] In general, the leasing of assets has been viewed as a short-run solution to capital needs with most farmers pursuing an apparent objective of acquiring ownership of assets as circumstances permit.

The leasing of assets expands the group which bears long-term production and pricing risks. Moreover, the risks associated with leveraging (which proved devastating for some in the 1980's) are reduced by leasing rather than owning assets. In the short-term, owners of leased assets typically enjoy a priority claim over income and do not share equally with the farmer in bearing losses. Thus, leased assets should

51. 1 Census of Agriculture, Table 1 (1935).
52. 2 Census of Agriculture, Table 21 (1954).

not be viewed as pure equity capital.

F. Tilt in Favor of Borrowers

A major concern in terms of capital availability in agriculture in the 1990's is expected to be the effect of the modifications in traditional lender-borrower relationships legislated in the 1980's. Modifications in foreclosure rules,[53] mandatory mediation,[54] Chapter 12 bankruptcy,[55] mandated restructuring, and borrowers' rights rules for the Farmers Home Administration and the Farm Credit System[56] raise the question of expected impact on the amount of credit and the terms of credit available to farmers, particularly marginal borrowers.

It is doubtful that the continuing impact of the legislation on lending into the 1990's will be significant. In large measure, the statutory modifications in the borrower-lender relationship did not deepen lender losses. Indeed, in some instances, lender losses were less as a result. The enactment of real estate mortgage foreclosure moratoria in the 1930's by 28 states,[57] a draconian measure, did not appear to have a long term negative impact on credit supply to the sector, although the short-run effects on credit availability were negative.[58] It is generally recognized that, on the rare occasions when the agricultural sector faces serious economic problems, some modification of borrowers' rights and creditors' remedies is likely. Whether the enactments in the 1980's are repealed or merely fall into disuse as agriculture's fortunes improve, the impact upon credit terms and availability in better times is expected to be modest.

Nonetheless, the enactments of the 1980's will remain as examples of interventions that could be resurrected in the event of another major downturn in agriculture. The realization that the enactments of the 1980's could be imposed again may have a perceptible impact on credit availability and terms in better times, but the effect is expected to be quite modest.

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53. *See, e.g.*, IOWA CODE § 628.26A (1989) (written agreement to extend right of redemption for up to five years); IOWA CODE § 654.2A (1988) (right to use default).

54. *See supra* notes 19-20.

55. *See supra* note 21.

56. *See supra* note 21.

57. Pub. L. No. 100-233, § 102, 101 Stat. 1568, 1574 (1988) (FmHA loans), Pub. L. No. 100-233 § 615, 101 Stat. 1568, 1678 (1988) (Farm Credit System Loans).

58. *See Benton supra* note 18.

VIII. AGRICULTURE IN THE YEAR 2000

The family farm structure will continue to be the predominant structural feature. As the problem of too much debt concentrated in too few hands recedes in importance in the 1990's and the problem of global overproduction comes to dominate agricultural policy to an even greater degree than in the 1980's pressure on farm earnings will discourage outside investment in agriculture, particularly in grain and oilseed production, with family farms subsisting on reduced rations surviving.

Average farm size will continue to increase with application of technologies already known and with additional technologies expected to emerge in the 1990's that boost average farm size.

Farmland values are expected to be only modestly higher in real terms (adjusted for inflation) because of pressure to adjust excess resources out of agriculture attributable to the capacity to overproduce on a global basis.

Farm income is expected to be under continuing pressure in the year 2000, because of the capacity to overproduce, and because additional technology is likely to be introduced that is output increasing or cost decreasing or both.

Government intervention in U.S. agriculture is expected to recede from 1988 levels and will provide less buoyancy to farm income in the year 2000. With government intervention receding, the acreage of intertilled crops is expected to rise modestly as some cropland shifts to grazing or other uses and the use of land substitutes for manufactured inputs.

International-level competition in agricultural products is expected to be intense as other countries gradually reduce the level of insulation of farmers from competitive forces on a global basis. Input suppliers are expected to remain under continuing pressure as economic and environmental forces combine to reduce modestly the level of usage of manufactured inputs. Concern about the impact of agricultural production on the environment is expected to intensify with curbs on the use of chemicals and commercial fertilizers in the interests of reducing groundwater and stream pollution.

For rural communities relying upon agriculture as the principal economic activity, the level of economic vitality is expected to continue to decline through the end of the century.

IX. Final Observations

We face now a series of critical decisions on the future of U.S. agriculture. U.S. agriculture would be best served in the latter part of the twentieth century with stable, rational, globally-appropriate fiscal and monetary policies. The highest priority must be given to development and implementation of policies to reduce the federal budget deficit and to assure steady economic growth in this country on a basis of long-term sustainability.

A shift of resources into Third World development and resolution of Third World debt problems would help to achieve the long-sought objective of alleviating world hunger and would provide long-term potential for increased demand for food.

If we see ourselves as being competitive internationally in a decade, our marching orders are clear: we must mount an absolutely unrelenting attack on production costs and strive to be competitive on a largely unsubsidized basis. This is not an easy path to follow. For those who are heavily indebted it comes at the most difficult of times and special programs will be needed to assist that group.

Government will never recede completely from involvement in agricultural policy. Moreover, it is not in the best interests of farmers or consumers for food production to be completely privatized. The maintenance of food reserves as needed to even out supply variations from weather, disease and other factors of that general type will continue to be the province of government. Indeed food security will likely be a major item for discussion in conjunction with debate on the 1990 farm bill. The severity of the drought of 1988 has cast food security in a new and important light.

The 1990 farm bill will likely be transition legislation, away from reliance on price supports and toward a greater role for market prices in decision making. The debt problems that emerged in the final months of debate on the 1985 farm bill probably delayed the transition for five years. But the odds for further delay appear to be low.

For agricultural credit, the need to remain firmly connected to the capital markets is clear. Agriculture is too capital intensive to create serious barriers to capital flow. On the other hand, the growth in size of farm and ranch businesses will raise questions about the structure of agriculture and whether attempts should be made to influence the agricultural structure.