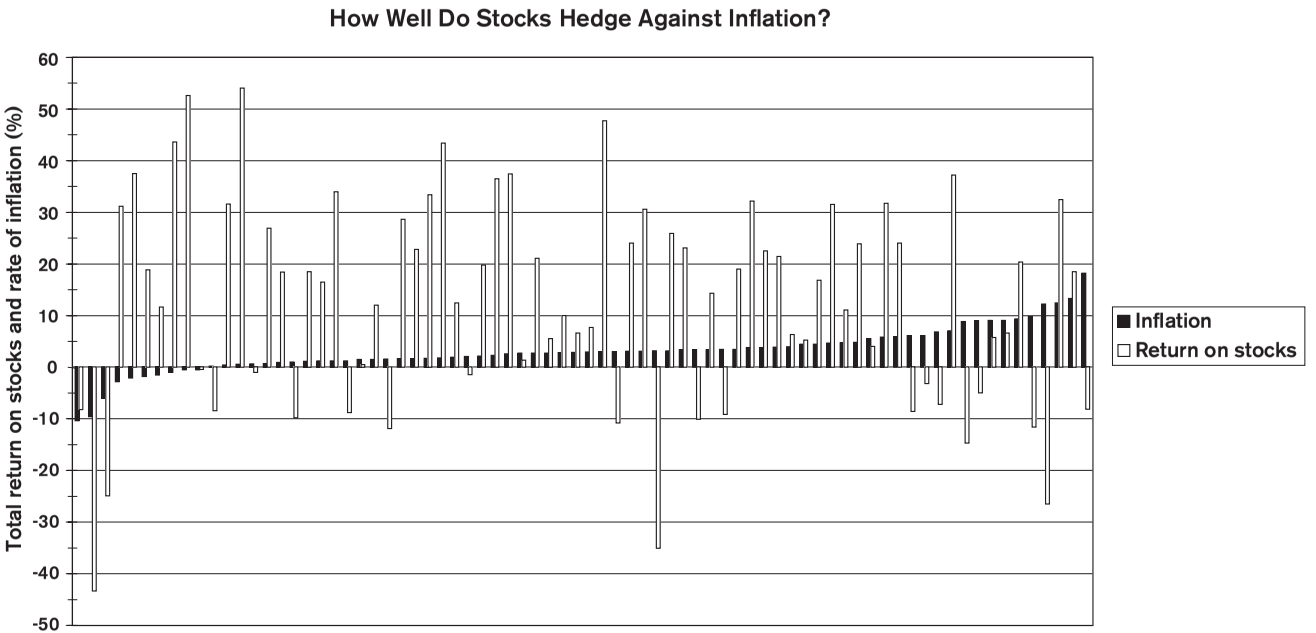
FIGURE 2-1



This graph shows inflation and stock returns for each year between 1926 and 2002—arrayed not in chronological order but from the lowest annual inflation rates to the highest. When inflation is highly negative (see far left), stocks do very poorly. When inflation is moderate, as it was in most years during this period, stocks generally do well. But when inflation heats up to very high levels (see far right), stocks perform erratically, often losing at least 10%.

Source: Ibbotson Associates

TWO ACRONYMS TO THE RESCUE

Fortunately, you can bolster your defenses against inflation by branching out beyond stocks. Since Graham last wrote, two inflation-fighters have become widely available to investors:

REITs. Real Estate Investment Trusts, or REITs (pronounced "reets"), are companies that own and collect rent from commercial and residential properties.[10] Bundled into real-estate mutual funds, REITs do a decent job of combating inflation. The best choice is Vanguard REIT Index Fund; other relatively low-cost choices include Cohen & Steers Realty Shares, Columbia Real Estate Equity Fund, and Fidelity Real Estate Investment Fund.[11] While a REIT fund is unlikely to be a foolproof inflation-fighter, in the long run it should give you some defense against the erosion of purchasing power without hampering your overall returns.

TIPS. Treasury Inflation-Protected Securities, or TIPS, are U.S. government bonds, first issued in 1997, that automatically go up in value when inflation rises. Because the full faith and credit of the United States stands behind them, all Treasury bonds are safe from the risk of default (or nonpayment of interest). But TIPS also guarantee that the value of your investment won't be eroded by inflation. In one easy package, you insure yourself against financial loss and the loss of purchasing power.[12]

There is one catch, however. When the value of your TIPS bond rises as inflation heats up, the Internal Revenue Service regards that increase in value as taxable income—even though it is purely a paper

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[10] Thorough, if sometimes outdated, information on REITs can be found at www.nareit.com.

[11] For further information, see www.vanguard.com, www.cohenandsteers.com, www.columbiafunds.com, and www.fidelity.com. The case for investing in a REIT fund is weaker if you own a home, since that gives you an inherent stake in real-estate ownership.

[12] A good introduction to TIPS can be found at www.publicdebt.treas.gov/of/ofinflin.htm. For more advanced discussions, see www.federalreserve.gov/Pubs/feds/2002/200232/200232pap.pdf, www.tiaa-crefinstitute.org/Publications/resdiags/73_09-2002.htm, and www.bwater.com/research_ibonds.htm.

gain (unless you sold the bond at its newly higher price). Why does this make sense to the IRS? The intelligent investor will remember the wise words of financial analyst Mark Schweber: "The one question never to ask a bureaucrat is 'Why?' " Because of this exasperating tax complication, TIPS are best suited for a tax-deferred retirement account like an IRA, Keogh, or 401(k), where they will not jack up your taxable income.

You can buy TIPS directly from the U.S. government at www.publicdebt.treas.gov/of/ofinflin.htm, or in a low-cost mutual fund like Vanguard Inflation-Protected Securities or Fidelity Inflation-Protected Bond Fund.[13] Either directly or through a fund, TIPS are the ideal substitute for the proportion of your retirement funds you would otherwise keep in cash. Do not trade them: TIPS can be volatile in the short run, so they work best as a permanent, lifelong holding. For most investors, allocating at least 10% of your retirement assets to TIPS is an intelligent way to keep a portion of your money absolutely safe—and entirely beyond the reach of the long, invisible claws of inflation.

[13] For details on these funds, see www.vanguard.com or www.fidelity.com.

CHAPTER 3

A Century of Stock-Market History: The Level of Stock Prices in Early 1972

The investor's portfolio of common stocks will represent a small cross-section of that immense and formidable institution known as the stock market. Prudence suggests that he have an adequate idea of stock-market history, in terms particularly of the major fluctuations in its price level and of the varying relationships between stock prices as a whole and their earnings and dividends. With this background he may be in a position to form some worthwhile judgment of the attractiveness or dangers of the level of the market as it presents itself at different times. By a coincidence, useful statistical data on prices, earnings, and dividends go back just 100 years, to 1871. (The material is not nearly as full or dependable in the first half-period as in the second, but it will serve.) In this chapter we shall present the figures, in highly condensed form, with two objects in view. The first is to show the general manner in which stocks have made their underlying advance through the many cycles of the past century. The second is to view the picture in terms of successive ten-year averages, not only of stock prices but of earnings and dividends as well, to bring out the varying relationship between the three important factors. With this wealth of material as a background we shall pass to a consideration of the level of stock prices at the beginning of 1972.

The long-term history of the stock market is summarized in two tables and a chart. Table 3-1 sets forth the low and high points of nineteen bear- and bull-market cycles in the past 100 years. We have used two indexes here. The first represents a combination of an early study by the Cowles Commission going back to 1870, which has been spliced on to and continued to date in the well-

TABLE 3-1 Major Stock-Market Swings Between 1871 and 1971

	Cowles-Standard 500 Composite			*Dow-Jones Industrial Average*		
Year	High	Low	Decline	High	Low	Decline
1871		4.64				
1881	6.58					
1885		4.24	28%			
1887	5.90					
1893		4.08	31			
1897					38.85	
1899				77.6		
1900					53.5	31%
1901	8.50			78.3		
1903		6.26	26		43.2	45
1906	10.03			103		
1907		6.25	38		53	48
1909	10.30			100.5		
1914		7.35	29		53.2	47
1916–18	10.21			110.2		
1917		6.80	33		73.4	33
1919	9.51			119.6		
1921		6.45	32		63.9	47
1929	31.92			381		
1932		4.40	86		41.2	89
1937	18.68			197.4		
1938		8.50	55		99	50
1939	13.23			158		
1942		7.47	44		92.9	41
1946	19.25			212.5		
1949		13.55	30		161.2	24
1952	26.6			292		
1952–53		22.7	15		256	13
1956	49.7			521		
1957		39.0	24		420	20
1961	76.7			735		
1962		54.8	29		536	27
1966–68	108.4			995		
1970		69.3	36		631	37
early 1972	100		—	900		—

known Standard & Poor's composite index of 500 stocks. The second is the even more celebrated Dow Jones Industrial Average (the DJIA, or "the Dow"), which dates back to 1897; it contains 30 companies, of which one is American Telephone & Telegraph and the other 29 are large industrial enterprises.[1]

Chart I, presented by courtesy of Standard & Poor's, depicts the market fluctuations of its 425-industrial-stock index from 1900 through 1970. (A corresponding chart available for the DJIA will look very much the same.) The reader will note three quite distinct patterns, each covering about a third of the 70 years. The first runs from 1900 to 1924, and shows for the most part a series of rather similar market cycles lasting from three to five years. The annual advance in this period averaged just about 3%. We move on to the "New Era" bull market, culminating in 1929, with its terrible aftermath of collapse, followed by quite irregular fluctuations until 1949. Comparing the average level of 1949 with that of 1924, we find the annual rate of advance to be a mere 1½%; hence the close of our second period found the public with no enthusiasm at all for common stocks. By the rule of opposites the time was ripe for the beginning of the greatest bull market in our history, presented in the last third of our chart. This phenomenon may have reached its culmination in December 1968 at 118 for Standard & Poor's 425 industrials (and 108 for its 500-stock composite). As Table 3-1 shows, there were fairly important setbacks between 1949 and 1968 (especially in 1956–57 and 1961–62), but the recoveries therefrom were so rapid that they had to be denominated (in the long-accepted semantics) as recessions in a single bull market, rather than as separate market cycles. Between the low level of 162 for "the Dow" in mid-1949 and the high of 995 in early 1966, the advance had been more than sixfold in 17 years—which is at the average compounded rate of 11% per year, not counting dividends of, say, 3½% per annum. (The advance for the Standard & Poor's composite index was somewhat greater than that of the DJIA—actually from 14 to 96.)

These 14% and better returns were documented in 1963, and later, in a much publicized study.*[2] It created a natural satisfaction

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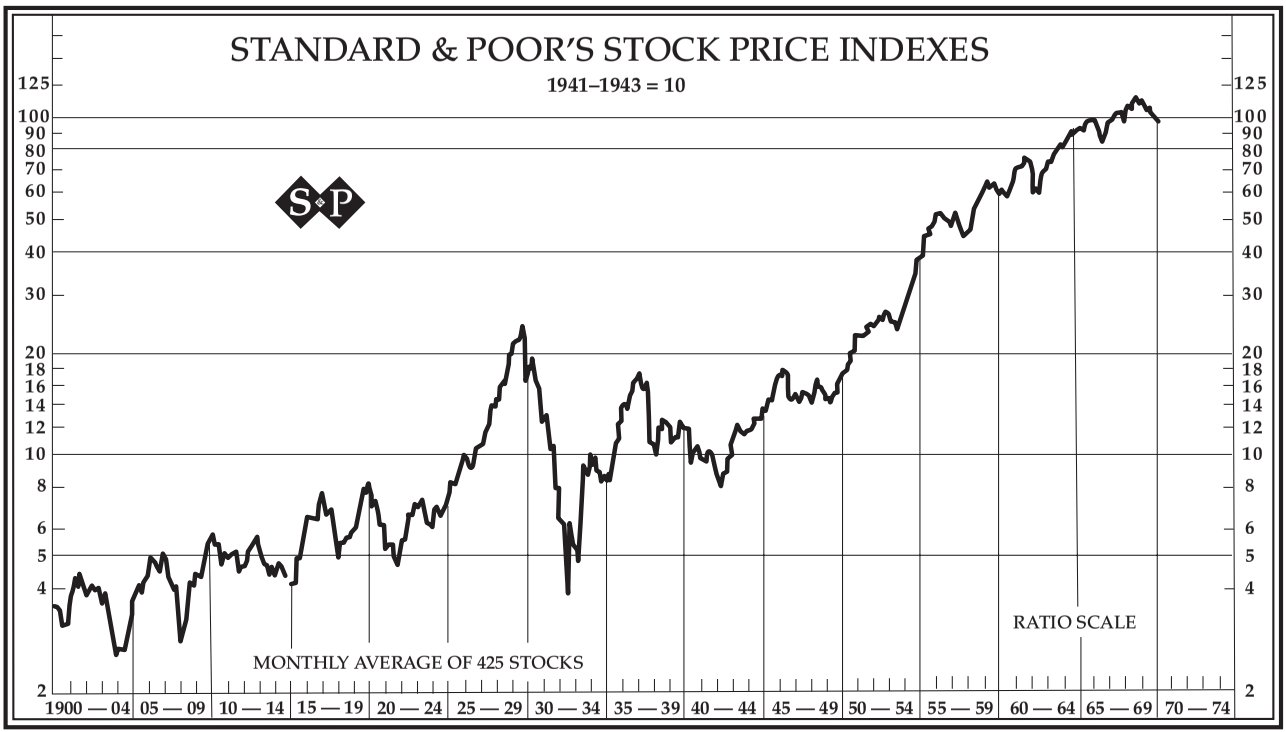
* The study, in its final form, was Lawrence Fisher and James H. Lorie, "Rates of Return on Investments in Common Stock: the Year-by-Year

CHART 1


STANDARD & POOR'S STOCK PRICE INDEXES
1941–1943 = 10
125
100
90
80
70
60
50
40
30
20
18
16
14
12
10
8
6
5
4
2
MONTHLY AVERAGE OF 425 STOCKS
RATIO SCALE
1900 — 04
05 — 09
10 — 14
15 — 19
20 — 24
25 — 29
30 — 34
35 — 39
40 — 44
45 — 49
50 — 54
55 — 59
60 — 64
65 — 69
70 — 74

on Wall Street with such fine achievements, and a quite illogical and dangerous conviction that equally marvelous results could be expected for common stocks in the future. Few people seem to have been bothered by the thought that the very extent of the rise might indicate that it had been overdone. The subsequent decline from the 1968 high to the 1970 low was 36% for the Standard & Poor's composite (and 37% for the DJIA), the largest since the 44% suffered in 1939–1942, which had reflected the perils and uncertainties after Pearl Harbor. In the dramatic manner so characteristic of Wall Street, the low level of May 1970 was followed by a massive and speedy recovery of both averages, and the establishment of a new all-time high for the Standard & Poor's industrials in early 1972. The annual rate of price advance between 1949 and 1970 works out at about 9% for the S & P composite (or the industrial index), using the average figures for both years. That rate of climb was, of course, much greater than for any similar period before 1950. (But in the last decade the rate of advance was much lower—5¼% for the S & P composite index and only the once familiar 3% for the DJIA.)

The record of price movements should be supplemented by corresponding figures for earnings and dividends, in order to provide an overall view of what has happened to our share economy over the ten decades. We present a conspectus of this kind in our Table 3-2 (p. 71). It is a good deal to expect from the reader that he study all these figures with care, but for some we hope they will be interesting and instructive.

Let us comment on them as follows: The full decade figures smooth out the year-to-year fluctuations and leave a general picture of persistent growth. Only two of the nine decades after the first show a decrease in earnings and average prices (in 1891–1900 and 1931–1940), and no decade after 1900 shows a decrease in average dividends. But the rates of growth in all three categories are quite variable. In general the performance since World War II has been superior to that of earlier decades, but the advance in the 1960s was less pronounced than that of the 1950s. Today's investor

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Record, 1926–65," *The Journal of Business*, vol. XLI, no. 3 (July, 1968), pp. 291–316. For a summary of the study's wide influence, see http://library.dfaus.com/reprints/work_of_art/.

cannot tell from this record what percentage gain in earnings dividends and prices he may expect in the next ten years, but it does supply all the encouragement he needs for a consistent policy of common-stock investment.

However, a point should be made here that is not disclosed in our table. The year 1970 was marked by a definite deterioration in the overall earnings posture of our corporations. The rate of profit on invested capital fell to the lowest percentage since the World War years. Equally striking is the fact that a considerable number of companies reported net losses for the year; many became "financially troubled," and for the first time in three decades there were quite a few important bankruptcy proceedings. These facts as much as any others have prompted the statement made above* that the great boom era may have come to an end in 1969–1970.

A striking feature of Table 3-2 is the change in the price/earnings ratios since World War II.† In June 1949 the S & P composite index sold at only 6.3 times the applicable earnings of the past 12 months; in March 1961 the ratio was 22.9 times. Similarly, the dividend yield on the S & P index had fallen from over 7% in 1949 to only 3.0% in 1961, a contrast heightened by the fact that interest rates on high-grade bonds had meanwhile risen from 2.60% to 4.50%. This is certainly the most remarkable turnabout in the public's attitude in all stock-market history.

To people of long experience and innate caution the passage from one extreme to another carried a strong warning of trouble ahead. They could not help thinking apprehensively of the 1926–1929 bull market and its tragic aftermath. But these fears have not been confirmed by the event. True, the closing price of the DJIA

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* See pp. 50–52.

† The "price/earnings ratio" of a stock, or of a market average like the S & P 500-stock index, is a simple tool for taking the market's temperature. If, for instance, a company earned $1 per share of net income over the past year, and its stock is selling at $8.93 per share, its price/earnings ratio would be 8.93; if, however, the stock is selling at $69.70, then the price/earnings ratio would be 69.7. In general, a price/earnings ratio (or "P/E" ratio) below 10 is considered low, between 10 and 20 is considered moderate, and greater than 20 is considered expensive. (For more on P/E ratios, see p. 168.)

TABLE 3-2 A Picture of Stock-Market Performance, 1871–1970[a]

Period	*Average Price*	*Average Earnings*	*Average P/E Ratio*	*Dividend Average*	*Average Yield*	*Average Payout*	*Annual Growth Rate[b]*	
							Earnings	Dividends
1871–1880	3.58	0.32	11.3	0.21	6.0%	67%	—	—
1881–1890	5.00	0.32	15.6	0.24	4.7	75	– 0.64%	–0.66%
1891–1900	4.65	0.30	15.5	0.19	4.0	64	– 1.04	–2.23
1901–1910	8.32	0.63	13.1	0.35	4.2	58	+ 6.91	+5.33
1911–1920	8.62	0.86	10.0	0.50	5.8	58	+ 3.85	+3.94
1921–1930	13.89	1.05	13.3	0.71	5.1	68	+ 2.84	+2.29
1931–1940	11.55	0.68	17.0	0.78	5.1	85	– 2.15	–0.23
1941–1950	13.90	1.46	9.5	0.87	6.3	60	+10.60	+3.25
1951–1960	39.20	3.00	13.1	1.63	4.2	54	+ 6.74	+5.90
1961–1970	82.50	4.83	17.1	2.68	3.2	55	+ 5.80[c]	+5.40[c]
1954–1956	38.19	2.56	15.1	1.64	4.3	65	+ 2.40[d]	+7.80[d]
1961–1963	66.10	3.66	18.1	2.14	3.2	58	+ 5.15[d]	+4.42[d]
1968–1970	93.25	5.60	16.7	3.13	3.3	56	+ 6.30[d]	+5.60[d]

[a] The following data based largely on figures appearing in N. Molodovsky's article, "Stock Values and Stock Prices," *Financial Analysts Journal*, May 1960. These, in turn, are taken from the Cowles Commission book *Common Stock Indexes* for years before 1926 and from the spliced-on Standard & Poor's 500-stock composite index for 1926 to date.

[b] The annual growth-rate figures are Molodovsky compilations covering successive 21-year periods ending in 1890, 1900, etc.

[c] Growth rate for 1968–1970 vs. 1958–1960.

[d] These growth-rate figures are for 1954–1956 vs. 1947–1949, 1961–1963 vs. 1954–1956, and for 1968–1970 vs. 1958–1960.

in 1970 was the same as it was 6½ years earlier, and the much heralded "Soaring Sixties" proved to be mainly a march up a series of high hills and then down again. But nothing has happened either to business or to stock prices that can compare with the bear market and depression of 1929–1932.

The Stock-Market Level in Early 1972

With a century-long conspectus of stock, prices, earnings, and dividends before our eyes, let us try to draw some conclusions about the level of 900 for the DJIA and 100 for the S & P composite index in January 1972.

In each of our former editions we have discussed the level of the stock market at the time of writing, and endeavored to answer the question whether it was too high for conservative purchase. The reader may find it informing to review the conclusions we reached on these earlier occasions. This is not entirely an exercise in self-punishment. It will supply a sort of connecting tissue that links the various stages of the stock market in the past twenty years and also a taken-from-life picture of the difficulties facing anyone who tries to reach an informed and critical judgment of current market levels. Let us, first, reproduce the summary of the 1948, 1953, and 1959 analyses that we gave in the 1965 edition:

> In 1948 we applied conservative standards to the Dow Jones level of 180, and found no difficulty in reaching the conclusion that "it was not too high in relation to underlying values." When we approached this problem in 1953 the average market level for that year had reached 275, a gain of over 50% in five years. We asked ourselves the same question—namely, "whether in our opinion the level of 275 for the Dow Jones Industrials was or was not too high for sound investment." In the light of the subsequent spectacular advance, it may seem strange to have to report that it was by no means easy for us to reach a definitive conclusion as to the attractiveness of the 1953 level. We did say, positively enough, that "from the standpoint of value indications—our chief investment guide—the conclusion about 1953 stock prices must be favorable." But we were concerned about the fact that in 1953, the averages had advanced for a longer period than in most bull markets of the

past, and that its absolute level was historically high. Setting these factors against our favorable value judgment, we advised a cautious or compromise policy. As it turned out, this was not a particularly brilliant counsel. A good prophet would have foreseen that the market level was due to advance an additional 100% in the next five years. Perhaps we should add in self-defense that few if any of those whose business was stock-market forecasting—as ours was not—had any better inkling than we did of what lay ahead.

At the beginning of 1959 we found the DJIA at an all-time high of 584. Our lengthy analysis made from all points of view may be summarized in the following (from page 59 of the 1959 edition): "In sum, we feel compelled to express the conclusion that the present level of stock prices is a dangerous one. It may well be perilous because prices are already far too high. But even if this is not the case the market's momentum is such as inevitably to carry it to unjustifiable heights. Frankly, we cannot imagine a market of the future in which there will never be any serious losses, and in which, every tyro will be guaranteed a large profit on his stock purchases."

The caution we expressed in 1959 was somewhat better justified by the sequel than was our corresponding attitude in 1954. Yet it was far from fully vindicated. The DJIA advanced to 685 in 1961; then fell a little below our 584 level (to 566) later in the year; advanced again to 735 in late 1961; and then declined in near panic to 536 in May 1962, showing a loss of 27% within the brief period of six months. At the same time there was a far more serious shrinkage in the most popular "growth stocks"—as evidenced by the striking fall of the indisputable leader, International Business Machines, from a high of 607 in December 1961 to a low of 300 in June 1962.

This period saw a complete debacle in a host of newly launched common stocks of small enterprises—the so-called hot issues—which had been offered to the public at ridiculously high prices and then had been further pushed up by needless speculation to levels little short of insane. Many of these lost 90% and more of the quotations in just a few months.

The collapse in the first half of 1962 was disconcerting, if not disastrous, to many self-acknowledged speculators and perhaps

to many more imprudent people who called themselves "investors." But the turnabout that came later that year was equally unsuspected by the financial community. The stock-market averages resumed their upward course, producing the following sequence:

	DJIA	*Standard & Poor's 500-Stock Composite*
December 1961	735	72.64
June 1962	536	52.32
November 1964	892	86.28

The recovery and new ascent of common-stock prices was indeed remarkable and created a corresponding revision of Wall Street sentiment. At the low level of June 1962 predictions had appeared predominantly bearish, and after the partial recovery to the end of that year they were mixed, leaning to the skeptical side. But at the outset of 1964 the natural optimism of brokerage firms was again manifest; nearly all the forecasts were on the bullish side, and they so continued through the 1964 advance.

We then approached the task of appraising the November 1964 levels of the stock market (892 for the DJIA). After discussing it learnedly from numerous angles we reached three main conclusions. The first was that "old standards (of valuation) appear inapplicable; new standards have not yet been tested by time." The second was that the investor "must base his policy on the existence of major uncertainties. The possibilities compass the extremes, on the one hand, of a protracted and further advance in the market's level—say by 50%, or to 1350 for the DJIA; or, on the other hand, of a largely unheralded collapse of the same magnitude, bringing the average in the neighborhood of, say, 450" (p. 63). The third was expressed in much more definite terms. We said: "Speaking bluntly, if the 1964 price level is not too high how could we say that *any* price level is too high?" And the chapter closed as follows:

WHAT COURSE TO FOLLOW

Investors should not conclude that the 1964 market level is dangerous merely because they read it in this book. They must weigh our reasoning against the contrary reasoning they will hear from most competent and experienced people on Wall Street. In the end each one must make his own decision and accept responsibility therefor. We suggest, however, that if the investor is in doubt as to which course to pursue he should choose the path of caution. The principles of investment, as set forth herein, would call for the following policy under 1964 conditions, in order of urgency:

1. No borrowing to buy or hold securities.
2. No increase in the proportion of funds held in common stocks.
3. A reduction in common-stock holdings where needed to bring it down to a maximum of 50 per cent of the total portfolio. The capital-gains tax must be paid with as good grace as possible, and the proceeds invested in first-quality bonds or held as a savings deposit.

Investors who for some time have been following a bona fide dollar-cost averaging plan can in logic elect either to continue their periodic purchases unchanged or to suspend them until they feel the market level is no longer dangerous. We should advise rather strongly against the initiation of a new dollar-averaging plan at the late 1964 levels, since many investors would not have the stamina to pursue such a scheme if the results soon after initiation should appear highly unfavorable.

This time we can say that our caution was vindicated. The DJIA advanced about 11% further, to 995, but then fell irregularly to a low of 632 in 1970, and finished that year at 839. The same kind of debacle took place in the price of "hot issues"—i.e., with declines running as much as 90%—as had happened in the 1961–62 setback. And, as pointed out in the Introduction, the whole financial picture appeared to have changed in the direction of less enthusiasm and greater doubts. A single fact may summarize the story: The DJIA closed 1970 at a level lower than six years before—the first time such a thing had happened since 1944.

Such were our efforts to evaluate former stock-market levels. Is there anything we and our readers can learn from them? We considered the market level favorable for investment in 1948 and 1953 (but too cautiously in the latter year), "dangerous" in 1959 (at 584 for DJIA), and "too high" (at 892) in 1964. All of these judgments could be defended even today by adroit arguments. But it is doubtful if they have been as useful as our more pedestrian counsels—in favor of a consistent and controlled common-stock policy on the one hand, and discouraging endeavors to "beat the market" or to "pick the winners" on the other.

Nonetheless we think our readers may derive some benefit from a renewed consideration of the level of the stock market—this time as of late 1971—even if what we have to say will prove more interesting than practically useful, or more indicative than conclusive. There is a fine passage near the beginning of Aristotle's *Ethics* that goes: "It is the mark of an educated mind to expect that amount of exactness which the nature of the particular subject admits. It is equally unreasonable to accept merely probable conclusions from a mathematician and to demand strict demonstration from an orator." The work of a financial analyst falls somewhere in the middle between that of a mathematician and of an orator.

At various times in 1971 the Dow Jones Industrial Average stood at the 892 level of November 1964 that we considered in our previous edition. But in the present statistical study we have decided to use the price level and the related data for the Standard & Poor's composite index (or S & P 500), because it is more comprehensive and representative of the general market than the 30-stock DJIA. We shall concentrate on a comparison of this material near the four dates of our former editions—namely the year-ends of 1948, 1953, 1958 and 1963—plus 1968; for the current price level we shall take the convenient figure of 100, which was registered at various times in 1971 and in early 1972. The salient data are set forth in Table 3-3. For our earnings figures we present both the last year's showing and the average of three calendar years; for 1971 dividends we use the last twelve months' figures; and for 1971 bond interest and wholesale prices those of August 1971.

The 3-year price/earnings ratio for the market was lower in October 1971 than at year-end 1963 and 1968. It was about the same as in 1958, but much higher than in the early years of the long bull

TABLE 3-3 Data Relating to Standard & Poor's Composite Index in Various Years

Year[a]	*1948*	*1953*	*1958*	*1963*	*1968*	*1971*
Closing price	15.20	24.81	55.21	75.02	103.9	100[d]
Earned in current year	2.24	2.51	2.89	4.02	5.76	5.23
Average earnings of last 3 years	1.65	2.44	2.22	3.63	5.37	5.53
Dividend in current year	.93	1.48	1.75	2.28	2.99	3.10
High-grade bond interest[a]	2.77%	3.08%	4.12%	4.36%	6.51%	7.57%
Wholesale-price index	87.9	92.7	100.4	105.0	108.7	114.3
Ratios:						
Price/last year's earnings	6.3 ×	9.9 ×	18.4 ×	18.6 ×	18.0 ×	19.2 ×
Price/3-years' earnings	9.2 ×	10.2 ×	17.6 ×	20.7 ×	19.5 ×	18.1 ×
3-Years' "earnings yield"[c]	10.9 %	9.8 %	5.8 %	4.8 %	5.15%	5.53%
Dividend yield	5.6 %	5.5 %	3.3 %	3.04%	2.87%	3.11%
Stock-earnings yield/bond yield	3.96×	3.20×	1.41×	1.10×	.80×	.72×
Dividend yield/bond yield	2.1 ×	1.8 ×	.80×	.70×	.44×	.41×
Earnings/book value[e]	11.2 %	11.8 %	12.8 %	10.5 %	11.5 %	11.5 %

[a] Yield on S & P AAA bonds.

[b] Calendar years in 1948–1968, plus year ended June 1971.

[c] "Earnings yield" means the earnings divided by the price, in %.

[d] Price in Oct. 1971, equivalent to 900 for the DJIA.

[e] Three-year average figures.

market. This important indicator, taken by itself, could not be construed to indicate that the market was especially high in January 1972. But when the interest yield on high-grade bonds is brought into the picture, the implications become much less favorable. The reader will note from our table that the ratio of stock returns (earnings/price) to bond returns has grown worse during the entire period, so that the January 1972 figure was less favorable to stocks, by this criterion, than in any of the previous years examined. When dividend yields are compared with bond yields we find that the relationship was completely reversed between 1948 and 1972. In the early year stocks yielded twice as much as bonds; now bonds yield twice as much, and more, than stocks.

Our final judgment is that the adverse change in the bond-yield/stock-yield ratio fully offsets the better price/earnings ratio for late 1971, based on the 3-year earnings figures. Hence our view of the early 1972 market level would tend to be the same as it was some 7 years ago—i.e., that it is an unattractive one from the standpoint of conservative investment. (This would apply to most of the 1971 price range of the DJIA: between, say, 800 and 950.)

In terms of historical market swings the 1971 picture would still appear to be one of irregular recovery from the bad setback suffered in 1969–1970. In the past such recoveries have ushered in a new stage of the recurrent and persistent bull market that began in 1949. (This was the expectation of Wall Street generally during 1971.) After the terrible experience suffered by the public buyers of low-grade common-stock offerings in the 1968–1970 cycle, it is too early (in 1971) for another twirl of the new-issue merry-go-round. Hence that dependable sign of imminent danger in the market is lacking now, as it was at the 892 level of the DJIA in November 1964, considered in our previous edition. Technically, then, the outlook would appear to favor another substantial rise far beyond the 900 DJIA level before the next serious setback or collapse. But we cannot quite leave the matter there, as perhaps we should. To us, the early-1971-market's disregard of the harrowing experiences of less than a year before is a disquieting sign. Can such heedlessness go unpunished? We think the investor must be prepared for difficult times ahead—perhaps in the form of a fairly quick replay of the the 1969–1970 decline, or perhaps in the form of another bull-market fling, to be followed by a more catastrophic collapse.[3]

What Course to Follow

Turn back to what we said in the last edition, reproduced on p. 75. This is our view at the same price level—say 900—for the DJIA in early 1972 as it was in late 1964.

COMMENTARY ON CHAPTER 3

> You've got to be careful if you don't know where you're going, 'cause you might not get there.
>
> —*Yogi Berra*

BULL-MARKET BALONEY

In this chapter, Graham shows how prophetic he can be. He looks two years ahead, foreseeing the "catastrophic" bear market of 1973–1974, in which U.S. stocks lost 37% of their value.[1] He also looks more than two decades into the future, eviscerating the logic of market gurus and best-selling books that were not even on the horizon in his lifetime.

The heart of Graham's argument is that the intelligent investor must never forecast the future exclusively by extrapolating the past. Unfortunately, that's exactly the mistake that one pundit after another made in the 1990s. A stream of bullish books followed Wharton finance professor Jeremy Siegel's *Stocks for the Long Run* (1994)—culminating, in a wild crescendo, with James Glassman and Kevin Hassett's *Dow 36,000,* David Elias' *Dow 40,000,* and Charles Kadlec's *Dow 100,000* (all published in 1999). Forecasters argued that stocks had returned an annual average of 7% after inflation ever since 1802. Therefore, they concluded, that's what investors should expect in the future.

Some bulls went further. Since stocks had "always" beaten bonds over any period of at least 30 years, stocks must be less risky than bonds or even cash in the bank. And if you can eliminate all the risk of owning stocks simply by hanging on to them long enough, then why

[1] If dividends are not included, stocks fell 47.8% in those two years.

quibble over how much you pay for them in the first place? (To find out why, see the sidebar on p. 82.)

In 1999 and early 2000, bull-market baloney was everywhere:

- On December 7, 1999, Kevin Landis, portfolio manager of the Firsthand mutual funds, appeared on CNN's *Moneyline* telecast. Asked if wireless telecommunication stocks were overvalued–with many trading at infinite multiples of their earnings–Landis had a ready answer. "It's not a mania," he shot back. "Look at the outright growth, the absolute value of the growth. It's big."
- On January 18, 2000, Robert Froelich, chief investment strategist at the Kemper Funds, declared in the *Wall Street Journal:* "It's a new world order. We see people discard all the right companies with all the right people with the right vision because their stock price is too high–that's the worst mistake an investor can make."
- In the April 10, 2000, issue of *BusinessWeek,* Jeffrey M. Applegate, then the chief investment strategist at Lehman Brothers, asked rhetorically: "Is the stock market riskier today than two years ago simply because prices are higher? The answer is *no.*"

But the answer is *yes.* It always has been. It always will be.

And when Graham asked, "Can such heedlessness go unpunished?" he knew that the eternal answer to that question is *no.* Like an enraged Greek god, the stock market crushed everyone who had come to believe that the high returns of the late 1990s were some kind of divine right. Just look at how those forecasts by Landis, Froelich, and Applegate held up:

- From 2000 through 2002, the most stable of Landis's pet wireless stocks, Nokia, lost "only" 67%–while the worst, Winstar Communications, lost 99.9%.
- Froelich's favorite stocks–Cisco Systems and Motorola–fell more than 70% by late 2002. Investors lost over $400 billion on Cisco alone–more than the annual economic output of Hong Kong, Israel, Kuwait, and Singapore combined.
- In April 2000, when Applegate asked his rhetorical question, the Dow Jones Industrials stood at 11,187; the NASDAQ Composite Index was at 4446. By the end of 2002, the Dow was hobbling around the 8,300 level, while NASDAQ had withered to roughly 1300–eradicating all its gains over the previous six years.

SURVIVAL OF THE FATTEST

There was a fatal flaw in the argument that stocks have "always" beaten bonds in the long run: Reliable figures before 1871 do not exist. The indexes used to represent the U.S. stock market's earliest returns contain as few as seven (yes, 7!) stocks.[1] By 1800, however, there were some 300 companies in America (many in the Jeffersonian equivalents of the Internet: wooden turnpikes and canals). Most went bankrupt, and their investors lost their knickers.

But the stock indexes ignore all the companies that went bust in those early years, a problem technically known as "survivorship bias." Thus these indexes wildly overstate the results earned by real-life investors—who lacked the 20/20 hindsight necessary to know exactly which seven stocks to buy. A lonely handful of companies, including Bank of New York and J. P. Morgan Chase, have prospered continuously since the 1790s. But for every such miraculous survivor, there were thousands of financial disasters like the Dismal Swamp Canal Co., the Pennsylvania Cultivation of Vines Co., and the Snickers's Gap Turnpike Co.—all omitted from the "historical" stock indexes.

Jeremy Siegel's data show that, after inflation, from 1802 through 1870 stocks gained 7.0% per year, bonds 4.8%, and cash 5.1%. But Elroy Dimson and his colleagues at London Business School estimate that the pre-1871 stock returns are overstated by at least two percentage points per year.[2] In the real world, then, stocks did no better than cash and bonds—and perhaps a bit worse. Anyone who claims that the long-term record "proves" that stocks are guaranteed to outperform bonds or cash is an ignoramus.

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[1] By the 1840s, these indexes had widened to include a maximum of seven financial stocks and 27 railroad stocks—still an absurdly unrepresentative sample of the rambunctious young American stock market.

[2] See Jason Zweig, "New Cause for Caution on Stocks," *Time,* May 6, 2002, p. 71. As Graham hints on p. 65, even the stock indexes between 1871 and the 1920s suffer from survivorship bias, thanks to the hundreds of automobile, aviation, and radio companies that went bust without a trace. These returns, too, are probably overstated by one to two percentage points.

THE HIGHER THEY GO, THE HARDER THEY FALL

As the enduring antidote to this kind of bull-market baloney, Graham urges the intelligent investor to ask some simple, skeptical questions. Why should the future returns of stocks always be the same as their past returns? When every investor comes to believe that stocks are guaranteed to make money in the long run, won't the market end up being wildly overpriced? And once that happens, how can future returns possibly be high?

Graham's answers, as always, are rooted in logic and common sense. The value of any investment is, and always must be, a function of the price you pay for it. By the late 1990s, inflation was withering away, corporate profits appeared to be booming, and most of the world was at peace. But that did not mean—nor could it ever mean—that stocks were worth buying *at any price.* Since the profits that companies can earn are finite, the price that investors should be willing to pay for stocks must also be finite.

Think of it this way: Michael Jordan may well have been the greatest basketball player of all time, and he pulled fans into Chicago Stadium like a giant electromagnet. The Chicago Bulls got a bargain by paying Jordan up to $34 million a year to bounce a big leather ball around a wooden floor. But that does not mean the Bulls would have been justified paying him $340 million, or $3.4 billion, or $34 billion, per season.

THE LIMITS OF OPTIMISM

Focusing on the market's recent returns when they have been rosy, warns Graham, will lead to "a quite illogical and dangerous conclusion that equally marvelous results could be expected for common stocks in the future." From 1995 through 1999, as the market rose by at least 20% each year—a surge unprecedented in American history—stock buyers became ever more optimistic:

- In mid-1998, investors surveyed by the Gallup Organization for the PaineWebber brokerage firm expected their portfolios to earn an average of roughly 13% over the year to come. By early 2000, their average expected return had jumped to more than 18%.

- "Sophisticated professionals" were just as bullish, jacking up their own assumptions of future returns. In 2001, for instance, SBC Communications raised the projected return on its pension plan from 8.5% to 9.5%. By 2002, the average assumed rate of return on the pension plans of companies in the Standard & Poor's 500-stock index had swollen to a record-high 9.2%.

A quick follow-up shows the awful aftermath of excess enthusiasm:

- Gallup found in 2001 and 2002 that the average expectation of one-year returns on stocks had slumped to 7%—even though investors could now buy at prices nearly 50% lower than in 2000.[2]
- Those gung-ho assumptions about the returns on their pension plans will cost the companies in the S & P 500 a bare minimum of $32 billion between 2002 and 2004, according to recent Wall Street estimates.

Even though investors all know they're supposed to buy low and sell high, in practice they often end up getting it backwards. Graham's warning in this chapter is simple: "By the rule of opposites," the more enthusiastic investors become about the stock market in the long run, the more certain they are to be proved wrong in the short run. On March 24, 2000, the total value of the U.S. stock market peaked at $14.75 trillion. By October 9, 2002, just 30 months later, the total U.S. stock market was worth $7.34 trillion, or 50.2% less—a loss of $7.41 trillion. Meanwhile, many market pundits turned sourly bearish, predicting flat or even negative market returns for years—even decades—to come.

At this point, Graham would ask one simple question: Considering how calamitously wrong the "experts" were the last time they agreed on something, why on earth should the intelligent investor believe them now?

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[2] Those cheaper stock prices do not mean, of course, that investors' expectation of a 7% stock return will be realized.

WHAT'S NEXT?

Instead, let's tune out the noise and think about future returns as Graham might. The stock market's performance depends on three factors:

- real growth (the rise of companies' earnings and dividends)
- inflationary growth (the general rise of prices throughout the economy)
- speculative growth—or decline (any increase or decrease in the investing public's appetite for stocks)

In the long run, the yearly growth in corporate earnings per share has averaged 1.5% to 2% (not counting inflation).[3] As of early 2003, inflation was running around 2.4% annually; the dividend yield on stocks was 1.9%. So,

$$\begin{array}{r} 1.5\% \text{ to } 2\% \\ +\ 2.4\% \\ +\ 1.9\% \\ \hline = 5.8\% \text{ to } 6.3\% \end{array}$$

In the long run, that means you can reasonably expect stocks to average roughly a 6% return (or 4% after inflation). If the investing public gets greedy again and sends stocks back into orbit, then that speculative fever will temporarily drive returns higher. If, instead, investors are full of fear, as they were in the 1930s and 1970s, the returns on stocks will go temporarily lower. (That's where we are in 2003.)

Robert Shiller, a finance professor at Yale University, says Graham inspired his valuation approach: Shiller compares the current price of the Standard & Poor's 500-stock index against average corporate profits over the past 10 years (after inflation). By scanning the historical record, Shiller has shown that when his ratio goes well above 20, the market usually delivers poor returns afterward; when it drops well

[3] See Jeremy Siegel, *Stocks for the Long Run* (McGraw-Hill, 2002), p. 94, and Robert Arnott and William Bernstein, "The Two Percent Dilution," working paper, July, 2002.

below 10, stocks typically produce handsome gains down the road. In early 2003, by Shiller's math, stocks were priced at about 22.8 times the average inflation-adjusted earnings of the past decade—still in the danger zone, but way down from their demented level of 44.2 times earnings in December 1999.

How has the market done in the past when it was priced around today's levels? Figure 3-1 shows the previous periods when stocks were at similar highs, and how they fared over the 10-year stretches that followed:

FIGURE 3-1

Year	Price/earnings ratio	Total return over next 10 years
1898	21.4	9.2
1900	20.7	7.1
1901	21.7	5.9
1905	19.6	5.0
1929	22.0	−0.1
1936	21.1	4.4
1955	18.9	11.1
1959	18.6	7.8
1961	22.0	7.1
1962	18.6	9.9
1963	21.0	6.0
1964	22.8	1.2
1965	23.7	3.3
1966	19.7	6.6
1967	21.8	3.6
1968	22.3	3.2
1972	18.6	6.7
1992	20.4	9.3
Averages	**20.8**	**6.0**

Sources: http://aida.econ.yale.edu/~shiller/data/ie_data.htm;
Jack Wilson and Charles Jones, "An Analysis of the S & P 500 Index and Cowles' Extensions: Price Index and Stock Returns, 1870–1999," *The Journal of Business,* vol. 75, no. 3, July, 2002, pp. 527–529; Ibbotson Associates.

Notes: Price/earnings ratio is Shiller calculation (10-year average real earnings of S & P 500-stock index divided by December 31 index value). Total return is nominal annual average.