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Agricultural Outlook Forum 1999 Presented: Monday, February 22, 1999

Farm Credit Conditions During the Agricultural Contraction of the 1980's and Now

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While agricultural conditions in the last decade have in some ways been similar to those contributing to the boom and bust cycle of the 1970's and 1980's, important differences exist. Among the similarities are the role of agricultural exports, changes in the foreign exchange value of the dollar, adverse growing conditions followed by strong increases in production, and sustained increases in farm asset values and farm debt. Important differences include the role of interest rates and inflation, more conservative use of leverage by both farmers and lenders in recent years, and the more limited duration and amplitude of the recent up-cycle. Several factors could aggravate the current down-cycle, including some loss of off-farm opportunities, weather, foreign financial crises in importing countries and other exporting countries, and the unknown degree to which lenders may choose to reduce their exposure to creditworthy agricultural borrowers.

Introduction

The recent deterioration in many commodity prices following several years of healthy gains in farmland values and debt levels has led to speculation that agriculture could be entering a contraction similar to that of the 1980's. Prices for many key agricultural commodities (especially grains, oilseeds, and hogs) have fallen dramatically over the past 2 years. Preliminary 1998 real net farm income is lower than for 4 of the preceding 5 years, and net farm income is forecast to deteriorate further in 1999. Some have characterized the anticipated crisis as a "credit crisis," because lenders may balk at extending loans to agricultural borrowers who cannot demonstrate solid repayment ability. The degree to which low incomes create financial hardship depends on the initial financial strength of the farm, how far income falls, how long income remains low, and the decisions that farmers and lenders make as events unfold.

This paper begins by exploring the similarities and differences between credit conditions during the early 1980's and those currently facing agricultural borrowers by assessing such factors as the financial health of borrowers, the overall economic environment, and the financial strength of lenders. Subsequent sections review the conditions that helped spawn the 1980's crisis for production agriculture and for major agricultural lenders. This review concentrates on average indicators of financial performance of farmers and lenders.[1] The current cycle and current conditions are summarized and contrasted.

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[1]For information about the current distribution of distress among farm borrowers see the soon to be released article, "Who Holds Operator Farm Debt?," by James T. Ryan and Steven R. Koenig.

A Review: 1970's Boom, Perverse Economic Incentives Led to 1980's Bust

The Boom. Commodity prices surged from 1973 through 1975 and remained high through 1979 (fig. 1). During this period, farm incomes (fig. 2) and rates of returns on assets from current income and from real capital gains (fig. 3) were unusually large. The initial surge in farm incomes has been attributed to a variety of factors including a major change in the foreign exchange regime (in 1972 the U.S. abandoned the fixed exchange rate regime that had been in place since the end of World War II) accompanied by a devaluation of the dollar (fig. 4), adverse weather in competing production regions, and increases in effective demand for agricultural products abroad (fig. 5). The increase in farm income, readily available credit (fig. 6), rising inflation, and low to negative real interest rates (fig. 7) led to a bubble in farmland values (fig. 8) and sustained increases in farm investment in machinery and equipment (fig. 9).

The strength of the farm economy encouraged expansion and supported rising land values, but so did economic forces beyond the farm sector. Rising inflation and relatively low nominal interest rates supported increases in farmland values and in farm indebtedness. While financial assets lose value with inflation, real assets gain value. This fact encourages investors to shift their holdings from financial to real assets, exacerbating the value loss for financial assets and increasing the gain for real assets, including farmland.

In addition, low real interest rates (nominal interest rates less the rate of inflation) encouraged debt financing, since debt could be repaid in cheaper, inflated dollars as it came due. As shown in fig. 7, real interest rates were low or negative during much of the 1970's. From the beginning of the boom in 1972 through the peak in land values in 1981, farm debt grew 15 percent faster than assets. Of course, the increase in asset values was widely dispersed, but the increase in debt was concentrated among those farmers who were financing new purchases of land or equipment. Because farmers had strong equity, rising incomes, and increasing collateral values during the boom years, they had little trouble getting loans and few farm loans were adversely classified by lenders. Given strong farm finances, lenders expected to recover both the balance due and all foreclosure costs in the event of a default (Peoples et al., 1992).

The Bust. By the end of 1970's, concern was rising about declining farm liquidity and exposure to cash flow or interest rate shocks. This vulnerability is illustrated by the increase in interest and principal payments from less than one-sixth (16 percent) of gross cash income in the early 1970's to almost one-fourth (24 percent) of gross cash income by 1980. Farmers, lenders, and economists were slow to realize the extent of needed adjustments, with many arguing that the contraction would be short and would involve shifting income from asset accumulation to debt service, while asset values remained sound.

By the early 1980's, many of the factors that spurred the boom were reversing: export demand and commodity prices fell, while many input prices, interest rates, and the value of the dollar rose, making U.S. agricultural exports mmore expensive for foreign customers. The nature of the boom made U.S. agriculture vulnerable to a downturn: many farmers who had bought land or made other long-term investments--especially those who used debt financing--now had difficulty meeting their other financial obligations or even making a living. Farmers had responded strongly to the perceived profit opportunities from increased production by bringing

more land under cultivation and by investing in productivity increasing technologies. These investments led to large increases in acres planted and in per acre yields.

Government policies during the 1970's years amplified the supply response. Many governments, worried about foreign exchange or food security issues, increased their support for agricultural production. Federal commodity programs encouraged increased production and indirectly encouraged increased farm borrowing. By setting price floors, commodity programs reduced the risk associated with farm income, making farm income a more attractive repayment source for supporting debt. Support levels increased during the boom period when raising them involved no immediate increase in Federal budget expenditures, further supporting incomes and borrowing.

Following inflation-fighting policy decisions by the Federal Reserve Board, nominal interest rates rose sharply in 1980, peaked in 1981, and remained high for several years (fig. 7). These high interest rates made dollar denominated investments attractive and caused the foreign exchange value of the dollar to appreciate. The monetary tightening successfully curtailed the double digit inflation of the late seventies--inflation peaked in 1980 and fell below 2 percent by 1986. However, the high value of the dollar and high price floors on program commodities hurt the international competitiveness of U.S. agriculture and pressured farm incomes. The fall in real farm income and increase in real interest rates reversed the economic environment that had made debt financed investment in nonfinancial assets like farmland attractive, delivering a double whammy to heavily indebted farmers. Because the value of capital assets is directly related to the cash flows they generate and inversely related to interest rates, falling incomes and rising rates pressured farm asset values, which fell dramatically from 1981 through 1986.

Stress among Lenders

An important factor in the agricultural boom and bust was the behavior of agricultural lenders and their regulators. This behavior arguably accentuated the boom and aggravated the decline. According to the Federal Deposit Insurance Corporation (FDIC) most of the bank failures in the 1980's, a decade that saw more than any since the 1930's, were precipitated by four regional and sectoral recessions, including the one in agriculture (Federal Deposit Insurance Corporation, 1997). Banks were vulnerable to these recessions because they tended to serve relatively narrow geographic markets, but not all regional recessions caused failures. Generally, failures were associated with recessions in sectors that had experienced a fairly sustained expansion and had grown faster than the national economy. Agriculture was such a sector. Credit helped fuel the boom, but when the down cycle hit, some borrowers inevitably defaulted, weakening lenders. In contrast, recessions that were preceded by slow growth (such as in the rust belt), did not lead to many failures. Recessions that caused problems for lenders were similar in that each followed a period of rapid expansion, speculative activity (usually supported by expert opinions) that contributed to the run-up in asset values, and wide swings in real estate activity that contributed to the severity of downturns.

Lenders who found themselves in trouble had generally not been in a seriously weak condition in the years preceding the recessions. Lenders who failed often assumed greater risks than the survivors, as measured by ratios of total loans and non-residential real estate loans to total assets.

But only a small fraction of lenders with high risk exposures failed. Mitigating factors included strong equity and reserve positions, more favorable risk/return tradeoffs, superior lending and risk management skills, and proactive changes in policies regarding risk before losses became severe. Lenders that relaxed credit standards, entered markets where management lacked expertise, made large loans to single borrowers, or whose loan growth strained their internal control systems or back-office operations were most likely to fail. These factors were as much associated with distress among Farm Credit System lenders as they were with distress among commercial banks (Collender and Erickson, 1996).

The greater a lender's exposure to agriculture, the more trouble defaulting farm loans caused. Life insurance companies and large banks were least affected because of the relatively small share of their assets related to agriculture. Even many rural banks were adequately diversified: while 328 of 5,000 agricultural banks existing in 1981 failed in next 10 years, on average, return on equity for agricultural banks never fell below 5 percent and capital-to-asset ratios improved over the decade, even though they were already higher, on average, than at other banks (Peoples et al., 1992). Farm Credit System (FCS) lenders faced greater challenges because their loan portfolios were not diversified either by geography or by industry, and because of organizational and operating inefficiencies (Collender and Erickson, 1996).

The roots of the banking, thrift, and FCS crises were in the 1970's like those of the agricultural crisis. Increased instability in banking, as in agriculture, arose from the change in the exchange rate regime, rising inflation, volatile nominal interest rates, and anti-inflationary Federal Reserve Board monetary policies. And as in agriculture, there were few obvious signs of trouble for lenders in 1980. At small banks (those with less than $100 million in assets) and FCS institutions, returns on assets and returns on equity were good, equity-to-asset ratios were improving, and loan charge-offs were low.

Parallel of Current Conditions to Early 1980's Limited

Some experiences of the past few years are astonishingly similar to the agricultural cycle of the 1970's and 1980's, while other aspects are very different. The similarities start with the nature of the more recent up-cycle. It followed the earlier pattern of rising agricultural exports during a period of tight stocks due to production controls and unusually bad weather in many growing areas worldwide. This combination led to high prices and optimism about future income from farming which, along with falling interest rates, supported farmland price increases. Recent increases in farm indebtedness add to the sense of deja vu. The beginning of the down-cycle has further parallels: policies that imposed supply controls on agricultural production have been relaxed, foreign demand has diminished in the face of financial crises that started in Asia, the dollar has appreciated relative to other currencies, and the carryover stocks of grains and oilseeds are increasing.

Despite the similarities, many factors are substantially different. In contrast to the early 1980's, the farm sector and its lenders are much less vulnerable to economic instability, and the domestic economic environment is much more stable. Farmers and farm lenders have used leverage more conservatively in the last few years than they did in the 1970's. Off-farm income has been an important alternative source of farm repayment capacity for many years (Harrington, et al., pp.

49-54). Because overall economic growth has remained strong and unemployment in most parts of the country is low, off-farm opportunities are better in many parts of the country than during the years of stagflation and recession of the late 1970's and early 1980's.

While indicators of farm sector financial strength have deteriorated, the current situation differs from that of the early 1980's in a very important way. The monetary tightening by the Federal Reserve Board and the vulnerability of farmers and lenders to interest rate changes were defining characteristics of the 1980's crises. While interest payments and principal payments consumed 22 percent of gross cash income in 1979 rising to 28 percent by 1983, they currently consume only 14 percent. And, while low commodity prices and farm incomes create concerns about loan repayment ability, low nominal interest rates have continued to support asset values, including farmland, rather than pressuring them. The farm sector and farm lenders are much less vulnerable to increases in nominal interest rates, and because inflation is relatively low, any such increases are likely to be small compared with those of the 1980's.

Both the duration and amplitude of the recent up-cycle are compressed compared with that of the 1970's. Nominal net farm income rose 30 percent in 1972 and 77 percent in 1973 after a long period of stability (fig. 10). Over the next 5 years real net farm income averaged 16 percent higher than during the five year period before the 1972 increase. In 1996, net farm income rose 48 percent from 1995, but 24 percent over the average of the previous 5 years, and this increase is not expected to be sustained for even a few years. Growth of real debt and growth in land values, while supported by a similar combination of factors, have not compared in magnitude (figs. 5 and 8) to that of the 1970's. Much less of the recent increase in farm assets has been debt financed. From 1990 to 1998 nominal farm assets increased 34 percent, while nominal farm debt has increased 23 percent. In contrast, debt increased 4 percent faster than assets from 1972 to 1979 and 15 percent faster from 1972 through 1981.

Advice from financial experts has also been more temperate in the 1990's than it was in the 1970's. Both farm economists and financial regulators have consistently warned that liquidity from “Freedom to Farm” payments would support higher land prices initially, but had potential to fall as these front-end loaded payments tapered off. In contrast, experts in the 1970's and early 1980's encouraged farmers to expand production and increase debt loads.

Farm lenders as a group are less vulnerable to downturns in the sector than they were in the 1980's. Consolidation and financial innovations (securitization, third party guarantees, options, and swaps) have enabled many lenders to reduce their risk exposure to local economic conditions and interest rates changes. Lenders are also subject to closer scrutiny now from their Federal regulators. Regulatory changes, including risk-based capital standards, risk-based insurance premiums, and prompt corrective action, increase the costs to lenders of allowing credit quality in their loan portfolios to deteriorate. Many lenders have higher capital ratios, better quality capital, and better internal controls than during the 1970's and 1980's.

While Current Conditions Do Not Match Those of the 1980's, Further Deterioration Is Possible

Many of the events and conditions supporting recent gains in farm income and asset values parallel events and conditions that occurred in the boom years of the 1970's. Also, many of the conditions that led to the dramatic fall in many commodity prices during 1998 are similar to those that produced agriculture's contraction in the 1980's. Nonetheless, important differences exist that point to a sector better able to withstand adversity and less likely to be as dramatically tested. Greater domestic economic stability, a less pronounced expansion, and more conservative use of leverage by farmers and their lenders all should reduce the magnitude of any contraction.

That said, two other observations bear further discussion: First, individual experience varies more than sectoral averages, and many farmers and farm lenders will certainly face financial stress and difficult decisions. Second, a number of factors could aggravate the current downturn. For example, some lucrative and traditional off-farm employment opportunities may disappear, especially in energy producing States. Changes in government policies could strengthen the dollar or encourage greater agricultural production. Favorable weather here or abroad could increase price pressure on major commodities. Continued demand shocks in food importing countries or weakening of currencies of other agricultural exporters like Canada, Australia, and Brazil could further erode agricultural exports. And, changes among agricultural lenders and their regulators could affect lenders' willingness to lend to creditworthy farmers during a contraction.

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Figure 1

Index of Real Prices Received, 1983=100

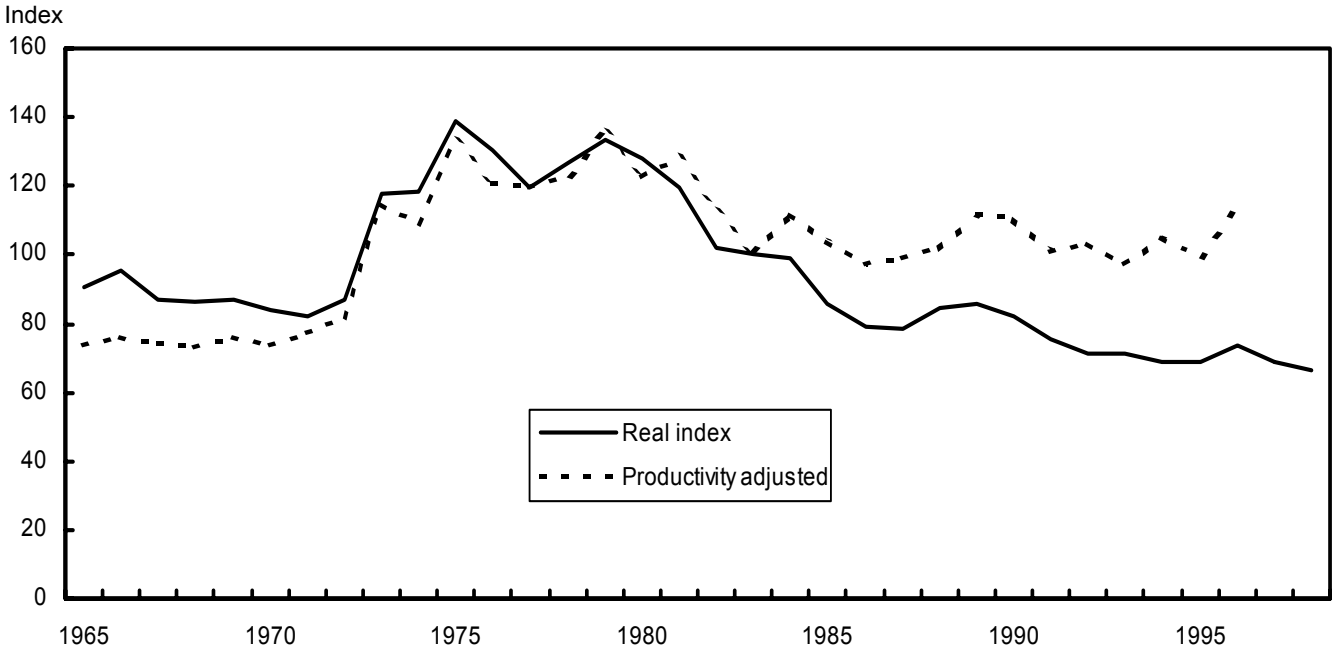


Figure 2

Real net farm income and direct government payments

$ billion

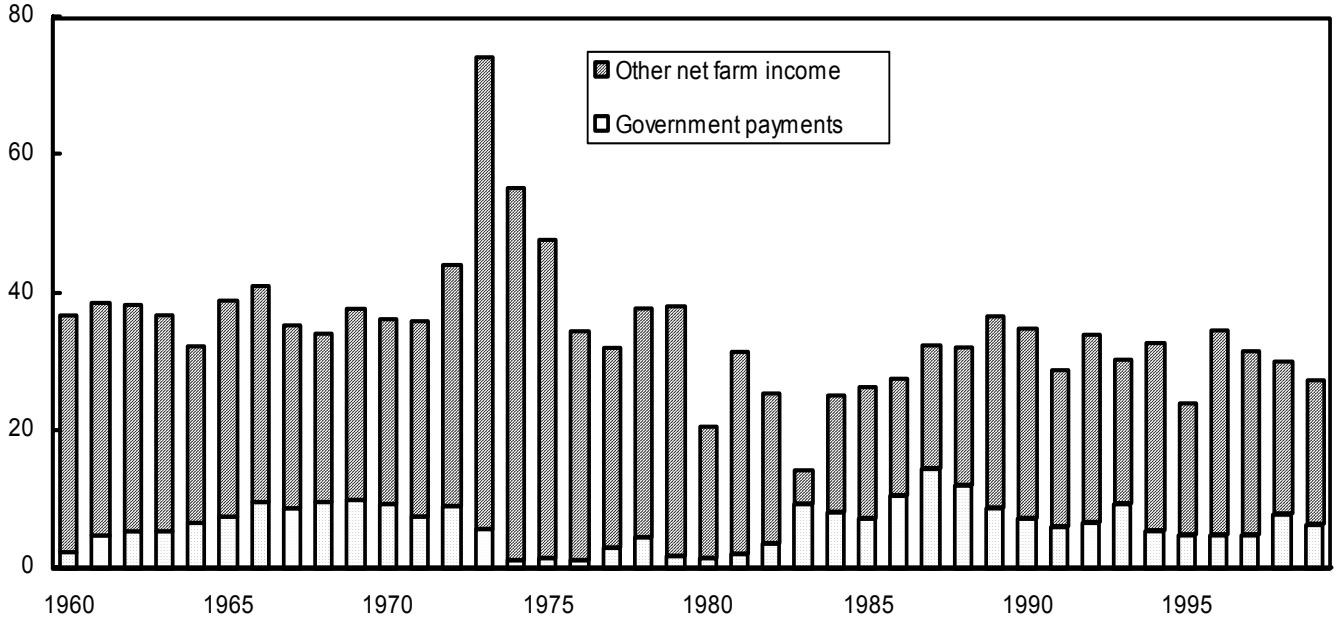


Figure 3

Return on assets in farming, 1960-1999

Percent

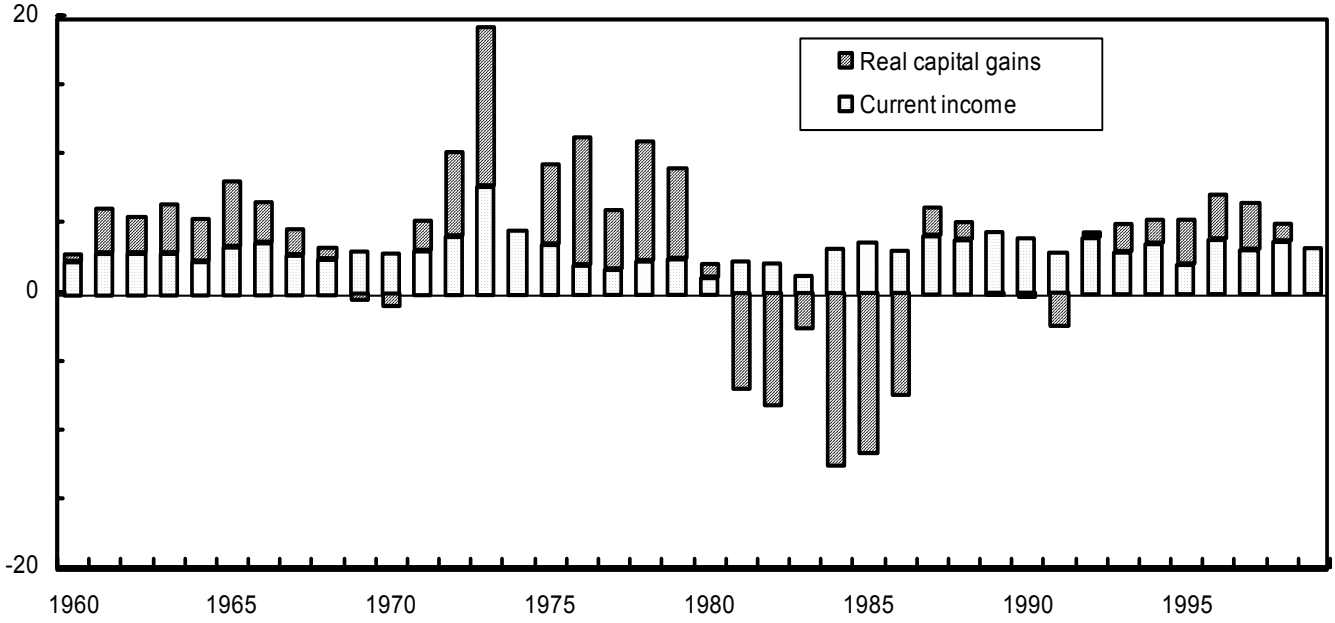


Figure 4

Real trade weighted value of the U.S. Dollar, 1973-1998

Dollars

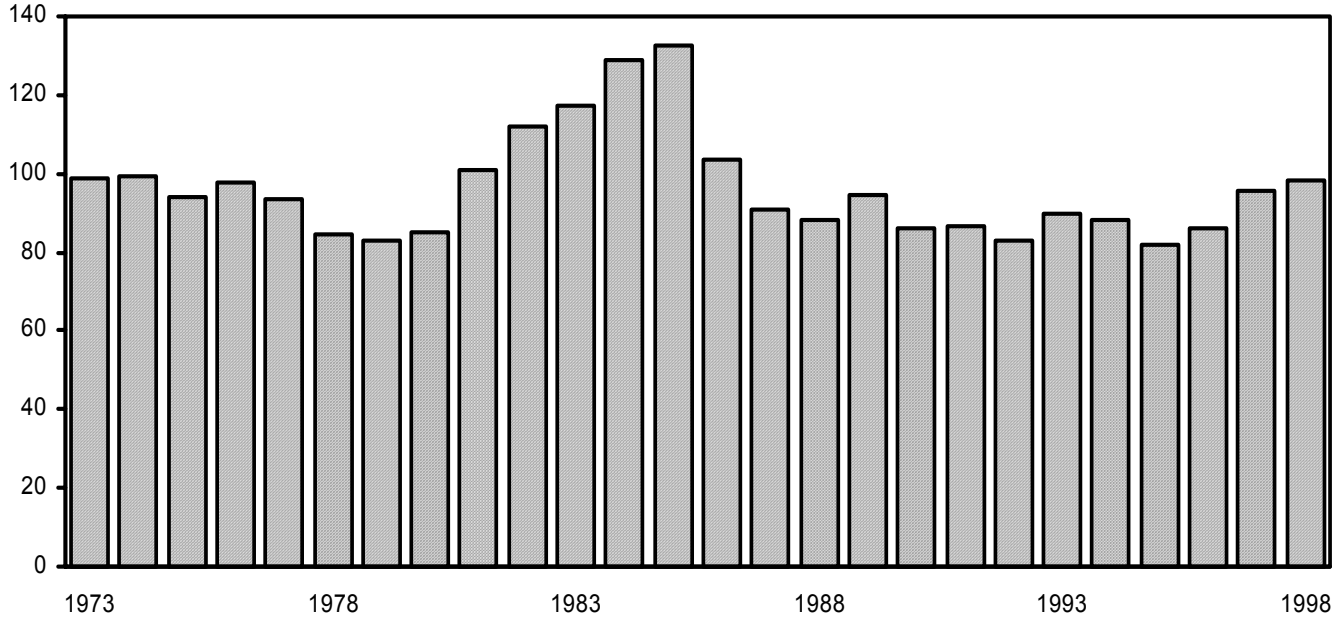


Figure 5

Real agricultural exports, 1960-1999

$ billion

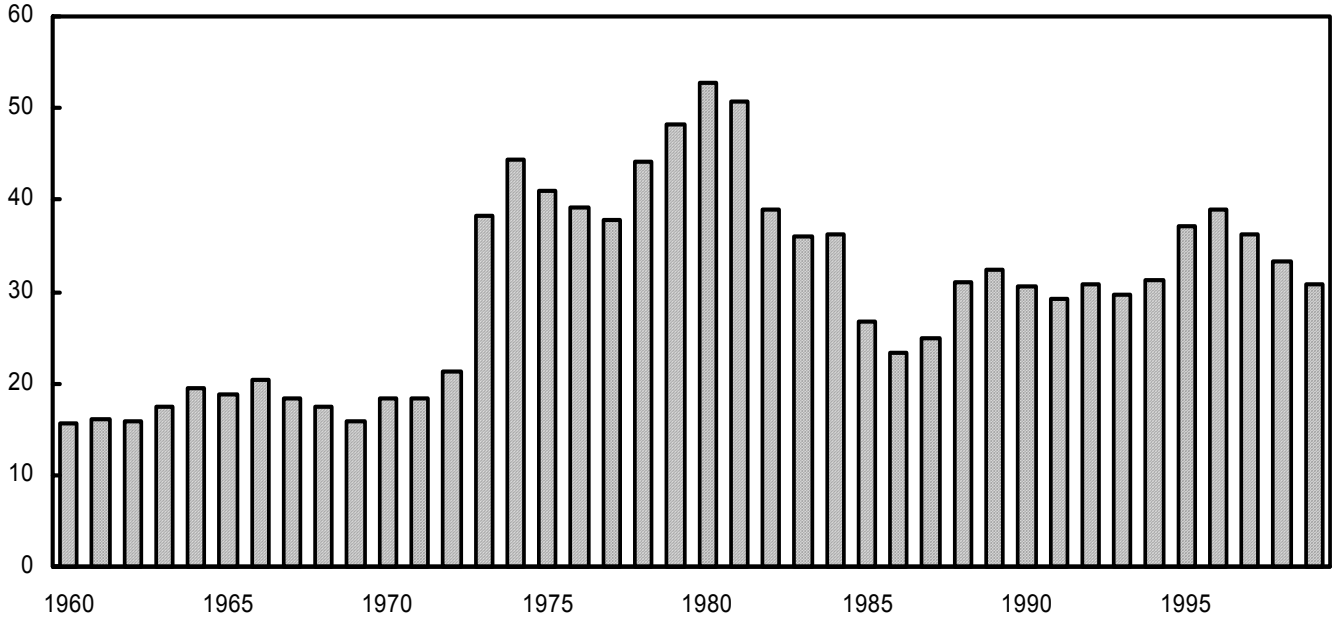


Figure 6

Nominal and Real Farm Debt, 1960-1998

$ billion

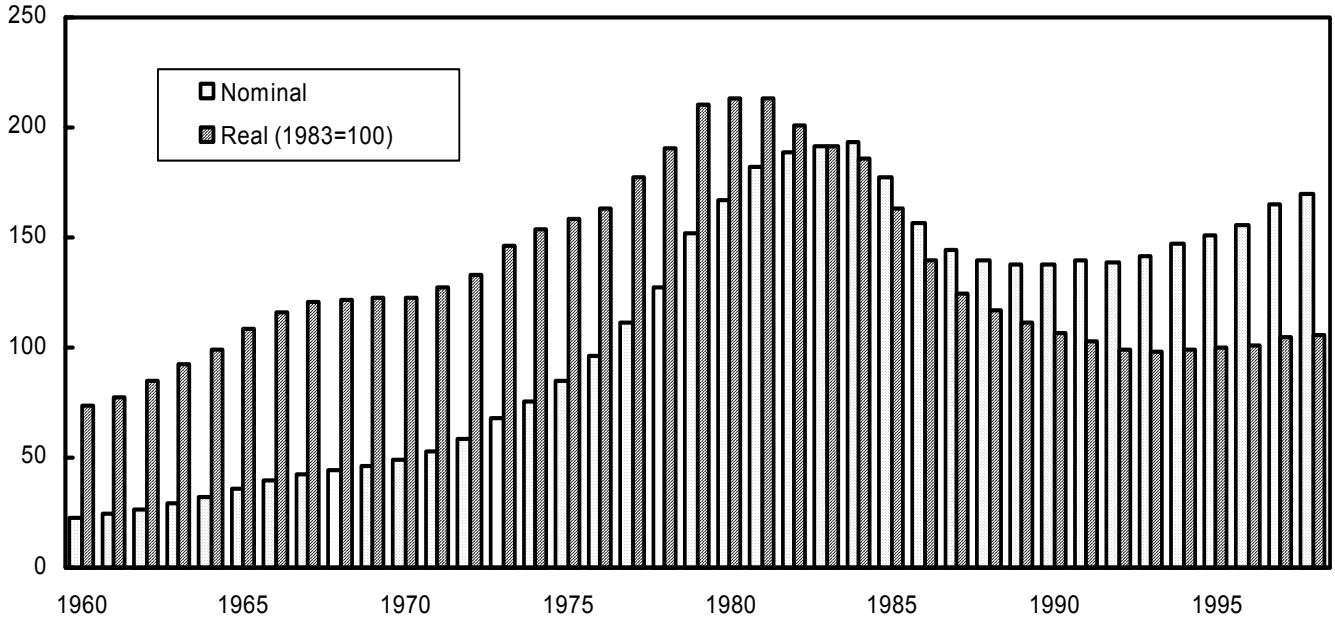


Figure 7

Real average agricultural interest rates, 1960-1997

$ billion

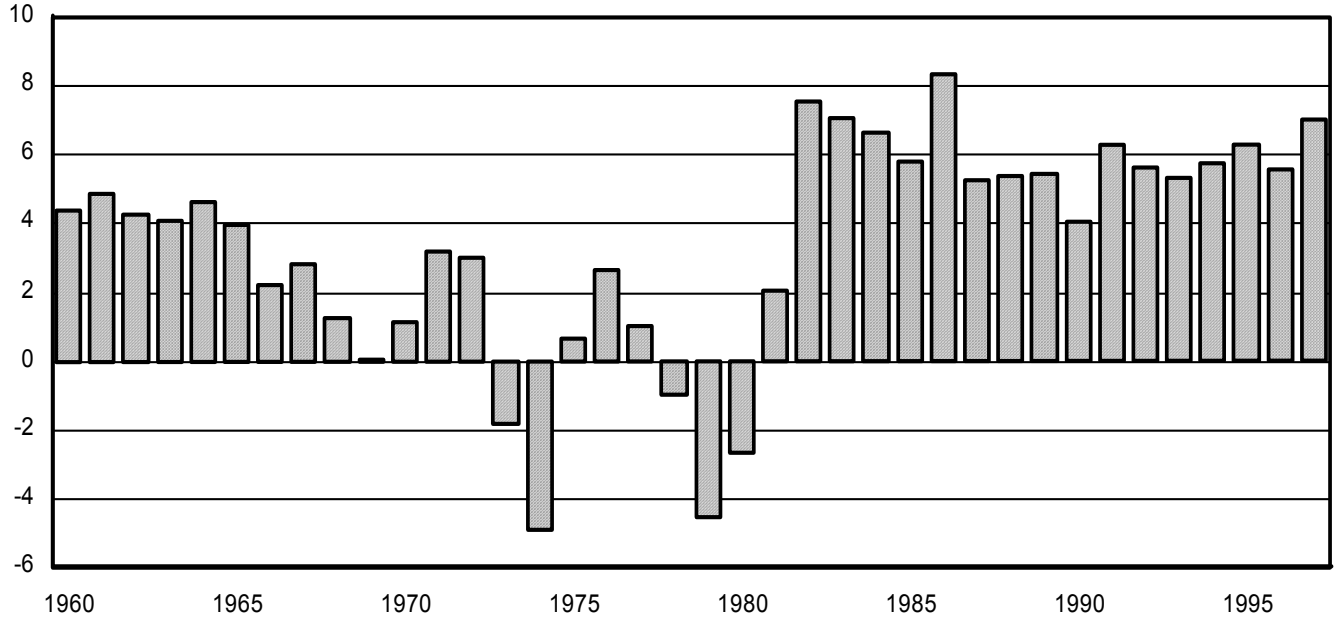


Figure 8

Real and nominal farmland values, 1960-1998

$ billion

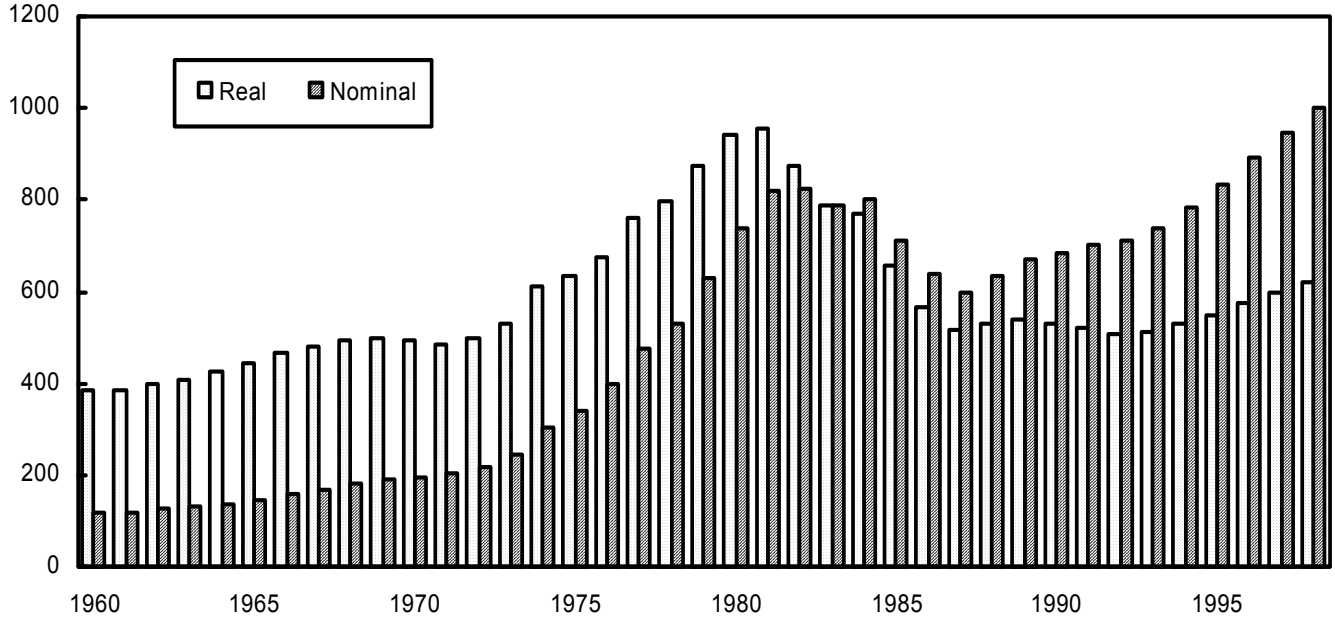


Figure 9

Real Gross Investment in Farm Machinery and Equipment, 1983=100

$ billion

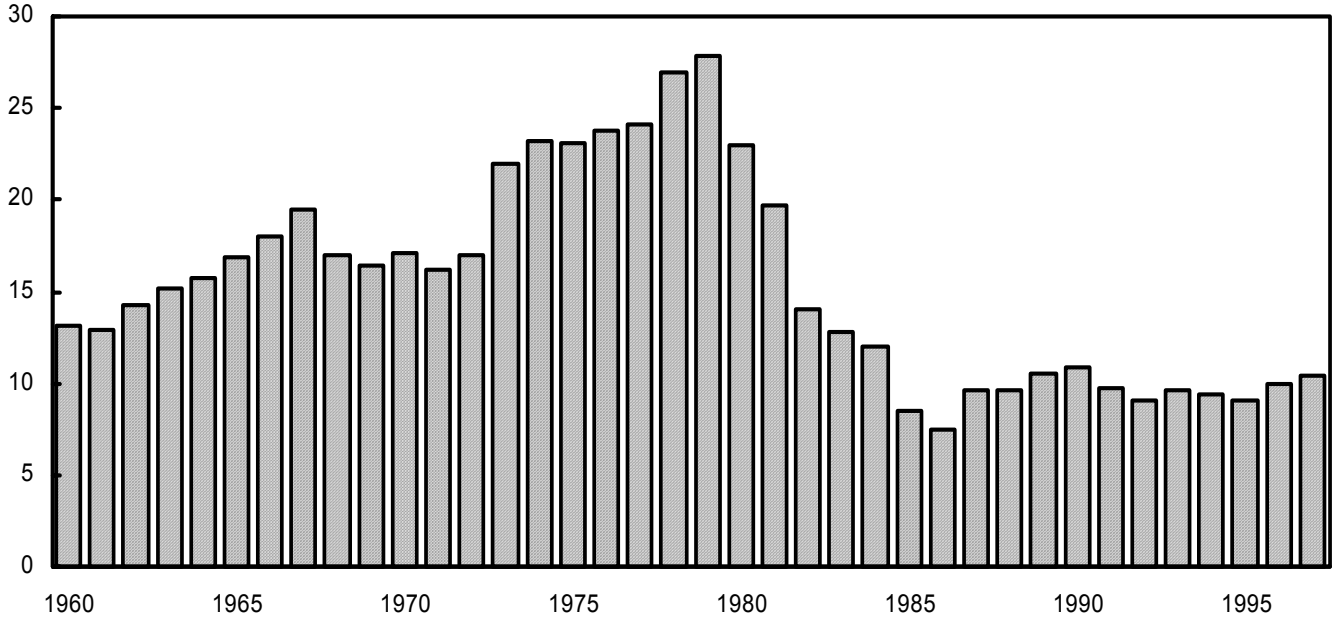
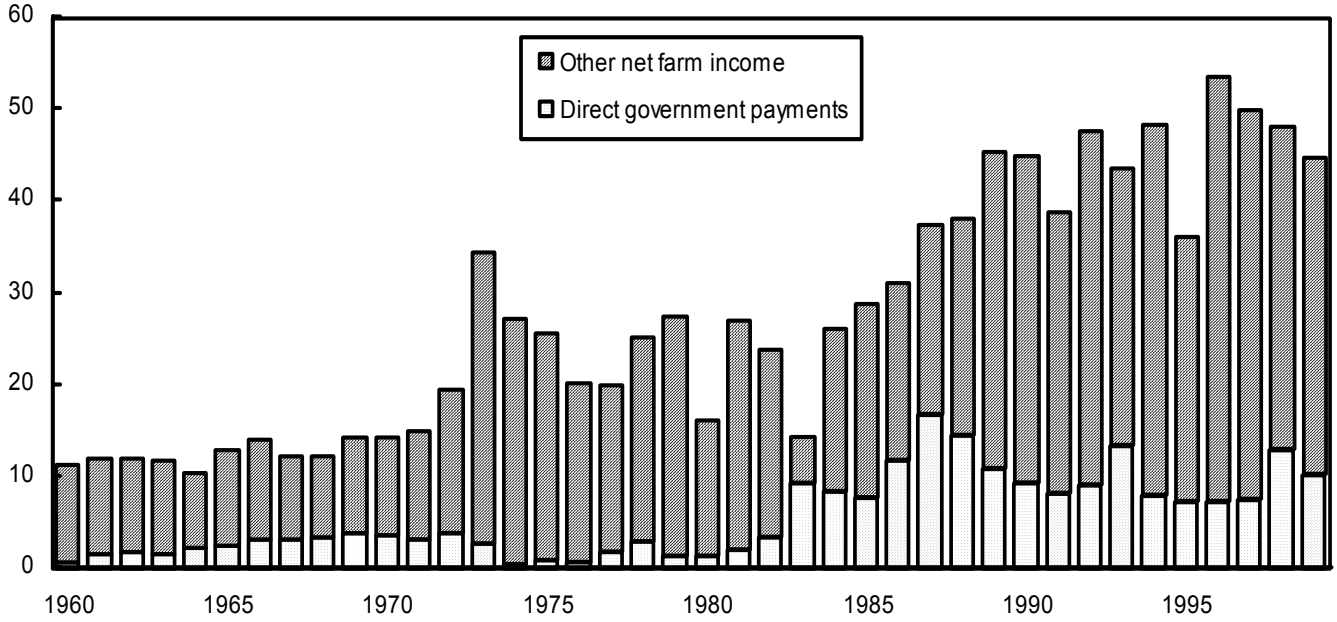


Figure 10

Nominal net farm income and direct government payments

$ billion