Irrational Exuberance
Robert J. Shiller

One: The Stock Market Level in Historical Perspective
1. Price-earnings ratio, the real (inflation-corrected) S&P composite Index divided by the preceding ten-year moving average real earnings on the index. The ten-year average smoothes out such events as the temporary burst of earnings during World War I, the temporary decline in earnings during World War II, or the frequent boosts and declines that due to the business cycle. P7
2. high P/E ratios: June 1901=25.2 (Twentieth Century Peak); Sept 1929=32.6; Jan 1966=24.1 (Kennedy-Johnson Peak); Jan 2000=44.3
3. P/E ratios and Subsequent Long-term Returns: horizontal axis P/E for that month; vertical axis, the annualized real stock market return over the ten years following that month. They are negatively related. P12
4. The recent record-high P/E has been matched by record-low dividend yields. In Jan 2000, S&P dividends were 1.2% of price, far below the 4.7% that is the historical average. Dividends historically represent the dominant part the average return on stocks. The reliable return attributable to dividends, not the less predictable portion arising from capital gains, is the main reason why stocks have on average been such good investments historically. P13
5. Times of low dividends relative to stock price decreases (or smaller than usual increases) over long horizons, and so returns tend to double hit at such times. From both low dividend yields and price decreases.

Two: Precipitating factors: The Internet, the baby boom, and other events
1. Internet: US corporate earnings growth in 1994, up 36% in real terms as measured by the S&P Composite real earnings, followed by real earnings growth of 8% in 1995 and 10% in 1996, coincided roughly with the Internet’s birth but in fact had little to do with the Internet. What matters for the boom, is not the reality of the Internet revolution, which is hard to discern, but rather the public impressions that the revolution creates. P21. [the theoretical effect of a sudden technological advance might be to spur investment in new capital, which will compete away any extra profits that the technological advance might generate for existing capital(P237)]
2. The decline of foreign economic rivals: the relation between US and its economic rivals is often described as a competition. The weakening of a rival is thus viewed as good news instead of as ominous developments for US stock market, as the harbinger of what bad things could happen here. Confidence in the premier capitalist system would translate into confidence in the market, and that the US stock market should be the most highly valued in the world. P21-22
3. Cultural changes favoring business success or the appearance thereof: the bull market has been accompanied by a significant rise in materialistic values; Firms have tilted their compensation packages for management away from fixed salaries toward participation, as investors, in the firm. By 1998, employee stock options had reached 6.2% of the outstanding shares in a sample of 144 of the largest S&P 500 firms. With such options- management has an incentive to do
everything they can to boost share prices. Managers holding incentive options have an unusual incentive to substitute share repurchases for a portion of the dividend payout. Between 1994 and 1998, the 144 firms repurchased on average 1.9% of their outstanding shares each year, more than offsetting the 0.9% of shares issued per year, largely to meet the exercise of employee options. This level of substituting share repurchasing for dividends alone should have boosted share prices by a few percentage points. P23-24

4. **Republican Congress- more pro-business:** from 1994 to 1997, investors were widely advised to hold on to their long-term capital gains, not to realize them, until after the capital gains tax cut.—such an atmosphere of holding naturally places upward pressure on stock prices. P25

5. **Baby boom:** was marked by very high birth rates during the years 1946-66. It may be public perceptions of the baby boom and its presumed effects that are most responsible for the surge in the market. The impact of the baby boom is one of the most talked-about issues relating to the stock market, and all this talk in and of itself has the potential to affect stock market value. P27

6. **Expansion in media reporting of business news:** enhanced business reporting leads to increased demand for stocks. Analysts are reluctant to recommend that investors sell anything. Why? A. a sell recommendation might incur the wrath of the company involved. B. an increasing number of them are employed by firms that underwriting securities, and these firms don’t want them to do anything that might jeopardize this lucrative side of the business. P 31-32

7. **Expansion of defined contribution pension plans:** Benartzi and Thaler found people tend to spread their allocations evenly over the available options, without regard to the contents of the options. The options offered as part of 401(k) plans tend to be heavily weighted in favor of stocks. Only one plan, that offered by TIAA-CREF, has an option for genuine, direct investment in real estate. The growth of 401(k) plans has encouraged the growth of public interest in the stock market relative to the real estate market. P34

8. **The growth of mutual funds:** by 1998, there were 3513- more equity mutual funds than stocks listed on NYSE. There were 119.8 million shareholder accounts, or nearly two accounts per family.(1982: 340 funds, 6.2 million accounts) P35

9. **The decline of inflation:** people widely believe that the inflation rate is a barometer of the economic and social health of a nation. Therefore, a lower inflation rate boosts public confidence, hence stock market valuation.

10. **Expansion of the volume of trade:** the turnover rate for NYSE increased from 42% to 78% between 1982 and 1999. NASDAQ from 88% in 1990 to 221% in 1999. The declining cost of making a trade, after-hours trading, online trading and longer hours will raise volatility.

11. **The rise of gambling opportunities:** have potentially important effects on culture and on changed attitudes toward risk taking in other areas, such as investing in the stock market.

**Three: Amplification Mechanisms: Naturally Occurring Ponzi Processes**
1. **The amplification mechanisms** (can be described as a type of naturally occurring Ponzi process) work through a sort of feedback loop. Investors, their confidence and expectations buoyed by past price increases, bid up stock prices further, thereby enticing more investors to do the same, so that the cycle repeats again and again, resulting in an amplified response to the original precipitating factors. P44

2. Over 89-99 interval, there has been a sharp increase in the confidence among individual investors that any one-day drop in the market will be quickly reversed. P47

3. Those who thought the market would go down and stay down became sensitized to their bad feelings from being repeatedly wrong, year after year. Those who consistently predicted a decline became painfully aware of a loss of reputation from being so wrong so often. Since our satisfaction with our views of the world is part of our self-esteem and personal identity, it is natural for the formerly pessimistic to want to settle on a different view, or at least to present themselves to the public with a different theme. P48-49

4. Indeed the evidence we see of public confidence in the stock market mirrors evidence of confidence in the overall economy. P52

5. The feeling that the stock market is “the only game in town,” in some emotional sense, might play a pivotal role at this point in the decision making. P55

6. The emotional state of investors when they decide on their investments is no doubt one of the most important factors causing the bull market. Their emotional state is amplified by the psychological impact of the increasingly strong uptrend observed in the market.

7. Statman the Thorley show that high returns in the market continue to promote high volume for many months afterward, and that while high volatility in market prices also promotes volume of trade, the effect of volatility on volume of trade is more transient. This persistent effect of returns on volume is due to the impact of higher returns on investor confidence. Even though a rising market “lifts all boats,” there is still a tendency for investors to interpret their investing success as confirmation of their own abilities, and this reinforces their interest in trading stocks. P 59

8. Barber and Odean found that the switchers (from phone to online) on average had beaten the market by over 2% a year. After switches, they traded more speculatively and actively, and then proceeded to lag the market by more than 3% annually. This finding may be interpreted as showing that overconfidence from past success encouraged people to expend the fixed cost of learning about online trading. P59

9. **Feedback theory**: a. rely on adaptive expectations, feedback takes place because past price increases generate expectations of further price increases. B. feedback takes place because of increased investor confidence in response to past price increases. P60

10. Feedback loop dynamics can generate complex and even apparently random behavior. The branch of mathematics that studies non-linear feedback loops, called chaos theory, may be applicable to understanding the complexity of stock market behavior P62 & note 22-P244
11. The feedback theory of speculative bubbles is so widely known as to be considered part of our popular culture. Conceivably, the current bubble might exist only because people think that there is a temporary bubble and want to ride with it for a while. P62-63

12. **Shiller constructed a “bubble expectations index”** – the indicators are the percentages of the respondents who say that the market is too high but will go up in the short term. The index shows substantial oscillations, indicating that the percentage of institutional investors exhibiting bubble sentiment has fluctuated over time. P63

13. Ponzi/pyramid Schemes as models of feedback and speculative bubbles: the manager of the scheme promises to make large profits for investors. But little or no investment of contributors’ funds in any real assets is actually made. Instead, the manager pays off the initial investors with the proceeds of a sale to a second round of investors, and the second round with the proceeds from a sale to a third, and so on. P64 Usually, initial investors were reportedly very skeptical about the schemes and would invest only small amounts. That others have made a lot of money appears to many people as the most persuasive evidence in support of the investment story associated with the Ponzi scheme.

14. Speculative bubbles as naturally occurring Ponzi processes: when prices go up a number of times, investors are rewarded sequentially by price movements in these markets, just as they are in Ponzi schemes. The path of a naturally occurring Ponzi process will be more irregular and less dramatic, since there is no direct manipulation, but the path may sometimes resemble that of a Ponzi scheme when it is supported by naturally occurring stories. P67

Four: the News Media

1. Significant market events generally occur only if there is similar thinking among large groups of people, and the news media are essential vehicles for the spread of ideas. News stories rarely have a simple, predicable effect on the market. Indeed, in some respects, they have less impact than is commonly believed. But the news media do play an important role both in setting the stage for market moves and in instigating the moves themselves. P71

2. Nothing beats the stock market for sheer frequency of potentially interesting news items.

3. In media reports, there is a shortage of relevant facts or considered interpretations of them, usually with focuses on very short-run statistics. P74 Too many records, it makes it hard for people to recognize when something truly and importantly new really is happening. P75

4. Niederhoffer used the number of the very large headlines in the New York Times to proxy significant-world-event days to study the relation between news and stock price changes. Define a crisis as a time when five or more large headlines occurred within a seven-day interval. P76

5. **News as the precipitator of attention cascades** (by using the Kobe earthquake on the stock markets of the world): the role of news events in affecting the market seems often to be delayed, and to have the effect of setting in motion a sequence of public attentions. Kobe: news coverage of the earthquake, and of the
accompanying stock market declines, engaged the attention of investors, prompting a cascade of attentions that brought to the fore some more pessimistic factors. P80-81
6. The news media are fundamental propagators of speculative price movements through their efforts to make news interesting to their audience. P95

**Five: New Era Economic Thinking.**
1. The new era theory emerged principally as an after-the-fact interpretation of a stock market boom.
2. Shiller used 1901, 1920s (cars, electric light bulbs, washing machines), 1950s (TV) and 1960s (Kennedy market), 1990s (Internet) optimisms as examples to illustrate that investors were terribly optimistic and confident of the market was in and of itself part of the new era thinking.

**Six: New Eras and Bubbles around the World (Cross countries historical data)**
1. Speculative bubbles --- periods of exaggerated but temporary investor enthusiasm, often associated with “new era” theories around the world. P118
2. Shiller used 36 country data (sources: P250-251): biggest one year increase & ensuring one year changes; biggest 5 year increase & ensuring 5 year changes.
3. Werner De Bondt and Richard Thaler: there is tendency for major five-year stock price movements to be reversed in another five years, for both up movements and down movements.

**Part Three: Psychological Factors**

**Seven: Psychological Anchors for the Market**
1. Many popular accounts of the psychology of investing are simply not credible. In fact, during the most significant financial events, most people are preoccupied with other personal matters, not with the financial markets at all. So it is hard to imagine that the market as a whole reflects the emotions described by these psychological theories. P 135-6
2. However, solid psychological research shows that there are patterns of human behavior that suggest anchors for the market that would not be expected if markets worked entirely rationally. These patterns of human behavior are not the result of extreme human ignorance, but rather of the character of human intelligence, reflecting its limitations as wheel as its strengths. P136
3. **quantitative anchors**: which themselves give indications for the appropriate levels of the market that people use as indications of whether the market is over- or under priced and whether it is a good time to buy. P136. The most likely anchor is the most recently remembered price. Another anchor may be the nearest milestone of a prominent index such as the Dow, the nearest round-number level. P137. For individual stocks, price changes may tend to be anchored to the price changes of other stocks, and price-earnings ratios may be anchored to other firms’ P/E levels. It may explain why stocks of companies that are in different industries but are headquartered in the same country tend to have more similar price movements than stocks of companies that are the same industry but are
headedquartered in different countries, contrary to one’s expectation that the 
industry would define the fundamentals of the company better than the location of 
its headquarters. P138

4. Moral anchors: which operate by determing the strength of the reason that 
compels people to buy stocks, a reason that they must weigh against their other 
uses for the wealth they already have (or could have) invested in the market. 
P136. Underlying is the psychological principle that much of the human thinking 
that results in action is not quantitative, but instead takes the form of storytelling 
and justification. That is why, in the case of moral anchors, people are weighting 
a story, which has no quantitative dimension, against the observed quantity of 
financial wealth that they have available for consumption.P139. Employees have 
a tendency to invest in company stock. This can be interpreted as consistent with 
investors’ being influenced by stories: they know many more stories about their 
own companies and so invest in those companies’ stocks. P140

5. There appears to be a pervasive human tendency toward overconfidence in one’s 
beliefs. People think they know more than they do. Why?
   a. In evaluating the soundness of their conclusions, people tend to evaluate 
      the probability that they are right on only the last step of their reasoning, 
      forgetting how many other elements of their reasoning could be wrong.
   b. People make probability judgments by looking for similarities to other 
      known observations, and they forget that there are many other possible 
      observations with which they could compare
   c. Hindsight bias, a tendency to think that one would have known actual 
      events were coming before they happened, had one been present then or 
      had reason to pay attention. Hindsight bias encourages a view of the world 
      as more predictable than it really is.
   d. Magical thinking
   e. Representativeness heuristic: people tend to make judgments in uncertain 
      situations by looking for familiar patterns and assuming that future 
      patterns will resemble past ones, often without sufficient consideration of 
      the reasons for the pattern or the probability of the pattern repeating itself. 
      The interplay between the representativeness heuristic and the principle of 
      conservatism determines the speed at which the speculative feedback 
      progresses. P143-4

6. The anchors can have significance for the market as a whole only if the same 
thoughts enter the minds of many.

Eight: Herd Behavior and Epidemics

1. if less-than-mechanistic or irrational thinking is in fact similar over large numbers 
of people, then such thinking can indeed be the source of stock market booms and 
busts. Part of the reason people’s judgments are similar at similar times is that 
they are reacting to the same information. P148

2. Asch’s experiment: confederates deliberately gave wrong answers to 7 of 12 
questions. A third of time the subjects caved in and gave the same wrong answers 
and they often showed signs of anxiety or distress. Asch explained this due to
social pressure. Deutsch concluded, however, people simply thought that all the other people could not be wrong. P150

3. Milgram’s experiment: to ask electric shocks to be continued by experimenter. This demonstrates the enormous power of authority over the human mind. P150

4. The experiments demonstrate that people are ready to believe the majority view or to believe authorities even when they plainly contradict matter-of-fact judgment. People are respectful of authorities in formulating the opinions about which they will later be so overconfident, transferring their confidence in authorities to their own judgments based upon them.

5. Information cascade: even completely rational people can participate in herd behavior when they take into account the judgments of others, and even if they know that everyone else is behaving in a herd like manner. The behavior, although individually rational, produces group behavior irrational. P151. Restaurant story: it can provide a foundation for a theory about how rational investors may be led astray. P152

6. Interpersonal and interactive communications, particularly face-to-face or word-of-mouth communications, still have the most powerful impact on our behavior (than media communications) P154. The telephone may still be the most important artificial medium for interpersonal communication today, because it so closely simulates face-to-face communications, lacking only the visual stimuli. P156.

7. Epidemic models: infection rate and removal rate. If the removal rate is zero, the curve is logistic curve. If the removal rate is over zero, but less than the infection rate, the course of the epidemic will be bell shaped. P158.

8. Applying epidemic models to the spread of ideas is less successful: the mutation rate, the rate of transmission errors, is much higher for ideas than for disease or other biological processes. The person-to-person transmission of stories of any complexity is just not very reliable. So, pure word-of-mouth transmission of ideas, even if abetted by the telephone, is not likely to extend widely enough to infect an entire nation all by itself. P160

9. Epidemic models are still helpful in understanding the kinds of things that can bring about changes in market prices. Thus, a major national news story unrelated to financial markets may lower the infection rate of ideas related to speculative markets by deflecting attention from them. This may help explain why most large stock market movements occur when there is not much other news. P160-1

10. The ability of users of email to forward others’ messages or to provide web links effectively permits word of mouth to spread unerringly. And new technology that makes it possible and natural to forward word-of-mouth messages from others as part of a telephone conversation or a video conference would again dramatically improve the accuracy and persistence of interpersonal communications. P160

11. New events that are more likely to be transmitted in informal conversations are in turn more likely to contribute to the contagion of ideas. The dry, analytical outlook an expert may offer for the nation’s economy is very unlikely to be transmitted by word of mouth. P162

12. Coexistence of conflicting ideas: why? People think they have heard both views endorsed by real or imagined experts (they say). So people don’t worry much
about apparent contradictions among the views they hold. The significance of this fact is that people may have no clear attachment to many of their views.

13. Socially based variations in attention: the human brain is structured to have essentially a single focus of conscious attention at a time, and to move rapidly from one focus to another. This ability is one of the defining characteristics of intelligence. The mechanism for focusing attention that has evolved in the human brain, although remarkable, is still far from perfect. Thus, in understanding errors that people have made in the past, it is important to consider what it was that they were not paying attention to. P164

14. One of the mechanisms that the brain has evolved to direct attention properly is a socially based selectivity. We pay attention to many of the same things that others around us are paying attention to. This social basis for attention allows individuals who recognize the importance of some information to bring it to the attention of other members of the community, and it creates a view of the world and information set that are common to the community. Such a view and information set allow the community to act well in concert. At the same time, the social component of attention does not work perfectly, and it may cause errors to be made in common by the entire group because the common focus of attention pushes aside attention to details that individuals might otherwise notice.

15. The social attention mechanism generates a sudden focus of the attention of the entire community on matters that appear to be emergencies. A sudden major move in the stock market is one of those events that pushes aside all other conversation. This social basis for attention, operating by word of mouth and facilitated by media transmission of ideas, can generate attention focuses that spread rapidly across much of the world. P165

16. People cannot explain changes in their attention: people often find it very difficult to explain what made them decide to take a certain course of action; the original attention trigger may not be remembered. This is a principal reason why changes in speculative asset prices, which very quickly reflect changes in attention, often seem so inexplicable. P165 People usually cannot easily explain what drew their attention to something, and so they cannot explain their own behavior. By analogy, a stock market boom can start for no better reason than that some factor, like the swinging cord, calls attention to the market. P166-7

17. The story so far: Chapter 7 showed how trivial and barely visible psychological anchors may ultimately determine market levels, and how investor overconfidence can strengthen the pull of these anchors. This chapter attempts to resolve the essential puzzle of the current market situation: that we see newly high valuations but cannot detect a cause for those valuations that is associated with rational public thinking. P168-9

Part Four: Attempts to Rationalize Exuberance

Nine: Efficient markets, Random walks, and bubbles

1. Efficient markets theory asserts that all financial prices accurately reflect all public information at all times. Financial assets are always priced correctly, given what is publicly known, at all times. Price may appear to be too high or too low at times, but, according to the theory, this appearance must be an illusion.
2. Random walks: the price changes are unpredictable since they occur only in response to genuinely new information, which by the very fact that is new is unpredictable. P171

3. Basic arguments that markets are efficient and that prices are random walks:
   a. The most simple and direct argument for efficiency comes from the observation that it seems to be difficult to make a lot of money by buying low and selling high in the stock market. But this argument does not tell us that the market cannot go through periods of significant mispricing lasting years or even decades. P172-3
   b. “Smart money”: the smartest people will not be able to do better than the least intelligent people in terms of investment performance. So effort and intelligence mean nothing in investing.
      I. Professional investors, institutional money managers, or securities analysts do not seem to have any reliable ability to outperform the market as a whole. But perhaps individuals get advice from professional investors and they can also observe what professional investors are doing. So there may be no significant difference between the success of professional investors and the market as a whole, even if their analysis is very valuable to others. Some recent studies have documented that professional analyst’ advice is indeed worth something, if it is acted upon swiftly enough (disprove the efficiency). P174-5
      II. There is no good way to measure how smart investors are. Chevalier and Ellison find some evidence that firms whose managers attended higher-SAT colleges performed somewhat better, even after controlling for other factors (disprove the efficiency). P175
   c. Stock prices roughly track earnings over time—that despite fluctuations in earnings, price-earnings ratios have stayed within a comparatively narrow range. Disprove: Real S&P Composite earnings were actually lower at the bottom of the recession of 1991 than they were at the bottom of the recession of 1982, but the real S&P index was almost two and a half times as high. So, in this bull market, price increases cannot be viewed as a simple reaction to earnings increases. P180-2
   d. There is a co-movement between dividends and prices: Froot and Obstfeld postulated an “intrinsic bubble” model in which prices respond in an apparently exaggerated fashion, but in fact rationally, to dividend movements.
      Disprove: the wiggles in stock prices don’t in fact correspond very closely to wiggles in dividends. It is also likely that the response of both prices and dividends are influenced by fashions and fads. Stock prices clearly have a life of their own; they are not simply responding to earnings or dividends. Nor does it appear that they are determined only by information about future earnings or dividends. P182-3
e. Many anomalies have been discovered over the years within the efficient markets theory: January effect, small-firm effect and the day-of-the-week effect, and others:

Pro: many of these have been small effects, not the stuff of bull or bear markets. Many of these effects disappeared after they were discovered, as indeed the January effect and the small-firm effect seem to have disappeared.

Con: the evidence that there is not much short-term momentum or inertia- that there is not much predictability of day-to-day or month-to-month changes in stock price indexes-does not tell us anything about efficiency in the big-picture sense. P183-4

4. Dividend present value: if the price movements are to be justified in terms of the future dividends that firms pay out, then under efficient markets we cannot have volatile prices without subsequently volatile dividends. The dividend present value is not doing anything especially dramatic, whereas the price is jumping around a great deal. The prospect that a temporary recession is on the horizon should have virtually no impact on stock prices, if the efficient markets theory is correct. The only way to reconcile the volatility of stock prices with the efficient markets model is to suppose that, one way or the other, the historical fluctuations of dividends around their growth path not representative the potential fluctuations. Some substantial fraction of the volatility in financial markets is probably justified by news about future dividends or earnings. Campbell and Shiller estimated that 27% of the annual volatility of the US stock market might be justified in terms of genuine information about future dividends. Shiller has found less evidence of excess volatility in long-term interest rates and little evidence of excess volatility in the spread between stock price indexes. One interpretation of Figure 9.1 is that the sudden spike represents the “big, rare event” that might finally reconcile the efficient markets theory with these data. But it would have to be a sudden, sharp spike in the dividend series, not the price series, to suggest such reconciliation with the efficient markets theory. The spike in price alone only deepened the excess volatility puzzle and required that dividends will have to move much farther indeed if their movements are to save the simple efficient markets model. P185-190

5. Evidence of mispricings: Jay Ritter found in 1991 that IPO tend to at the peak of industry-specific investor fad and then to show gradual but substantial price declines relative to the market over the subsequent three years. P180


1. Another rationalization for the exuberance in the market is that the public at large has learned that the long-term value of the market is really greater than they had thought it was, and greater than conventional indictors would have suggested it should be. Market is higher today because the public has now learned some simple facts about historical average returns and diversification. The argument is essentially that “The market was not efficient a few years ago; it was too low; but (maybe) it is efficient now.”

2. Pro: people have recently learned that the stock market is much less risky than they once thought it were, and that the stock market has always outperformed
other investments. (there has been no thirty-year period over which bonds have outperformed stocks)

Con: a problem with this “new learning” theory is that the historical fact that investors supposedly learned – that the stock market has largely outperformed other investments – is not a new revelation. Given the relatively short history of thirty-year periods of stock market returns, we must recognize that there is little evidence that stocks cannot underperform in the future.

If we take ten-year periods as our standard, then we do get some more recent periods when stocks have underperformed short-term interest rates. In the ten-year period following two of these three peaks (the 1929 and 1966 peaks), the period stock market return underperformed short-term interest rates.

Jorion and Goetzmann have studied the real stock market appreciation rates for 39 countries for the period 1926-96 and found that the median real appreciation rate was only 0.8% per year for these countries (compared to 4.3% per year for the United States). Thus, if we take the experience of other countries as relevant to our own, we might expect a much poorer performance of the stock market in the future. P192-5

3. Learning about mutual funds, diversification: based upon his questionnaire, Shiller concluded that people effectively believe in the efficiency of the aggregate market and so have given up on timing it; but they often think that they can still pick individual stocks and (particularly) mutual funds. If one truly believe in efficient markets, then one would reply “not a smart thing to try to do” to all these questions. If stock prices are a random walk, then one cannot pick times to enter the market, one cannot pick individual stocks, and one cannot pick others who will pick them. P199.

4. Stocks can go down, and stay down for many years. They can become overpriced and underperform for many years. Stocks have not always outperformed other investments over decades-long intervals, and there is certainly no reason to think they must in the future. Picking mutual funds that have done well has much smaller benefits than investors imagine.? Con his own opinions?

Part Five: A call to action

Eleven: Speculative volatility in a free society.

1. Which of his 12 factors are likely to be stronger, weaker or status quo? Two (the Internet boom and the expansion of stock trading opportunities) will probably increase in strength, two (the baby boom and perceived victory over foreign economic rivals) will decrease, and the others will likely stay about the same. The conclusion is that no overall change in these twelve factors can be confidently predicted, and that, if constancy of the precipitating factors implies constancy of the market level, then returns will remain confined to the low dividend yield we now see for stocks. P208

2. Without further growth in the precipitating factors in the opening decade or so of the twenty-first century, the market will have more and more trouble sustaining its present level. P209

3. Possible new factors: New precipitating factors, both supportive and destructive of market value, will no doubt develop, though it is difficult to anticipate what these will be.
4. Fairness and resentment: many of the potential causes of earnings reversals have ultimately to do with changes in morale, loyalty, and sense of fairness among the investing public. Growing unevenness of income distribution, and the increasingly frequent stories of fabulous wealth earned by the dealmakers, may turn US public opinion away from its pro-business stance. Resentment by foreigners toward the US is another potential limiting factor for US earnings growth. P211

5. One could say that a fall in market would really be harmless, since nothing is physically destroyed by a fall in stock market values; it is only a change on paper and in our minds. But there is the problem that the loss will not be borne equally. A substantial fall would leave some people really poor while leaving others very rich.

6. What should investors do now? (2000): the natural first step may be, depending on current holdings and specific circumstances, to reduce holdings of US stocks. The commonsense notion that one should not be overly dependent on any one investment is as true as ever now. One should at the very least diversify thoroughly. P215

7. Retirement plans: the shift toward defined contribution pension plans has in many respects been a good thing, since the older defined benefit plans were usually not indexed to inflation. But something was lost in the transition, namely a sense of group responsibility for the standard of living of pensioners. Plans that offer the choice of investment in the government’s inflation-indexed bonds are a rarity, despite the fact that these bonds have recently been yielding about 4% a year and are risk less. There bonds would be an obvious choice for people planning for retirement, a far better option today than the stock market. Their advantages would be particularly significant for low-income people. Furthermore the plan investments that participants choose are not well diversified. More than two-thirds of 401 pension plan balances were in the stock market in 1996. The current policy of providing a menu of choices for participants without any strongly worded advice to diversify invites serious errors. Ultimately it is government policy that has fostered this situation, by encouraging defined contribution pension plans rather than encouraging the improvement, through indexation, of defined benefit pension plans. P216-9

8. Social Security: We may regard the Social Security system as the government’s partial assumption of the intrafamily risk sharing of long ago. The problem with the family as an economic risk-sharing institution is that it is unreliable. Social Security was created to alleviate such problems by replacing individual “contracts” among family members with contractual obligations between generation at large. In usa, Social Security is primarily a pay-as-you-go system: the contributions made by working people are not invested in any real assets but are given immediately to those retirees who need the money now. In this way, SS mimics the traditional family system, which also did not rely on any investments. If the economy takes a bad turn and national income declines, then the working population will be taxed more for the fixed SS benefits guaranteed to retirees, and thus they will experience an amplified effect of the economic decline. It does not
make sense to protect one segment of the population from any economic setback by concentrating the effects of the setback on another segment. P220-1

9. It would be a serious mistake to adopt the policy, proposed by some, of replacing the current SS System with a defined contribution plan for retirement, investing plan balances in the stock market, or even a plan that would give individuals a choice of investment categories. Such a plan would replace the current social commitments to the elderly with a hope that financial markets will do as well as in the past. Reform of SS should take the form not of investing the trust fund in the stock market but of making the system more responsive to economic risks, so that the system promotes better risk sharing among economic groups within our population. Contribution rates and benefit rates should vary over time depending on the relative needs of workers and retirees. Both contributions and benefits should be indexed, but not primarily to the CPI, rather to per capita national income. P221-2

10. Monetary policy: it affects the entire economy in fundamental ways, and that it is not focused exclusively on the speculative bubble it might be used to correct. It is whole-body irradiation, not a surgical laser. A small, but symbolic, increase in interest rates by monetary authorities at a time when markets are perceived by them to be overpriced may be a useful step, if the increase is accompanied by a public statement that it is intended to restrain speculation. But authorities should not generally try to burst a bubble through aggressive tightening of monetary policy. P223-4

11. Dealing with Bubbles by interrupting or discouraging trade: “circuit breakers”, “up tick for short sales”. It is not clear these relatively short closings do very much to restrain one-day price changes. James Tobin proposed that the speculative price movements in the market for foreign currencies be restrained by levying a transaction tax on them. The idea is that they will discourage short-run speculators in favor of investors concerned with long-run fundamentals. Although he recognizes that a transaction tax penalizes trades based on fundamentals as well as those for speculative reasons, Tobin believes that the tax would more often discourage the latter, since many speculators seem to be interested in very-short-run transactions. Tobin might be right that speculators will be rather more inhibited by such a tax than long-term investors, since speculators appear, to extrapolate past price changes primarily for short intervals. It is not clear that whether the tax would indeed encourage long-term investors over short-term speculators. Some speculative trading is done infrequently, while some trading based on information about fundamentals is done frequently. Moreover, it has been found that countries that impose higher transaction costs do not have lower stock market volatility. P225-7

12. In the interest of longer-run economic stability, it may be that the best stabilizing influence on markets is to broaden them to allow as many people to trade as often as possible, and to broaden the scope of things traded on markets. Given that bubbles are heavily influenced by word-of-mouth effects, by locally perceived values and information, and by patriotic feeling, foreign investors are less likely to go along with a bubble than are local investors, and they may even trade in a way that would tend to offset it. P228