WARREN BUFFETT ON THE STOCK MARKET

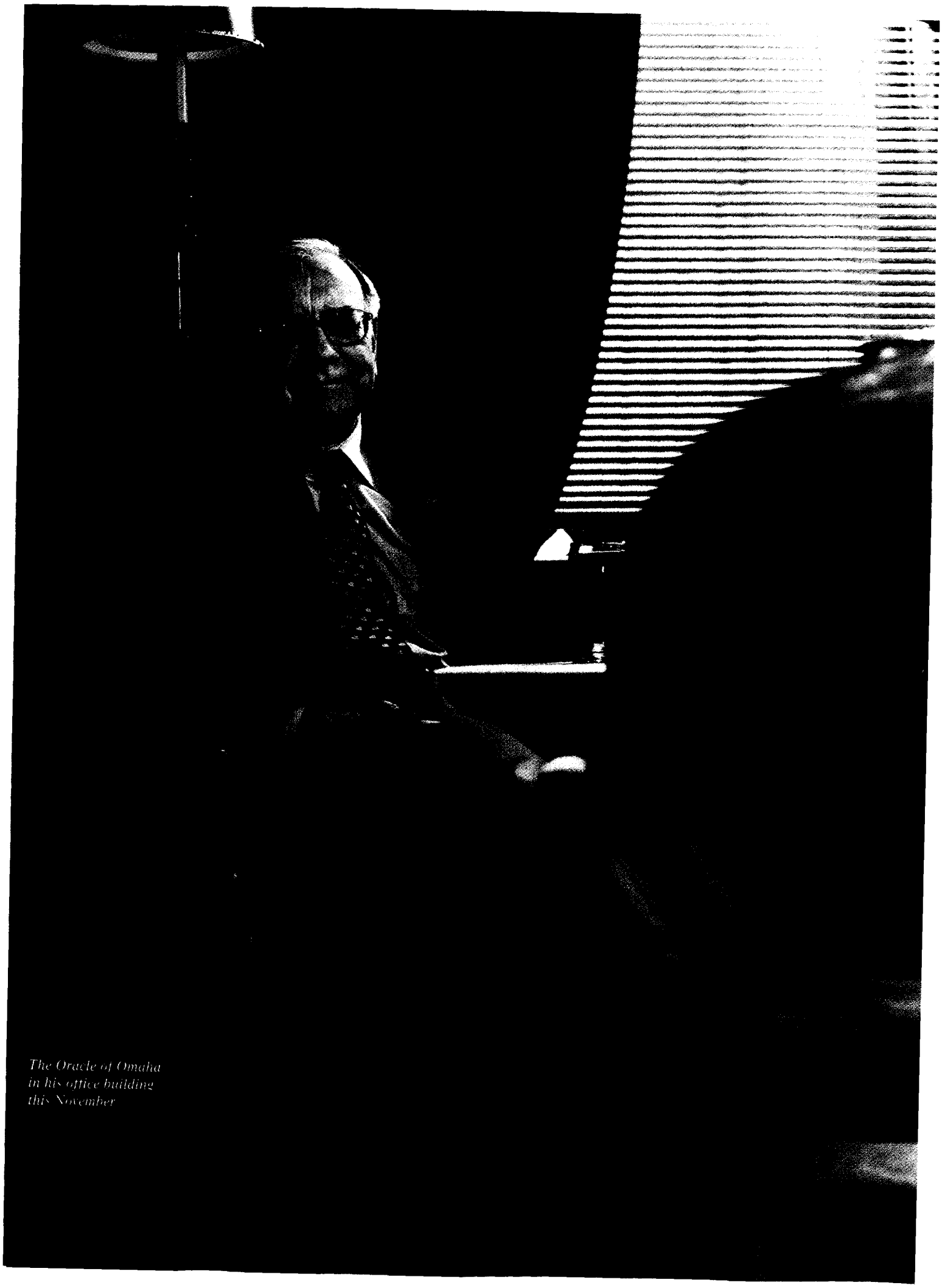
What's in the future for investors—another roaring bull market or more upset stomach? Amazingly, the answer may come down to three simple factors. Here, the world's most celebrated investor talks about what *really* makes the market tick—and whether that ticking should make you nervous.

TWO YEARS AGO, FOLLOWING A JULY 1999 SPEECH BY *Warren Buffett, chairman of Berkshire Hathaway, on the stock market—a rare subject for him to discuss publicly*—FORTUNE *ran what he had to say under the title "Mr. Buffett on the Stock Market" (Nov. 22, 1999). His main points then concerned two consecutive and amazing periods that American investors had experienced, and his belief that returns from stocks were due to fall dramatically. Since the Dow Jones Industrial Average was 11194 when he gave his speech and recently was about 9900, no one yet has the goods to argue with him.*

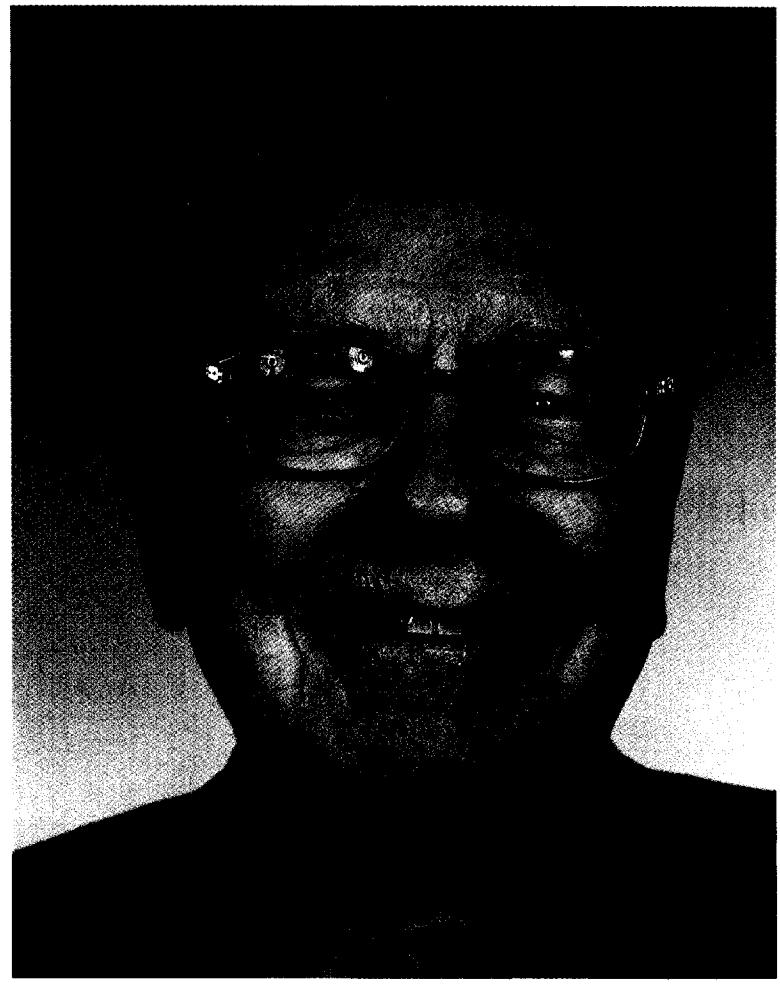
So where do we stand now—with the stock market seeming to reflect a dismal profit outlook, an unfamiliar war, and rattled consumer confidence? Who better to supply perspective on that question than Buffett?

The thoughts that follow come from a second Buffett speech, given last July at the site of the first talk, Allen & Co.'s annual Sun Valley bash for corporate executives. There, the renowned stockpicker returned to the themes he'd discussed before, bringing new data and insights to the subject. Working with FORTUNE*'s Carol Loomis, Buffett distilled that speech into this essay, a fitting opening for this year's Investor's Guide. Here again is Mr. Buffett on the Stock Market.*

PHOTOGRAPHS BY MARTIN SCHOELLER—CORBIS SABA



The Oracle of Omaha in his office building this November



The last time I tackled this subject, in 1999, I broke down the previous 34 years into two 17-year periods, which in the sense of lean years and fat were astonishingly symmetrical. Here's the first period. As you can see, over 17 years the Dow gained exactly one-tenth of one percent.

- DOW JONES INDUSTRIAL AVERAGE
  Dec. 31, 1964: **874.12**
  Dec. 31, 1981: **875.00**

And here's the second, marked by an incredible bull market that, as I laid out my thoughts, was about to end (though I didn't know that).

- DOW INDUSTRIALS
  Dec. 31, 1981: **875.00**
  Dec. 31, 1998: **9181.43**

Now, you couldn't explain this remarkable divergence in markets by, say, differences in the growth of gross national product. In the first period—that dismal time for the market—GNP actually grew more than twice as fast as it did in the second period.

- GAIN IN GROSS NATIONAL PRODUCT
  1964–1981: **373%**
  1981–1988: **177%**

So what was the explanation? I concluded that the market's contrasting moves were caused by extraordinary changes in two critical economic variables—and by a related psychological force that eventually came into play.

Here I need to remind you about the definition of "investing," which though simple is often forgotten. Investing is laying out money today to receive more money tomorrow.

That gets to the first of the economic variables that affected stock prices in the two periods—interest rates. In economics, interest rates act as gravity behaves in the physical world. At all times, in all markets, in all parts of the world, the tiniest change in rates changes the value of every financial asset. You see that clearly with the fluctuating prices of bonds. But the rule applies as well to farmland, oil reserves, stocks, and every other financial asset. And the effects can be huge on values. If interest rates are, say, 13%, the present value of a dollar that you're going to receive in the future from an investment is not nearly as high as the present value of a dollar if rates are 4%.

So here's the record on interest rates at key dates in our 34-year span. They moved dramatically up—that was bad for investors—in the first half of that period and dramatically down—a boon for investors—in the second half.

- INTEREST RATES, LONG-TERM GOVERNMENT BONDS
  Dec. 31, 1964: **4.20%**
  Dec. 31, 1981: **13.65%**
  Dec. 31, 1998: **5.09%**

The other critical variable here is how many dollars investors expected to get from the companies in which they invested. During the first period expectations fell significantly because corporate profits weren't looking good. By the early 1980s Fed Chairman Paul Volcker's economic sledgehammer had, in fact, driven corporate profitability to a level that people hadn't seen since the 1930s.

The upshot is that investors lost their confidence in the American economy: They were looking at a future they believed would be plagued by two negatives. First, they didn't see much good coming in the way of corporate profits. Second, the sky-high interest rates prevailing caused them to discount those meager profits further. These two factors, working together, caused stagnation in the stock market from 1964 to 1981, even though those years featured huge improvements in GNP. The business of the country grew while investors' valuation of that business shrank!

And then the reversal of those factors created a period during which much lower GNP gains were accompanied by a bonanza for the market. First, you got a major increase in the rate of profitability. Second, you got an enormous drop in interest rates, which made a dollar of future profit that much more valuable. Both phenomena were real and powerful fuels for a major bull market. And in time the psychological factor I mentioned was added to the equation: Speculative trading exploded, simply because of the market action that people had seen. Later, we'll look at the pathology of this dangerous and oft-recurring malady.

Two years ago I believed the favorable fundamental trends had largely run their course. For the market to go dramatically up from where it was then would have required long-term interest rates to drop much further (which is always possible) or for there to be a major improvement in corporate profitability (which seemed, at the time, considerably less possible). If you take a look at a 50-year chart of after-tax profits as a percent of gross domestic product, you

find that the rate normally falls between 4%—that was its neighborhood in the bad year of 1981, for example—and 6.5%. For the rate to go above 6.5% is rare. In the very good profit years of 1999 and 2000, the rate was under 6% and this year it may well fall below 5%.

So there you have my explanation of those two wildly different 17-year periods. The question is, How much do those periods of the past for the market say about its future?

To suggest an answer, I'd like to look back over the 20th century. As you know, this was really the American century. We had the advent of autos, we had aircraft, we had radio, TV, and computers. It was an incredible period. Indeed, the per capita growth in U.S. output, measured in real dollars (that is, with no impact from inflation), was a breathtaking 702%.

"When hamburgers go down in price, we sing 'Hallelujah' in the Buffett household. When they go up, we weep. For most of us, it's the same with everything we will be buying—except stocks."

The century included some very tough years, of course—like the Depression years of 1929 to 1933. But a decade-by-decade look at per capita GNP shows something remarkable: As a nation, we made relatively consistent progress throughout the century. So you might think that the economic value of the U.S.—at least as measured by its securities markets—would have grown at a reasonably consistent pace as well.

That's not what happened. We know from our earlier examination of the 1964–98 period that parallelism broke down completely in that era. But the whole century makes this point as well. At its beginning, for example, between 1900 and 1920, the country was chugging ahead, explosively expanding its use of electricity, autos, and the telephone. Yet the market barely moved, recording a 0.4% annual increase that was roughly analogous to the slim pickings between 1964 and 1981.

- DOW INDUSTRIALS
  Dec. 31, 1899: **66.08**
  Dec. 31, 1920: **71.95**

In the next period, we had the market boom of the '20s, when the Dow jumped 430% to 381 in September 1929. Then we go 19 years *—19 years*—and there is the Dow at 177, half the level where it began. That's true even though the 1940s displayed by far the largest gain in per capita GDP (50%) of any 20th-century decade. Following that came a 17-year period when stocks finally took off—making a great five-to-one gain. And then the two periods discussed at the start: stagnation until 1981, and the roaring boom that wrapped up this amazing century.

To break things down another way, we had three huge, secular bull markets that covered about 44 years, during which the Dow gained more than 11,000 points. And we had three periods of stagnation, covering some 56 years. During those 56 years the country made major economic progress and yet the Dow actually *lost* 292 points.

How could this have happened? In a flourishing country in which people are focused on making money, how could you have had three extended and anguishing periods of stagnation that in aggregate—leaving aside dividends—would have lost you money? The answer lies in the mistake that investors repeatedly make—that psychological force I mentioned above: People are habitually guided by the rear-view mirror and, for the most part, by the vistas immediately behind them.

The first part of the century offers a vivid illustration of that myopia. In the century's first 20 years, stocks normally yielded more than high-grade bonds. That relationship now seems quaint, but it was then almost axiomatic. Stocks were known to be riskier, so why buy them unless you were paid a premium?

And then came along a 1924 book—slim and initially unheralded, but destined to move markets as never before—written by a man named Edgar Lawrence Smith. The book, called *Common Stocks as Long Term Investments*, chronicled a study Smith had done of security price movements in the 56 years ended in 1922. Smith had started off his study with a hypothesis: Stocks would do better in times of inflation, and bonds would do better in times of deflation. It was a perfectly reasonable hypothesis.

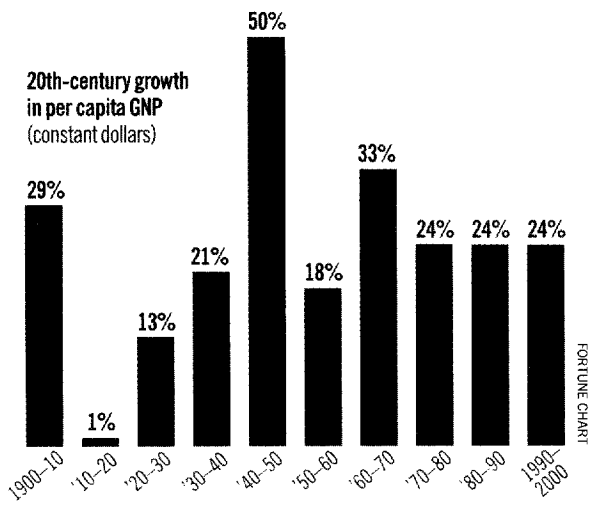
But consider the first words in the book: "These studies are the record of a failure—the failure of facts to sustain a preconceived theory." Smith went on: "The facts assembled, however, seemed worthy of further examination. If they would not prove what we had hoped to have them prove, it seemed desirable to turn them loose and to follow them to whatever end they might lead."

Now, there was a smart man, who did just about the hardest thing in the world to do. Charles Darwin used to say that whenever he ran into something that contradicted a conclusion he cherished, he was obliged to write the new finding down within 30 minutes. Otherwise his mind would work to reject the discordant information, much as the body rejects transplants. Man's natural inclination is to cling to his beliefs, particularly if they are reinforced by recent experience—a flaw in our makeup that bears on what happens during secular bull markets and extended periods of stagnation.

To report what Edgar Lawrence Smith discovered, I will quote a legendary thinker—John Maynard Keynes, who in 1925 reviewed the book, thereby putting it on the map. In his review, Keynes described "perhaps Mr. Smith's most important point ... and certainly his most novel point. Well-managed industrial companies do not, as a rule, distribute to the shareholders the whole

The U.S. never stopped growing

Per capita GNP gains crept in the 20th century's early years. But if you think of the U.S. as a stock, it was overall one helluva mover.

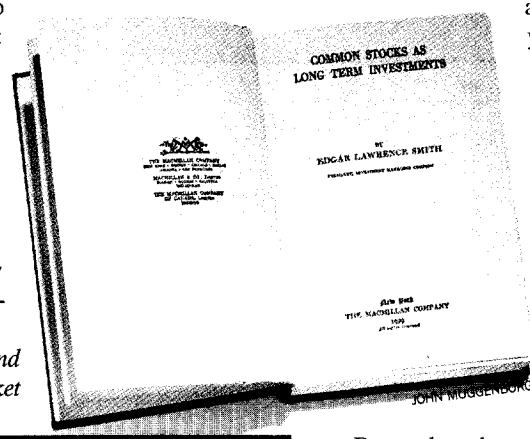


of their earned profits. In good years, if not in all years, they retain a part of their profits and put them back in the business. Thus *there is an element of compound interest* (Keynes' italics) operating in favor of a sound industrial investment."

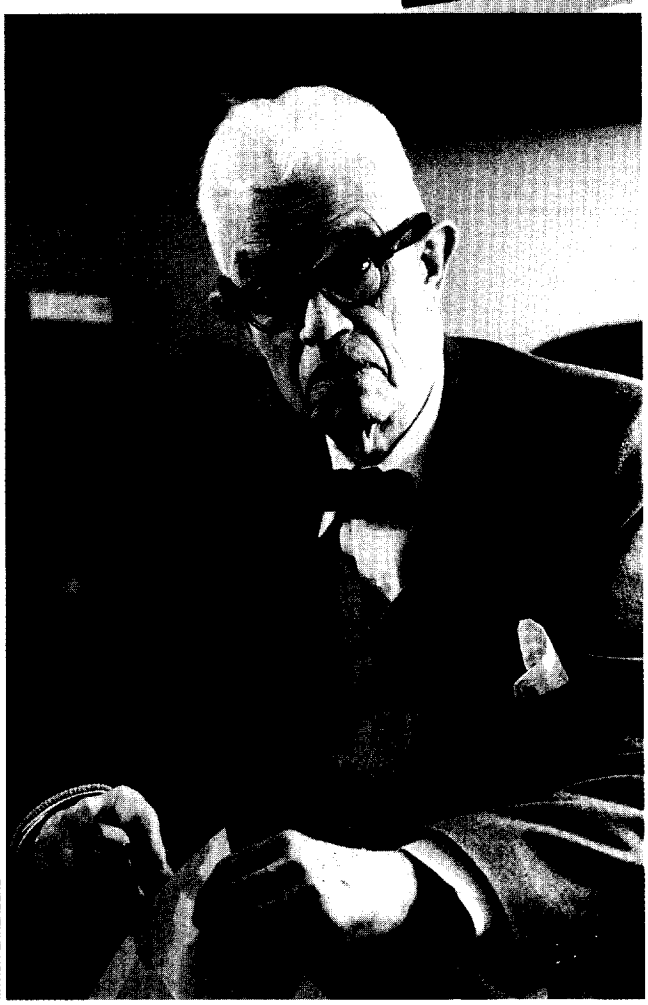
It was that simple. It wasn't even news. People certainly knew that companies were not paying out 100% of their earnings. But investors hadn't thought through the implications of the point. Here, though, was this guy Smith saying, "Why do stocks typically outperform bonds? A major reason is that businesses retain earnings, with these going on to generate still more earnings—and dividends, too."

That finding ignited an unprecedented bull market. Galvanized by Smith's insight, investors piled into stocks, anticipating a double dip: their higher initial yield over bonds, and growth to boot. For the American public, this new understanding was like the discovery of fire.

But before long that same public was burned. Stocks were driven to prices that first pushed down their yield to that on bonds and ultimately drove their yield far lower. What happened then should strike readers as eerily familiar: The mere fact that share prices were rising so quickly became the main impetus for people to rush into stocks. What the few bought for the *right* reason in 1925, the many bought for the *wrong* reason in 1929.



Edgar Lawrence Smith and the book that moved the market



MYRON EHRENBERG

Astutely, Keynes anticipated a perversity of this kind in his 1925 review. He wrote: "It is dangerous ... to apply to the future inductive arguments based on past experience, unless one can distinguish the broad reasons why past experience was what it was." If you can't do that, he said, you may fall into the trap of expecting results in the future that will materialize only if conditions are exactly the same as they were in the past. The special conditions he had in mind, of course, stemmed from the fact that Smith's study covered a half century during which stocks generally yielded more than high-grade bonds.

The colossal miscalculation that investors made in the 1920s has recurred in one form or another several times since. The public's monumental hangover from its stock binge of the 1920s lasted, as we have seen, through 1948. The country was then intrinsically far more valuable than it had been 20 years before; dividend yields were more than double the yield on bonds; and yet stock prices were at less than half their 1929 peak. The conditions that had produced Smith's wondrous results had reappeared—in spades.

But rather than seeing what was in plain sight in the late 1940s, investors were transfixed by the frightening market of the early 1930s and were avoiding re-exposure to pain.

Don't think for a moment that small investors are the only ones guilty of too much attention to the rear-view mirror. Let's look at the behavior of professionally managed pension funds in recent decades. In 1971—this was Nifty Fifty time—pension managers, feeling great about the market, put more than 90% of their net cash flow into stocks, a record commitment at the time. And then, in a couple of years, the roof fell in and stocks got way cheaper. So what did the pension fund managers do? They quit buying because stocks got cheaper!

- PRIVATE PENSION FUNDS
  % of cash flow put into equities
  1971: **91%** (record high)
  1974: **13%**

This is the one thing I can never understand. To refer to a personal taste of mine, I'm going to buy hamburgers the rest of my life. When hamburgers go down in price, we sing the "Hallelujah Chorus" in the Buffett household. When hamburgers go up, we weep. For most people, it's the same way with everything in life they will be buying—*except* stocks. When stocks go down and you can get more for your money, people don't like them anymore.

That sort of behavior is especially puzzling when engaged in by pension fund managers, who by all rights should have the longest time horizon of any investors. These managers are not going to need the money in their funds tomorrow, not next year, nor even next decade. So they have total freedom to sit back and relax. Since they are not operating with their own funds, moreover, raw greed should not distort their decisions. They should simply think about what makes the most sense. Yet they behave just like rank

amateurs (getting paid, though, as if they had special expertise).

In 1979, when I felt stocks were a screaming buy, I wrote in an article, "Pension fund managers continue to make investment decisions with their eyes firmly fixed on the rear-view mirror. This generals-fighting-the-last-war approach has proved costly in the past and will likely prove equally costly this time around." That's true, I said, because "stocks now sell at levels that should produce long-term returns far superior to bonds."

Consider the circumstances in 1972, when pension fund managers were still loading up on stocks: The Dow ended the year at 1020, had an average book value of 625, and earned 11% on book. Six years later, the Dow was 20% cheaper, its book value had gained nearly 40%, and it had earned 13% on book. Or as I wrote then, "Stocks were demonstrably cheaper in 1978 when pension fund managers wouldn't buy them than they were in 1972, when they bought them at record rates."

At the time of the article, long-term corporate bonds were yielding about 9.5%. So I asked this seemingly obvious question: "Can better results be obtained, over 20 years, from a group of 9.5% bonds of leading American companies maturing in 1999 than from a group of Dow-type equities purchased, in aggregate, around book value and likely to earn, in aggregate, about 13% on that book value?" The question answered itself.

Now, if you had read that article in 1979, you would have suffered—oh, how you would have suffered!—for about three years. I was no good then at forecasting the near-term movements of stock prices, and I'm no good now. I never have the faintest idea what the stock market is going to do in the next six months, or the next year, or the next two.

But I think it is very easy to see what is likely to happen over the long term. Ben Graham told us why: "Though the stock market functions as a voting machine in the short run, it acts as a weighing machine in the long run." Fear and greed play important roles when votes are being cast, but they don't register on the scale.

By my thinking, it was not hard to say that, over a 20-year period, a 9.5% bond wasn't going to do as well as this disguised bond called the Dow that you could buy below par—that's book value—and that was earning 13% on par.

Let me explain what I mean by that term I slipped in there, "disguised bond." A bond, as most of you know, comes with a certain maturity and with a string of little coupons. A 6% bond, for example, pays a 3% coupon every six months.

A stock, in contrast, is a financial instrument that has a claim on future distributions made by a given business, whether they are paid out as dividends or to repurchase stock or to settle up after sale or liquidation. These payments are in effect "coupons." The set of owners getting them will change as shareholders come and go. But the financial outcome for the business' owners as a whole will be determined by the size and timing of these coupons. Estimating those particulars is what investment analysis is all about.

Now, gauging the size of those "coupons" gets very difficult for individual stocks. It's easier, though, for groups of stocks. Back in 1978, as I mentioned, we had the Dow earning 13% on its average book value of $850. The 13% could only be a benchmark, not a guarantee. Still, if you'd been willing then to invest for a period of time in stocks, you were in effect buying a bond—at prices that in 1979 seldom inched above par—with a principal value of $891 and a quite possible 13% coupon on the principal.

How could that not be better than a 9.5% bond? From that starting point, stocks had to outperform bonds over the long term. That, incidentally, has been true during most of my business lifetime. But as Keynes would remind us, the superiority of stocks isn't inevitable. They own the advantage only when certain conditions prevail.

Let me show you another point about the herd mentality among pension funds—a point perhaps accentuated by a little self-interest on the part of those who oversee the funds. In the table below are four well-known companies—typical of many others I could have selected—and the expected returns on their pension fund assets that they used in calculating what charge (or credit) they should make annually for pensions.

Now, the higher the expectation rate that a company uses for pensions, the higher its reported earnings will be. That's just the way that pension accounting works—and I hope, for the sake of relative brevity, that you'll just take my word for it.

As the table shows, expectations in 1975 were modest: 7% for Exxon, 6% for GE and GM, and under 5% for IBM. The oddity of these assumptions is that investors could then buy long-term government noncallable bonds that paid 8%. In other words, these companies could have loaded up their entire portfolio with 8% no-risk bonds, but they nevertheless used lower assumptions.

By 1982, as you can see, they had moved up their assumptions a little bit, most to around 7%. But now you could buy long-term governments at 10.4%. You could in fact have locked in that yield for decades by buying so-called strips that guaranteed you a 10.4% reinvestment rate. In effect, your idiot nephew could have managed the fund and achieved returns far higher than the investment assumptions corporations were using.

Why in the world would a company be assuming 7.5% when it could get nearly 10.5% on government bonds? The answer is that rear-view mirror again: Investors who'd been through the collapse of the Nifty Fifty in the early 1970s were still feeling the pain of the period and were out of date in their thinking about returns. They couldn't make the necessary mental adjustment.

Now fast-forward to 2000, when we had long-term governments at 5.4%. And what were the four companies saying in their 2000 annual reports about expectations for their pension funds? They were using assumptions of 9.5% and even 10%.

I'm a sporting type, and I would love to make a large bet with the chief financial officer of any one of those four companies, or with their actuaries or auditors, that over the next 15 years they will not average the rates they've postulated. Just look at the math, for one thing. A fund's portfolio is very likely to be one-third bonds, on which—assuming a conservative mix of issues with an appropriate range of maturities—the fund cannot today expect to earn much more than 5%. It's simple to see then that

Shifting views

	Expected pension fund returns		
	1975	1982	2000
EXXON	7.0%	7.8%	9.5%
GENERAL ELECTRIC	6.0%	7.5%	9.5%
GENERAL MOTORS	6.0%	7.0%	10.0%
IBM	4.8%	5.5%	10.0%
Yield on long-term government bonds	*8.0%*	*10.4%*	*5.5%*

FORTUNE TABLE

the fund will need to average more than 11% on the two-thirds that's in stocks to earn about 9.5% overall. That's a pretty heroic assumption, particularly given the substantial investment expenses that a typical fund incurs.

Heroic assumptions do wonders, however, for the bottom line. By embracing those expectation rates shown in the far right column, these companies report much higher earnings—much higher—than if they were using lower rates. And that's certainly not lost on the people who set the rates. The actuaries who have roles in this game know nothing special about future investment returns. What they do know, however, is that their clients desire rates that are high. And a happy client is a continuing client.

Are we talking big numbers here? Let's take a look at General Electric, the country's most valuable and most admired company. I'm a huge admirer myself. GE has run its pension fund extraordinarily well for decades, and its assumptions about returns are typical of the crowd. I use the company as an example simply because of its prominence.

If we may retreat to 1982 again, GE recorded a pension *charge* of $570 million. That amount cost the company 20% of its pretax earnings. Last year GE recorded a $1.74 billion pension *credit*. That was 9% of the company's pretax earnings. And it was 2½ times the appliance division's profit of $684 million. A $1.74 billion credit is simply a lot of money. Reduce that pension assumption enough and you wipe out most of the credit.

GE's pension credit, and that of many another corporation, owes its existence to a rule of the Financial Accounting Standards Board that went into effect in 1987. From that point on, companies equipped with the right assumptions and getting the fund performance they needed could start crediting pension income to their income statements. Last year, according to Goldman Sachs, 35 companies in the S&P 500 got more than 10% of their earnings from pension credits, even as, in many cases, the value of their pension investments shrank.

Unfortunately, the subject of pension assumptions, critically important though it is, almost never comes up in corporate board meetings. (I myself have been on 19 boards, and I've never heard a serious discussion of this subject.) And now, of course, the need for discussion is paramount because these assumptions that are being made, with all eyes looking backward at the glories of the 1990s, are so extreme. I invite you to ask the CFO of a company having a large defined-benefit pension fund what adjustment would need to be made to the company's earnings if its pension assumption was lowered to 6.5%. And then, if you want to be mean, ask what the company's assumptions were back in 1975 when both stocks and bonds had far higher prospective returns than they do now.

With 2001 annual reports soon to arrive, it will be interesting to see whether companies have reduced their assumptions about future pension returns. Considering how poor returns have been recently and the reprises that probably lie ahead, I think that anyone choosing not to lower assumptions—CEOs, auditors, and actuaries all—is risking litigation for misleading investors. And directors who don't question the optimism thus displayed simply won't be doing their job.

The tour we've taken through the last century proves that market irrationality of an extreme kind periodically erupts—and compellingly suggests that investors wanting to do well had better learn how to deal with the next outbreak. What's needed is an antidote, and in my opinion that's quantification. If you quantify, you won't necessarily rise to brilliance, but neither will you sink into craziness.

On a macro basis, quantification doesn't have to be complicated at all. Below is a chart, starting almost 80 years ago and really quite fundamental in what it says. The chart shows the market value of all publicly traded securities as a percentage of the country's business—that is, as a percentage of GNP. The ratio has certain limitations in telling you what you need to know. Still, it is probably the best single measure of where valuations stand at any given moment. And as you can see, nearly two years ago the ratio rose to an unprecedented level. That should have been a very strong warning signal.

For investors to gain wealth at a rate that exceeds the growth of U.S. business, the percentage relationship line on the chart must keep going up and up. If GNP is going to grow 5% a year and you want market values to go up 10%, then you need to have the line go straight off the top of the chart. That won't happen.

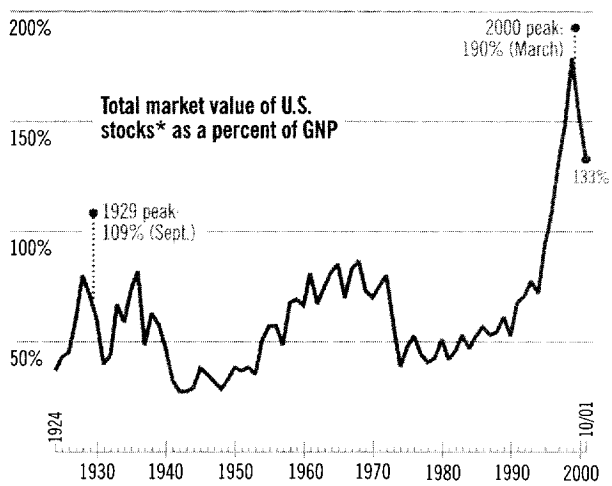
For me, the message of that chart is this: If the percentage relationship falls to the 70% or 80% area, buying stocks is likely to work very well for you. If the ratio approaches 200%—as it did in 1999 and a part of 2000—you are playing with fire. As you can see, the ratio was recently 133%.

Even so, that is a good-sized drop from when I was talking about the market in 1999. I ventured then that the American public should expect equity returns over the next decade or two (with dividends included and 2% inflation assumed) of perhaps 7%. That was a gross figure, not counting frictional costs, such as commissions and fees. Net, I thought returns might be 6%.

Today stock market "hamburgers," so to speak, are cheaper. The country's economy has grown and stocks are lower, which means that investors are getting more for their money. I would expect now to see long-term returns run somewhat higher, in the neighborhood of 7% after costs. Not bad at all—that is, unless you're still deriving your expectations from the 1990s. F

The market has been a wild thing

The value of U.S. stocks vs. GNP has avalanched since 2000. But October's ratio of 133% still tops the 1929 peak.



*Values are based on actual NYSE data, estimates for the AMEX prior to 1972, and estimates for over-the-counter stocks prior to 1976.