At the outset, I might say that outside credit has played a relatively minor role in financing our agricultural plant. Most farms have largely been financed internally. Much of the physical capital such as land clearing, drainage, fencing, and building was produced on the farm by the farm family. Only in the past few decades has a large portion of farm capital been acquired through off-farm purchases, and many of such costs were covered by savings of the farm family.

Since 1948 credit used by farmers has not exceeded 17 per cent of total farm assets, and in the 6 years prior to 1954 the volume of farm credit outstanding was less than 10 per cent of total farm assets. In comparison, credit used by manufacturing establishments has accounted for a much greater portion of total assets. During the period 1948 to 1967, inclusive, total liabilities of all manufacturing corporations, excluding newspapers, on the basis of book value never fell below 28 per cent of total assets. Furthermore, in 1967 manufacturing debt exceeded 40 per cent of the value of assets.

Although still relatively low, farm debt as a per cent of assets has increased sharply in recent years. From 7.3 per cent of asset value in 1948, farm debt rose to 17 per cent of asset value in
1967. The importance of internal farm financing has declined sharply in recent years, and credit has played an increasing role in total farm capital. The financial structures of agriculture and manufacturing are thus becoming increasingly similar.

With the rising credit volume, farm credit sources have also changed. The change, however, has been gradual rather than revolutionary. It is when we view changes over the past half century that major contrasts appear. Significant changes have occurred in both the number of competitor groups in the business and the relative portion of credit supplied by each.

Trends in Farm Mortgage Credit

Prior to the 1900's most farm mortgage credit was supplied by individuals and other noninstitutional sources. Soon after the turn of the century, commercial banks and life insurance companies began to play an increasing role in the farm mortgage business. In 1916 the Federal Land Banks entered the farm mortgage business, and in the 1930's the Farmers Home Administration was created to finance high-risk farm mortgages with government assistance.

By early 1967 individuals and other noninstitutional lenders held only 40 per cent of the farm mortgage debt. In contrast, the holdings of major institutional lenders (commercial banks, life
insurance companies, FLB's and the FHA) had increased from an insignificant amount at the turn of the century to 60 per cent of the total in 1967.

**Non-Real Estate Farm Credit**

Non-real estate farm credit supply groups have also increased since the early 1900's. Even to a greater extent than mortgage lenders, this group was dominated by local suppliers well into this century. Local banks, dealers, merchants, and other local sources were almost the only suppliers of such credit prior to the beginning of credit extension by the Federal Intermediate Credit Banks (FICB's) and the emergency crop and feed loans in the mid-1920's. In the mid-1930's the Production Credit Associations (PCA's) entered the short-term farm credit market and have since become a major source of such loans. Like the land bank system; the PCA's are tied to the nation's financial markets.

It is generally believed that merchants, dealers, and other noninstitutional lenders held at least 50 per cent of all non-real estate farm credit prior to the 1940's. Since early 1940, however, the position of this group has declined, and by early 1967 it accounted for only 41 per cent.

This relative decline in merchant and dealer credit occurred despite their greater access to financial markets. Merchants and dealers who extend credit to farmers must, in turn, be financed. Prior
to the development of large agribusiness industries, most of this financing was probably done at local banks. In recent years, however, manufacturers who sell machinery, fertilizer, and other products to farmers through merchants and dealers have provided a sizable portion of this financing. These manufacturers in turn obtain funds through retained earnings, by selling debt and equity instruments to the public and by borrowing directly from large city banks.

Summary of Farm Credit Trends

From these trends in the farm credit supply I believe that the following conclusions are plausible:

1. With the entry of more financial institutions into the farm credit business and the relative decline of nonfinancial institution lending, farm credit suppliers have become less personal. This tends toward greater efficiency in the industry. Credit and credit-purchased resources tend to flow to the more efficient users as determined by the impersonal officials of the financial agencies. Those users, in turn provide the greatest returns to capital and can more readily repay debts.

2. The closer ties of farm credit to financial markets, as represented by life insurance companies, the Farm Credit Administration, large agribusiness corporations supplying credit through dealers, and to a lesser extent commercial banks, through the correspondent banking system, assure a more reliable supply of farm credit. With
such ties, credit at some price will probably be available to any farmer in the absence of legal restrictions, provided he meets the lender's usual credit requirements.

The same sources of funds, however, reflect relatively wide interest rate fluctuations, and credit agencies which rely on them must ultimately reflect such rate changes in loans to farmers. In the financial markets, interest rates are determined by the demand for and supply of loanable funds nationally. The rate is thus determined by the productivity of funds to all potential users. Therefore, to gain control of funds in this market the farmer must pay the wholesale rate plus the cost of retailing.

3. The impact of changes in the market structure of farm credit agencies on credit costs is difficult to measure. Also, the question of whether farmers obtain credit on a parity with the nonfarm economy remains unanswered. Direct measures of interest rates are not conclusive because of wide variations in risks and of lending and collection costs. Nevertheless, actual rate comparisons are not unfavorable to farmers. Farm credit outstanding at banks in mid-1956 was at lower average rates than 1956 yields on all bank loans. Also, Federal Land Bank rates on farm mortgages were below most nonfarm rates.
4. The large increase in farm credit and the relatively small advance in interest rates charged point to rising efficiency in gathering and channeling funds into agriculture.

Nonfinancial Agencies Remain Major Credit Suppliers

If credit is efficiently flowing into agriculture through the financial agencies, the question emerges: Why do merchants, dealers, manufacturers and other nonfinancial groups continue to be a major factor in supplying farm credit? Furthermore, can these groups supply credit as efficiently as the financial agencies?

A partial answer to the question of why merchants and dealers continue to be an important factor in the farm credit business may be the wide variations in the performance of the commercial banking system. Commercial banks continue as the largest suppliers of non-real estate farm credit. In the Midwest, banking is structured primarily on the unit basis. Where branching is permitted, it is usually limited to relatively small geographic areas. Any movement of funds between banking offices, therefore, must usually be between banks, not between offices of the same bank.

Since customer relationships are involved, funds move more freely between offices of the same bank than between banks. This appeared to be confirmed by recent unpublished studies undertaken in connection with the reappraisal of the Federal Reserve discount mechanism.
These studies appeared also to confirm the view that the total flows of funds between banks in different communities in unit banking areas was very small relative to total flows in areas served by state-wide branch systems.

Since some rural banks are short of funds during the heavy lending season, credit supplies from the commercial banking system may tend to dry up. There remain the PCA's which, if aggressive, can make up for the banking shortage. However, variations may exist in the aggressiveness of the PCA's. In such limited cases where the PCA's are not willing to take up the excess of credit demand, merchants and dealers are provided with an opportunity of supplying farm credit on a profitable basis.

I suspect that the real reason for the large volume of merchant and dealer credit, however, is not based on the relatively few areas in which farm credit may be somewhat stringent. The reason probably lies in the close association of selling and credit demand. The illusion that sales can be greatly increased if only credit is available in adequate quantity has been expressed so often by those not qualified in credit analysis that many firms have been converted to the credit shortage thesis. Once oriented in this direction, subsidized credit has probably been used as a selling tool. To put the case more succinctly, credit by merchants and dealers has probably been used to reduce the selling
price of products without the retaliatory results which often occur from a reduction in price quotations. Farmers quickly recognize the value of free or subsidized credit when not offset by higher price tags. As long as such practices continue, I would predict that merchants and dealers will find great demand for their credit and that an illusion of credit stringency by the financial agencies will prevail. On the other hand, if total credit costs are included in the credit bill rather than having a portion of them in the price tag, credit supplied by the financial agencies may appear quite adequate in most communities.

My final point is directed at the question: Who should supply farm credit? The answer will probably be determined on the basis of efficiency. If merchant and dealer credit is based on interest subsidies, which actually mean a markup in prices beyond the competitive price level, the volume of such credit is likely to decline over the longer run. I believe that such prices which include part of credit cost ultimately will be adjusted downward through the competitive process. When this adjustment occurs, interest charged will reflect actual credit costs. If such costs greatly exceed rates at which banks and PCA's can supply farm credit, the volume of credit supplied by merchants and dealers will continue its long-run downtrend. On the other hand, if such costs are competitive, there is no reason why
merchants and dealers should not remain a major source of farm credit. If they can obtain funds from the national financial markets and loan them to farmers at competitive rates, excluding all interest subsidies, they merit the business and should get it.