A review by the **Federal Reserve Bank of Chicago**

Business Conditions

1970 January

Contents

The 1960s—lessons for the 1970s

To many, the paramount events of the 1960s were the Apollo moon missions; to others, the changing focus of the East-West confrontation; to still others, the emergence of civil strife and violence in the central cities and the universities. From the less dramatic standpoint of economic analysis, however, the central development of the 1960s was the shift from sluggish growth and underutilization of resources in the first half of the decade to full employment and stubborn price inflation in the second half.

The perspective of 1960

The predominant view at the beginning of 1960 was that excessive price inflation would be the key problem of the decade. The economy was recovering from the longest and most disruptive steel strike in the postwar years, and the rebuilding of steel inventories imparted a superficial vigor to the economy. The continuance of rapid price increases during the 1958 recession had convinced many that the "cost-push" phenomenon would maintain an inexorable upward pressure on prices. Widespread concern centered on the failure of productivity per worker to rise as rapidly as in earlier years. On the international scene, an ominous buildup of dollar claims of foreigners was replacing the dollar "gap" of the early postwar years.

Despite these problems, the 1960s began on a note of confidence. The expected faster growth of available manpower coupled with further applications of advances in technology—commonly characterized as "automation"—kindled hopes of rapid economic growth in the "soaring Sixties," an irresistible alliteration that was often heard.

But the early Sixties did not show the anticipated exuberance. Quite the reverse. The fourth postwar recession began in the middle of 1960 and continued into early 1961. After a promising recovery, activity slowed again in the second half of 1962 and a widepread view held that another recession was imminent or had already begun. Previous recoveries from recessions after World War II had been of successively shorter duration, and there was apprehension that this pattern was continuing. That did not prove to be the case. Neither the slowing of activity in 1962 nor a more significant dip in late 1966 and early 1967 was of sufficient duration or amplitude to be described as a recession.

Growth in activity continued in 1963 and 1964 aided by expansive monetary and fiscal policies. Bank credit increased 8 percent annually, government expenditures rose rapidly, private investment outlays were stimulated by liberalized depreciation regulations and the investment tax credit, and a general tax reduction was enacted in 1964—but there was disappointment that economic growth did not proceed at an even faster pace.

While the economy expanded gradually in the first half of the 1960s, the uptrend in prices moderated and fears of accelerating price inflation ebbed. On average, prices rose very gradually from 1960 through 1964, and this rise was mainly because of increases for goods and services with high labor inputs. Recently, the 1959-64 period has been called a golden age of price stability, contrasting favorably with the second half of the decade. But until 1965, monetary and fiscal policies were sharply criticized for failing to provide stronger stimulus. Criticism focused on unemployment which declined from the 7 percent level of early 1961 but still averaged more than 5 percent in 1964.

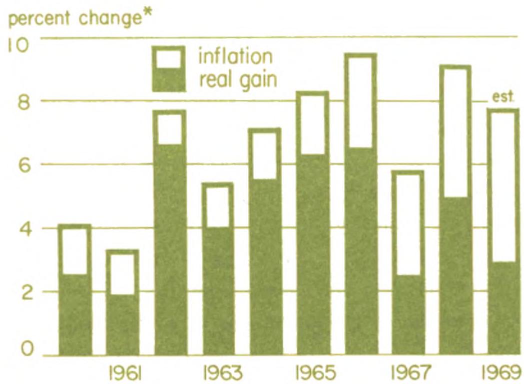
Growth accelerates

Along with relatively high rates of unemployment prior to 1965, attention was also directed to the lagging capital goods sector. Although expenditures on new plant and equipment rose from the cyclical low point in 1961 to a new high the following year, the proportion of total spending accounted for by fixed investment remained below the average of previous years. But this was soon to change.

Expenditures for new plant and equipment rose sharply in 1964, almost 15 percent. Even larger increases occurred in 1965 and in 1966, when business' fixed investment—producer equipment plus nonresidential private construction—reached a postwar high in relation to the gross national product.

The unprecedented three-year upsurge in plant and equipment expenditures coincided with a rapid and substantial increase in defense expenditures associated with the nation's involvement in the Vietnam conflict. Nondefense programs of the federal and local governments also increased during this period. Consumers increased their spending about in line with the large gains in income.

Price increases accounted for a larger share of spending rise



*Changes in gross national product.

Total demands upon resources clearly became excessive in late 1965 and in 1966, and except for a brief period in 1967, this situation continued to the end of the decade. Prices rose at a faster pace each year after 1962. Unemployment declined to 4 percent in 1965 and then to less than 3.5 percent of the labor force. Heavy demands for labor and rising consumer prices resulted in large increases in worker compensation, despite the large increases in the labor force.

The failure of the federal government to raise taxes in the face of rising expenditures in 1966 and 1967 caused its budget deficit to soar to $25 billion in fiscal 1968, the largest deficit since World War II. Tax rates were not raised until mid-1968, when steps also were taken to slow the rise in federal outlays.

As federal deficits increased in the years 1965-68, the burden of inflation control fell largely on the monetary authorities. Actions to slow the growth in money and credit in 1966 were widely credited with contributing to the "mini-recession" of 1966-67. Industrial production declined, the rise in employment was halted for a few months, and price inflation moderated. But expansionary policies contributed to a renewal of the spending upsurge in 1967 and 1968.

Both monetary and fiscal policies were directed toward curbing excessive spending and price inflation during 1969. The peak rate of increase in spending on goods and services was reached in the second quarter of 1968. By the end of 1969, federal spending was declining. Consumer outlays had leveled or declined, especially for new and used homes, automobiles, and other durable goods. The producer equipment sector retained substantial momentum, however, and the pace of inflation had not yet slowed.

Per capita income

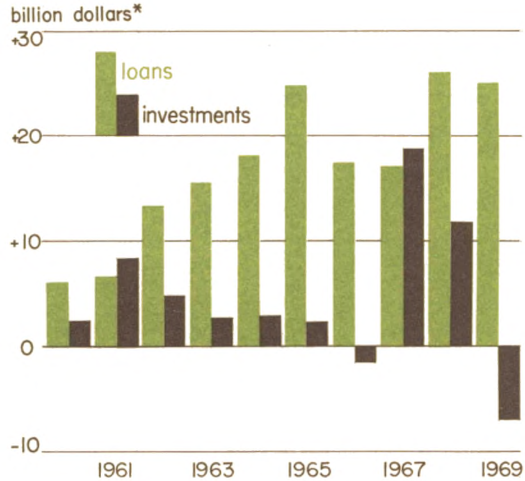
By the late 1960s, the U. S. population exceeded 200 million. For the decade as a whole, the rise was about 13 percent, less than the rise of almost 19 percent in the 1950s. However, the labor force rose by 18 percent in the 1960s, up from an 11 percent increase in the previous decade. The faster growth in number of workers, as compared with population, reflected the lower birth rates, the larger number of people reaching working age, and increased participation in the labor force—mainly because more married women took jobs.

Nonfarm wage and salary employment rose 32 percent in the nation in the 1960s. Agricultural employment declined in all states. Employment increased more in Indiana and Michigan than in the nation. In Illinois, Iowa, and Wisconsin, the increase was slightly less. For both the nation and the Midwest states, the rise in employment in the second half of the 1960s was about twice as fast as in the first half.

The current dollar value of output of goods and services—the gross national product—increased more than 90 percent in the 1960s. Even after adjustment for rising prices, output increased more than 50 percent. During the first half of the 1960s, the average annual rate of increase in real output—4.1 percent—was only slightly greater than in the 1950s, but this rate accelerated to 4.6 percent in the years 1965-69.

Personal income—wages and salaries plus

Commercial bank loans increased faster than investments



*Annual net change.

other current income—rose 95 percent in the 1960s, with a faster pace in the second half than the first half of the decade. Increases in total personal income in the Midwest states approximated the rise for the nation, except for somewhat smaller increases in Illinois and Wisconsin. The increase in income per capita, however, approximated the national rise of 70 percent in all states.

Average per capita real disposable income rose 33 percent in the 1960s, half again as fast as in the 1950s. Despite an abrupt slowing in 1969, the rise averaged 3.4 percent in the second half of the 1960s; this is the highest rate recorded for any five-year period in the 40-year span covered by available data. The expansion in spendable income occurred despite the burden of Vietnam, the space effort, and other federal, state, and local programs. The steady and substantial improvement in per capita income in the 1960s, in part, reflected the slower growth of population and the absence of business rescessions after the mild 1960-61 letdown.

Factory output rises

Manufacturing activity increased every year in the decade. A small increase over the previous year was recorded even in 1961, despite the mild recession. Substantial year-to-year declines had occurred in each of the three earlier postwar recessions.

For the entire decade, output of manufactured goods rose 64 percent; this is appreciably more than the rise in output of all goods and services, and more than the rise of manufacturing in the 1950s. In the second half of the 1960s, the average annual increase in manufacturing was 5.5 percent.

Output of passenger cars reached 9.3 million in 1965, a record that still stands. This was the first year in which production exceeded the 8 million produced in 1955. Dealer deliveries of new cars reached a new high in 1968. More than 10 percent of deliveries, however, came from abroad. Output and sales of trucks and trailers were at record highs in 1968 and 1969, similar to other business equipment industries.

Steel output rose to a peak in 1966, exceeding for the first time the record set in 1955. After declining in 1967, production rose in the last two years of the decade, and a new record of almost 140 million tons was set in 1969. Domestic requirements rose and the deteriorating trade balances in steel improved. As in the case of autos, imports became a strong factor in the steel market in the late 1950s, and the foothold was enlarged in the 1960s.

Prices of consumer goods and services rose rapidly after 1964

Construction and credit

Spending on construction reached almost $92 billion in 1969, up 7 percent from 1968 and the ninth consecutive annual increase. These outlays rose at an accelerating pace near the end of the decade, but with a larger share of the rise representing higher costs.

Growth in most sectors of the economy was limited by shortages of skilled workers in the final half of the 1960s, but the problem was particularly severe in construction. Building trades workers were able to negotiate wage increases nearly double those received by workers in other industries.

The federal government slowed, or halted, many construction projects in 1968 and 1969 to ease the pressures on labor and materials. Some state and local projects were postponed because of financing problems. Commercial and industrial construction, especially the former, continued a strong rise in the final years of the decade, as business firms were better able to obtain financing than other borrowers.

Throughout the postwar period, residential construction has been the most volatile major component of construction. Fluctuations have occurred partly because of changes in demand but, more importantly, because of variations in the availability of funds.

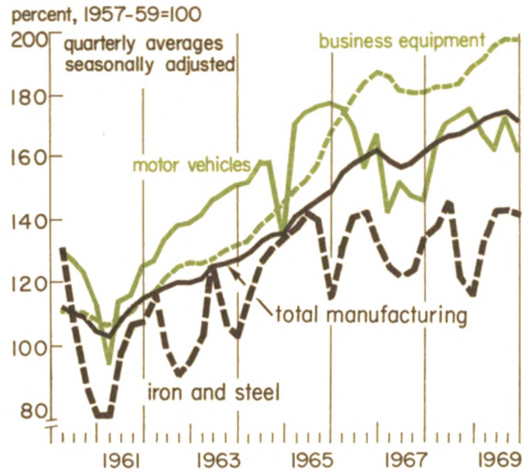
During periods of tight credit, such as 1966 and 1969, the supply of funds for residential construction, especially single-family homes, has declined. Usury ceilings, slower inflows of savings to institutions that invest primarily in mortgages, and retrenchment of commercial banks and life insurance companies in favor of alternative investments, all played a part.

At the beginning of the 1960s, home building was well below the peak rates of the 1950s. This reflected both the increased supply of housing and the reduced rate of family formations. At the end of the decade, vacancy rates were very low, family formations were increasing as more and more young people matured and married. Yet, housing starts were slightly below the 1968 total of just over 1.5 million. The situation appeared more favorable if the sharp increase in production of mobile homes was taken into account, but there was a growing shortage of housing.

Plant and equipment

Businesses invested $99 billion in new producer equipment and nonresidential construction in 1969, double the amount of 10 years earlier. Even after adjustment for price changes (a particularly difficult undertaking for both equipment and construction), the rise in the decade exceeded 80 percent—much more than the increase in total spending. The expansion in fixed investment was the major reason business corporations sought a growing volume of funds in the money and capital

Business equipment output led production upsurge



markets in the late 1960s.

All major industry groups participated in the surge in fixed investment. Expenditures by electric, gas, and telephone utilities showed the most persistent gains as these companies tried to keep abreast of rapidly rising demand for their services. In the transportation sector, the airlines pushed programs to complete their transition to advanced types of jet aircraft. Trucking companies increased outlays as they strove to win traffic from railroads and other carriers. Expenditures in manufacturing were led by producers of machinery and equipment, among the durable goods industries, and by chemicals and paper in the nondurables sector.

Various studies showed gradual declines in operating rates in manufacturing in the late 1960s. Yet, most industries pressed ahead with long-range investments to provide facilities for new products, improve quality, and reduce labor requirements.

The output per hour for U. S. workers was about 35 percent higher in 1969 than 10 years earlier. A similar increase had occurred in the previous decade.

Productivity depends upon a variety of factors, including the skills and energy of management and workers, and the rate of operations relative to optimum capacity, but most important is the amount and quality of capital equipment. Business recessions, strikes, high labor turnover and absenteeism, and other interruptions of the smooth flow of production and distribution can slow, or reverse temporarily, the rise in output per man-hour.

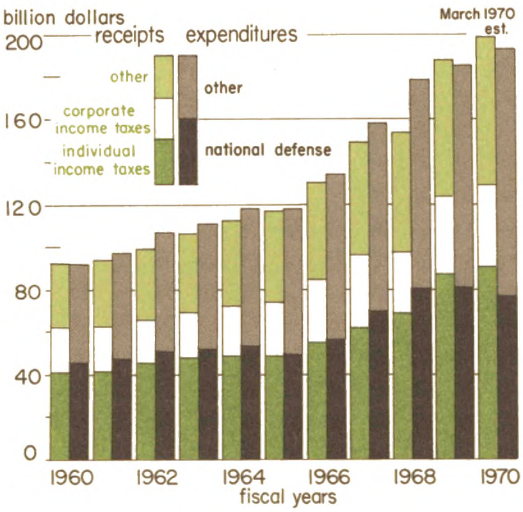
The postwar average annual gain in productivity has been just over 3 percent. Increases in worker compensation of this magnitude are usually deemed compatible with general price stability. This was reflected in the "wage-price guideposts" formulated in 1962 that suggested annual increases of 3.2 percent in worker compensation.

In the first half of the 1960s, annual increases in output per man-hour were estimated to average 3.4 percent for the private economy and increases in compensation averaged about 4 percent. Consequently, unit labor cost increases were small. Prices rose about 1 percent per year.

Productivity rose only about 2.5 percent annually in the second half of the 1960s. The 1967 mini-recession, periodic strikes, and heavy demand for workers throughout most of the period all contributed to the slower rise. In 1969, a year of general prosperity despite slower real growth, output per worker apparently increased only about 1 percent. The small gain was attributed by many employers to an inadequate supply of readily trainable job applicants.

While productivity increased slowly in the late 1960s, worker compensation increased rapidly—averaging 7 percent annually. These trends were associated with a sharp rise in prices—almost 5 percent in 1969. The rapid rise in labor costs was a major factor in the continued strong demand for new equipment.

Federal budget surplus was achieved at the end of the decade



Defense and Vietnam

For almost 30 years the requirements of the armed forces for men, supplies, and equipment have been an important factor in the economy. World War II was not followed by a cutback virtually to prewar levels, as was the case after previous wars. The need to maintain adequate preparedness in the Cold War, rapid technological change, the desire to aid allied powers, and the hostilities in Korea and Vietnam have required continued large defense outlays. Furthermore, outlays have fluctuated as conditions and policies changed and the fluctuations have been a major source of the instability in general business activity.

About $45 billion was spent on defense in 1960, a sum that had not changed appreciably since 1957. As the economy continued to grow, the proportion of the gross national product used in defense declined from more than 10 percent to less than 9 percent. (The peak proportion during World War II had been 42 percent; during the Korean conflict, 13 percent.)

New programs initiated in the early 1960s boosted defense outlays to just over $50 billion—a level maintained until 1965. As in the late 1950s, the proportion of the gross national product used in defense declined gradually. By 1965, the ratio had declined to 7.3 percent.

Programs required by the Vietnam conflict, together with rising prices, boosted defense outlays after 1965, even though some other programs not directly related to Vietnam were curtailed. In 1969, defense expenditures were almost $80 billion, or 8.5 percent of gross national product, down from the 9.1 percent peak in 1967.

Defense has also claimed the services of a substantial portion of the workforce. From 2.5 million in 1960, the armed forces rose to 2.7 million in 1965 and, with the Vietnam effort, to 3.5 million in 1969. This has been a significant factor in the labor shortages of the late 1960s. The prospect for the near future is for some easing of the military requirements for manpower, materials, and manufacturing capacity.

Defense expenditures are expected to decline in 1970, and to account for less than 8 percent of total output. These estimates assume achievement of the planned gradual withdrawal from Vietnam.

Price inflation

It is an elementary principle of economics that rising prices reflect a rise in effective demand relative to supply. This condition has prevailed in the nation for more than a quarter of a century. Since World War II, the price level has increased every year except 1949, the year of the first postwar recession.

In the 1960s, prices rose 26 percent, only slightly less than in the previous decade, which started from a relatively depressed base. Moreover, the rate of price increase accelerated in every year from 1962 through 1969. Previously in the postwar years, the rate of price increase had never accelerated in more than two consecutive years. Prices rose for virtually all major classes of goods and services in the final years of the 1960s. Services rose most rapidly, but nondurable goods prices also increased substantially.

The duration, magnitude, and pervasiveness of the price hikes of recent years have imparted a powerful momentum to the inflation process. Expecting that rapid price increases will continue, many individuals and businesses tend to make certain purchases sooner rather than later and to use credit or accumulated savings, if available.

Buying power is increasingly in the hands of people who have never known either a serious recession or a period of declining prices and, therefore, discount the possibility that they ever will experience such events. The development of an inflation psychology not only has made the task of slowing price increases more difficult, but it also creates the danger of a disruptive shock reaction when the capability of the forces of restraint are clearly demonstrated.

Problems of the new decade

As the 1960s came to a close, the uptrend in total spending was slowing. Government spending was coming under restraint. Growth in production and employment had leveled off. Interest rates were at record high levels. Homebuilding was in a slump. Surveys found consumers in a pessimistic mood with cautious spending plans. Among the major sectors, only plant and equipment expenditures showed strength, and some analysts believed these programs would be scaled down.

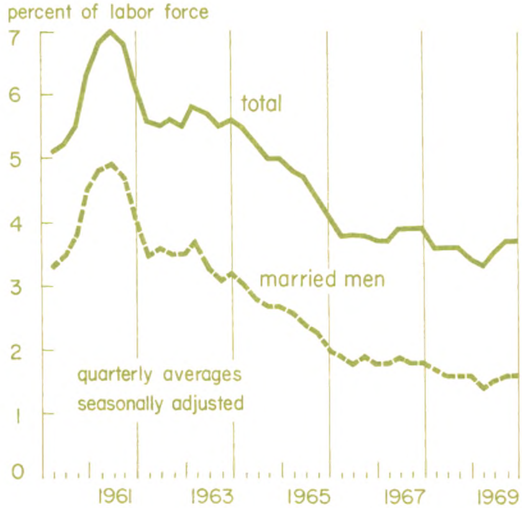
A general view in early 1970 is that the slowdown in spending will continue well into the year. Some foresee a recession, perhaps a severe one, with a sharp rise in unemployment. A more common expectation is that economic growth will be strongly reasserted in the second half of 1970. The more bullish forecasts place the annual rate of total spending above a trillion dollars by year-end.

Whatever the differences of opinion as to the outlook for the year, there is almost universal agreement that the decade of the 1970s will bring economic expansion of a magnitude similar to that in the 1960s. If so, total spending would rise to more than $1,400 billion in the prices of 1969. If price inflation continues at the postwar average rate of more than 2 percent per year total spending would approach $1,800 billion in 1979; under the same assumption, annual income per capita would rise from $3,100 per year in 1969 to over $5,000 in 1979.

As the 1970s begin there are few doubts that expansive economic policies can influence economic growth and utilization of resources, as was the case 10 years earlier. Skepticism is focused, rather, on the ability and determination to restrain price inflation.

Few are prepared to revive the argument that stagnation may lie ahead because of a lack of demand. Important government spending programs are currently held in abeyance. The interstate highway system is far from complete. Rising air traffic has created an urgent need for new and larger airports. Vast sums are slated for renovation of cities. Business firms see large needs for new plant and equipment. Residential construction must rise sharply, perhaps double

Unemployment declined to low level in the 1960s



in the 1970s, if new families are to be housed and housing of existing families is to be improved. Expenditures of government and business to reduce air and water pollution appear certain to rise rapidly.

Some of the major problems of the 1970s have arisen because of the successes of preceding decades. Economic growth and expanded welfare programs have reduced insecurity, but they also have encouraged labor turnover and social unrest. Similarly, inflation psychology is caused, in part, by confidence in continued prosperity. The lengthened period of schooling, a hallmark of economic progress, has reduced the proportion of young people available to fill job vacancies. Introduction of machinery that eliminates dirty, dangerous, and monotonous jobs and increases productivity has also increased the number of workers that must adjust to new environments. Even problems of pollution and conservation are related to the rapid growth of output of factories, mines, and utilities and the wider use of passenger cars and other consumer goods and services.

Because so much has been achieved, many people have become impatient with existing efforts to ameliorate the nation's problems. The seemingly unlimited promise of science and technology is epitomized in the often repeated query, "we can go to the moon, but we can't . . . . "

One commonly held, but overly sanguine, view in the early 1960s was that full employment, achieved and maintained, would rapidly eliminate social ills. The fallacy of this viewpoint has been demonstrated. Current suggestions that solutions for social problems merely await the appropriation of enough billions of dollars may also be an illusion. One of the lessons of the 1960s is that the economy is more complicated and harder to guide or direct than had been thought. Another is that domestic problems are not purely economic phenomena. It is unlikely that these judgments will be altered in the 1970s.

Agriculture—

Strong in 1969, excess capacity continued

The agricultural sector posted one of its best years in 1969. Supplies of many important agricultural commodities were somewhat larger and exports were noticeably weaker—the latter caused in part by the strikes of dock workers and cutbacks in government financed shipments abroad. Domestic demand increased further as consumer after-tax income and population continued to rise, their joint effects more than offsetting the effects of the larger supplies and reduced foreign shipments of agricultural commodities.

Prices received by farmers averaged around 6 percent higher than in 1968 and were the highest since 1952. Among the major commodities produced in the Midwest, meat animal and dairy product prices were outstanding gainers, although prices of feed grains (principally corn) were also well above the 1968 levels during most of the year.

Farmers' cash receipts in 1969 ran well ahead of the 1968 level, primarily because of higher livestock prices and larger grain marketings. Receipts were estimated at $47.5 billion—up nearly $3 billion from the preceeding year. Most of the gain was from livestock; crop sales held close to the 1968 level. However, government payments to crop farmers increased about $200 million, to about $3.7 billion, as farmers idled more cropland or diverted it to relatively unproductive uses in order to curtail production.

Rising costs cut into farmers' larger gross income. Prices paid by farmers rose to a record high and averaged about 5 percent more than in 1968. Virtually all items purchased by farmers bore higher prices and their purchases of some items increased, boosting farm production outlays to a record $38.5 billion—up more than $2.5 billion.

Net farm income in 1969, nevertheless, substantially exceeded the 1968 total and, except for 1966, was the highest since the late 1940s. Income per farm rose to a record $5,500, partly reflecting the continued decline in number of farms, and at that level, was nearly $700 more than in 1968 and $500 above the previous record in 1966. In addition, larger incomes from off-farm sources—which in 1969 rose to new highs—boosted the total earnings of the nation's farmers to record levels. Thus, 1969 closed the decade of the Sixties on a high note.

A decade of rapid change

At the beginning of the 1970s agriculture was still grappling with problems it had at the beginning of the 1960s. Farmers still have the capacity to produce substantially more than can be absorbed in domestic and world markets at "acceptable" price levels. The margin of excess capacity probably has increased instead of diminished. Agriculture still relies heavily on government subsidies to maintain income at an acceptable level, and the farm labor force is still substantially larger than required to supply the nation's needs for agricultural commodities.

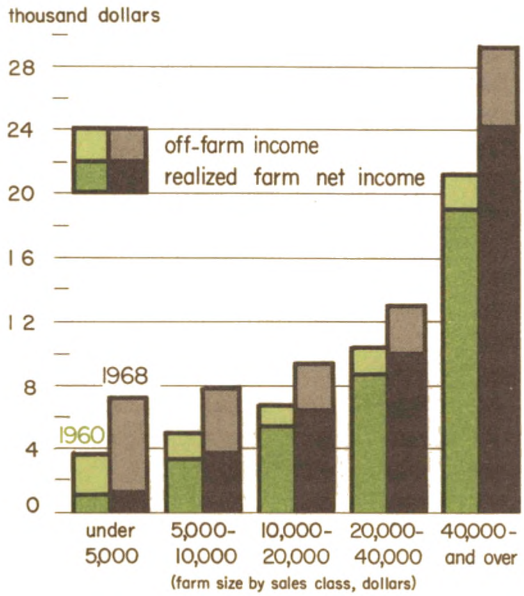
Both domestic and foreign demand for agricultural products increased during the 1960s. Agricultural exports rose markedly, but most of the gain was between 1960 and 1964. Indeed, as the decade closed, agricultural exports were $5.7 billion—about a $1 billion below the 1967 peak. This decline partly reflected more restrictive trade policies by many countries aimed at achieving self-sufficiency and maintaining the incomes of their farm population. Reflecting those policies and improved agricultural technology, world food supplies have expanded sharply.

Domestic demand for farm products also increased during the 1960s. Population gains plus increased consumption per person caused total food consumption to rise about 18 percent over 1960. Per capita consumption rose 5 percent. But even with the increased domestic and foreign demand, American agriculture still has excess capacity.

Government stocks of surplus commodities declined substantially during the 1960s—achieved largely through government programs that increased payments to farmers to reduce cultivated acreage.

This approach merely shifted the focus from unused products to unused resources. Acreage diverted from cultivation under the various government programs rose from under 30 million acres in 1960 to around 60 million in 1969. Although total government

Income from off-farm sources shows marked increases



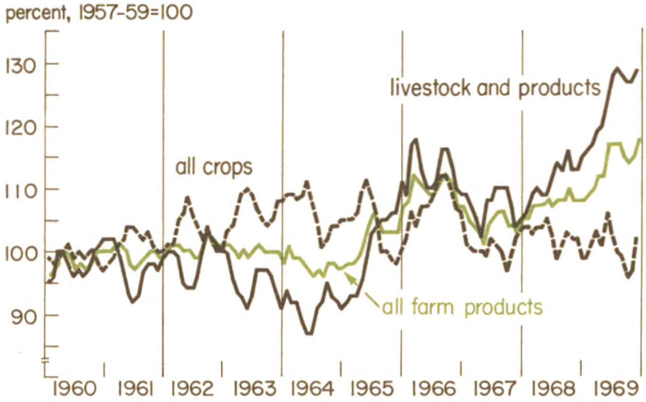
outlays for agriculture (including all items charged to agriculture though not necessarily directly benefiting farmers) rose about $1 billion during the 1960s, direct payments to farmers increased more than fivefold—from around $700 million in 1960 to about $3.7 billion last year. Before 1960, farmers' incomes were bolstered indirectly through relatively high price support loans (the prices at which farmers could obtain non-recourse government loans.)

Farmers better off

Most farmers were better off in 1969 than in 1960, although there were fewer farmers. The number of farms in the United States dropped from nearly 4 million in 1960 to under 3 million in 1969; the number of people living on farms fell from 15.2 million to 10.5 million. Total farm income trended upward during the decade, rising from under $12 billion in 1960 to $16 billion. Income per farm rose by around three-fifths—reflecting the smaller number of farms. Booming nonfarm activity enhanced off-farm employment opportunities during the 1960s, causing many farmers to leave farming and others to supplement their farm income through part-time off-farm employment. Farmers' nonfarm income rose nearly two-thirds, boosting the total per capita income of the farm population to around $2,400—more than double the 1960 level. Per capita income of people living on farms in 1969 was about three-quarters that of the nonfarm population—up from around a half in 1960.

Farmers greatly improved their financial position during the 1960s, increasing their financial assets (mainly bank deposits and investments in cooperatives), their stocks of machinery and motor vehicles, and their inventories of agricultural products. The steep rise in real estate prices during the 1960s—up over 50 percent between 1960 and 1969—accounted for three-fourths of the gain in total assets.

Sharply higher farm prices . . .



Debt grows

Not all of the rise in the value of farm assets, however, represented an increase in net worth. Farm debts also rose. At the end of 1969, farm debt was nearly $60 billion—up from $25 billion in 1960. The most rapid expansion in farm borrowing occurred during the mid-1960s when farmers accelerated their use of credit to purchase farmland and machinery, and to finance operating expenses. Loan funds were readily available and farmers had a good repayment record, therefore, lenders actively sought farm loans. However, the pace of farm borrowing slowed markedly in the past few years as credit availability declined and interest rates on farm loans rose sharply.

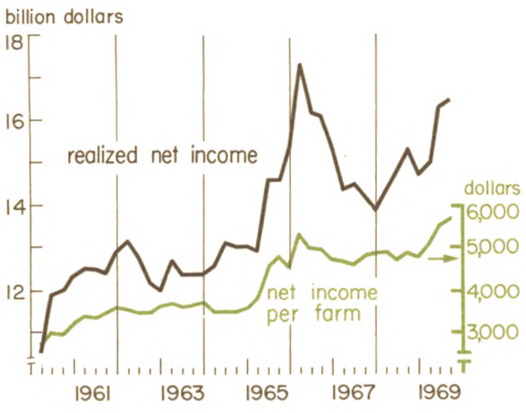
The change in financial position of the average farm is even more striking because of the extensive consolidation of farming operations. Assets per farm rose from $50,000 in 1960 to over $100,000 in 1969. Although debt per farm rose from just over $6,000 to around $17,000 during the decade, the average increase in net worth was nearly $40,000.

More larger, fewer small farms

There are diverging trends in agriculture. Although there are fewer farms, there are many more large farms. For example, between 1960 and 1968, the number of farms with annual sales exceeding $20,000 increased 55 percent, while the number with smaller sales declined 30 percent. This trend was even more pronounced in a comparison of larger and smaller units. Farms with sales of over $40,000 increased 72 percent while those with sales below $5,000 dropped 35 percent. In 1968, farms with over $20,000 in gross sales were less than a fifth of all farms but accounted for four-fifths of all cash receipts. This group comprised about 10 percent of the farms and half the cash receipts in 1960.

The rapid expansion in farm size in the Sixties highlights the continued evolution of agriculture from fairly independent, self-contained enterprises to larger commercial businesses. Today's farmer operates on a low-margin high-volume basis and relies heavily on outside sources for supplies, labor, and credit.

. . . boost farm income to near record level



Productivity increases

In the 1960s, the amount of resources used in agriculture increased, even though there was substantial excess capacity throughout the decade. An index of resources used in production (including such items as labor, land, machinery, and fertilizers) rose 5 percent. Most of the gain was between 1965 and 1969; after relatively little change from 1960 to 1964 and declines throughout most of the 1950s. This, no doubt, reflected the general uptrend in farm income during much of the 1960s. And the false optimism created by ideas that the United States must undertake to "feed the world"—popular in the mid-1960s—encouraged farmers to make additional investments in agricultural inputs.

Equally significant were the substantial shifts in the types of resources used. Rising wage rates for hired workers, plus the greater ease of managing mechanical equipment, spurred the increasing mechanization of operations. Agricultural manpower decreased more than a third, while the amount of tractor horsepower climbed by two-fifths. Although acreage diversion programs reduced the amount of land under cultivation, the greater use of fertilizers, pesticides, herbicides, improved seeds, and other developments greatly increased production per acre—more than offsetting the acreage limitations. The result, overall, was a sizable gain in farm production relative to the quantity of resources used.

Crop production per acre, for example, rose 17 percent from 1960 to 1969. Increases in yields were even greater for some crops.

Corn yields advanced from under 55 to 81 bushels per acre and oats increased from 43 to 50 bushels per acre. Wheat yields increased from 26 bushels per acre to over 30 bushels, and soybeans rose from 23 to 27 bushels per acre.

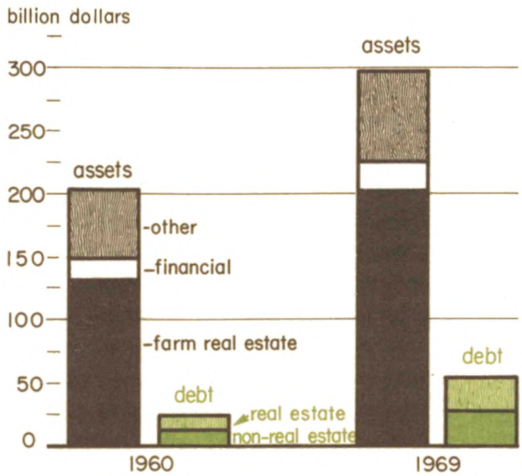
Livestock also made impressive gains. Production of livestock and livestock products per unit of breeding stock increased 15 percent between 1960 and 1969. Milk production per cow increased 30 percent, and eggs laid per hen rose about 5 percent. Producers of broiler chickens greatly increased the efficiency with which feed is converted into chicken meat; and cattlemen sharply boosted the liveweight production of cattle and calves—up a third—with only a 12 percent increase in the number of animals.

The year ahead

Near term prospects for agriculture appear less favorable than during the year just ended. Demand for agricultural products is likely to remain strong during 1970, but increases are apt to be smaller than those of 1969. Foreign markets may absorb more U. S. farm products, but moderating economic activity is expected to result in a smaller rise in food purchases by American consumers. Supplies of agricultural products probably will increase slightly in 1970, with most of the gain in the second half of the year.

Livestock producers are likely to bear the brunt of any moderation in farm income. Meat supplies in the first half are expected to approximate those of a year earlier. Supplies of pork and lamb will be less, but continued increases in the number of cattle placed on feed in the latter part of 1969 indicate that beef supplies will be slightly larger. Livestock prices are expected to remain favorable (hog prices should average about the same); however, costs will reflect higher

Farmers' financial position improved



prices for feed and replacement animals.

Poultry and egg production is expected to increase further in response to the favorable poultry feed-price ratios. The expected expansion in broilers may push prices below 1969 levels. Although some expansion in egg production is anticipated, prices are expected to hold close to the 1969 average because of continued strong demand.

During the final months of 1969, milk production edged ahead of a year earlier as increases in output per cow offset declines in milk cows. Any developments reducing availability of off-farm jobs or making dairying profits more competitive with other farm enterprises could slow the decline in dairy herds—possibly enough for a sharp rise in milk output in 1970. In that case, milk prices could average lower than in 1969, assuming support prices do not change.

Crop producers should benefit from larger needs for livestock feeding and slightly more favorable export prospects. Even though supplies of crops are generally greater than a year earlier, prices will probably average above last year's level. Prices later in the year, of course, will depend primarily on the size of the 1970 crop, with weather and the extent of participation in the government's feed-grain and wheat programs as major influences.

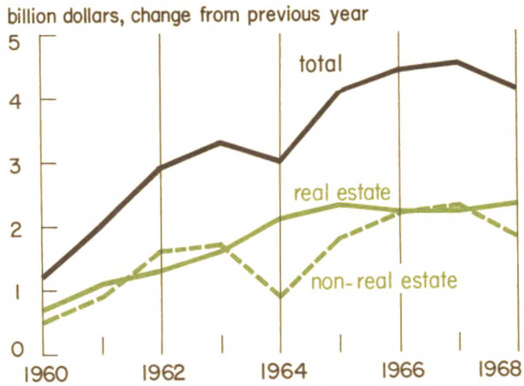
After 1970

The long term outlook for agriculture will reflect many of the influences that affected it during the Sixties. Though the magnitude of future developments is uncertain, there is clear agreement that recent trends have not run their course. Various estimates have been made of the probable number of farms at the end of the Seventies. Most suggest about 1.5 million, although some estimates project slightly more than 2 million. A straightline extension of the trend for the past five years indicates 2.1 million. Some economists estimate that only 800,000 farms will be required to produce the farm products needed in 1980. That forecast is less striking than it first appears since approximately 500,000 farms currently account for about 80 percent of total farm production.

Many farms are still too small to use either machinery or labor efficiently, or to provide operators with satisfactory incomes. As technology and managerial techniques advance further, the economic pressures on these farms will become even stronger. To use his labor effectively, a small farmer will need either to expand his farming operation or to obtain some off-farm employment.

Many farmers can reduce their unit costs by enlarging their operations and utilizing of the latest technology. But in some areas, such as the Corn Belt, economies of scale may be less important than the operator's need to increase his volume of sales in order to maintain or boost his total income. In a few years, the average farm may have to gross

Farm debt growth slows



more than $40,000 to provide an operator an "acceptable" income. Expenses currently take 75 to 80 percent of gross incomes in the $40,000 size range.

The pace of technological development will probably accelerate in the years ahead. Competition among agriculture's supporting industries will ensure continued pressure for further technological improvements, and competition among farmers will ensure the adoption and use of improved farm production techniques. Most cost reducing technology also increases output. With slow growth in demand for farm products, an increase in output will probably reduce farm prices and hike the pressure on farm profit margins.

Government policies will continue their substantial influence on farming. Programs that supplement food budgets of low income families or provide minimum income levels will, no doubt, increase the welfare of many families, but the impact on the demand for agricultural products likely will be small. More relevant are current discussions which separate the problem of rural poverty from the problems of regulating farm production and prices. Though few, if any, substantial changes in agricultural policy are anticipated during the next few years, any moves toward providing new work opportunities for rural people or a freer market for commercial farming would intensify the pressures for fewer and larger farms.

These expected developments have important implications for bankers and other lenders. Large farmers tend to be large borrowers, partly because of their farm size and partly because of their larger cash outlays relative to sales. For example, in 1966 farmers with farm products sales exceeding $20,000 accounted for almost half the total operator debt outstanding. Projections of future levels of farm debt vary, of course, but a doubling of the total debt outstanding and a tripling of average debt per farm by the end of the decade appear reasonable. Indeed, these projections may be conservative since they imply an annual average rate of increase slightly smaller than during the 1960s.

Note

The article "Changing Styles in Business Finance" in the November 1969 issue of **Business Conditions** contains a misleading comparison (p. 7) of the 6 percent per annum penalty rate on underpayments of federal taxes with market interest rates. Unlike business interest costs on most borrowings, the tax penalty is not tax deductible.

BUSINESS CONDITIONS is published monthly by the Federal Reserve Bank of Chicago. George W. Cloos was primarily responsible for the article "The 1960s—lessons for the 1970s" and Roby L. Sloan for "Agriculture—Strong in 1969, excess capacity continued."

Subscriptions to **Business Conditions** are available to the public without charge. For information concerning bulk mailings, address inquiries to the Federal Reserve Bank of Chicago, Box 834, Chicago, Illinois 60690.

