## FEDERAL RESERVE BANK OF RICHMOND MONTHLY REVIEW

Major Postwar Bear Markets Changes in Fifth District SMSA's The Fifth District

# MAJOR POSTWAR BEAR MARKETS

Among professional financial observers, it is axiomatic that stock prices behave capriciously and unpredictably. The market, it is said, is a lady, with an apparently boundless capacity to dumbfound the most diligent would-be expert. Yet a glance at the behavior over prolonged periods of widely observed composite measures of stock prices suggests that, at least for the intermediate and long term, stock prices follow a rather pronounced pattern.

Stock prices have generally risen since World War II, reaching levels close to five times higher than 1946 levels, but this upward trend has been interrupted by several periods of rather prolonged declines. This article examines each of these postwar bear markets in some detail. The price averages used in examining the bear markets are based on common stocks traded on stock exchanges, and do not include stocks traded over-the-counter or outside the exchanges.

**Definition** A bear market is a market of generally declining prices. A bear is one who expects prices to continue falling and may thus sell his stock and get out of the market. A bear also may sell short, that is, sell stock he does not own at current prices, on the expectation that prices will fall and he will be able to cover his position in the future. Before the securities legislation of the 1930's, it was an all-toofrequent practice for one or more large traders to make successive short sales of weak stocks, pushing prices even lower, and then to cover at a very low price to reap a rich profit. In this article, the bear markets discussed have a duration of at least eight months and show a decline in Standard and Poor's composite average of at least 10%.

What Determines Stock Prices? Numerous factors figure in stock price movements. Among the most important factors are expectations about future business conditions, the cost and availability of credit to be used for purchasing and carrying stock, the relative attractiveness of investments in bonds, savings deposits, and other alternatives to stocks, and overall investor psychology. The most nebulous and unpredictable of these is investor psychology, which has proved highly sensitive to a large variety of noneconomic, as well as economic, developments.

Most investors act according to their expectations of future economic activity. Perhaps the most widely recognized determinant of their behavior is corporate after-tax profits. These, of course, depend on many economic variables such as prices, costs, and volume. To the extent that investors correctly foresee future economic developments and invest in securities according to their foresight, the movement of stock prices serves as a leading indicator of economic



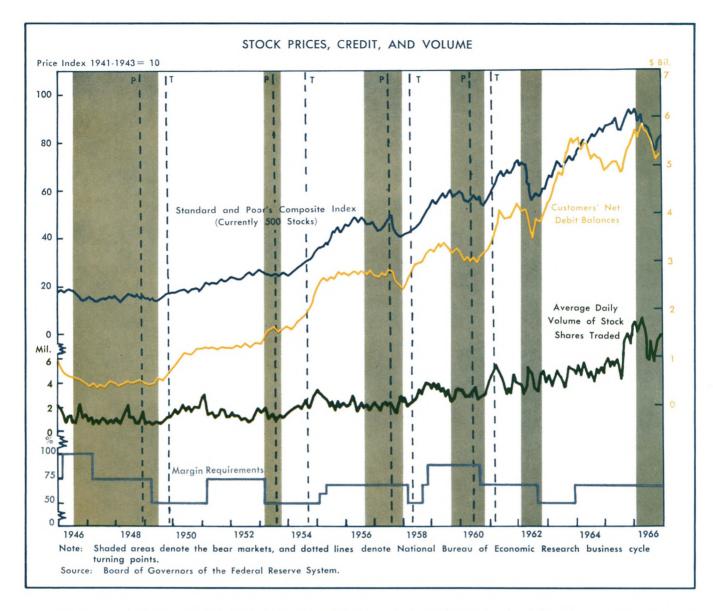
activity. Since the foresight of investors is not perfect, however, and since prices often reflect shortterm speculative trading, that is, seeking profits through price changes based on news, stock prices do not mirror future economic activity perfectly. Notwithstanding, stock prices have long been used as a leading indicator.

Stock market credit, as measured by customers' net debit balances with brokers and dealers (plotted on the charts), is closely related to stock price movements. Debit balances represent loans by brokers to customers. Increases in debit balances during a rising market generally contribute to the upward pressure on prices. Conversely, declining debit balances often reflect net sales by margin traders, which exert a bearish influence. Over-extended credit, although ordinarily linked with bull markets, has been known to accentuate market downswings if margin traders become heavy sellers in order to repay their loans. It is partially as a result of such a selling wave in the late 1920's and early 1930's that margin trading was brought under the regulation of the Board of Governors by the Securities Exchange Act of 1934. Margin requirements are stated as the percentage of the purchase price of the stock which the investor must supply.

The Stock Averages What stocks are used to compile the several composite averages which are read and studied daily by millions? As the term implies, composite averages include the stocks of companies with a wide range of activities and characteristics. They are usually broken down into averages for industrials, railroads, and utilities. The chart shows that these three components of the Dow-Jones average have moved in a pattern similar to the over-all postwar pattern of Standard and Poor's composite index, reaching peaks and troughs at or near the respective beginning and end of each bear market. The greatest fluctuations have appeared in the industrials and rails while utilities have shown smaller relative changes. Standard and Poor's averages for the same three groups, based on much larger samples, also reveal patterns similar in timing to the composite averages, and are similar in degree of fluctuation to the Dow-Jones groups.

Another breakdown of the composite averages shows low-price stocks. These are generally considered to have greater price fluctuations than higherpriced stocks. This is confirmed by the large rises and falls since World War II in the low-price stock index, as shown in the chart.

The Bear Markets Since World War II there have been four major cyclical downswings in



aggregate economic activity which have been dated by the National Bureau of Economic Research. Each of these downturns was preceded by a period of declining stock prices. While it is not possible to demarcate bear markets associated with each recession in such a way as to elicit agreement among all market observers, the bear markets fall generally within the limits set forth below: (1) June 1946 through June 1949; (2) February 1953 through September 1953; (3) August 1956 through December 1957; and (4) August 1959 through October 1960. In addition to these which were associated with subsequent declines in economic activity, there was another bear market between January and October 1962. Even though it was one of the deepest declines of the postwar period, it was not followed by a recession. In February 1966 the sixth postwar

**4** Digitized for FRASER http://fraser.stlouisfed.org/ Federal Reserve Bank of St. Louis bear market began, but it is still too early to measure its length and depth or to say whether it foretells a recession.

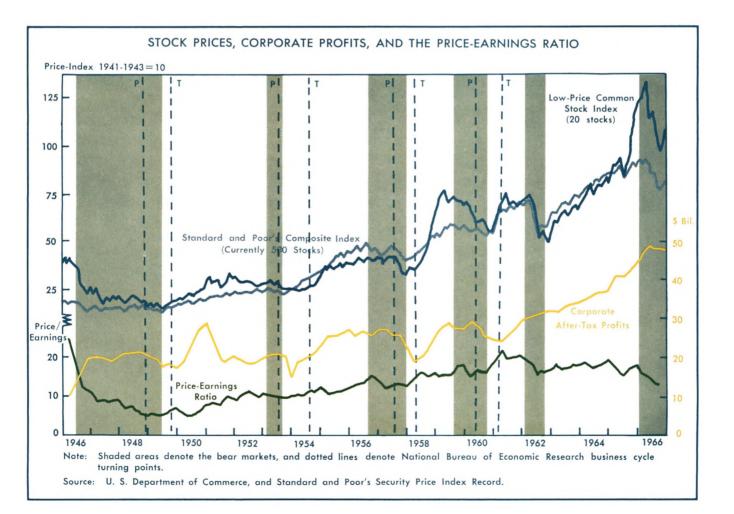
The Bear Market of 1946-49 The bear market of 1946-49 actually encompasses two major periods of declining prices with rather sizable fluctuations between the two large downward movements. Prices declined sharply from June through November of 1946, then fluctuated within a range of 10% through February 1948. From February to June 1948 prices rose 19%. This major rebound was followed by a 16% decline between July 1948 and June 1949. Thus it appears that the major bear market of 1946-49 can be divided into two subcycles—the period from June to November of 1946 and the period from July 1948 to June 1949. The immediate postwar period must be examined separately from the rest of the bear market. Following the war, most market participants did not foresee the unleashing of pent-up demand. Rather, there was a general feeling that a downturn in the economy would occur as military needs greatly diminished. From 1944 to 1946 gross national product leveled off after a steady rise through the early 1940's, and though corporate profits bottomed out in 1945, the weakness of these two variables at the end of the war lent support to early postwar fears.

Corporate profits were especially disturbing to the investor. While they rose sharply in 1946, dividends showed no increase at all. To a market fearful of a recession this was not a good sign even though businesses were using profits to increase expenditures on new plant and equipment from under \$9 billion in 1945 to \$22 billion in 1948. To an investment community with vivid recollections of the sharp postwar recession of 1921 and the stock market crash of 1929, these large investment expenditures did not elicit a bullish response. Moreover, as the pent-up demand of World War II began to be reflected in mounting inflation, the Board of Governors raised the margin requirement from 75% to 100% on January 21, 1946. This action was designed to discourage speculative activity, "a characteristic and feeder of inflation," and the subsequent drop in debit balances contributed to the fall in the market several months later.

During the bull market which extended from early 1942 to early 1946, the volume of credit and the various indexes of stock prices had risen amid speculative activity. The bear market of 1946 saw sharp declines in Standard and Poor's composite index, the composite price-earnings ratio, and the index of low-price stocks. From the peak of prices in May until the sharp decline was arrested in November, Standard and Poor's composite average fell 4.01 points, or 21.4%, a decline in percentage terms which was equaled in the postwar period only by the decline in 1962.

The second phase of the first postwar bear market,

<sup>(</sup>Continued on page 8)



## Changes in Fifth District Standard Metropolitan Statistical Areas

Definitions of five Standard Metropolitan Statistical Areas in the Fifth Federal Reserve District were changed or enlarged in March 1967. Baltimore, Washington, Greensboro-High Point, Winston-Salem, and Durham are among twelve SMSA's throughout the country which were redefined by the Bureau of the Budget. These changes follow two additions in 1965 when Fayetteville and Wilmington, North Carolina were designated SMSA's. Of 231 Standard Metropolitan Statistical Areas in the nation, the Fifth District currently includes eighteen and portions of two others.

The concept of the Standard Metropolitan Statistical Area was developed to present statistical data on a standard geographical basis for purposes of economic analysis. The definition of the SMSA involves criteria based on population of a central city or cities, the population density and characteristics of the labor force of contiguous counties, and the economic and social relationships between the central city and county. Baltimore SMSA: Harford County added to Baltimore city and counties of Baltimore, Carroll, Howard, Anne Arundel.

Population: New definition: 1,939,820 Former definition: 1,844,410

Washington, D. C.-Md.-Ya. SMSA: Loudoun and Prince William counties in Virginia added to the District of Columbia; Maryland counties of Montgomery and Prince Georges; Arlington and Fairfax counties, and cities of Alexandria, Fairfax, and Falls Church in Virginia.

Population: New definition: 2,521,962 Former definition: 2,417,765

**Greensboro-Winston-Salem-High Point SMSA:** The formerly separate SMSA's of Greensboro-High Point (Guilford County) and Winston-Salem (Forsyth County) combined with the addition of Randolph and Yadkin counties.

Population: New definition: 570,679 Former definition: Greensboro-High Point 267,513 Winston-Salem 210,566

Durham SMSA: Orange County added to Durham County. Population: New definition: 167,739 Former definition: 119,608 Legend SMSA's: 1964 list

SMSA's: 1965 additions

SMSA's: 1967 changes

VINSTON-SALEA

AUGUST

HIGH POIN

Sources: SMSA definitions: U. S. Bureau of the Budget. July 1965 population estimates: U. S. Department of Commerce, Bureau of the Census; Department of Health, State of Maryland; Bureau of Population and Economic Research, University of Virginia; Agricultural Experiment Station, North Carolina State University of Raleigh.

FAYETTEVILLE

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### MAJOR POSTWAR BEAR MARKETS

(Continued from page 5)

from July 1948 to June 1949, followed two years of economic growth. During this two-year period, stock prices and customer credit remained fairly stable, though never regaining 1946 levels. Margin requirements were lowered to 75% on February 1, 1947, following the drop in prices in 1946. In the second half of 1948, corporate after-tax profits began to slide and stock prices also started to fall. Standard and Poor's average fell 16.9%, from 16.82 in June 1948 to 13.97 in June 1949. In November 1948, about four months after the start of the decline in stock prices, the economy entered its first postwar recession. On March 30, 1949, the Federal Reserve reduced margin requirements to 50%, and the volume of customer credit started to increase sharply. Three months later the first postwar bear market ended, about four months ahead of the low point of the recession in October. The System explained the change in the margin rate by saying that recent months had shown an easing of inflationary pressures.

The Bear Market of 1953 From late 1949 until about mid-1953, business expanded rapidly, stimulated partly by the Korean War. As the economy expanded, inflationary pressures mounted and were felt in the stock market as prices there rose. In an effort to curb speculative price increases, margin requirements were raised to 75% in January 1951. The volume of stock market credit leveled off, but stock prices continued to rise at only a slightly reduced pace for many months. As the business boom moved steadily ahead, the Federal Reserve System adopted a progressively firmer monetary policy. The Open Market Committee turned to a firm monetary policy in April 1952, and the discount rate was raised in January 1953.

In February 1953 the second postwar bear market started and lasted only eight months, until September 1953. During this shortest of the postwar bear markets, Standard and Poor's composite average fell from 26.18 to 23.27, a drop of about 11%. This drop can be attributed in part to a sharp increase in interest rates in 1953. Following the "Accord" with the Treasury in 1951, which ended the "peg" of Government bond prices, yields on Government bonds had risen steadily and other interest rates were high in 1953.

The bear market of 1953 started about five months ahead of the second postwar recession and ended almost a year before the recession touched bottom. In the spring of the year, before the peak in economic activity as dated by the National Bureau of Economic Research, the Federal Reserve turned to a policy of monetary ease, feeding reserves into the economy and lowering reserve requirements. But following the Korean truce in July 1953 expenditures for national defense were cut back sharply. At the same time inventory expenditures were declining. Despite this evidence of weakness in the economy, stock prices turned up in October, three months after the start of the recession and almost a year before the end of the recession. The short lived decline in stock prices can be variously explained. On February 20, shortly after stock prices started to fall, the Board of Governors decided that inflationary pressures had moderated sufficiently to justify dropping margin requirements to 50%. Stock market credit immediately shot up, no doubt cushioning the decline in prices. Another factor in the early upturn of stock prices was the Treasury's announcement in late September that it would suspend the corporate excess-profits tax after 1953. Also, bond yields started to decline late in 1953, increasing the attractiveness of stocks to the investor.

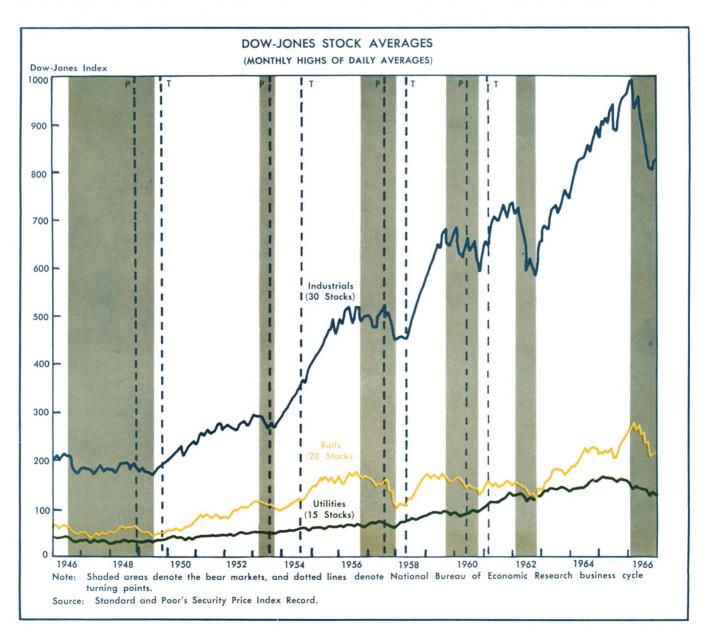
The Bear Market of 1956-57 Following a two and one-half year period of steadily rising stock prices, the stock market again became bearish in August 1956. Between that time and the end of 1957 Standard and Poor's average dropped 17.3% to 40.33. This period of market weakness appears to have been associated primarily with uncertainties in the prospects for business profits and with sharply rising bond yields.

Following steady increases in the preceding two years, corporate profits leveled off early in 1956, some seven months before the market decline of that year. For a time profits held on a high plateau and partly in response to this steady performance stock prices enjoyed a strong but brief upsurge from March through July 1957. During this upsurge, prices approached their 1956 levels, but profits again began to slide in the middle two quarters of 1957 and stock prices started back down just as business peaked and the third postwar recession started.

Throughout the 1956-57 bear market, margin requirements remained unchanged at 70%. Net debit balances stayed on a high plateau for most of the period but declined sharply as prices plummeted in August 1957. Late in 1957 bond yields dropped sharply, and in January 1958, at the end of the bear market, margin requirements were lowered to 50% and credit and prices shot up. About seven months later margin requirements were raised twice in three months, first to 70%, then to 90%, the highest since 1946. Even so, the volume of credit continued to rise rapidly for another six months, until April 1959. Supported by rising credit and rapidly rising profits, stock prices rose sharply from the spring of 1958 to the summer of 1959.

The Bear Market of 1959-60 The fourth postwar bear market reflected rising interest rates, which probably drew some investors away from stocks, and sharply dimmed business prospects. From August 1959 to October 1960 Standard and Poor's average dropped 10.1% to 53.73. Profits peaked in the second quarter of 1959, and on July 15, 1959, the nation's longest steel strike began, lasting until January 1960. Except for the first quarter, profits continued down throughout 1960 and in May 1960 the country entered its fourth postwar recession, nine months after the start of the bear market. The combination of bond yields finally dropping during the recession and the Federal Reserve lowering the margin requirement to 70% in July 1960 was gradually absorbed by the stock market, and in November stock prices turned upward, three months ahead of the upturn in the economy.

The Bear Market of 1962 The market rose until January 1962, when the country entered a bear market unique in the postwar period. Unlike previous bear markets, it was not followed by a recession. Yet from January to October Standard and Poor's composite average fell 21.7%, a decline



equaled in the postwar period only by the sharp 1946 break. During this period the new market for negotiable certificates of deposit grew rapidly as investors were attracted by the increase from 3% to 4% in the rate payable by banks on time and savings deposits.

Following a period of speculative activity in 1961 when stock market credit rose rapidly and the priceearnings ratio reached the highest level since 1946. stock prices started to fall gradually in the first quarter of 1962. Some of the leading indicators of economic activity had peaked and turned down late in 1961 and others reached highs during the first quarter of 1962. An exception was corporate profits, which had a slower rate of growth in 1962 but did not decline. The steel price controversy in April 1962, which had unfavorable effects on the image of the Administration in the business community, was followed by sharp losses in the stock market in May and June. During the second quarter of the year prices dropped 20.9%. On July 10, 1962, the Federal Reserve lowered the margin rate to 50% and credit expanded rapidly, followed in four months by an upswing in stock prices which lasted into 1966.

The decline in stock prices coupled with the behavior of other leading indicators led to widespread speculation that a recession was in the offing. Actually, there occurred only a slowdown in economic activity. Any recessionary tendencies present in the economy seemed to be curbed by the combination of timely Government counter-cyclical action plus the expansionary effect of inventory building in anticipation of a steel strike in mid-1963.

From 1962 through 1965 stock prices rose with only minor interruptions. On November 6, 1963, the margin requirement was raised to 70% and the volume of credit declined until mid-1965. The behavior of credit and stock prices during this period was somewhat unique in postwar experience. Never before had stock prices continued to rise for such a long period after stock credit took a definite and decided turn downward. This was due perhaps to fairly sluggish long-term bond yields and to the behavior of corporate profits, which rose with a speed and persistence unprecedented in earlier postwar periods of expanding economic activity. Stock market credit began to expand rapidly again during the second half of 1965. Other signs of speculative activity appeared. The average daily volume of trading on the New York Stock Exchange became unusually heavy, and a sharp run-up occurred in Standard and Poor's index of low-price common stocks.

The Bear Market of 1966 The most recent bear market started in February 1966. During 1966 rising interest rates increased the attractiveness of bonds relative to stocks, and from February to October 1966 Standard and Poor's composite stock average fell 17.3%. The volume of stock market credit also fell off, corporate profits showed slight declines, and several leading indicators weakened and turned down. In November and December of 1966 stock prices reversed their downward trend and the upswing has carried into 1967, but lack of perspective prevents further analysis of current stock prices in their relation to the overall picture of prices in the postwar period.

**Conclusion** The examination of the pattern of stock prices over the last twenty years reveals a broad relationship to overall business activity. During the last two decades major swings in stock prices have tended to precede similar swings in the economy. This pattern has not been without exception, however, and in the short run the many minor swings in stock prices tend to obscure major movements and to limit the value of stock prices as a leading indicator.

Second, profits and stock market credit seem to be broadly related to stock prices. Varying degrees of weakness in profits have been associated with bear markets. The volume of stock market credit generally has moved inversely with margin requirements, while prices and stock market credit have tended to move together. The volume of shares traded is frequently cited as a measure of the strength of price movements. For example, large and rising volume associated with rising prices is said to be a bullish sign while large and rising volume associated with falling prices is given a bearish interpretation. Viewed in the broad perspective of the postwar period, the principal and most obvious relationship is a spurt in volume at the beginning of bull markets which tends to recede long before the period of rising prices has run its course.

Third, the similarity of the long-run patterns of the various stock price indexes indicates that investors discount generally the same variables when investing. Among these variables is, of course, the attractiveness of alternative investments to stock. While the postwar patterns of various stock indexes have varied in amplitude of fluctuations, the upswings and downswings have occurred almost simultaneously in the composite averages, the averages of various industries, and the averages of high-grade and of low-price stocks.

### THE FIFTH DISTRICT



#### FARMERS' PLANTING INTENTIONS FOR 1967

District farmers' plans for the 1967 planting season point to a year of somewhat larger crop production than in 1966. Total acreage of the principal field crops planted or grown this year now promises to be around 12,811,000 acres—467,200 acres, or about 4%, above a year ago but nearly 2% below the 1961-65 average. This outlook for 1967 crop plantings is based on the U. S. Department of Agriculture's March 1 survey of growers' intended spring plantings and acreages seeded to winter wheat and rye last fall.

Most of the intended changes from a year ago in 1967 crop plantings are due to changes in farm programs designed to expand wheat and feed grain acreages and to continuation of both the acreagediversion provisions of the upland cotton program and the flue-cured tobacco acreage-poundage program. These factors, along with virtually unchanged acreage allotments on most other controlled crops, provided the backdrop against which District farmers mapped this year's operations. Some of the highlights, and some of the details, of what can be anticipated from their tentative plans are reported below.

**Tobacco Acreage to Vary by Type** District farmers' intentions indicate that this year's total tobacco acreage, at 594,000 acres, will be only slightly above 1966 plantings but nearly 10% below the 1961-65 average. Flue-cured acreage, anticipated at 536,000 acres, is the only type expected to be larger than in 1966. Prospects call for a 1%, or 5,800-acre, increase. Because of the acreage-poundage program in effect for the third straight year, the increase pri-

and these decreases: Maryland, 11%

marily reflects upward adjustments in marketing quotas and acreage allotments for those flue-cured farms that were unable to produce their entire 1966 poundage quotas.

Burley tobacco growers' intentions point to 18,800 acres, the same as that harvested last year when acreage dropped to the lowest level since 1942. Burley will continue under acreage-allotment control since farmers in a recent referendum again disapproved the acreage-poundage program as they did in 1966. Southern Maryland producers are planning to set 32,000 acres, compared with 36,000 acres harvested last year. A cut of this size, if carried out, would put Maryland tobacco acreage at the lowest level since 1928. Fire-cured tobacco farmers are planning for 5,900 acres, while sun-cured growers intend to set 1,300 acres. Should these plans materialize, acreage of both types would be the smallest since records began in 1919.

**Cotton Acreage at Record Low** Farmers in the Carolinas and Virginia indicated as of March 1 that they intended to plant 595,000 acres of cotton this year, 2% less than last year and almost two-fifths lower than average 1961-65 plantings. Should these intentions be carried out, the District's cotton acreage would be the smallest in over a century.

Even though 1967 allotments are the same as last year, most producers have chosen the 35% acreagediversion option in the upland cotton program. Under this program, in effect for the second straight year, three-fourths of all District cotton farmers have signed up to divert 318,700 acres (34% of their total

roughly 30% above the most recent



the 1961-65 average, and the smallest



FEED CROPS Farmers plan to reduce hay acreage 3% below 1966 and raise total feed grain plantings 2%. Scheduled acreages indicate 5% fewer oats but more corn, barley, and sorghums.



PEANUTS Prospective plantings are expected to total 286,500 acres, 1% less than in 1966 and 3% below average 1961-65 seedings.



WHEAT Because of larger allotments and special program provisions, considerably more acreage—45% above 1966--was seeded for the 1967 crop.

allotted acreage) from production in 1967. The agreed diversion compares with 33% for the nation. The acreage allotment on cotton farms signed up, however, accounts for only about 85% of the District's total cotton allotment as against better than nine-tenths nationally. This fact is but one indication that the number of small farms exempt from the 12.5% to 35% diversion option is far greater in the District than in the country as a whole. Further evidence that many District farms have small cotton allotments is the fact that, though nearly one-fifth of the nation's cotton farms are located in the Carolinas and Virginia, they have only 7% of the country's total cotton allotment.

Soybean Acreage Up, Peanut Acreage Down Soybean growers intend to expand District acreage to a new record level for the twenty-first consecutive year. Prospective acreage, at 2,668,000 acres, is 7% above a year ago and roughly 30% larger than 1961-65 average seedings. Such an increase, second largest acreage expansion planned for the District's chief field crops, would boost 1967 soybean acreage by 173,000 acres over last year.

The Virginia-Carolinas peanut farmers expect to plant 286,500 acres in 1967. These expectations, if realized, would put 1967 plantings at 3,000 acres, or 1%, under 1966 and 7,500 acres, or 3%, below average. Though allotments are about the same as in 1966, indications are that farmers' participation in the Cropland Adjustment Program is having considerable effect on intended peanut plantings.

More Feed Grains, Less Hay Total feed grain acreage intended for 1967 calls for a 2% increase over a year earlier. The combined acreage, however, would still be about 3% less than 1961-65 average plantings. Corn, which in recent years has comprised around three-fourths of total feed grain seedings, is expected to show the biggest expansion, with a 79,000-acre increase over 1966. Such an increase would put corn plantings at 3,428,000 acres, 2% above 1966 and 4% larger than average. Barley is expected to be planted on 367,000 acres, some 25,000 to 26,000 acres over both last year and average. More sorghum acres are also expected for this year, up about 10% over a year ago and 5% above 1961-65. Prospective oat plantings, however, are down 5% from 1966 and one-third below the recent 5-year period, continuing the general decline that has been going on for many years. Anticipated total hay acreage is also lower, nearly 3% or 68,000 acres under a year ago and 13% less than average.

Food Grain and Potato Acreages Because of world food shortages, there has been a sharp upturn in 1967 food grain acreage to rebuild stocks. Wheat allotments were increased 32%, and special program provisions were made to encourage farmers to grow more wheat. With these stimuli, the District's seeded acreage of winter wheat, most important food grain, jumped 261,000 acres over 1966—the biggest acreage gain among the major crops. Rye seedings also rose, climbing 40,000 acres, or 7%, over 1966.

Prospects are that 1967 plantings of both Irish and sweet potatoes will be smaller than a year ago and also below the 1961-65 average. Sweet potato acreage will show the biggest reduction, dropping 4,000 acres, or 8%, under 1966 and 12% below average.

**Plans Could Change** Farmers' intentions for 1967 spring-planted crops were reported during the signup period for the feed grain and cotton programs. Later decisions about farm programs, weather conditions, the labor supply, and other factors may cause them to plant more or less than is now indicated.