Chapter 1

Spotting Bubbles

With the bursting of the U.S. housing and global financial bubbles in 2007–2008, it was inescapably clear that they were indeed bubbles. Earlier, few had agreed with me that the explosive growth and gigantic financial leverage in these two areas destined them for collapse.

Of course, if the majority doubted the sustainability of a rapidly expanding economic sector, a bubble in it would never develop. Indeed, at its peak of expansion, a bubble appears the most credible and most likely to continue to enlarge since the greatest number have invested in it and fervently hope for its continuation.

But they are then enveloped by the "willful suspension of disbelief," which constitutes not the poetic faith to which Samuel Taylor Coleridge applied the term, but the essence of investor irrationality at bubble tops. And at that point, there are no more gullible investors left to keep expanding the bubble. My good friend and retired senior investment adviser at Merrill Lynch, Bob Farrell, the dean of Wall Street technical analysts, taught me decades ago that a speculative market peak is formed when everyone who can be sucked in has been sucked in. So there are no more potential buyers left, but lots of potential sellers.

I make a practice of spotting economic and financial bubbles and then predicting their demise. This isn't easy because there always is some fundamental logic behind them. Bubbles aren't pure fluff, but initially well-founded activities that just get carried to irrational extremes. And, of course, every bubble is different, with a fresh and plausible explanation for its endless expansion. Also, there are so many intelligent and otherwise calm people who are telling the world that the prices of tulip bulbs or houses will soar forever. And how do you think I felt as a professional investor in the late 1990s when I saw the dot-com boom as a huge bubble waiting to burst? (See Figure 1.1.) My attempts to sell those stocks short as they continued to climb were frustrating, to say the least. My angst was even more intense at cocktail parties when amateur investors would revel over the new issues they'd bought and seen leap 5 or 10 times in price the first day of trading.

To see bubbles for what they are and predict their demise with unpleasant consequences, you also have to be willing to see negative sides of the economy. That goes against the grain of most Americans, who are eternal optimists; even more so, investors and especially spokesmen for big banks, brokers, and mutual funds, as well as the media who are

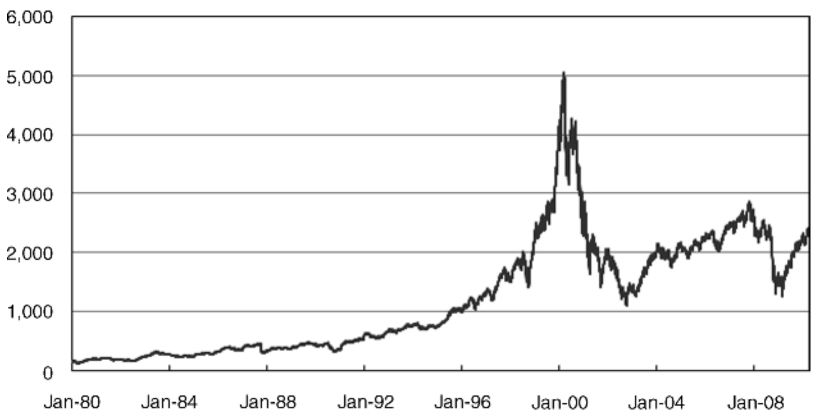

Figure 1.1 NASDAQ Composite Index, 1980–2008
Data source: Yahoo! Finance.

paid to be upbeat. Back in 2006–2007, when I forecast that the *subprime slime*, as I dubbed it, would spread to the rest of housing, then to financial markets, and ultimately precipitate the worst recession since the 1930s, I was regularly chastised by the bulls during TV appearances. Some were downright insulting, deprecating, and thoroughly unprofessional.

Bubbles Last Longer than Expected

It's also true that bubbles tend to expand more and last longer than I and other skeptics expect. That's because they have entered the realm of irrationality that knows no bounds, while I'm trying to examine them with rational analysis. Furthermore, I have a bias toward forecasting a sooner rather than a later collapse of a bubble.

Suppose that in January 2006, I told you, as I wrote in my monthly *Insight* newsletter back then, that "evidence of the housing bubble's demise is mounting" and that a 20 percent decline in prices nationwide "is not a wild forecast, and may be optimistic." And I went on to say, as I wrote at the time, that "a severe housing bust will be detrimental to the earnings and stock prices of homebuilders, building materials producers, mortgage and subprime lenders, and related entities like Fannie Mae and Freddie Mac."

Your reaction might well have been, "Wow! That's scary! When do you think the bubble will break?" I might have replied, "It may be about to break, but it could last another several years, considering the loose lending practices, low interest rates, securitization of mortgages, and expectations of ever-rising house prices that are feeding it." Or I might have said, "I think we're right at the peak now." In fact, house prices did peak in the first quarter of 2006 (see Figure 1.2), but I had no way of knowing that at the time, and forecasting accuracy isn't my point here. Rather, it's the fact that putting an immediacy to my forecast is much more likely to get your attention and spur you to act on it than if I place the catastrophe in the distant and indeterminate future.

Great Calls

Despite these handicaps, I'm zealous to spot bubbles because they provide excellent opportunities for great calls, which I define as having three

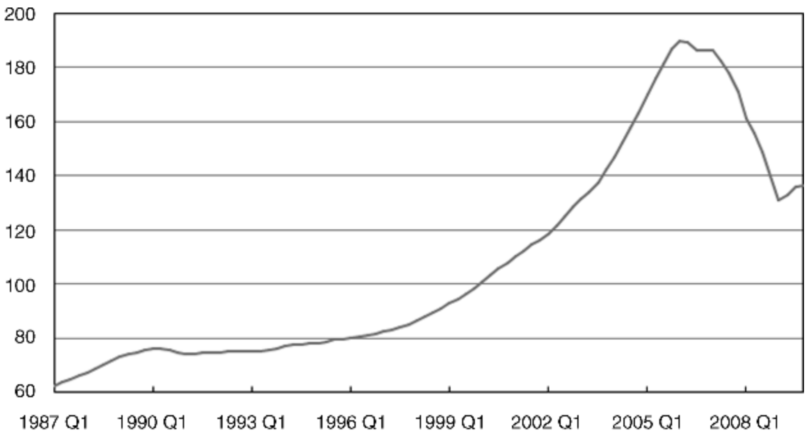

Figure 1.2 Case-Shiller National Home Price Index, 1987–2008 (1Q 2000=100)
Data source: Standard and Poor's.

components. First, a great call has to be important. An accurate forecast of next month's payroll employment doesn't make the cut because later revisions are likely to change the number considerably, and several more months of data would be necessary to confirm any change in trend. By contrast, my forecast in early 1973 that a massive inventory-building was taking place and would collapse into the (then) deepest recession since the 1930s obviously was an important forecast.

Second, a great call needs to be nonconsensus, as my forecast in 1973 certainly was. Almost every other forecaster thought that global shortages of almost everything were driving the economy and would last indefinitely, as opposed to an unsustainable inventory-building spree. Of course, being in the minority does subject you to the slings and arrows of the numerous doubters that constitute the consensus. But then a great call wouldn't be great unless it bucked the majority in a major way. By definition, it's a forecast that few believe until it has become a reality.

Third, a great call must unfold for the reasons stipulated ahead of time by the caller, not through dumb luck or being right for the wrong reasons. In 2007, some thought that residential subprime adjustable rate mortgages (ARMs) would collapse when those rates reset to higher levels than mortgagors could afford, not because declining house prices would wipe out the slender equity of those marginal homeowners, as I correctly

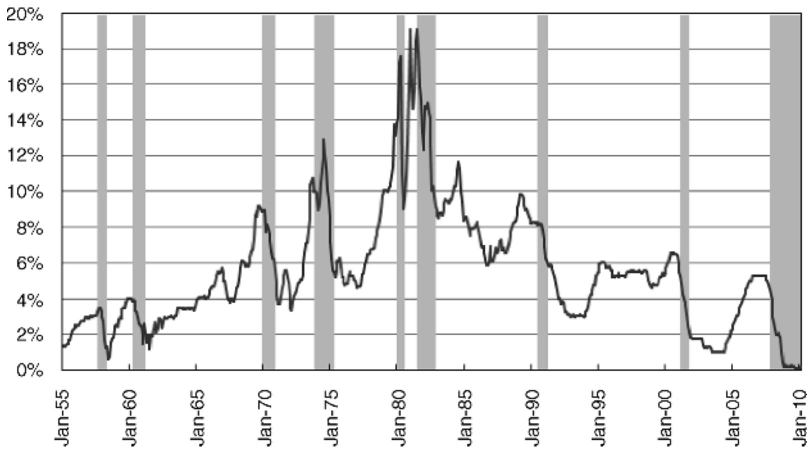

Figure 1.3 Effective Federal Funds Rate, 1955–2010
Data source: Federal Reserve Board.

forecast. The ARM rate resets had little effect because of the dramatic drop in short-term interest rates instituted by the Federal Reserve Bank (see Figure 1.3) before those resets took place.

Lucky Seven

I've made seven great calls in my economic forecasting career, which started in 1963 when I joined Standard Oil of New Jersey (now Exxon Mobil) as an economist, fresh from Stanford's PhD program. I'll discuss them shortly, and you'll see that most of them were forecasts of bubbles' demises. But first, I'll note that those seven great calls work out to one every 6.7 years on average. Opportunities to make these significant forecasts don't occur very often, and when they do, you have to recognize them and make the correct forecast at the proper time.

Still, I think it's fair to say that my record in making great calls is far, far better than most forecasters since the vast majority seldom stray far from the consensus. There's safety in the herd, and if the boss is thinking about firing an economist or strategist for missing a great call, well, the replacement he's considering probably also missed it. Furthermore, most forecasters would rather go wrong in the good company of their peers than risk being a laughingstock for a far-out forecast that didn't pan out. In contrast, I'm uncomfortable in the herd and stimulated when my forecast is in a tiny minority. Maybe that's why I'm no longer with big firms, but instead run my own shop. Of course, my approach can be embarrassing, especially to my wife at times. We'll go to a cocktail party and someone will remark, "Oh, what a beautiful yellow moon tonight!" I've been known to reply, "Are you sure it isn't green?"

Also, the consensus has ingenious ways to deal with missed great calls. In July 2007, only five months from the start of the Great Recession, 60 economists (not including me) polled by the *Wall Street Journal* on average forecast at least 2.5 percent annualized growth in real (inflation-adjusted) gross domestic product for each of the four quarters of 2008. The results were quite the opposite: declines of 0.7 percent in the first quarter, 2.7 percent in the third quarter and 6.4 percent in the fourth, with the only increase being 1.5 percent in the second quarter.

Not to Worry!

But not to worry! The recession wasn't officially called until November 28, 2008, almost a year after it had started in December 2007, when the Business Cycle Dating Committee of the National Bureau of Economic Research, a private outfit, announced its decision. This body is the official arbiter of recessions, and everyone accepts its judgment. That includes every presidential administration and every Congress, since no politician wants to be in the business of declaring recessions. In any event, in late November 2008, the consensus could argue that the downturn must be close to completed since the 10 previous post–World War II recessions averaged 10.4 months in length and the longest, the 1973–1975 downturn, spanned 16 months. Subsequently, many, in effect, declared that the Great Recession that they never forecast and never acknowledged up until then was almost over! I found such statements less than reassuring, but surprisingly few of those forecasters joined the mushrooming ranks of the unemployed.

It's also true that the negativity involved in great calls—realism, as I prefer to call it—can be hazardous to employment continuity. I learned that firsthand when I joined Merrill Lynch in 1967 as the firm's first chief economist and established its economic department. In 1969, I forecast a recession to begin late that year and run into 1970. The forecast proved accurate, but it wasn't being bullish on America, in the Merrill Lynch parlance. That put me at odds with Donald T. Regan, who obviously won because he was running the firm. So I took my entire staff and left, ending up at another Wall Street firm, White, Weld, with no idea that Merrill Lynch would buy White, Weld in 1978. So the story on Wall Street, which was absolutely correct, was that Gary Shilling was the only person fired twice by Don Regan. I promptly established my own firm and at least eliminated the risk of being axed by him a third time.

Fundamental Principles

My zeal to detect bubbles and forecast their demise also fits right in with two very fundamental principles that have always guided my forecasting. First, I believe that human nature changes very slowly, if at all, over time. So people will react to similar circumstances in similar ways. This means that history is relevant. Of course, history doesn't repeat itself, but as Mark Twain noted, it does rhyme. This means that forecasting remains an art, not a science. Still, if you can find circumstances in the past that resemble closely those at present, their resolution back then may be a useful guide to future events.

This was clearly true for me in forecasting the 1973–1975 recession. Over a decade earlier, in the early 1960s, while I was pursuing my PhD at Stanford, I spent a summer working at the San Francisco Federal Reserve Bank. The research department was a rather sleepy place at the time, but that gave me lots of time to browse through the library. Most of the books had uniformly dull titles that contained the words *Economics* or *Finance*, but an unusual one caught my eye: *Hand-to-Mouth Buying and the Inventory Situation*, by George A. Gade, published in 1929.

Hand-to-Mouth Buying

The book title came from the reaction to the traumatic events in American goods production and distribution in 1919–1921. After World War I ended in 1918, there were widespread fears that the cancellation of government contracts for military equipment and unemployment among returning soldiers would precipitate a depression. But by early 1919, the opposite unfolded as exports to Europe leaped, credit expanded, and domestic demand surged in reaction to wartime privations. Robust demand soon more than soaked up excess capacity, and prices leaped since wartime price and wage controls had been removed.

Exuberant retail demand worked back to raw material producers, and fears of shortages mushroomed. That encouraged the ordering of many more goods than were needed, both to ensure adequate supplies to meet surging demand and to profit from leaping prices. Inventory levels jumped, but their building created excess demand and artificial shortages that only pushed prices higher and encouraged more inventory building.

The transportation system became overburdened, creating delivery delays, more fears of shortages, and more excess orders for later and later delivery. Manufacturers were forced to allocate their production among customers, and demand exceeded their capacity. This encouraged double- and triple-ordering to ensure adequate supplies in the future. Inflationary expectations were rampant as buying in anticipation of price increases further strained supply and further stimulated prices. That confirmed expectations and promoted even more buying in a self-feeding cycle.

Leaping Prices

Prices, according to Gade, leaped 24 percent from the first quarter of 1919 to their peak in the second quarter of 1920. Retailers encouraged customers to buy more than they needed in anticipation of further price increases. But prices got so high that consumer purchasing power was slashed. Parades were held on Fifth Avenue in New York City by people who pledged to buy only the necessities of life until prices came down.

In April 1920, the bubble broke and prices started to fall, ultimately by 42 percent from their peak to their second quarter 1921 level. Falling prices revealed the false basis of demand, and order cancellations spiraled, even for goods in transit and in the production process. Retailers were stuck with goods they had bought at much higher prices. And consumers, many of whom had overbought in the inflationary expectations days, curtailed spending and switched to deflationary expectations as they held off buying in anticipation of still-lower prices. That forced retailers to slash prices to unload unwanted inventories, fulfilling consumer expectations and causing them to wait even longer to buy.

The end result: Massive inventory-building gave way to massive production cuts to liquidate those inventories, causing the 1920–1921 recession with the steepest decline in economic activity of any recession on record. Real GDP fell 13 percent from 1919 to 1921, compared to 3.8 percent peak-to-trough in the recent recession. It also resulted, after the excess stocks were cleared out at massive losses, in hand-to-mouth inventory-buying, the purchase of only those inventories needed to meet immediate customer demand. Hence the title of Gade's book.

Early 1970s Rerun

In the early 1970s, inflation was raging, the result of excess demand that commenced in the mid-1960s due to heavy government spending on the Vietnam War and Great Society programs. Shortages were spreading in commodities and manufactured goods that many expected to last indefinitely, so commodity prices skyrocketed (see Figure 1.4). At that

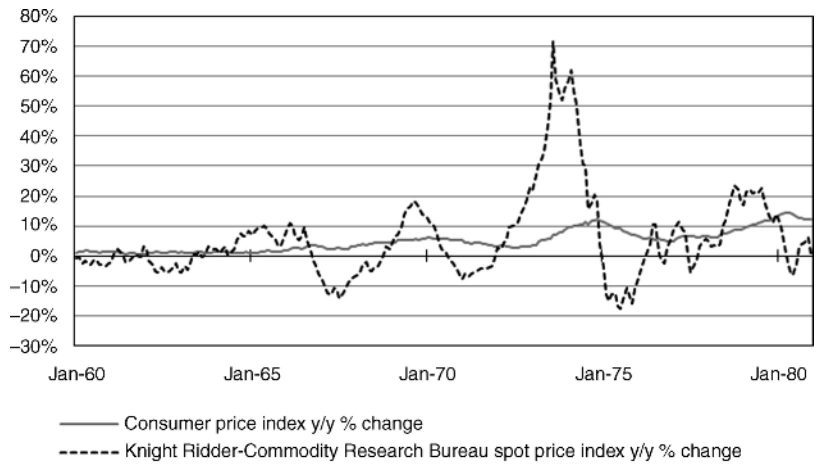

Figure 1.4 Consumer and Commodity Prices, 1960–1978 (Year over Year percent Change)
Data source: Haver Analytics.

time, I was trying to figure out why steel production was so strong. Our statistical models that related historical steel production to the output of major steel-using industries such as autos, appliances, and machinery indicated that much more steel was being produced than consumed in the early 1970s. Yet the big difference between production and usage was not reported as leaping inventories among producers and steel consumers.

At that time, however, steel service centers—independent warehouses that bought steel from producers, did some fabrication, and then sold to smaller users—did not report their inventories. Maybe these inventories were jumping. We also were hearing stories in and out of the steel arena that fears of shortages had led to double- and triple-ordering of goods and that customers were deliberately understating their inventories in order to convince suppliers with whom they had good relations that they deserved higher spots on their allocation schedules.

Hidden inventories and the strength of business activity in the early 1970s due to inventory-building kept inventory/sales ratios subdued. So the spiking in those ratios, which signals big trouble for retailers, wholesalers, and manufacturers, didn't occur until almost the beginning of the recession. I also remembered *Hand-to-Mouth Buying* and noticed the parallels between the 1919–1920 inventory leap and what was going on in the early 1970s. What was in progress, I concluded, was not shortages forever, but massive and unsustainable inventory-building. Furthermore, in the early 1970s, stock investors' attention had narrowed to the Nifty Fifty, which told me that the end of the economic expansion was nigh, as I'll discuss later.

Inventories, Not Shortages

So in a May 1973 report, I stated that "rapid inventory-building" will "lead to an inventory correction in 1974" and a recession (which actually started in November 1973). This forecast was made well before virtually any other recognized forecaster saw trouble ahead. In a December 1973 poll of forecasters by *BusinessWeek*, I was the only one predicting a 1974 decline in economic activity. In its December 30, 1974 edition, the *Wall Street Journal* said,

> Forecasting economic developments can be hazardous any time. A survey of 32 prominent economists taken a year ago turned up only one—A. Gary Shilling of White, Weld & Co.—who correctly predicted that economic activity would decline in 1974. Many forecast substantial growth. It was not an enviable performance and today's uncertainties, at the least, match those prevailing a year ago.

Importantly, our forecast was made five months before the Arab oil embargo in October 1973. In imposing it, the Saudis probably didn't realize its psychological effects, coming on top of shortage fears that had already invaded most commodities (as shown in Figure 1.4) and other goods-producing sectors. For me, however, it reinforced my conviction that a recession was about to commence and led me to predict that it would be the most severe since the 1930s.

Well, as they say, the rest is history. After a shallow decline in economic activity in late 1973, the economy actually revived a bit in the second quarter of 1974. But then all those double- and triple-ordered inventories were delivered. Production was slashed in the fourth quarter of 1974 and first quarter of 1975 to get rid of them, and the 1973–1975 recession was indeed the deepest since the 1930s.

I remember vividly a conversation shortly thereafter with a friend of my dad's, Bob van Hook, the CEO of Henkel-Clauss, a cutlery producer in my hometown of Fremont, Ohio. "Gary," he said, "I knew back in 1973 what you were saying about excess inventory-building. Your dad was showing me your newsletters. But our supplier of cutlery steel would come in and say, 'Our order books are almost full for the next five years. But you're a longtime customer and personal friend, so I can squeeze in your order if you place it now.' So I succumbed, and will be working down that excess steel inventory for years."

Nonconsensus Forecasts

So, as in the case of the big inventory buildup and collapse in the 1970s, history is relevant—my first forecasting principle. It can be very useful in detecting bubbles and forecasting their demise as people react to similar circumstances in similar ways. If you think human nature has changed over the centuries, just ponder this speech from Shakespeare's *Troilus and*

Cressida, one of my favorites. It takes place in the Trojan War, and Achilles is sulking in his tent where Ulysses tells him to get back into action before he's forgotten. This was written 400 years ago—and is just as relevant today when looking at human relationships in and out of business.

> Time hath, my lord, a wallet at his back,
> Wherein he puts alms for oblivion,
> A great-siz'd monster of ingratitudes:
> Those scraps are good deeds past; which are devour'd
> As fast as they are made, forgot as soon
> As done. . . .
> For time is like a fashionable host,
> That slightly shakes his parting guest by the hand,
> And with his arms outstretch'd, as he would fly,
> Grasps in the comer: welcome ever smiles,
> And farewell goes out sighing. . . .
> The present eye praises the present object. . . .

My second fundamental forecasting principle is also relevant to dealing with bubbles: To add value to clients, the key elements of our forecasts must be nonconsensus. As noted earlier, a bubble wouldn't exist if the majority didn't believe it was fundamentally sound and sustainable, so a forecast that recognizes it as the flight of fancy it is and predicts its bursting is nonconsensus.

Consensus forecasts are readily available, and at little cost, from polls of forecasts reported in the media. More important, they tend to be built into business plans and security prices—*discounted* by markets, in the Wall Street parlance. So only a nonconsensus forecast—if it's correct—can add value. This doesn't mean that I simply take contrary stands for the sake of notoriety. I am, and expect to be, judged by my forecasting record. When my forecast in a specific area agrees with the consensus, I pass over it lightly. But when I foresee an important development that's nonconsensus and, in my view, has a high probability of happening, I jump on it with all fours.

Also, please note the difference between my approach and that of the contrarian. The latter always takes the side opposite the consensus. I'm happy to oppose the herd, but only if I think the reverse forecast has a good probability of being correct.

Since most forecasters and investors are perennially optimistic, a nonconsensus forecast is usually negative. This doesn't make me popular, especially when I'm correct in my forecast. Begrudging recognition of my accurate prognostication is about the best I can expect. But that goes with the territory. It's like the old saying: If you want loyalty, get a dog. And we have a beautiful, loyal, and friendly female Labrador retriever that my wife named Honey since I'm a serious beekeeper with 80 hives, in addition to my day job.

So you've got to be satisfied with your inner feeling of success and the compliments of the few fellow travelers. But that feeling in itself provides plenty of satisfaction since, to me, the highest intellectual achievement in this trade is to go against the crowd and be right for the correct reasons. It reminds me of Silius Italicus's (A.D. ca. 25–99) statement, "Virtue herself is her own finest reward."

The November 1974 edition of *Institutional Investor* magazine said:

> "Early this year," admits A. Gary Shilling, chief economist at White, Weld, who predicts a painful worldwide recession for 1975, "it was very difficult to convince anyone of our forecasts and, naturally, I worried all the time about whether I was right. Because, in this business, if you're positive and wrong, you're usually in pretty good company, but if you are negative and wrong, nobody is going to forgive you."

A nonconsensus negative forecast, especially the bursting of a major bubble, means that a lot of the participants will lose a lot of money, and that many hopes and dreams will turn to nightmares. Sure, many savvy speculators recognize bubbles as such, but figure they'll get out before they break. Consider those who bought condos in Miami in 2006, before they even came out of the ground, and then made scads of money as they bought increasing numbers and flipped them repeatedly—until flipping ended with the price collapse and they lost everything. Those who buy at the bottom and sell at the tippy top of a bubble are few.

Sitting Out Bubbles

Others, who see bubbles for what they are and sit them out, can avoid losing money when they break. But making money from bursting bubbles usually involves being short stocks, commodities, real estate, subprime mortgages, and so on, one way or the other. And selling short, in the minds of most investors, is unpatriotic and destructive to motherhood and apple pie.

Short sellers, nevertheless, are important to market stability. They keep markets from jumping in unsustainable ways. If short selling of one form or another had been more welcomed and better studied by regulators during the housing and financial bubbles, they might have been deflated much earlier with considerably smaller losses and disruption. Short sellers of individual stocks sometimes ferret out fraud and unrealistic corporate earnings projected by company managements and bullish analysts. Short sellers provide the other side of hedges for those who own bonds, stocks, commodities, currencies, and many other investments. Still, short sellers, especially of stocks, are seldom sought out by the predominantly bullish financial media, and retreat to quiet restaurant corners, hushed phone conversations, and confidential e-mails to discuss stocks that are ripe for collapse. As of November 1, 2009, only 7 percent of Wall Street analysts' rating were "sells" and 48 percent were "buys," with the rest being "holds."

According to the *Wall Street Journal*, Brian Kennedy, a 36-year-old analysts at Jefferies & Co., in early 2009 issued a "sell" rating on CardioNet, accurately forecasting a big cut in what Medicare paid for the firm's remote heart-monitoring system. Some of his senior colleagues criticized him for "rocking the boat." He was muzzled by Jefferies. Bullish analysts at firms that had underwritten CardioNet's stock blasted him, including Citigroup, which issued a report, "Not Worthy of the BEAT-down" (CardioNet's ticker symbol was BEAT), which questioned the legitimacy of Kennedy's report while maintaining its own "buy" rating on the stock. CardioNet's CEO, Randy Thurman, at a health care conference said Kennedy hadn't done "proper due diligence." In a complaint to the SEC, Thurman said the Jefferies report may have been part of an effort to help short sellers.

But then the company was forced to announce that Medicare was cutting its payments for the monitoring system by 33 percent, exactly the amount Kennedy had predicted. The stock fell a cumulative 75 percent after Kennedy's report was issued, and Thurman later said CardioNet "will not be able to sustain operations as a stand-alone company."

Kennedy was dead right, but apparently the criticism got to him. He quit his job soon after the Medicare payment cut announcement and planned to work for an independent research firm with no investment banking business.

Note that in the dot-com bubble, Wall Street analysts pushed new issues underwritten by their firms that they privately said were garbage. When this was revealed, major firms were forced to pay $1.5 billion for independent research to be distributed to their brokerage clients, and their analysts and investment bankers were supposed to be entirely separated. Interestingly, in 2008, Massachusetts regulators accused Merrill Lynch of using "supposedly independent" research analysts to aid in selling collapsing auction-rate securities to unsuspecting clients. The firm replied that regulations covered contacts between equity researchers and investment bankers, but not communications between bond analysts and salesmen. One investment banking firm demanded and got a favorable rewriting of a Merrill Lynch analyst's negative report on those toxic securities.

Short selling is not only frowned upon but can be expensive. An unleveraged short position can make at most 100 percent of the price if the shorted security drops to zero. But the loss is unlimited if the price rises and the investor fails to cover his short positions. That, of course, opens the door to options and other instruments that gain if the underlying investments fall, but it also limits losses. I'll cover later my highly successful investment with hedge fund manager John Paulson, who used these techniques very successfully.

After the 1929 Crash and Great Depression, many felt short selling was a major cause. They believed that short sales had triggered the cumulative downward spiral, and many still worry about this possibility. Of course, they never complain about upward buying panics that can squeeze short positions and cause irrational stock leaps. In any event, in reaction to the 1930s, shorting stocks was prohibited except on an uptick—that is, the price of the most recent sale of a stock had to be higher than the immediately preceding sale.

Over time, however, the use of futures contracts, options, and other techniques largely emasculated the uptick rule so it was eliminated in 2007. Back then, the SEC studied the 70-year-old limitations on short sales and concluded that they were ineffective and an "economically irrelevant" constraint. But the uptick rule was briefly reinstated in late 2008 on many financial and other stocks that were crumbling. Then in early 2010, the Democratic majority of SEC commissioners approved renewed curbs on short selling.

Positive Nonconsensus Forecasts

As noted earlier, the consensus is almost always optimistic, but not always. So there occasionally is the opportunity for a positive nonconsensus forecast. This was true of my great call in the early 1980s on the unwinding of inflation, which I explore in detail in Chapter 2. The rising inflation of the late 1960s and 1970s was devastating to stocks and bonds. Rising inflation pushed up interest rates (see Figure 1.5), which drove down bond prices. In fact, in the mid- and again in the late 1970s, inflation spikes pushed real Treasury bond yields into negative territory. That compounded the losses from falling bond prices.

Rising interest rates knocked down stock price/earnings (P/E) ratios, which normally move in inverse fashion. And inflation very effectively transferred corporate profitability to government, which taxed

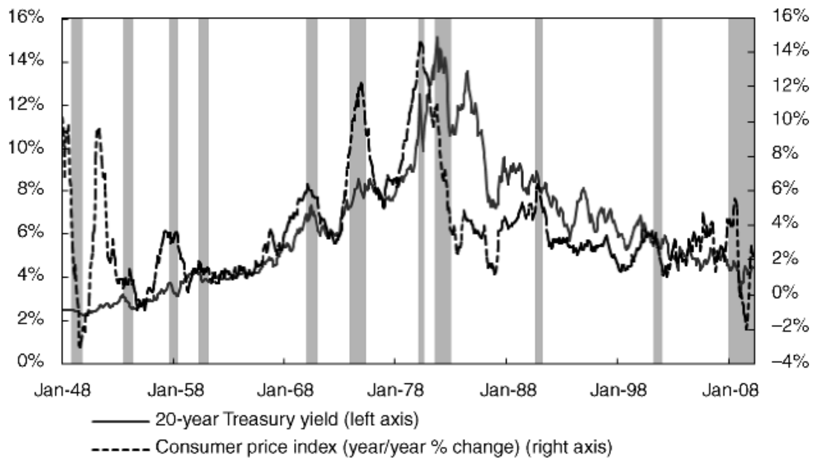

Figure 1.5 20-Year Treasury Yield and Consumer Prices, 1948–2008
Data sources: Federal Reserve and Bureau of Labor Statistics.

the underdepreciation and inventory profits it created. Also, at that time, most companies felt duty-bound to keep their employees' pay abreast of inflation while they viewed their earnings in nominal, not decimated real terms. But stockholders knew the difference from November 1968 to July 1982, when the S&P 500 Index rose 4 percent, but in real terms plummeted 64 percent.

With this miserable performance and the consensus forecast in the early 1980s that high inflation would persist if not increase, most forecasters and investors were very negative on both stocks and bonds. So my forecast back then that inflation would unwind, resulting in strength for both stocks and bonds, was not only nonconsensus but distinctly positive. I reasoned that falling inflation rates would push interest rates down (as shown in Figure 1.5) and Treasury bond prices up. In 1981, when 30-year Treasuries yielded 14.7 percent, I said, "We're entering the bond rally of a lifetime" that eventually would drive those yields to 3 percent. For stocks, I noted that falling interest rates would move P/E ratios up and fading inflation would diminish the transfer of corporate profitability to employees and government. Stocks would benefit immensely from both of these developments, I forecast. And they did (see Figure 1.6).

Figure 1.6 S&P 500 Index, 1980–2010
Data source: Yahoo! Finance.

Bubbles Aren't New

Economic and financial bubbles are the result of nearly immutable human nature, so they've existed throughout history. In any speculative bubble, there always is an underlying grain of truth, as noted earlier. When tulips were introduced to Northern Europe from Asia in the sixteenth century, they were immensely popular. Think about all of those magnificent Dutch still-life paintings that featured parrot and other beautiful tulips. The tulip bulb mania took this reality to illogical extremes. Charles Mackay, in his well-known 1841 book, *Extraordinary Popular Delusions and the Madness of Crowds*, has a wonderful chapter on the 1636 tulipomania, as it was called.

Tulipomania

Mackay notes that in 1636, as the demand for tulips grew, confidence was also growing as seemingly everyone was profiting.

> A golden bait hung temptingly out before the people, and one after the other, they rushed to the tulip-marts, like flies around a honey-pot. Every one imagined that the passion for tulips would last forever. . . .

Everyone from the very wealthy to the lowly chimneysweeps contracted tulipomania, Mackay writes:

> People of all grades converted their property into cash, and invested it in flowers. Houses and lands were offered for sale at ruinously low prices, or assigned in payment of bargains made at the tulip-mart. Foreigners became smitten with the same frenzy, and money poured into Holland from all directions.

Eventually, the folly was seen for what it was and

> Rich people no longer bought the flowers to keep them in their gardens, but to sell them again at cent per cent profit. It was seen that somebody must lose fearfully in the end. As this conviction spread, prices fell, and never rose again. Confidence was destroyed, and a universal panic seized upon the dealers. Many who, for a brief season, had

> emerged from the humbler walks of life, were cast back into their original obscurity. Substantial merchants were reduced almost to beggary, and many a representative of a noble line saw the fortunes of his house ruined beyond redemption.

The South Sea Bubble

Mackay also discourses at length on the South Sea bubble of the early 1700s in England. The South Sea Company was formed in 1711, and in return for taking on government debt was granted a monopoly on trade with Latin America. As in any bubble, there was a kernel of economic reality. In this case, it was the idea of trading English-manufactured goods for Latin American gold and silver.

But Spain controlled Latin America, and King Philip V had no intention of granting the English trading access. This reality, however, didn't deter the company directors or the public who bought the shares with gay abandon. Neither did the news that the 1719–1720 Mississippi scheme in France was shaky. That was instigated by Scottish businessman John Law and was among the first to introduce paper money, in that case to restore the French government's finances after the extravagant reign of Louis XIV ended with the king's death in 1715. As Louis predicted, the deluge followed, and Law's scheme only papered over France's financial plight temporarily.

The South Sea Company stock leaped almost 1,000 percent from January 1720 to August of that year, and along the way the company issued more stock with delayed payment to provide leverage for enthusiastic speculators. It then collapsed and the usual skullduggery was revealed later, including members of the government having ensured passage of laws favorable to the South Sea Company.

Other Bubbles Spawned

A fascinating aspect of the South Sea bubble, which has been repeated many times since, was the wide variety of other speculative public companies it spawned in its short life as the speculative fever spread. They were popularly known as bubbles and many lasted only a week or two, but that didn't deter shareholder zeal. One was for a wheel of perpetual motion; another, according to Mackay, "for encouraging the breed of horses in England and improving of glebe and church lands and rebuilding parsonage and vicarage houses." Globe Permits, square pieces of playing cards with a picture of the Globe Tavern near Exchange Alley where shares were traded, were sold with the inscription, "Sail-Cloth Permits." These gave their buyers no more than permission to subscribe to a new sailcloth factory which, of course, never materialized.

The top of the tree was the promoter in London who advertised "A company for carrying on an undertaking of great advantage, but nobody to know what it is." Sounds like today's special purpose acquisition companies (SPACs), known as blank check companies, which are empty shells that promise to use the proceeds of initial public offerings to buy other companies. This 1720 genius required subscribers to put down only 2 percent of the value of their stock. His prospectus promised the project's details in a month when the remaining 98 percent was due. He opened his office at 9:00 A.M. the next morning to crowds of subscribers and took in a fortune by 3:00 P.M. when he closed up. The guy was shrewd enough not to press his luck, and promptly set off for the Continent that evening, never to be heard from again.

Even before the South Sea bubble broke, the government became worried enough that on July 12, 1720, it dissolved all the bubble companies and dismissed petitions to form new ones. Among the prohibited were those "for assessing of seamen's wages," "for improving the art of making soup," "for improving gardens," "for importing walnut trees from Virginia," and "for extracting silver from lead."

Tulipomania and the South Sea bubble had limited substance behind them; some other bubbles had more, but expanded too soon and burst before their promises were achieved. Railroads revolutionized transportation and commerce in the United Kingdom in the early 1800s, generating a bubble that burst in the 1840s. The exercise was repeated in the United States after the Civil War. Between 1866 and 1892, 120,000 miles of track were laid. But excess debt popped the bubble and helped precipitate the panic of 1873. By 1900, almost every U.S. railroad had been reorganized. Similarly, with the electrification of homes in the 1920s came radio. This exciting new technology sired a bubble that burst well before radio achieved its full potential and was followed by television.

Nifty Fifty

Much more recently, in the early 1970s, the Nifty Fifty list of stocks was the focus of investors' attention. These represented rapidly growing companies, some based on solid long-term growth prospects, while others were simply fads. But overconfidence became so extreme that they were labeled the "one decision" stocks. They had such promise that investors only had to make one decision—to buy them—since they never would need to be sold. Nevertheless, disappointments began to multiply, and the favored few shrank.

In its November 1974 edition, the *Institutional Investor* magazine quoted me as saying, "It seemed to me that, for a long time, there was something wrong with the world, and that the stock market was telling us this. Its emphasis was not on the basic structure of the economy, but on motor homes, hamburger chains, amusement parks, and gimmick cameras." I was referring, of course, to Winnebago, McDonald's, Disney, and Polaroid. These represented the fluff of the economy, not its guts. If investors shunned the basic economy, they were anticipating big trouble, I reasoned. The *Institutional Investor* further quoted me as believing that conditions were "totally outside the whole postwar experience" and that we might be on the brink of "some downward, worldwide supercycle of the sort not seen since 1920–1921." The premonitions of investors and me were right. The 1973–1975 recession followed, the deepest since the 1930s because of the 1920–1921-style massive inventory liquidation, as discussed earlier. What was left of the Nifty Fifty collapsed. Panicked investors did make that second decision—and as they dumped Polaroid, they simply knocked a zero off the stock's price, from $140 to $14 per share.

As noted earlier, bubbles feed on the widespread conviction that they will last indefinitely because the world has entered a new solar system. Consider the New Economy concept that was used to justify triple-digit P/Es for dot-com start-ups in the late 1990s. Walter Bagehot, the famed editor of the London *Economist* in the nineteenth century, said that in expanding bubbles, merchants and bankers "fancy the prosperity they see will last always, that it is only the beginning of great prosperity."

The early twentieth century bull market in stocks was seen in the 1920s by the financial editor of the *New York Times*, Alexander Dana

Noyes, as "speculation which based its ideas and conduct on the assumption that we were living in a New Era; that old rules and principles and precedents of finance were obsolete; that things could be done safely today which had been dangerous and impossible in the past." Forgotten in the hot air of a rapidly expanding bubble are the immortal words of the late and great investor, Sir John Templeton: "The four most dangerous words in investing are, 'this time it's different.'"

Well-known value investor Jeremy Grantham has identified 28 bubbles in global security markets since 1920. American speculations in the post–World War II years include the banking stock binge in 1961, the PC stock bubble in 1982–1983, and the zeal for biotech companies in 1991–1992. Didier Sornette, director of the Swiss Federal Institute of Technology and a student of financial bubbles, says that only about two-thirds of bubbles end in crashes, but, of course, those are the ones that get the attention as their lovers lose bundles. And unless human nature suddenly changes, there'll be many more bubbles in the future. The World Bank is worried that too much investment money is "raising concerns about asset price bubbles" in Asian stock markets. Meanwhile, in the *Wall Street Journal*, the International Monetary Fund (IMF) cited "a risk" that leaping asset prices in Hong Kong are being propelled by a surge of funds "divorced from fundamental forces of supply and demand."

The Anatomy of Bubbles

Bubbles often develop in periods of financial and economic tranquility after memories of the last bubble's collapse or other major disruption have faded. Hyman Minsky's *financial instability hypothesis* holds, quite plausibly, that eras of stability spawn big risk taking. The stock blow-off in the late 1920s came at the end of a decade of rapid growth, with industrial production almost doubling between 1921 and 1929 while major price indexes fell on balance.

The dot-com bubble of the late 1990s capped off nearly two decades of declining inflation rates and rapid productivity growth fueled by a consumer borrowing-and-spending binge and soaring stocks. The great moderation of the early 2000s in inflation, financial markets, and the business cycle convinced senior Fed officials and others that skillful monetary policy and new risk-reducing financial instruments made higher debt levels acceptable. Then came the resulting housing and financial collapses.

Furthermore, bubbles tend to unfold in similar steps, especially those involving a new technology such as tulip breeding in Northern Europe in the sixteenth century, the development of the Internet in the 1990s, and securitization and other financial innovations that fueled the housing and financial bubbles more recently.

Overenthusiasm

The first step is investor overenthusiasm. To be sure, bubbles have some real bases, but avid investors hyperventilate and their zeal leaps. This, of course, also attracts scads of new entrants into the business, eager to cash in on the opportunities to raise money cheaply, develop personal and company wealth quickly, and participate in a mushrooming venture. That was equally true in the glass industry in the late 1800s, in autos in the early 1900s, and in computers and Internet companies more recently. At the same time, at that early stage of the nascent bubble, growth—current and anticipated—is so robust and new investment money so plentiful that costs are of little concern.

Then comes the competition. Initial public offerings and other new money become so prolific that even wildly enthusiastic investors become satiated. Over 50 percent of all high-tech initial public offerings in the years 1992–1998 finished 1998 trading below their offering prices. And competition among producers starts to erode selling prices.

At the same time, the participants and investors in the expanding bubble begin to question whether it will indeed be the best thing since sliced bread. In 1882, investors in London rushed into the shares of companies involved in electric lighting, a promising new technology, after the invention of the light bulb. Nevertheless, the boom turned to bust as much of the money went into fraudulent inventions, worthless patent fees, and promotion expenses while regulators delayed electrification in favor of municipal gas-lighting companies.

Bold Reassurances

As bubbles near the bursting point, assurances of their continuity are often heard from those with vested interests. They include, of course, promoters but also businesspeople, government officials, and even academics who want to keep the good times rolling. Yale economist Irving Fisher in September 1929, one month before the Crash, declared that stocks had reached a "permanently high plateau" because Prohibition had increased worker productivity and new "scientific" management techniques were being employed by businesses.

In September 2006, as defaults were beginning to leap, Merrill Lynch bought subprime lender First Franklin for $1.3 billion, spurred by CEO Stan O'Neal's zeal for the mortgage market. Reportedly, he used the Merrill Lynch helicopter on golf outings, but didn't have time to learn about the firm's huge warehouse holdings of collateralized debt obligations (CDOs). In any event, in late October 2007, O'Neal said that "we got it wrong by being overexposed to subprime" and that "both our assessment of the potential risks and mitigation strategies were inadequate." He resigned a few days later, but not to worry. He was replaced in December 2007 by John Thain, the ex-Goldman Sachs Group president who came to Merrill Lynch from the New York Stock Exchange, where he had paved the move to electronic trading.

In 2008, Merrill Lynch was headed for the exit and reportedly forced by the government into a shotgun merger with Bank of America in January 2009. But that didn't stop Thain from making a long series of optimistic statements that became comical since each one was made from even deeper in Merrill Lynch's financial hole. Maybe they're understandable since it's reported that during the interviews for the Merrill Lynch CEO job, Thain didn't ask for details on the positions that were generating billions of dollars of losses. Here's a list compiled by *Reuters*:

Thain's Takes

One of my first priorities at Merrill Lynch was to strengthen the firm's balance sheet, and today we have made great progress towards that by bolstering our capital position through these investments and our announced sale of Merrill Lynch Capital.

—Thain in a statement when Merrill announced a $6.2 billion capital raising, December 24, 2007

. . .These transactions make certain that Merrill is well-capitalized.

—Thain in a statement after selling $6.6 billion of preferred shares to a group that included Japanese and Kuwaiti investors, January 15, 2008

We're very confident that we have the capital base now that we need to go forward in 2008.

—Thain as quoted by the *New York Times*, January 18, 2008

. . .Today I can say that we will not need additional funds. These problems are behind us. We will not return to the market.

—Thain in an interview with France's *Le Figaro*, March 8, 2008

We have more capital than we need, so we can say to the market that we don't need more injections. We can confirm that we have tackled the problem.

—Thain in an interview with Spain's *El Pais*, March 16, 2008

In 2007, we lost $8.6 billion after tax, but we raised $12.8 billion in new capital. We raised significantly more capital than we lost. And we did that on purpose so that we could say to the marketplace that we raised more than enough capital. We replaced all the capital we lost. We have plenty of capital going forward, and we don't need to come back into the equity market. The goal is to maintain our current ratings. No more capital raising; I'm sure we have enough capital.

—Thain in an interview with Japan's *Nihon Keizai Shimbun*, April 4, 2008

We deliberately raised more capital than we lost last year. . .we believe that will allow us to not have to go back to the equity market in the foreseeable future.

—Thain to reporters in Tokyo, as reported by *Reuters*, April 8, 2008

John Thain has been very clear that we have sufficient capital and don't have a need to raise additional common equity for the foreseeable future. When we raised this capital in January, we had a lot of demand so we went beyond what we needed.

—Merrill President Greg Fleming in an interview with the *Times* of London, May 12, 2008

Today on a pro forma basis we have about $44 billion of equity capital, which actually isn't very much below the all-time high that Merrill ever had. And our philosophy about this is that we are well-capitalized. We're comfortable with our capital position. We, like everyone else, are deleveraging our balance sheet.

—Thain on a conference call hosted by Deutsche Bank, June 11, 2008

Right now we believe that we are in a very comfortable spot in terms of our capital.

—Thain on a conference call after posting Merrill's second-quarter results, July 17, 2008

Ex-CEO Thain

Not surprisingly, the ever-optimistic-in-times-of-trouble Mr. Thain got the ax after the Bank of America takeover and the revelation, among others, that he had redecorated his Merrill Lynch CEO office to the tune of $750,000. Nevertheless, the irrepressible Thain surfaced in February 2010 as the new CEO of small and mid-size company lender CIT Group, which had just emerged from bankruptcy after overexpanding into subprime mortgages and student loans.

As overly enthusiastic expectations for a bubble are disappointed, financing dries up. But bubbles grow so rapidly and require so much capital in the process that a closing of the money spigot creates big trouble. Inevitably, bankruptcies and consolidation follow and the companies and investors with deep pockets and steadfast sources of finance are the ones that ultimately survive.

In the late 1800s, the American steel industry, a new tech of the day, had grown too rapidly and was being killed by price-cutting and competition. Furthermore, Andrew Carnegie's Federal Steel was so efficient that no one else could successfully compete. So J. P. Morgan, the moneyman, bought out Carnegie and combined his operations with other less-successful firms to form U.S. Steel. The company then became a huge financial success. Cutthroat competition was curtailed as demand for steel continued to mushroom.

Similarly, big consolidation occurred among the dot-coms after their bubble broke in 2000–2002 and investor disappointment curbed capital sources. Today, in the aftermath of the financial crisis and massive government bailouts, banks continue to disappear and deposits become increasingly concentrated.

Detecting economic and financial bubbles and predicting their bursts and aftermaths constituted many of my great calls. In Chapters 2, 3, and 4, I explore the seven I've been lucky enough to make so far.