Review

FEDERAL RESERVE BANK OF DALLAS

June 1977

Inflation—
The Role of Market Structure

Farm Debt—
A Problem for Some

Inflation—

The Role of Market Structure

By Steven W. Dobson

The simultaneous occurrence of rapid inflation, high unemployment, and significant excess industrial capacity in recent years has suggested to many that an important new element may be contributing to the inflationary process in the U.S. economy. Prominent among the possible new elements that have been suggested is the structure of markets.

In this article, the first of two on the subject, we review the manner in which alternative market structures may influence the inflation process. We also examine the available evidence on the impact that market structure and changes in this structure have had on U.S. inflation in prior years. In the second article we will deal with the inflation experience of the 1970's. In particular, we will attempt to determine whether the role of market structures in the U.S. economy has changed appreciably from earlier periods or whether some other factor—such as inflationary psychology—is the more important new element.

Markets for goods, services, and labor in the United States are typically not "auction" markets, where price changes quickly equate supply and demand. Instead, prices in most markets respond with varying lags, often fairly long, to shifts in either supply or demand. For example, when aggregate demand rises, prices in more rigid markets begin to rise later but continue to increase after other prices have topped off. Consequently, these more rigid prices appear to be determined by forces other than supply and demand.

Because rigidity is especially prevalent for prices in concentrated industries and for wages governed by union contracts, such behavior of prices in these markets is often attributed to monopoly power. But even in these nonauction markets where significant monopoly power exists, such power can be a direct cause of inflation only if the degree of monopoly control grows over time. Important, but fairly unique, examples of such increases in monopoly control are the formation of the OPEC cartel and the expansion of unionism in the 1930's. Nevertheless, the rigidity of wages and prices in nonauction markets can be an indirect source of inflation if governments attempt to use conventional monetary and fiscal policies to offset the temporary unemployment of resources that they at times create.

Nonauction markets . . .

In all markets, prices are determined by supply relative to demand. But markets differ in the manner in which information about demand and supply is acquired by and disseminated to the participants in the market.

True auction markets—with an auctioneer announcing bids, offers, and final prices—exist for some goods. Antique furniture and a few agricultural products provide examples. But there are other auction markets, though lacking the auctioneer, that function similarly. Bids and offers flow continuously and are reported promptly, and prices move to clear the market almost instantaneously. Examples include markets for a broad range of agricultural products, a number of metals, and a large number of financial assets—particularly, but not exclusively, stocks and bonds traded on organized exchanges.

Markets for goods, services, and labor in the United States are typically not "auction" markets, where price changes quickly equate supply and demand. Instead, prices in most markets respond with varying lags, often fairly long, to shifts in either supply or demand.

If all markets were auction markets, one would never observe market clearing by such nonprice means as waiting lists, reservations, changes in backlogs of orders, and movements in inventories. But in fact, such phenomena characterize the preponderance of markets. If demand increases relative to supply in an auction market, price rapidly rises to equate bids and offers. However, in a nonauction market, although the same change in demand relative to supply eventually induces a similar response in price, this reaction takes much longer to be accomplished. And the slower response of prices in nonauction markets to general excess demand is an important aspect of the dynamics of inflation.

. . . in commodities . . .

Rigidity of wages and prices in nonauction markets stems, basically, from the problem of discovering the market-clearing price. Because most markets are nonauction, most sellers are price makers. This by itself causes prices to lag behind changes in market conditions. Price tags and price lists must be changed. But except for contracts that fix price for the length of a contract, this causes short lags at most. Furthermore, inflation may reduce these lags by increasing their cost. Responses can quicken through a greater willingness to change the prices of inventoried merchandise, through more frequent revision of price lists, and by a shortening of contract periods.

A more fundamental cause of price rigidity arises from the costs of acquiring information.[1] The absence of an auction mechanism reduces the amount of publicly available information about market conditions. Market participants must therefore assume the costs of acquiring the information. Potential purchasers must search for information by comparing prices of alternative suppliers, and sellers must search for the profit-maximizing price.

Once a consumer has established an ongoing relationship with a supplier, he tends strongly to use the past as a guide to the present. He chooses his present supplier on the basis of a past search for price and quality. If the relationship remains satisfactory, he will have no incentive to look further. The supplier has an incentive to maintain this relationship by delivering the product in the accustomed manner and by avoiding excessive price changes, which may induce renewed search by the customer. Both parties have an interest in establishing and maintaining a long-term relationship that has the flavor of an implicit contractual arrangement.

The supplier can assume that if the present price is maintained, most of his current customers will continue to buy from him. If the price is changed, some customers will be induced to compare alternatives and will perhaps be lost. The degree of price stability the supplier will wish to maintain will therefore depend on his perception of buyer sensitivity to price, which in turn will depend partly on the costs of search. An established buyer-seller relationship introduces an incentive for price stability, since each change disturbs the relationship and risks possible loss of customers. Hence, firms tend to price on the basis of long-run demand and to ignore short-run changes in demand.

. . . and labor

Imperfect and costly information also tends to make wages relatively rigid. A firm experiencing a reduced demand for its product may need to lower its wage costs, which it can do by reducing either wages or employment. A worker may be reluctant to accept a wage cut, believing he can maintain his wage by seeking employment elsewhere. This belief would be correct if the reduction in demand is confined to his current firm. But if there has been a general reduction in demand, he will find that employment opportunities have deteriorated elsewhere as well. It takes time for information about demand conditions to diffuse among workers, and until the diffusion occurs, many quit rather than take a pay cut. So, the initial impact of a drop in demand is on employment, rather than on wages.

The firm also must search for information about market conditions. If its wage is low relative to the offers of competitive firms, it finds that it has chronic vacancies and high turnover as its employees learn about alternative employment opportunities. The firm then has an incentive to raise its wage. If its wage is high, it has a waiting list of applicants and can be very selective in its hiring, taking only the most productive workers. Even so, the firm then has an incentive to lower its wage into closer alignment with that offered by other firms. So, wages, even in nonunion markets, are generally set with reference to a longer time horizon.

Workers prefer a stable employment relationship because changing employers is costly. It involves search, possible unemployment, moving costs, and psychic costs. Turnover is also costly to the firm. It involves costs of recruiting, screening, and training.

Labor markets internal to firms can also be a cause of wage rigidity. Many jobs involve knowledge and skills that are specific to firms, and, therefore, separate labor markets internal to individual firms develop. An experienced worker who has gained this firm-specific knowledge is worth more in his present job than an inexperienced worker. The firm is likely to pay the worker more than his value to it when he is inexperienced and in the process of acquiring skills, and less than his value to it when he is experienced.

The firm bears the costs of the investment by paying the worker more than his value to the firm while he is learning the job. It subsequently recoups the investment by paying the worker less than his full value to the firm when he is experienced. But

1. See Phelps et al. (1970) and Okun (1975).

the wage must, nevertheless, be higher than that which the worker could earn in an alternative occupation so as to hold down quit rates and protect the firm's investment in the worker. Therefore, for these types of jobs, the firm pays a premium relative to the wages in alternative employments.

Such wage premiums allow firms to ignore short-run market forces. Because workers earn more than they could in their next best choice, a strengthening of the labor market will have only a small immediate effect on the frequency with which workers quit. Moreover, the wage premium provides the firm with a waiting list of applicants. So long as the strengthening of the labor market does not raise other wages enough to eliminate the wage premium, the waiting list will allow the firm to hire new workers without raising the entering wage.

Nonauction markets and inflation

Such sources of wage and price rigidity have no effect on the ultimate response of wages and prices to a change in demand or supply conditions. Their effect is to spread this response over a longer period of time. However, such rigidities tend to create unemployment when demand is low. And to the extent that government authorities attempt to offset such unemployment by using conventional monetary and fiscal policies to expand overall demand, the rigidities may be an indirect cause of inflation. The rigidities also create differential movements of wages and prices during cyclical expansions and contractions of demand.

It appears, on balance, that price flexibility in the United States did not decline from the early 19th century to the 1930's. However, prices probably have become less flexible since World War II.

During an expansion of overall demand, prices and wages rise rapidly in markets that are near the auction end of the spectrum. Prices and wages in nonauction markets lag behind and rise more slowly. But during the later stages of the expansion, the lagging wages and prices catch up. They may even continue to rise during a subsequent downturn when auction prices have begun to fall. Consequently, they may appear to be initiating inflation, as they rise when demand is falling. But in fact, they are simply responding with a lag to an earlier expansion of demand.

An increase in the importance of these rigidities in existing markets, or growth in the proportion of nonauction markets, would increase the lag in response to changes in market conditions. With longer lags, there would be more unemployment when overall demand is low but more employment and output when demand is high. Changes in the flexibility of aggregate prices in the history of this country would have depended on the outcome of two opposing forces.

On the one hand, in the earlier years markets were developing from local exchanges to organized, integrated markets, linked over ever-increasing areas. Secular growth in the technology of communications and transportation, together with a decline in their relative costs, aided in the integration, increased the flow of information, and reduced search costs. These trends would have tended to increase price flexibility. On the other hand, the growth of the economy was accompanied by a relative decline in agriculture and a relative increase in manufactured products and in government and other services. These changes have caused a relative decline in auction markets and probably have reduced price flexibility.

It appears, on balance, that price flexibility in the United States did not decline from the early 19th century to the 1930's.[2] However, prices probably have become less flexible since World War II. The growth of technology has probably increased the rigidity associated with internal labor markets. The accelerated decline of agriculture and growth of the government and service sectors, which tend to lie at the nonauction end of the spectrum, would also have reduced price flexibility. Finally, the spreading mantle of government regulations affecting prices has also acted to reduce price flexibility.

Monopoly power and inflation

Sellers in some, but by no means all, nonauction markets exercise a significant degree of control over price, and the notion that monopoly power in product or labor markets is a key ingredient of inflation is frequently voiced. For example, two former Justice

2. Humphrey (1937) compared the frequency of changes in wholesale prices in 1890-1925 with that in 1926-32. He found no evidence that the flexibility of these prices had declined. Tucker (1938) examined the frequency of price changes back to the early 1800's. He found some evidence that price flexibility had increased by the 1930's. However, since Tucker's sample may not have been representative of the economy as a whole, it probably did not adequately reflect the growing importance of the more rigid sectors.

Department economists recently asserted in the *Wall Street Journal:*

> The price structures of a significant number of America's largest industries are administered by a few large firms with little regard to the usual marketplace influences of supply and demand.... Absent any constraint over prices in concentrated industries, inflation will likely continue upward in a large part of U.S. industry with relatively high levels of unemployment.[3]

Evoking a similar view, Senator Philip Hart had introduced a bill to create an Industrial Reorganization Commission that would restructure industries.[4] The bill's preamble stated:

> The decline of competition in industries with oligopoly or monopoly power has contributed to unemployment, inflation, inefficiency, and underutilization of economic capacity, and the decline of exports, thereby rendering monetary and fiscal policies inadequate and necessitating Government market controls subverting our basic commitment to a free market economy.

To the extent that sellers in a concentrated industry do have monopoly power, the price does wind up higher than that which would exist in a more competitive market. But such monopoly power does not result in a continuously rising price. Once sellers in the monopolistic industry reach their profit-maximizing price, there is no incentive to raise price further unless demand or cost conditions change. Concentrated industries can be a direct source of inflationary pressure only when something is causing their monopoly power to increase or is inducing them to exercise it more fully.

Although concentration tends to be associated with short-run price and wage rigidities, a constant degree of monopoly power does not cause inflation. Only when monopoly control is increasing can it directly contribute to inflation, and then only temporarily.

The problem of searching for the equilibrium price is more acute in many concentrated industries than in nonauction markets generally, causing their prices to lag not only behind auction prices but also behind some other nonauction prices as well. Once a price structure is established within such an industry, the members of the industry are reluctant to alter it. For example, a cut in any firm's price is bound to evoke retaliation. Methods of achieving coordination are well known. One firm may act as the price leader. Or the price may be set as a markup over costs that are both important to the industry and similar for all firms. One such cost is wages.

Pricing according to a formula based on wage costs can create a degree of wage rigidity, as well as price rigidity, over and above that due to unionization. If it is costly to make frequent price changes, and prices are based mainly on wages, the industry will wish to avoid making temporary wage changes. This can be done by insulating wage rates from short-run market forces by paying a wage premium. The industry then responds to short-run market forces by varying output and employment rather than prices and wages.

In summary, although concentration tends to be associated with short-run price and wage rigidities, a constant degree of monopoly power does not cause inflation. Only when monopoly control is increasing can it directly contribute to inflation, and then only temporarily. But prices in concentrated industries can lag cyclical movements of demand and, therefore, may sometimes appear to be generating inflation independently.

Evidence on monopoly in product markets

Studies of the link between market structure and inflation have begun with the proposition that the change in price in an industry over some period should be related to changes in demand and costs experienced by the industry, as well as its market structure. The measure of structure generally used is the concentration ratio, which is the percentage of the industry output accounted for by some given number of the largest firms—usually the largest four. The higher is the value of this ratio, the greater the degree to which industry output is concentrated in the given number of firms.

If it is true that concentrated industries initiate inflationary episodes, then if the effects on prices of changes in demand and costs are removed, one should find price changes to be greater in concentrated than unconcentrated industries in an inflationary period. On the other hand, if concentrated industries lend no independent force to the inflationary process but merely transmit inflationary impulses with a lag because of their nonauction

3. Joseph Borkin and Lewis I. Markus, "A Plea to Revive the 'TNEC' of Roosevelt Era," March 7, 1977.

4. S. 3832, 92d Cong., 2d sess. (July 24, 1972); reintroduced as S. 1167 in the 93d Cong., 1st sess. (March 12, 1973).

character, then during the early stages of inflation, prices in concentrated industries would rise the least. Later in the cycle, when inflation has continued for some time or has even slowed, the concentrated industries would respond with a lag to the earlier stimulus and raise their prices more rapidly.

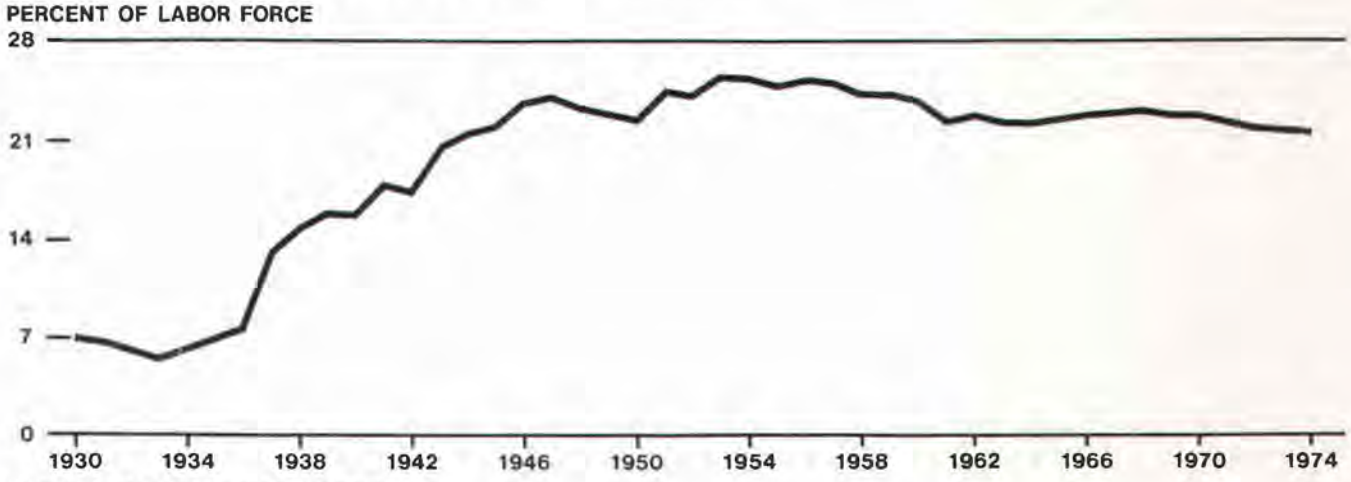
Weiss (1966) found a positive association between concentration and price changes for 1953-59 but no significant association in 1959-68 and a strong negative association for 1967-69. The positive association for the 1953-59 period is best interpreted as reflecting a lagged catch-up by concentrated industries to the demand inflation of the 1940's and price controls during the Korean War. Controls are most easily enforced against industries that are concentrated or that produce an undifferentiated product, such as basic raw materials. The absence of a relationship in the early 1960's suggests that these concentrated industries had completed their adjustment by then.

Similar results for these years were also found by DePodwin and Selden (1963), Dalton (1973), Cagan (1975), and Lustgarten (1975). Cagan also observed a negative association between price changes and concentration beginning in 1967 and lasting until 1970 but then turning positive in 1970-71. Since inflation was more virulent in 1967-70 than in 1970-71, Cagan's findings are also consistent with the notion that concentrated industries are a delayed transmitter of inflationary pressures rather than the source.

The weight of the available studies does not support the hypothesis that monopoly power causes inflation. Rather, it suggests that concentration is strongly associated with nonauction market characteristics that tend to lead to short-run price rigidity. Only when monopoly control is increasing can it contribute to inflation. Indeed, the formation of the Organization of Petroleum Exporting Countries (OPEC) is an emphatic recent example.

Although OPEC was formally established in 1960, its cohesiveness as a cartel was not fully cemented until October 1973. In that month, it raised the posted price of crude oil by 70 percent. This and subsequent increases, which ultimately quadrupled the world price of oil, represented a movement of the cartel toward its monopoly equilibrium. If overall world demand for goods and services had remained constant, the long-run effect would have only been on relative prices. But because of the importance of nonauction markets, many prices and wages would not have fallen very much in the short run; therefore, output would have needed to fall severely, with an accompanying rise of unemployment, in the oil-importing countries. Governments of these countries chose, instead, a midroute between full accommodation and no accommodation of the oil price rise, generally allowing aggregate demand

Proportion of trade union members in the labor force grew markedly before World War II but has stabilized since then



SOURCES: U.S. Bureau of Labor Statistics.
U.S. Department of Commerce.

in their countries to rise by enough to support output and employment to some degree. The result was an increase in the general level of prices around the world because of OPEC's monopolistic action on a single, widely used commodity.

Monopoly power in labor markets

Union wages are usually even stickier than nonunion wages because they are determined by a cumbersome and time-consuming process of collective bargaining, which fixes contracts for several years. But whether inflationary pressures originate with unions is related to two issues. The first concerns the conditions under which unions are able to raise wages of their members relative to other wages. The second concerns the extent to which wage gains achieved by unions are transmitted to nonunion sectors of the economy.

The demand for labor services is like that for any other commodity: less of the service is demanded the higher the price. The actual price prevailing for a type of labor service at any time is that which equates quantity demanded with quantity supplied. A labor union raises wages for its members by its power to strike or restrict the amount of labor services supplied. In either case, the union faces a trade-off: it can obtain higher wages for its members but only at the cost of reduced opportunities for employment. Because unions are concerned with both wages and membership, they end up achieving some wage premium relative to the nonunion wage.

The size of the premium depends on the extent to which a higher wage reduces the demand for union labor, the cost of strikes or other measures used to obtain and keep the premium, and the union's attitude toward the wage-employment trade-off. The first two factors are importantly influenced by the degree of unionization of the industry and related industries. For example, an increase in union wages will raise the costs and, therefore, prices of unionized firms. The greater the number of nonunion firms, the greater the number of nonunionized workers whose wages have not risen. Therefore, the greater will be the decrease in demand for union labor.

Once each union achieves its desired premium, the structure of wages would not change among unions and between the union and nonunion sectors as a result of union activity. However, during a period of expansion in union membership as occurred in the 1930's, wages would rise in newly unionized sectors of the economy. Only if there were an additional increase in the monopoly power of unions or their willingness to use it, would there be further wage pressure from unionism.

Thus, unions do not raise union wages relative to nonunion wages except in the process of establishing, or reestablishing, a monopoly equilibrium. Even an increase in union wage premiums need not raise the overall level of wages and prices. If a union effectively raises wages and keeps jobs below the level they would otherwise be, the displaced labor must seek employment elsewhere. The increased supply of labor would then put downward pressure on wages in the nonunion sector. This would offset higher wages in the union sector, so the overall wage level is unaffected. The effect of monopoly power in the union sector would simply be to change relative wages and redistribute income.

This scenario assumes, of course, the stock of money in the economy—and hence the level of overall demand—remains unchanged. If, however, the central bank boosts the level of aggregate demand through an expansion in the stock of money, so as to accommodate the increase in union wages, no transitional unemployment or decline in nonunion wages need result. Even so, the consequence would only be a once-and-for-all increase in the price level, rather than a continuing inflation that could be attributed to labor unions.

Conceivably, however, union wage gains might be transmitted, partially or totally, to other sectors of the economy if nonunion employers are concerned about the threat of being unionized. Such a spillover of wage gains from the union to the nonunion sector would link union and some nonunion wages, in effect increasing the proportion of wages subject to union power. But so long as the proportion affected is less than the total labor force, there will still be a sector to absorb surplus labor and offset the higher union wages with lower ones; and the aforementioned conclusions on the impact of unions on the price level still hold.

Evidence on monopoly in labor markets

Lewis (1963) has made estimates of the effect of unions on relative wages in various subperiods between 1920 and 1958. This effect is measured as the percentage by which average wages in a completely unionized industry exceed those in a nonunion industry when all influences on wages other than unionization are held constant. Interestingly enough, the differential has varied considerably from period to period because of a lagged response by unions to changes in economic conditions. The lag in union response is similar to that of other prices determined in nonauction markets.

During the depression years beginning in 1929, union wages fell more slowly than wages in the

remainder of the economy, with a consequent increase in the average union-nonunion wage differential. Only subsequently, toward the end of the decade, were the prior premiums relative to other wages reestablished.

As detailed by Throop (1968), the behavior of union wage premiums in the 1940's and 1950's is also explained by lags. Union membership grew rapidly in the early 1940's, continuing a trend begun in the last half of the 1930's. The proportion of civilian labor force unionized rose from 7.4 percent to 23.6 percent from 1936 to 1946 and then stabilized between 20 and 25 percent. But the rapid growth of union membership during the war years was not accompanied by increases in relative wages of new union members because labor leaders agreed to abide by the decisions of the National War Labor Board during the war. Adjustment of union wage premiums was further delayed by the large and unanticipated inflation following the war.

There is no convincing evidence for the view that union wage gains spread out to a large part of the nonunion sector, making union power over wages significantly more extensive than is indicated by the coverage of their membership.

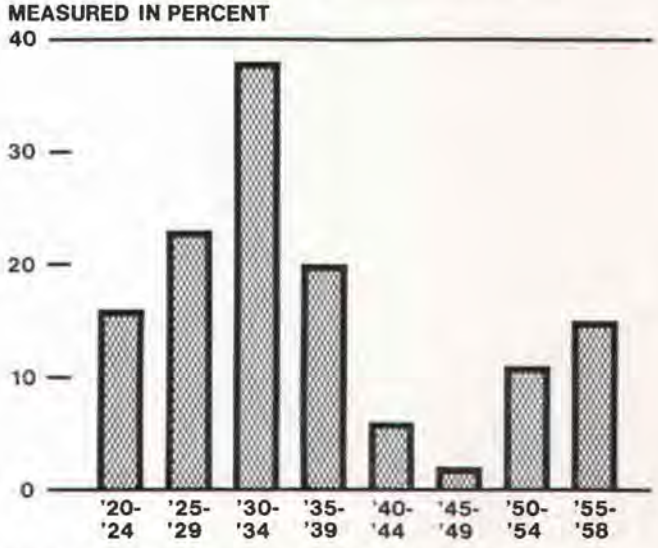
Previous union wage premiums were generally restored during the 1950's, the adjustment having been completed, on average, by around 1958. On this interpretation, an apparent wage-push inflation in the 1950's was, in fact, the combination of some deferred wage push—due to the earlier growth of unionism—and deferred adjustment of union wages to demand inflation in the 1940's.

Various studies have indicated that imitative wage patterns do exist within the union sector of the economy.[5] But such imitation is not so extensive as to make for virtually identical wage changes in any year. For example, in recent years annual wage increases for manufacturing unions have ranged from zero to 13 percent. Moreover, and as carefully detailed in a recent comprehensive study by Flanagan (1976), there is no evidence of a significant spillover of union wage settlements to nonunion sectors of the economy. So, while relative-wage comparisons play a significant role in many collective-bargaining relationships, the sphere of wage imitation is quite limited.

The greatest impact of the most visible collective-bargaining settlements is on other agreements negotiated by the same union rather than on union wages generally. Movements of union wages in different industries vary a great deal more, although some relatively loose imitative effects can be discerned even there. But there is no convincing evidence for the view that union wage gains spread out to a large part of the nonunion sector, making union power over wages significantly more extensive than is indicated by the coverage of their membership.

Since union wage gains do not spread significantly to the nonunion sector, union power can at most exert only a temporary, or once-and-for-all, direct impact on the rate of inflation. This could happen if new unions are establishing monopoly wage premiums or old unions decide for some reason to increase these premiums and are able to do so. Otherwise, the effect of unions is to increase the relative rigidity of wages. This rigidity initially dampens the effect of excessive aggregate demand on wages and prices—and for a time, actually pro-

The wage advantage of union members has varied significantly with business cycles



SOURCE: H. G. Lewis (*Unionism and Relative Wages in the United States: An Empirical Inquiry*, University of Chicago Press).

5. See, for example, Eckstein and Wilson (1962), McGuire and Rapping (1968), and Rosen (1969).

motes higher output and employment—but does not change the ultimate response.

Summary and conclusion

Nonauction markets predominate in the United States, as in most free market economies. The costs of acquiring information about the market-clearing price in such markets create temporary price inflexibilities. These sources of wage and price rigidity have no effect on the total, or longer-run, response of wages and prices to a change in demand and supply conditions. Rather, their effect is to spread this response through time. Nonauction wages and prices, therefore, sometimes appear to behave perversely, rising when demand is falling. But in fact, they are simply responding with a lag to an earlier expansion of demand.

The structure of markets is generally not a direct cause of inflation. The extraordinary success of the OPEC cartel is a recent exception that proves the rule.

Sellers in some, but by no means all, nonauction markets exercise a significant degree of monopoly control over price, and prices in these particular nonauction markets are usually even more rigid over short periods of time than elsewhere. But monopoly power results in only a higher, and not a rising, price. Once sellers in the monopolistic industry reach their profit-maximizing price, there is no incentive to raise the price further unless demand or cost conditions change. Such concentrated sectors can create inflationary pressure only when something is causing their monopoly control to increase.

A similar circumstance applies to the impact of labor unions on wages and, indirectly, on prices. Because unions are concerned as much with wages as with membership, they end up achieving wage premiums relative to the nonunion wage. During a period of expansion in union membership, as occurred in the 1930's in this country, wages rise in the newly unionized sectors of the economy. But only if the desired size of union premiums subsequently rises, is there any further wage pressure due to unionism. And the impact of a wage increase on the amount of union labor demanded must ultimately put a limit on the size of the wage premiums unions obtain. Union wage gains might conceivably be transmitted to other sectors of the economy if nonunion employers are concerned about the threat of being unionized. But in fact, the greatest impact of the most visible collective-bargaining settlements in the United States is on other agreements negotiated by the same union. Much looser imitative effects extend to other unions, and under current conditions at least, there is no significant imitation of union wages by nonunion employers generally.

Thus, the structure of markets is generally not a direct cause of inflation. The extraordinary success of the OPEC cartel is a recent exception that proves the rule. The increase in monopoly control brought about by this cartel brought a fourfold increase in the price of world oil. Because of the predominance of nonauction markets in most economies, however, other prices were not flexible enough downward even in response to a worldwide recession. To ease the adjustment, governments of oil-importing countries partially accommodated the rise in the price of oil by promoting increases in aggregate demand through conventional monetary and fiscal policies. The result was a one-shot increase in world prices, following OPEC's monopolistic action.

Nevertheless, reduced price flexibility complicates the use of aggregate economic tools, such as monetary and fiscal policy, and may at times be an indirect source of inflation. Nonauction markets make for more of a change in output and employment and less of a change in prices than would otherwise be the case, whether overall demand is rising or falling. Thus, when overall demand temporarily increases, there is less inflation and more output and employment than would occur in auction markets. And a temporary fall in demand creates less deflation and less output and employment under these circumstances. But the average rate of inflation and level of employment over the whole business cycle is not necessarily markedly different for nonauction than for auction markets.[6] However, if government authorities attempt to offset all temporary unemployment of resources with expansions of overall demand, the result is likely to be only an acceleration of inflation without any lasting impact on output and employment.

6. Creation of an auction market for labor would probably reduce the normal, or frictional, amount of unemployment by improving market information. But the fact remains that in nonauction markets the level of unemployment can move below, as well as above, the normal frictional amount while in an auction market it would probably fluctuate very little. Thus, except for the higher unemployment due to poorer market information, the average level of unemployment over the whole business cycle need not be any less for nonauction markets.

An additional complication is the problem of combating inflation once it has gained momentum. The root of inflation is excessive aggregate demand. So, demand must be brought under control if inflation is to be subdued. But is the cost in terms of lost output and employment likely to be less if drastic anti-inflation action is taken than if the growth of demand is slowed gradually? If an abrupt slowing of demand is undertaken without having changed the inflationary psychology of participants in nonauction markets, the result is likely to be a fairly massive unemployment of labor and other resources as prices and wages continue to respond only slowly. But if market participants can be convinced that the long-term environment will be one of more stable prices, a quick slowing in the growth of demand would immediately impact mainly on prices. The more drastic approach would be successful, then, only if the participants in nonauction markets could be persuaded that such an abrupt change of policy is going to be permanent.

REFERENCES

Cagan, Phillip. "Inflation and Market Structure, 1967-1973." *Explorations in Economic Research* 2 (1975): 203-16.

Dalton, James A. "Administered Inflation and Business Pricing: Another Look." *Review of Economics and Statistics* 55 (1973): 516-19.

DePodwin, Horace J., and Selden, Richard T. "Business Pricing Policies and Inflation." *Journal of Political Economy* 71 (1963): 116-27.

Eckstein, Otto, and Wilson, Thomas A. "The Determination of Money Wages in American Industry." *Quarterly Journal of Economics* 76 (1962): 379-414.

Flanagan, Robert J. "Wage Interdependence in Unionized Labor Markets." *Brookings Papers on Economic Activity*, 1976, no. 3, pp. 635-73.

Humphrey, Don D. "The Nature and Meaning of Rigid Prices, 1890-1933." *Journal of Political Economy* 45 (1937): 651-61.

Lewis, H. G. *Unionism and Relative Wages in the United States: An Empirical Inquiry*. Economics Research Studies. Chicago and London: University of Chicago Press, 1963.

Lustgarten, Steven. *Industrial Concentration and Inflation*. Domestic Affairs Study no. 31. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1975.

McGuire, Timothy W., and Rapping, Leonard A. "The Role of Market Variables and Key Bargains in the Manufacturing Wage Determination Process." *Journal of Political Economy* 76 (1968): 1015-36.

Okun, Arthur M. "Inflation: Its Mechanics and Welfare Costs." *Brookings Papers on Economic Activity*, 1975, no. 2, pp. 351-90.

Phelps, Edmund S., et al. *Microeconomic Foundations of Employment and Inflation Theory*. New York: W. W. Norton & Company, 1970.

Rosen, Sherwin. "Trade Union Power, Threat Effects, and the Extent of Organization." *Review of Economic Studies* 36 (1969): 185-96.

Throop, Adrian W. "The Union-Nonunion Wage Differential and Cost-Push Inflation." *American Economic Review* 58 (1968): 79-99.

Tucker, Rufus S. "The Reasons for Price Rigidity." *American Economic Review* 28 (1938): 41-54.

Weiss, Leonard W. "Business Pricing Policies and Inflation Reconsidered." *Journal of Political Economy* 74 (1966): 177-87.

Farm Debt—

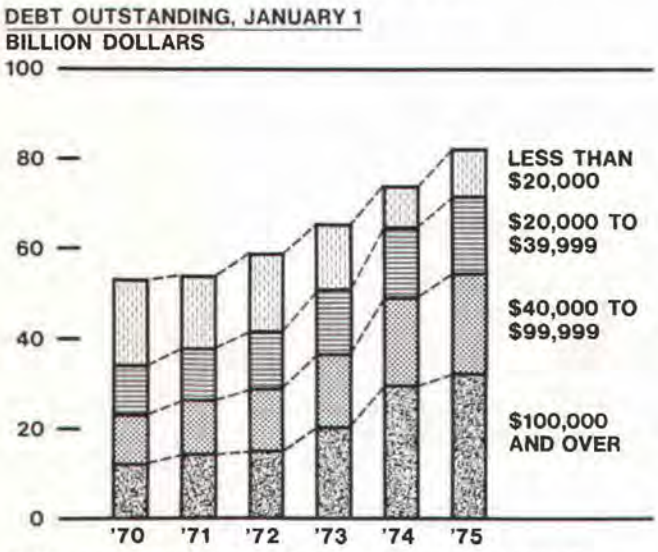
A Problem for Some

By Carl G. Anderson, Jr.

Farmers and ranchers are relying to a greater extent on borrowed funds to meet their financial needs. Farm debt increased about $11 billion in 1976, and the total outstanding topped $100 billion at the start of 1977. The growth is continuing, with a large increase expected again this year.

The rapid rise in agricultural credit reflects the sharply higher prices of real estate and production items, a marked increase in the use of large equipment, and a decline in internally generated funds. Since farm debt has been growing at a much faster pace than farm income, some are concerned about the financial stability of agriculture. A sharp rise in 1972-73 income ignited rapid increases in investments and land prices that pushed farm debt at the start of 1977 to 78 percent above that in 1972. Meanwhile, annual net income from farm sources declined toward earlier levels, with 1976 income 18 percent above that of 1972.

Farms with largest sales account for most of recent growth in farm debt



NOTE: Farms classified on the basis of gross sales annually.
SOURCE: U.S. Department of Agriculture.

The rise in debt relative to income has caused many lenders to increase the collateral required to secure farm loans. Payments on loans have slowed, and renewals of loans and extensions of their maturities have increased. Financial problems are greatest for some borrowers in agricultural states in the Midwest and Southwest as a consequence of depressed prices for livestock and wheat. With the ratio of income to debt now generally below levels prevailing before farm income rose sharply during 1972-73, the rate of growth in debt can be expected to slow substantially as farmers and ranchers become less able to service increasing amounts of borrowed funds because of reduced cash flows.

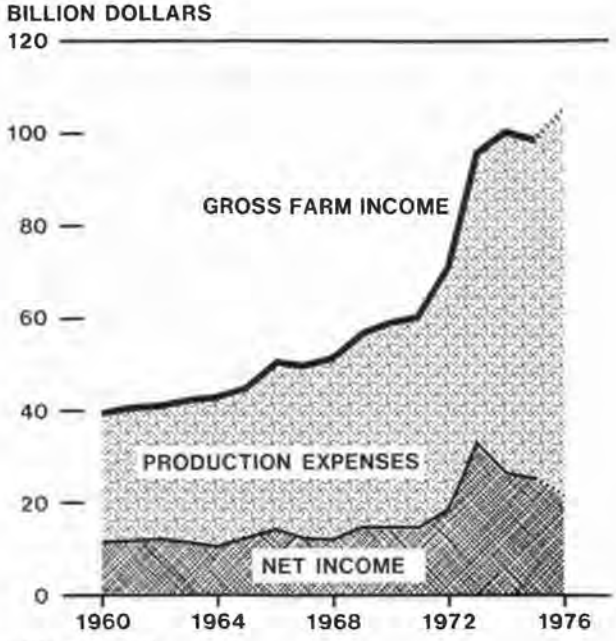
The rapid rise in agricultural credit reflects the sharply higher prices of real estate and production items, a marked increase in the use of large equipment, and a decline in internally generated funds.

Growth of debt accelerates

Overall, agriculture is among the least debt-leveraged industries in the United States. Debt secured by land represented only 12 percent of farmland values at the start of 1977, slightly lower than five years earlier. On the other hand, the ratio of debt secured by non-real-estate assets to the value of those assets is considerably higher—32 percent in 1977 and up from 28 percent just prior to 1972-73. However, marked increases have taken place in both types of debt. Totaling $56.7 billion at the beginning of this year, debt secured by farm real estate had increased 76 percent since January 1972. Other debt (mostly short- and intermediate-term credit), totaling $44.4 billion, increased 80 percent in the same period.

The wealth of landowners has increased more from the rising value of their land than from farming and ranching activities. The value of farm real estate rose nearly $230 billion during the past five years, while net farm income in the same period totaled $126 billion. And recent years have seen greater numbers of sales of farm and ranch land at inflated

Farm income started lagging production expenses after 1973



1976 estimated.
SOURCE: U.S. Department of Agriculture.

prices, with greater dependence on credit to finance the transfers. Credit was used in fully 87 percent of the farmland transfers in 1976—up 10 percentage points from a decade earlier; and for these sales the proportion of the average transfer value that was credit-financed increased 4 points to 76 percent.

Farmland values have risen as farmers and other investors have taken a renewed and intensified interest in bidding for land. The clamoring for more land was mainly triggered by an increase in net farm income, which averaged 86 percent more in 1972-76 than during the previous five years, and expectations that land prices would continue to rise. Investment in land has a good record as a hedge against inflation. The index of average per-acre farmland values increased 257 percent between 1960 and 1976; the cost of living increased about 92 percent. In comparison, Standard and Poor's composite price index of 500 stocks rose 83 percent.

The modernization of farming operations has also been important in boosting the demand for agricultural credit. The further mechanization of agriculture entails purchases of sophisticated and expensive equipment, which are often financed with borrowed funds. In the first three months of this year, for example, U.S. sales of two-wheel-drive farm tractors with over 100 horsepower were 13 percent higher than a year earlier while sales of those with less than 100 horsepower were 13 percent lower. The trend toward bigger equipment is linked to the continued rapid growth in the average volume of product sales per farm.

The accelerated growth of debt has been boosted as well by a marked reduction in internal financing from accumulated savings and current income. Very little credit was used to finance farm capital accumulation in the decade before World War II; but in the years since, and particularly during the 1970's, the trend toward the use of more external financing has intensified. According to a recent study by John B. Penson, Jr., the proportion of farm capital accumulation financed externally averaged 45 percent during 1972-75, compared with only 27 percent as late as 1970.[1]

The growth in external financing is associated with the reorganization of farm operations into larger units. Technological advances that increase the size of farms required for efficient operation increase capital requirements per farm. By 1975, for example, the average capital requirement of farms with $100,000 and over in sales had increased to over $1 million. But because such amounts more and more are exceeding the wealth of individual operators, the need for external financing has grown. This growing dependence on debt is reflected by a sharp rise in the debt-asset ratio for farms with $100,000 and over in sales—up 11 percentage points in three years to 29 percent in 1975.

Lenders' shares change

As conditions in capital markets have changed and the growth of farm debt has accelerated in recent years, significant shifts have occurred in the shares of credit supplied by some lenders. Most significant have been the decrease in the share of life insurance companies and the increase in the share of the Farm Credit System in the loans secured by farm real estate. The market share of life insurance companies declined as credit demands in the nonfarm sector strengthened and interest rates rose relative to rates on farm mortgage loans. Also, a number of insurance companies encountered large demands from policy-

1. "Toward an Aggregative Measure of Saving and Capital Finance for U.S. Farm Operator Families," *American Journal of Agricultural Economics* 59, no. 1 (February 1977): 49-60. Capital accumulation was estimated for continuing farm operators only and was defined to include net purchases of farm real estate from discontinuing operators or nonfarmers.

holders for policy loans, which limited funds available to acquire farm mortgages and other assets. Commercial banks have held a fairly steady market share.

The Farm Credit System is made up of member-owned institutions—Federal land banks, Federal intermediate credit banks, production credit associations, and banks for cooperatives. These operate under the supervision of the Farm Credit Administration, a Government-sponsored, farmer-owned establishment. The system was organized to provide specialized loan service to agriculture, obtaining funds largely from sale of debentures in capital markets.

Federal land banks are the largest institutional suppliers of farm mortgage credit. Following a liberalization of the rules governing lending by the Farm Credit Act of 1971, the Federal land banks expanded their share of the market even further, from 23.5 percent in 1971 to 33.0 percent at the start of 1977. The new regulations authorized the land banks to make loans up to 85 percent of the appraised value of farm real estate and up to 40 years. This liberalization of loan terms and the intermittent tightening of capital markets in succeeding years caused a large shift of farm mortgage credit to the Federal land banks.

Commercial banks and production credit associations hold more than three-fourths of the non-real-estate debt, consisting mostly of loans to farmers and ranchers to cover equipment and livestock purchases and operating expenses. The commercial banks' share of this short- and intermediate-term credit has declined slightly since 1974, while production credit associations have increased their share from 23.8 percent to 27.7 percent. However, commercial banks are stepping up their farm lending, and several large city banks have opened agricultural departments for the first time. A few banks have entered into joint-venture arrangements with other commercial banks to better facilitate extending loans to agricultural customers. Such arrangements are usually between large banks in urban areas that can easily obtain funds through the acceptance market and banks that are near agricultural customers and have personnel with expertise in making and servicing farm loans.

Agricultural lenders are also becoming increasingly involved with various Government sources of farm credit because incomes and equities of an unusually large number of borrowers have fallen below levels that can support loans from commercial sources. In addition to making loans to farmers and ranchers that do not qualify for credit through private and cooperative sources (at the start of 1977, $5.8 billion of these loans was outstanding), the Farmers Home Administration is expanding its loan program that guarantees up to 90 percent of principal and interest of loans extended through commercial lenders to farmers and other rural residents, businesses, and industries. An example is the emergency livestock loan program that was initiated in 1974 to help cattlemen experiencing severe financial difficulties because of low cattle prices. In early 1977, approximately 900 borrowers in Texas had loans under this program.

Moreover, the Small Business Administration now has authority to guarantee loans to farmers and ranchers with annual gross sales as large as $275,000. The main advantage the SBA loan guarantees have over those of the Farmers Home Administration is they can cover loans to farm corporations, and the SBA's lending ceiling of $500,000 is higher than the FmHA's.

Debt poses a problem for some

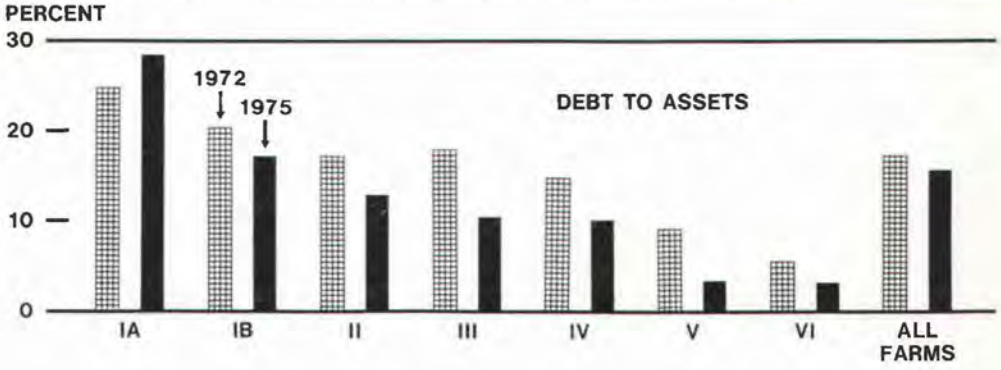
A squeeze between higher production costs and lower farm prices caused net farm income to fall from the spectacular level of $33.3 billion in 1973—more than double that in any prior years except 1972 and 1948—to $22.0 billion in 1976. And with decreased profit margins, the period of time in which loans may be expected to be repaid has lengthened. Thus, the ratio of net income per farm to total liabilities declined from 45.8 percent to 27.7 percent for U.S. farms between 1973 and 1975.

As a result of the profit squeeze, some farmers and ranchers are having difficulty servicing their debt. The greatest problems have surfaced where farm incomes have decreased sharply because of such factors as low grain and livestock prices and drouth-reduced crop production in 1976. Farmers and ranchers hardest hit are in a nine-state area that stretches from Texas to North Dakota and includes about one-fourth of all farms in the United States.

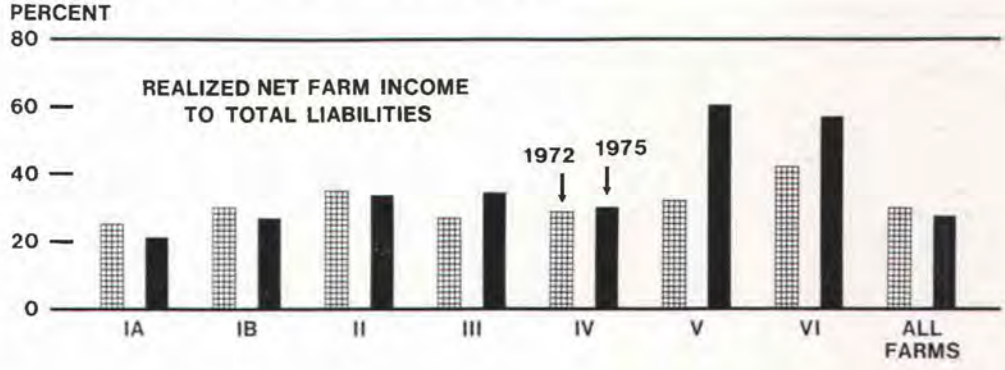
A special survey of 400 bankers by the U.S. Department of Agriculture in April found that about one-fourth of all bank borrowers in the nine states are expected to refinance their loans or dispose of some farm assets to meet their debt payments. And 6 percent will not be able to repay their debt from expected income. Generally, then, the financial difficulties of farmers and ranchers in the survey area largely result from inadequate income and equity to support debt obligations incurred when profits were much higher. Bankers viewed the current repayment abilities of farmers as much worse than normal. Three-fifths of the respondents indicated that more farmers than usual were in less than sound financial condition.

Other surveys of bankers in the midwestern and southwestern regions of the United States in early

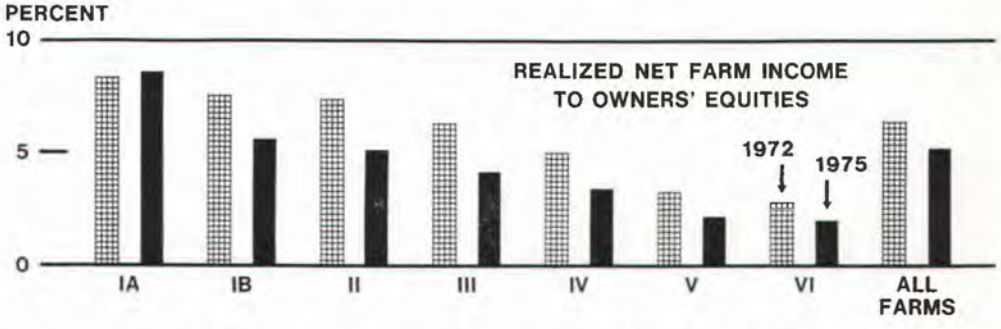
Asset values per farm have generally grown faster than debt . . .



. . . but net income has fallen relative to debt . . .



. . . and equity returns also have generally declined



FARM SIZES–GROSS ANNUAL SALES:
IA – $100,000 AND OVER
IB – $40,000 TO $99,999
II – $20,000 TO $39,999
III – $10,000 TO $19,999
IV – $5,000 TO $9,999
V – $2,500 TO $4,999
VI – LESS THAN $2,500

SOURCE: U.S. Department of Agriculture.

1977, conducted by district Federal Reserve banks, also indicated some borrowers are having difficulties in repaying loans. In areas where wheat, cattle, and hog enterprises are the main farming and ranching activities, the rate of loan repayment has slowed considerably and greater use of renewals and extensions is being made. Bankers in the Midwest and Southwest have generally increased the amount of equity required as collateral on loans.

The largest farms, while accounting for the lion's share of the increase in total farm debt, have also been the most able to use credit productively.

But as indicated by overall debt-asset ratios in the Department of Agriculture's *Balance Sheet of the Farming Sector*, most of agriculture is capable of carrying its increased debt load. Total debt per farm relative to asset values is small. Moreover, between 1972 and 1975 the ratio of debt to assets fell for all but the largest farms. The increase in the debt-asset ratio for the largest farms reflects their rapid growth in debt.

Growth in debt of the largest farms—mostly secured by real estate—has taken place as they have expanded to take advantage of economies of large size. Greater efficiencies are particularly evident in their investment in machinery. In 1975, for example, machinery and motor vehicles accounted for only 7.9 percent of assets on large farms (those with $100,000 and over in sales) but 12.3 percent on medium-size farms ($20,000 to $39,999 in sales) and 11.9 percent on small farms ($5,000 to $9,999 in sales). The more efficient use of credit and productive resources helps to provide an incentive for farm expansion. In 1975 large farms posted a rate of return to equity of 8.6 percent, medium farms 5.1 percent, and small farms only 3.4 percent.[2]

The decline in net farm income caused the rate of return to owner's equity to fall for all farm sizes except the largest between 1972 and 1975. Greater efficiencies, combined with more leveraging of their equity with debt, allowed the largest units to increase their return on equity. Moreover, the margin by which equity returns to large farms exceeded those of the smaller units was substantially wider than prior to 1972. The largest farms, while accounting for the lion's share of the increase in total farm debt, have also been the most able to use credit productively.

Even on these farms, however, the growth of debt is likely to slow considerably from recent rates. Unusually high rates of inflation in land prices during the past five years and in farm prices in 1973-74 have been the basis for rapid debt expansion. Favorable farm incomes provided the rationale for paying higher prices for land and the means for covering higher operating costs. But with the ratio of farm prices received to those paid now at about the levels of the 1960's, the outlook is for much slower growth of agricultural debt.

2. Income used in calculating "returns to equity" includes returns to family labor and management, but the ratios are nevertheless a useful indicator of relative returns on various sizes of farms.

New member banks

Las Colinas National Bank, Irving, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business May 16, 1977, as a member of the Federal Reserve System. The new member bank opened with capital of $500,000, surplus of $500,000, and undivided profits of $250,000. The officers are: John L. West, President; F. David Graeber, Vice President; and Gunther Weniger, Cashier.

Sugar Creek National Bank, Sugarland, Texas, a newly organized institution located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business June 1, 1977, as a member of the Federal Reserve System. The new member bank opened with capital of $480,000, surplus of $480,000, and undivided profits of $240,000. The officers are: Jake Kamin, Chairman of the Board; Thomas E. Daniels, President; and Ron Smulcer, Vice President and Cashier.

Federal Reserve Bank of Dallas
June 1977

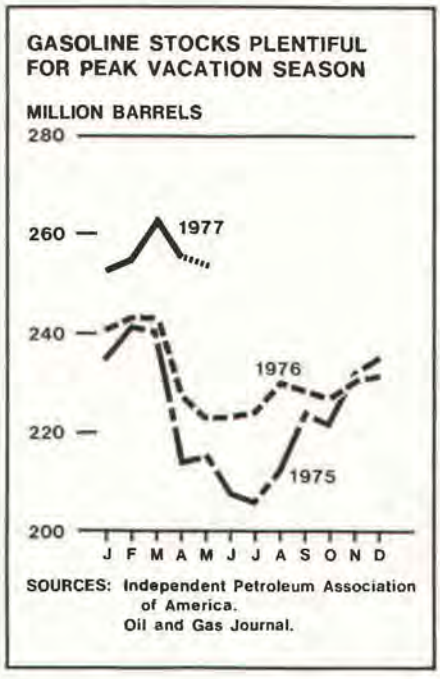
Eleventh District Business Highlights

SUMMER GASOLINE SUPPLY UP

Despite administration warnings of an impending energy crisis, ample supplies of gasoline likely will be available throughout the nation during the peak summer driving season. But spot shortages could occur in some areas—especially in such heavily traveled vacation areas as national parks.

In May, gasoline stocks were nearly 18 percent higher than at the same time last year. Moreover, U.S. refineries were operating at over 90 percent of capacity, compared with nearly 87 percent a year earlier.

Consumers have not heeded warnings of another energy crisis by cutting back on consumption. Record demand for gasoline is being fueled by the continuing economic recovery, growing consumer optimism, brisk automobile sales, and greater highway travel.



Gasoline demand for the first four months of this year was almost 2 percent higher than in the same period in 1976. And to meet peak demand this summer, gasoline consumption should rise still more, even though demand for the year may be only 3 percent above 1976. This will be the third year in a row that demand has increased since crude oil supplies were cut back following the Arab oil embargo.

Total vehicle miles traveled in the United States in 1975 (the most recent year for which U.S. data are available) rose 3.1 percent over the previous year. In Texas, which is second only to California in highway travel, the number of vehicle miles traveled rose 7.4 percent. And last year, it climbed another 7.9 percent to 91 billion vehicle miles.

Even with ample stocks available, gasoline prices have begun to climb with the upswing in seasonal demand. In late May the U.S. city average for regular gasoline was 63.5 cents per gallon, up from 62.7 cents a month earlier.

Gasoline prices in Texas during the summer vacation months should remain at lower levels than in the rest of the nation. Prices of leaded regular gasoline in Dallas and Houston were 5.2 cents and 6.6 cents, respectively, below the U.S. city average in May.

ECONOMIC RECOVERY SHIFTS GEARS

Increased consumer spending was the major thrust in the first two years of economic recovery in the Eleventh District, as in the nation as a whole. But now business investment has begun to strengthen and is playing a larger role in the District economy in the recovery's third year.

In the initial, prolonged phase of recovery, consumer spending played the major role, as evidenced by rebounds in both retail sales and home buying. At the same time, employment and personal income gained momentum, which reinforced the increase in spending.

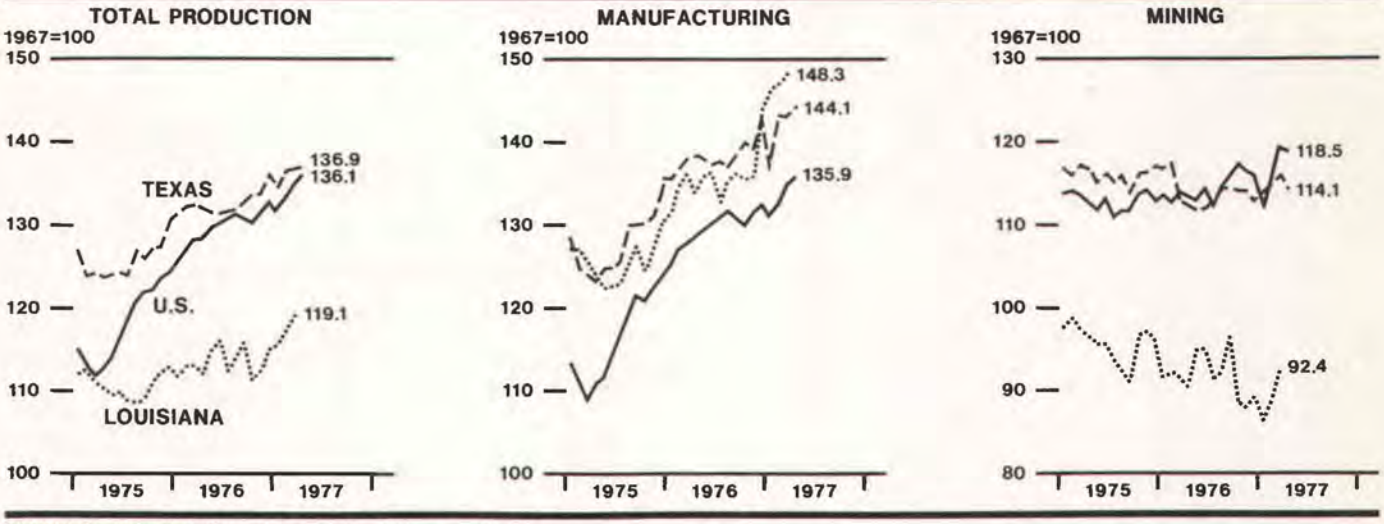
Growth in consumption expenditures has been reflected in the sharply increased demand for consumer loans at large commercial banks in the District—especially since mid-1976. Consumer loans rose 6.4 percent in the first four months of this year, and that was on top of a 6.6-percent rise during the last half of 1976. More than half the growth in consumer borrowing has been accounted for by automobile loans. But loans outstanding under credit-card plans have also expanded in line with the pickup in consumer spending last year.

Home buying is also a significant factor in the strong recovery in the District. The number of new housing starts in Texas, for example, increased more than a fourth last year. And during the first four months of 1977, starts were up about a third from the same period in 1976.

The resurgence in home buying largely reflected the record inflow of savings at thrift institutions in 1976, which has helped to reduce mortgage rates slightly from the high levels of a few years ago. Only a small moderation in savings inflows is expected this year.

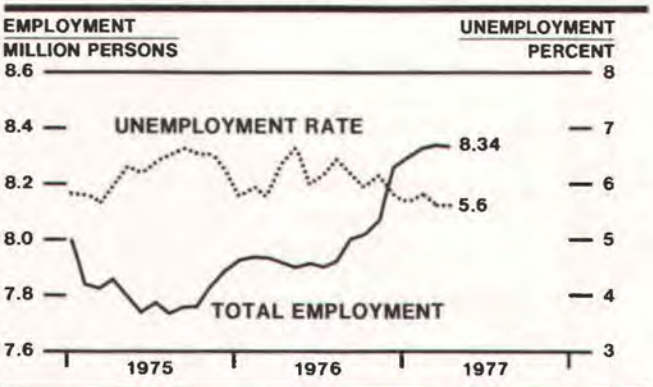
The main laggard in the District economy, thus far, has been business investment. Businesses generally have remained cautious in increasing outlays for inventories and new plants and equipment.
(Continued on back page)

INDUSTRIAL PRODUCTION
(SEASONALLY ADJUSTED)



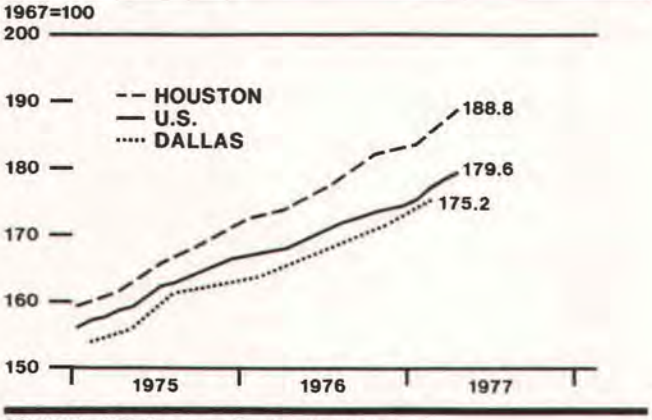
SOURCES: Board of Governors, Federal Reserve System.
Federal Reserve Bank of Dallas.

EMPLOYMENT AND UNEMPLOYMENT
FOUR SOUTHWESTERN STATES[1]
(SEASONALLY ADJUSTED, BY FRB)



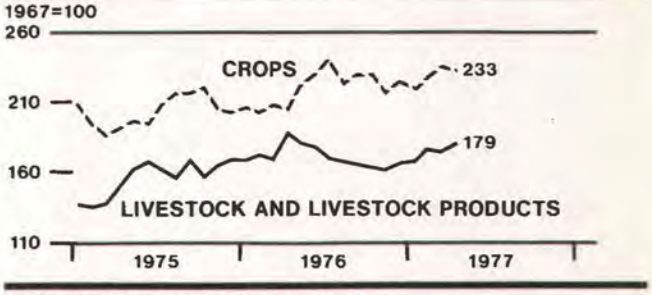
1. Louisiana, New Mexico, Oklahoma, and Texas.
SOURCE: State employment agencies.

CONSUMER PRICES



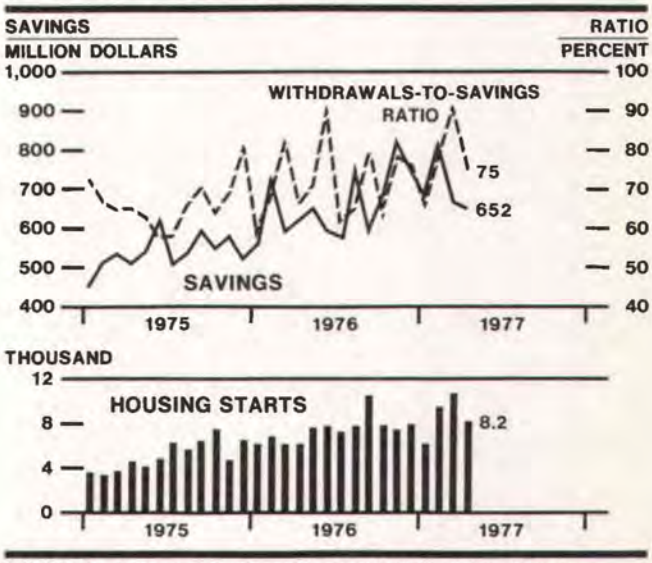
SOURCE: U.S. Bureau of Labor Statistics.

PRICES RECEIVED BY TEXAS FARMERS



SOURCE: U.S. Department of Agriculture.

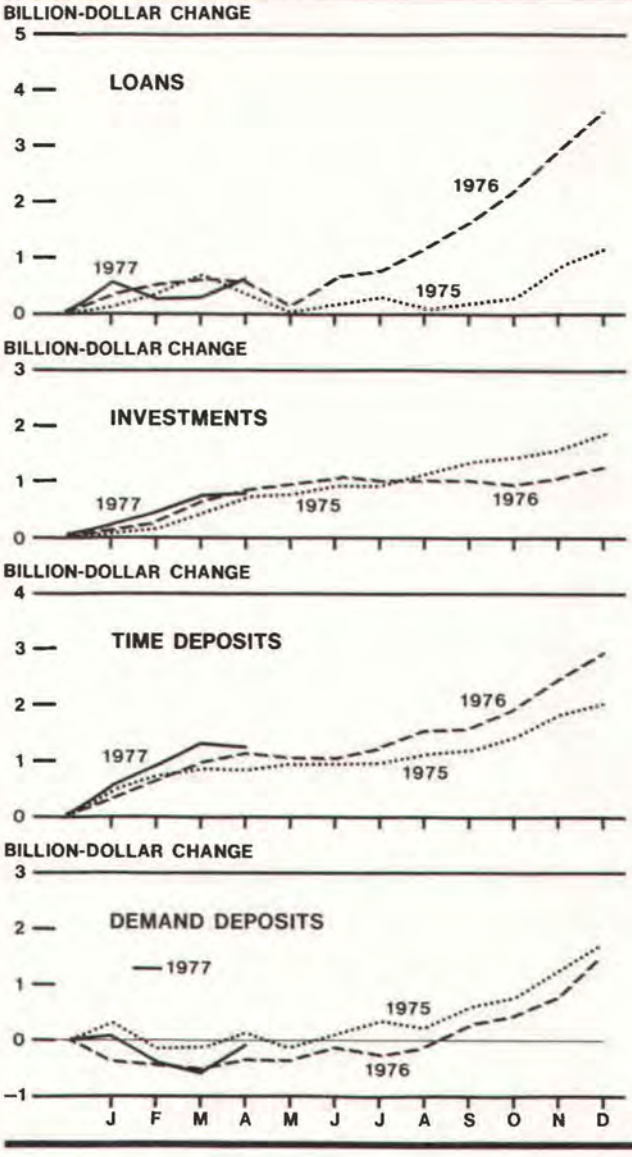
SAVINGS AND LOAN ASSOCIATION ACTIVITY AND HOME BUILDING IN TEXAS
(SEASONALLY ADJUSTED, BY FRB)



SOURCES: Bureau of Business Research, University of Texas.
Federal Home Loan Bank of Little Rock.

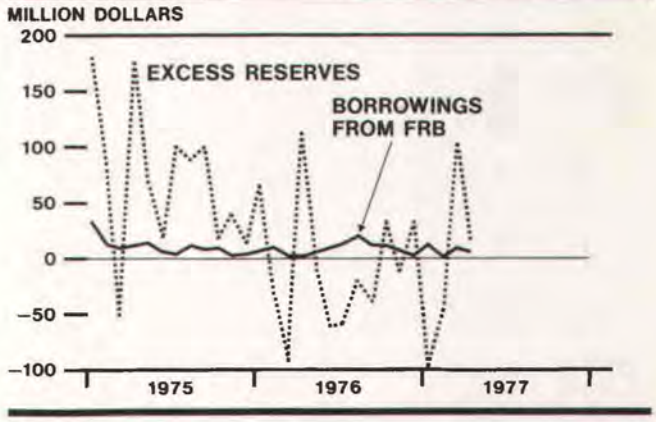
CONDITION STATISTICS OF ALL MEMBER BANKS

ELEVENTH FEDERAL RESERVE DISTRICT
(CUMULATIVE CHANGES)



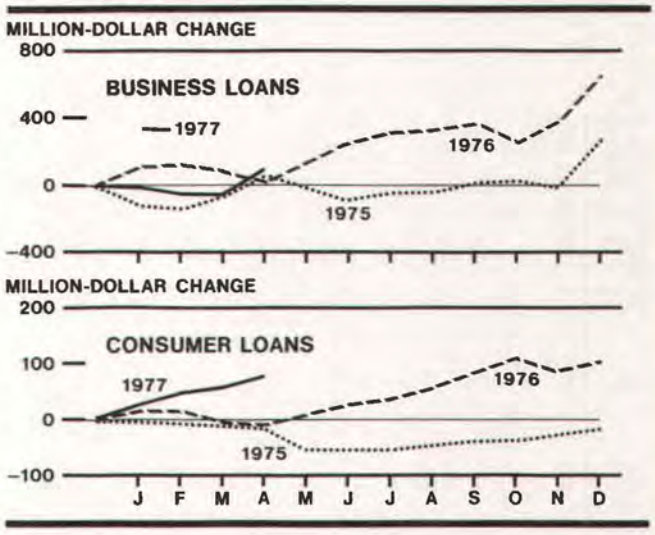
RESERVE POSITION OF MEMBER BANKS

ELEVENTH FEDERAL RESERVE DISTRICT
(MONTHLY AVERAGES OF WEEKLY DATA)



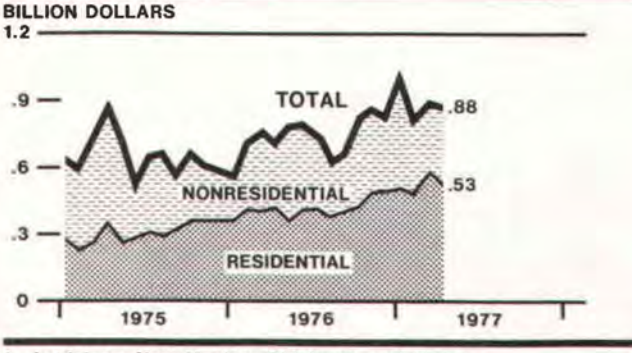
LOANS AT WEEKLY REPORTING BANKS

ELEVENTH FEDERAL RESERVE DISTRICT
(CUMULATIVE CHANGES)



BUILDING CONTRACTS

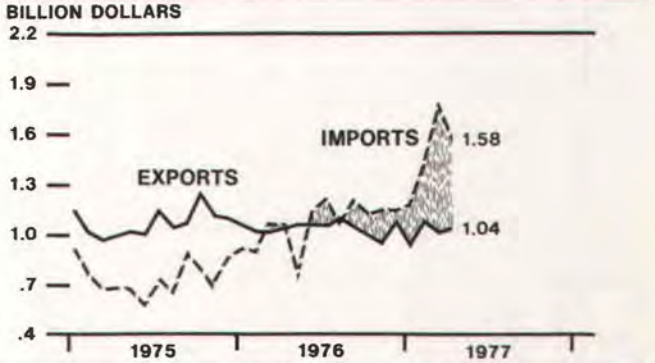
FOUR SOUTHWESTERN STATES[1]
(SEASONALLY ADJUSTED, BY FRB)



1. Louisiana, New Mexico, Oklahoma, and Texas.
SOURCE: F. W. Dodge, McGraw-Hill, Inc.

FOREIGN TRADE

HOUSTON CUSTOMS REGION
(SEASONALLY ADJUSTED, BY FRB)



SOURCE: U.S. Department of Commerce.

On balance, businesses have made only moderate increases in inventory levels, as evidenced by the relatively small volume of borrowing by businesses from large banks in the District. The only significant strength was in loans to durable goods manufacturers, which rose 16 percent in 1976 and an additional 8 percent in the first three months of 1977. The gains largely reflected the loan demands of producers of primary metals and transportation equipment, since nondurable goods manufacturers reduced the volume of their outstanding loans.

But business loans at District banks may now be on the increase. These loans rose 2.7 percent at large banks in the District in April—a near-record increase for the month. Even more important, the growth was broad-based, with most major categories of businesses sharing in the gain.

Although a sizable portion of the demand for funds in April undoubtedly represented business borrowing for tax purposes, evidence is mounting that other business spending may be starting to pick up. Announcements of the administration's tax and energy proposals have reduced some uncertainties for businessmen, and more are proceeding with expansion plans because capacity utilization rates have moved up to relatively high levels—for example, 99 percent of the 1972 base for Texas manufacturers in April.

Although the economic recovery began better than two years ago, nonresidential construction did not show significant growth until last year. Construction of manufacturing plants, office buildings, and medical buildings in Texas accounted for the largest dollar outlays last year, while office buildings, stores and shopping centers, and medical buildings showed the greatest percentage increases.

The cumulative value of nonresidential construction contracts in Texas for the January-March period this year was 36 percent above a year earlier. Moreover, the number of new plants and expansions was up better than a fifth.

The largest dollar outlays for the construction of manufacturing plants are being made mostly by the petrochemical industry along the Gulf Coast. Also, building plans for new and expanded plants by the electronic, machinery, paper, and steel industries are up sharply. Industrial commissions in Texas have indicated that the number of firms making inquiries about the possibility of locating in the state is running at record levels.

In most large Texas cities, office space is growing more scarce, sparking new office construction—particularly in Houston. First-class downtown space there is 98 percent occupied. Also, Houston's available warehouse space is being reduced at a fairly steady pace, which may soon prompt new warehouse construction.

As the economic recovery matures, stresses may begin to appear. Available resources will be demanded by both the consumer and business sectors, and production bottlenecks and inflationary pressures will likely build. However, if the delicate balance between supply and demand can be accommodated in an orderly manner, a healthy rate of economic growth can be sustained for many more months.

OTHER HIGHLIGHTS:

- The Texas industrial production index rose less than 1 percent in April from the previous month. The slim gain reflected increased production in manufacturing. Output in mining decreased, with crude oil production declining further although drilling activity continued to grow.
- Total employment, seasonally adjusted, in the four states of the Eleventh District held steady in April, following a six-month climb. The unemployment rate, at 5.6 percent of the civilian labor force, was also unchanged. Employment in mining, trade, and transportation and public utilities rose, but their slim gains did not outweigh the small declines in other categories.
- The value of building contracts in the four southwestern states decreased slightly in April from a month earlier. A decline in residential construction accounted for the decrease, as nonresidential building increased.

Housing starts in Texas fell sharply in April to 8,195 units, seasonally adjusted. The number of starts in March, however, was revised upward to 10,560 units—the highest level since January 1973.

- Total credit at member banks in the Eleventh District rose sharply in April, with both loans and investments making sizable advances. The loan advance was centered in business loans, which grew at a near-record rate for the month. The growth in loans to businesses contrasted sharply with the net reduction posted in each of the previous three months. Real estate loans and consumer loans continued to climb. With time and savings deposits declining, these banks largely financed the rise in credit by substantially increasing net purchases of Federal funds.
- Increased oil imports are accounting for the widening trade deficit in the Houston Customs Region. Total imports climbed in March to an all-time high of $1.77 billion, seasonally adjusted, but then fell back to $1.58 billion in April. Although exports were up slightly in April, their long-run performance continues to be weak.
- Consumer prices in Houston rose 2.8 percent from January to April to a level 8.4 percent above a year earlier. The latest three-month increase reflected higher prices for food, housing, used cars, gasoline, and medical care.

Eleventh District Business Highlights is published monthly by the Research Department. This issue of *Highlights* was prepared by Jonathan Euseary, Mary Grandstaff, and Jean Adeler under the supervision of Edward L. McClelland.