

# THE FARM INCOME AND DEBT SITUATION IN PERSPECTIVE

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The winter of 1977-78 may well be remembered as the winter of farmers' discontent. Many of the nation's farmers, faced with rising production costs, low prices, depressed incomes, and heavy indebtedness, banded together to seek better prices for their products. With many producers in financial difficulty, a wave of rural unrest swept across the country. Farmers' sign-draped tractor and truck caravans parading through Washington and other major cities to protest low farm prices, their threatened "strike," their battle cry of 100 percent of parity prices—all in an attempt to increase their incomes—were evidences of farmers' angry mood.

History records that farm prices have never been supported at 100 percent of parity. While it is doubtful that all farmers know just what full parity really means, they apparently are not alone. Few people probably understand parity or realize what full parity would actually cost.

Today's farmers may, or may not, understand parity.<sup>1</sup> But what they do understand is that farm prices slumped in 1977 on the heels of progressively low prices since 1974, while the costs of farm inputs kept rising. Moreover, it is quite clear to them that they've netted less money almost every year since the record level in 1973. Meanwhile, farmers have continued to increase their debts, which limits their ability to repay loans. They know, too, that it takes a lot more corn, wheat, and/or soybeans to buy items for farm production and family living, or to pay off a \$1,000 debt, than it did a few years ago.

**Grain Producers Hit Hardest** Of course, the buying ability of all farm products has not declined equally, nor have all costs risen equally. Farmers

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<sup>1</sup> The parity price of a farm commodity is the price (calculated by a complex formula) that will give a unit of that commodity the same purchasing power, in terms of goods and services bought by farmers, as that farm product had in a selected base period (1910-14), during which the price relationships were considered to have been reasonably well balanced. To illustrate: Whenever a commodity, such as corn, is selling at parity, a farmer can sell a bushel and buy, say, as much food as he could with a bushel of corn during the period 1910-14. When the price is below parity, the farmer can buy less; when it is above, he can buy more.

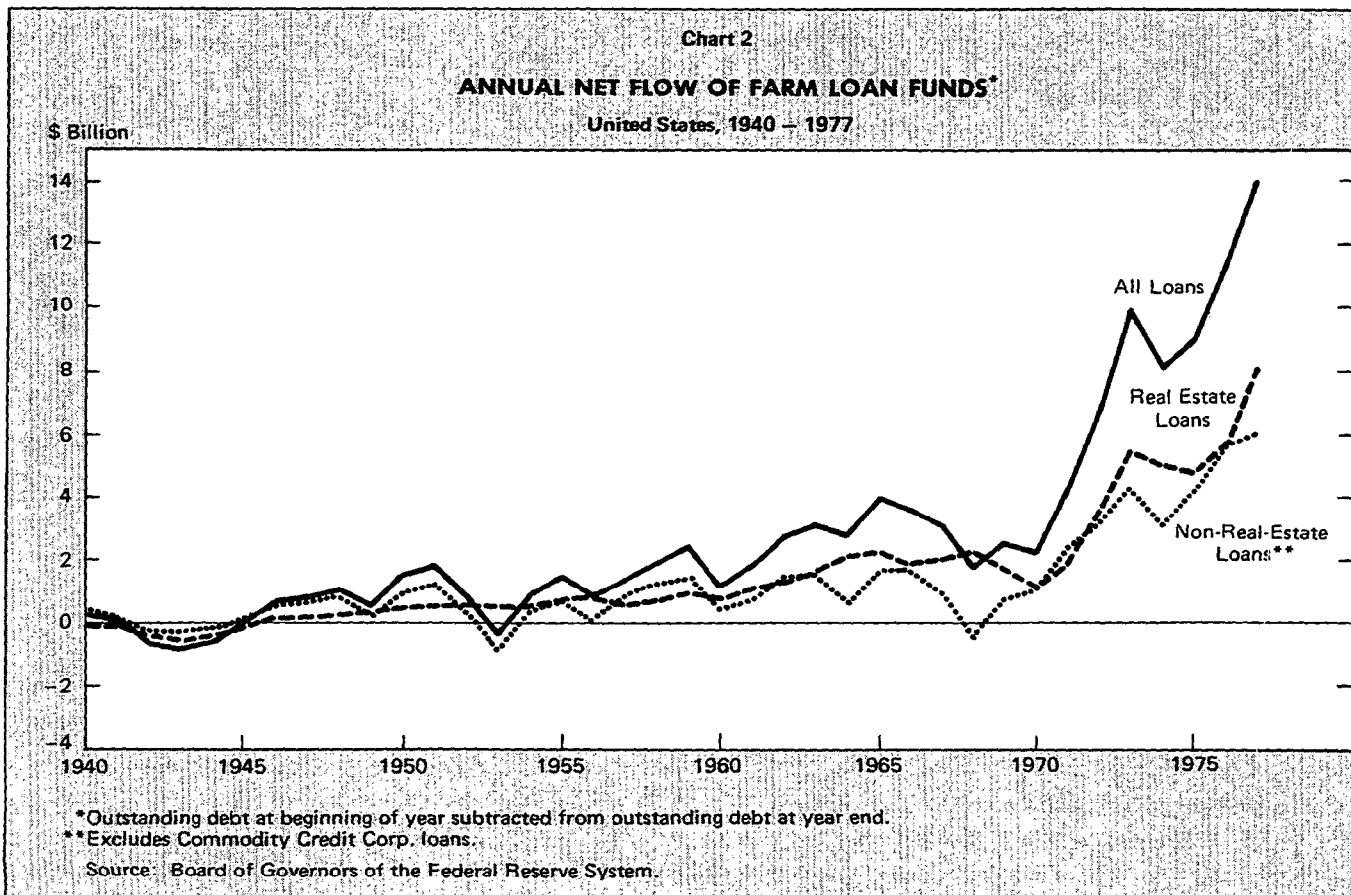
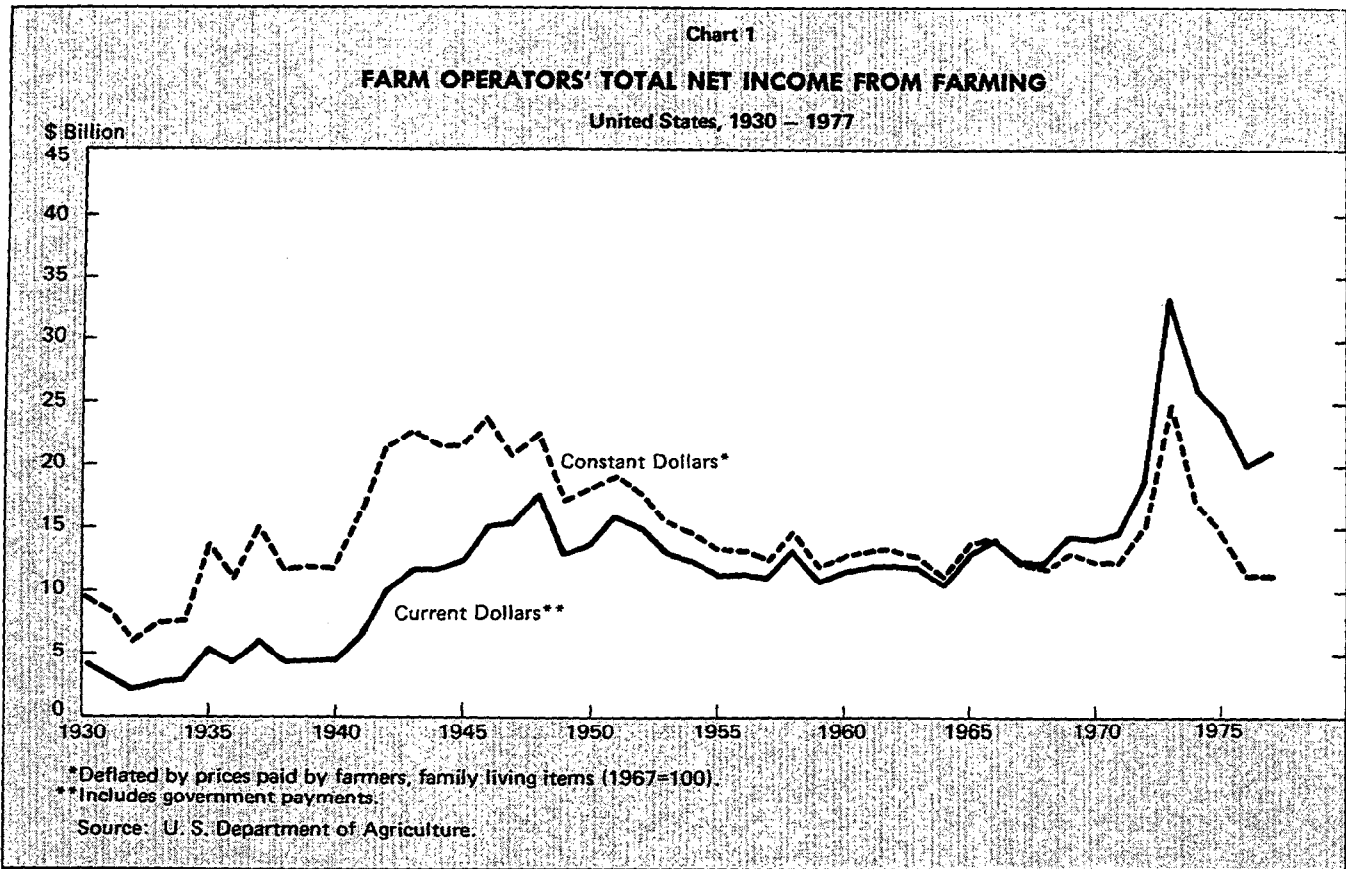
hurt most are the grain producers, followed by cattlemen who are now finally beginning to recover from a 3- to 4-year slump in cattle prices. Nor are all farmers in debt. Well over one-third of the nation's farmers were estimated to be debt free at the beginning of 1977. Evidence indicates that operators of large farms were much more heavily indebted than were the small farm operators.

**More Refinancing** Because of the poor cash-flow position of many farmers brought on by the slump in farm prices, many farm borrowers had loan repayment difficulties last year and many had to request loan renewals or extensions. Moreover, many operators found it necessary to convert their short- and intermediate-term loans into loans secured by farmland. This restructuring of debt not only enables farmers to spread out their payments and takes the pressure off their cash flow but also provides lenders with more security.

**No Farm Credit Crunch** While farmers' demand for credit continued strong in 1977, supplies of loanable funds from traditional lenders were generally adequate to meet the demand. Furthermore, the SBA and FmHA provided additional loan fund assistance to farmers in disaster areas. Generally, bankers' regular farm customers did not find it difficult to get needed credit. Most lenders, it seems, have been willing to assist borrowers who have run into repayment problems. Overall, lenders say that only a few borrowers—about 5 percent—have become unsatisfactory credit risks.

**District Versus Nation** This picture of the national farm financial and credit situation mirrors conditions in the District pretty well. The one exception would seem to be the likelihood that the proportion of District farmers with cash-flow problems may be a shade larger than in the nation as a whole.

**The Situation in Perspective** To put current farm financial conditions in perspective, it is helpful to study the key financial relationships shown in the



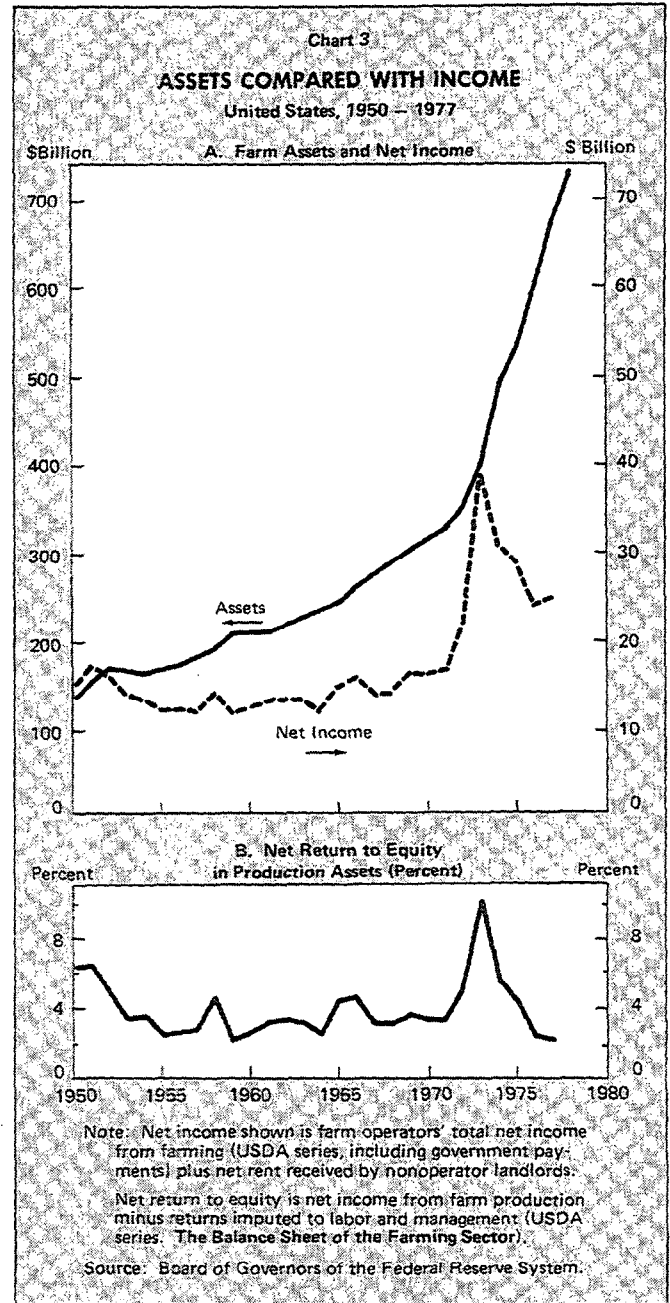
accompanying charts.<sup>2</sup> This longer term perspective showing the changing fortunes of farming reveals that the current situation is both highly unusual and potentially troublesome.

**Chart 1** The sharp gains in total net income of farm operators that occurred during the concluding years of the World War II-Korean War boom were followed by a cost-price squeeze on net income during the remainder of the 1950's. Net income shifted to a slow uptrend in the 1960's. Farm prices and income in the early 1970's were driven up significantly by a combination of circumstances—shortfalls in world grain production, the drawdown in stocks of the major grain-exporting countries, the massive grain sale to Russia, the disappearance of anchovies off the Peruvian coast, and other causes. The peak in farm operators' total net farm income came in 1973, and farm prices peaked in 1974. But better world crops, especially in the last two years, have reversed the situation. By 1977, total net farm income had dropped 36 percent from its 1973 level. Moreover, its purchasing power in constant (1967) dollars had fallen 55 percent and, with the exception of 1976, was at its lowest level since 1964. On a per farm basis, operators' total net income from farming in constant dollars was about \$4,190—down from around \$8,800 in 1973 and, except for 1976, the lowest since 1968.

**Chart 2** Although outstanding farm debt has been trending upward since the mid-1940's, farm debt (excluding CCC loans) increased by a record \$14 billion or 14 percent in 1977, following a gain of \$11 billion or 12 percent in 1976. Both real estate and non-real-estate debt contributed to the rise. Historically, net increases in farm debt of the magnitude of 14 percent in a single year tend to occur in boom years for farm income and investment, such as 1950-51 and 1973, rather than in years like 1977 when farm income was relatively depressed and had few prospects for significant near-term improvement.

**Chart 3** The value of farm assets rose gradually through the 1950's and 1960's and then literally shot upward in the early 1970's, exceeding \$700 billion by January 1, 1978. Rapidly accelerating farm real estate values were the chief cause, for

<sup>2</sup> The analyses accompanying Charts 3-6 rely heavily on a report by Emanuel Melichar, Division of Research and Statistics, Board of Governors of the Federal Reserve System. See Emanuel Melichar, "Agricultural Finance Commentary," Board of Governors of the Federal Reserve System, Washington, November 1977, pp. 1-15. (Mimeographed.)



farmland accounts for from two-thirds to three-fourths of the value of all farm assets. By raising the value of assets and thus also the equity of farm proprietors, the advance in farmland prices in the 1950's helped to push the annual return from production down to around 3 percent of equity as shown in Panel B. Continued increases in land prices during the 1960's and early 1970's kept the return at roughly this same level. Favorable farm income triggered a land price explosion in 1972-73, and returns to farm proprietors' equity in production assets moved up to some 10 percent. Since 1973, however, farmland prices have continued to rise in the face of declining net income. Returns

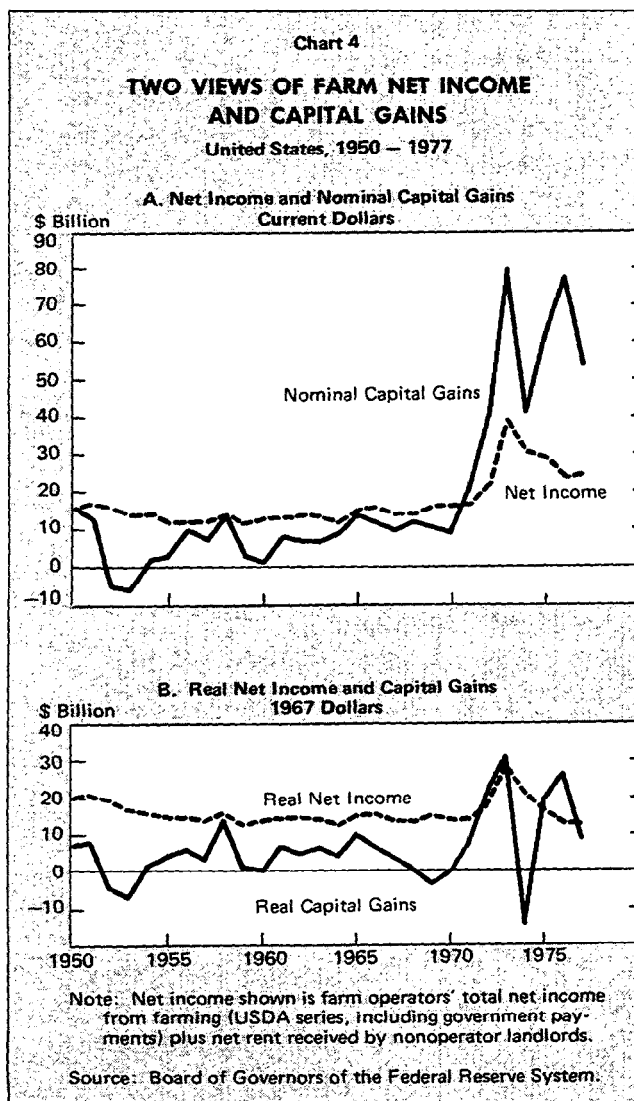
through 1974 and 1975, on the average, continued high enough to support the gains in land prices. But by 1977, the combination of depressed income and high prices of farmland reduced returns to equity to around 2 percent—only one-fifth the record rate in 1973. With farm income settling near the floor provided by government programs, a key support for further land price gains is now missing.

**Chart 4** Favorable farm income, as pointed out earlier, triggered the recent explosion in land prices. By the late 1960's, however, land market participants and analysts had noted the steady capital gains that appeared to be providing a significant supplement to net farm income and were discussing the concept of "total returns" to farm investment. However, those who add capital gains to income to calculate a "total return" to the farming sector should also note that only the amount by which the price appreciation

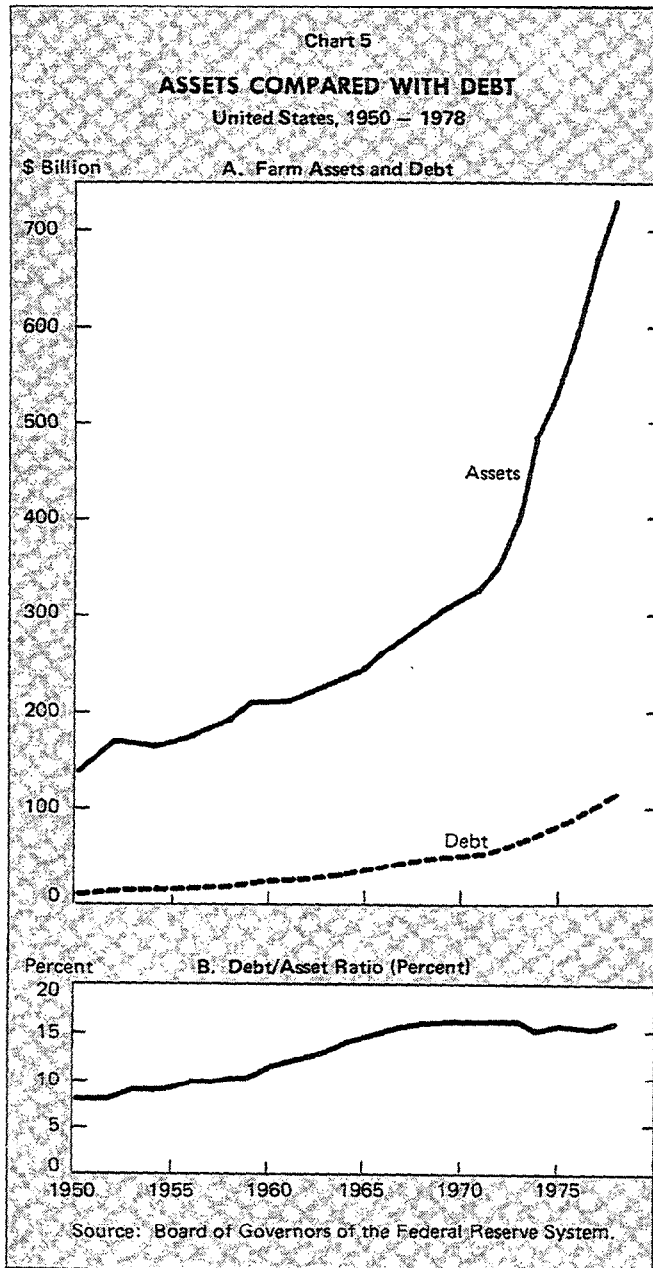
of farm assets exceeds general price inflation represents a gain in real terms to owners of farm assets. Comparison of real net income and real capital gains in Panel B reveals that, in real terms, capital gains over the last five years average slightly less than income, rather than eclipsing income as one might suppose after viewing nominal gains only. Also, in constant dollars the recent levels of income and capital gains are revealed as somewhat more modest relative to past levels. Real income, in fact, has dropped below its pre-1972 level. Also note that real capital gains disappeared in 1968-70, demonstrating that if farm income is relatively depressed, farm assets may not continue to appreciate faster than the rate of inflation.

**Chart 5** With farm income relatively depressed and with the continuation of real capital gains in some doubt, should there be cause for concern about further large increases in farm debt such as that which occurred last year? Many analysts examine this question in terms of relationships shown in Chart 5. These analyses reflect the optimism derived from (1) the recent large absolute increase in equity and (2) the low overall debt-to-asset ratio. They note, for example, that the farming sector's debt-to-asset ratio is just under 16 percent and conclude that the sector can greatly increase its borrowings. The financial cushion implied by this sort of an analysis, however, is in part an illusion. For instance: High equity in farm real estate is no guarantee of sufficient cash flows necessary to meet consumption needs and to repay debt.<sup>3</sup> The debt-to-asset ratio was not reduced significantly during the recent years of farm prosperity, and thus the farming sector has entered a period of financial strain with the ratio near its post-World War II high. More importantly, the average return on farm production assets is now about 3 percent, while the interest charge on new farm loans averages around 8.5 percent. Given this relationship, further borrowing by the farming sector would tend to reduce its net income. In other words, increased borrowing cannot be sustained for long in the absence of income adequate to service the additional debt.

**Chart 6** A look at debt financing of capital formation provides another approach in evaluating the relative usefulness and safety of ongoing increases in farm debt. The inherent productivity of increased



<sup>3</sup> David Lins, "Credit and Finance Outlook" (Speech presented at the 1978 Food and Agricultural Outlook Conference, Washington, November 16, 1977), p. 8.

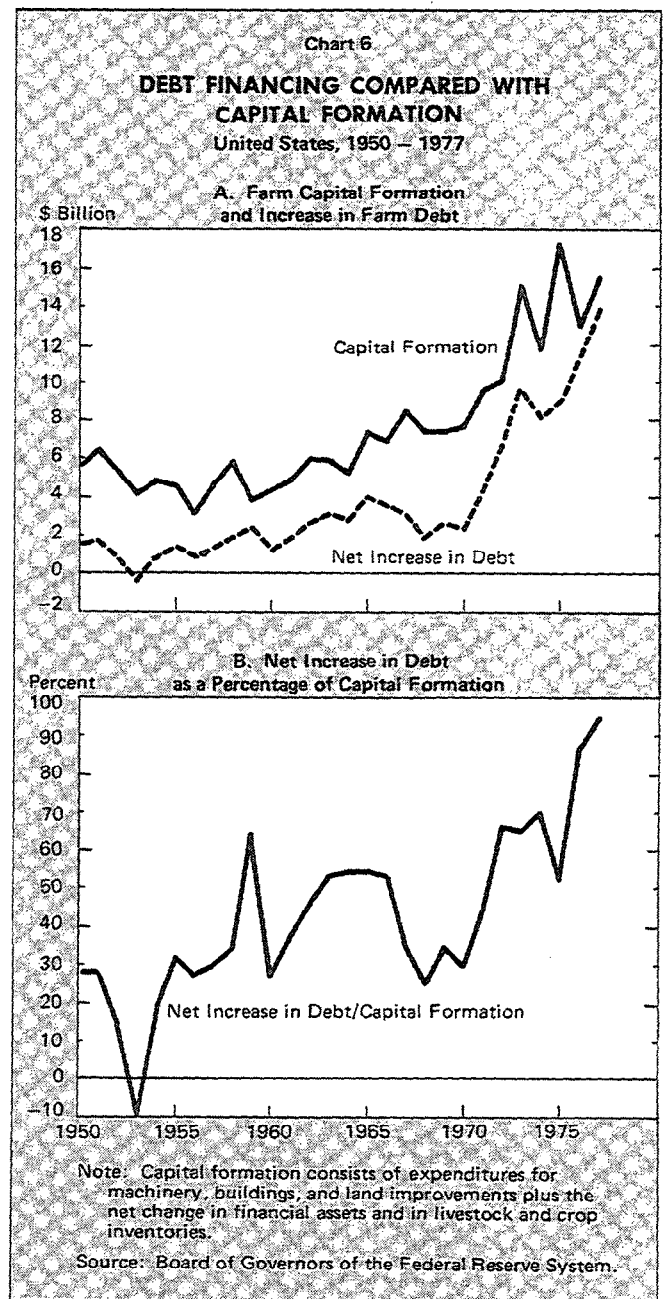


debt financing, for example, can be assessed in part by examining whether it is financing increased capital formation or simply replacing internal financing of this capital flow. Panel A shows that increases in debt have recently been rising faster than capital formation. By 1976-77, debt financing had replaced internal financing to a highly unusual degree. Debt financing, as indicated in Panel B, in fact, averaged 86 percent of farm capital formation in 1976 and 95 percent in 1977. In this century, a comparably high ratio of debt financing to farm capital formation has previously occurred only once—during the ill-fated speculative boom of World War I. In this latter period, according to Tostlebe, debt financing as a

percentage of farm capital formation averaged 76 percent.<sup>4</sup>

Chart 7 Farmers have relied increasingly on the use of borrowed funds in recent years. Because the importance of debt capital has risen substantially, the growth in farm debt outstanding has been spectacular. The rapid increases in outstanding farm debt, in fact, are far outside the previous bounds of their

<sup>4</sup> Alvin S. Tostlebe, *Capital in Agriculture: Its Formation and Financing since 1870*, A Study by the National Bureau of Economic Research (Princeton, N. J.: Princeton University Press, 1957), p. 136.



relationship to total net farm income and to total net cash income from farm and nonfarm sources. (See Panel A.)

There is growing concern, therefore, as to whether the income of farm operators can support this debt load. Ratios of farm debt outstanding to total net farm income, or to total net cash income from farm and nonfarm sources, allow one to measure the relative burden of debt against income. (See Panel B.) Both ratios indicate that the relative burden of debt has risen significantly since 1973. Farm debt (excluding CCC loans) in 1977, for example, was 4.07 times as large as total net farm income and 1.56

times as great as total net cash income from farm and nonfarm sources. Such increases indicate that farmers are incurring debt commitments at an accelerated rate relative to their income flows from which debt must be serviced. Moreover, they make it clear that the farmer whose income comes solely from farming generally has a much higher relative burden of debt than the farm operator whose income derives from both farm and off-farm sources. His capacity to repay debt and his credit rating with lenders is thus often poorer than those of the farm operator who also has income from an off-farm job.

**Summary** Some potential for future financial problems appears to be indicated by these aggregate farm finance trends. To what extent problems materialize remains to be seen, however. The key uncertainty is whether the level of farm income in the post-boom period will prove sufficient to maintain the past appreciation of farm assets and to support further increases in farm debt. At current income levels, the financial ratios examined here are not very encouraging.

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