Irrational Exuberance

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The high valuations we have seen recently in the United States stock market have come about mostly for no good reason. The market is high because of the combined effect of a lot of indifferent thinking across millions of people, very few of whom feel a need to do careful research about the longterm investment value of the aggregate stock market, and who are motivated substantially by their own emotions, random attentions, and perceptions of conventional wisdom. Their behavior is heavily influenced by news media that are interested in attracting viewers or readers, with little incentive to report regularly on quantitative analysis that might give a correct impression of the aggregate stock market level.

It is a serious mistake for public figures to acquiesce in the stock market valuations we have seen recently, to be silent about the implications of such high valuations, to leave commentary to the market analysts who specialize in the nearly impossible task of forecasting the market in the next few months and who share interests with investment banks or brokerage firms. The valuation of the stock market is an important national and international issue. All of our plans for the future hinge on our perceived wealth, and plans based on value that might not be there tomorrow could be dangerous. The tendency for speculative bubbles to grow and then contract can make for very uneven distribution of wealth. It may even cause many of us, at times, to question the very capitalist and free market institutions we have. We must be clear on the prospect for such contractions and on individual and national policy towards this prospect.

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The 1990's Bull Market

Of all of the factors that have promoted the recent bull market—including the financial clout of baby boomers, the decline of foreign rivals, and the economic opportunities made possible by the Internet—it is the prominence of the Internet that appears most likely to see further growth in the opening years of the twenty-first century. The Internet is a "visible" invention in the sense that individuals themselves directly participate in it and find it opens new horizons for them. The Internet also has room for growth. As of 1998 only 168 million individuals globally had some access to the Internet, and most only at work. But the effect on the stock market of further growth in Internet use will probably be limited: wealthier people, who are more likely to invest in the stock market, are already connected to the Internet. The symbolic value of the Internet also likely will fade as we become accustomed to it. As time goes on, the Internet may seem less and less like a symbol of the promise of new technology, and more and more like the old phone book.

In addition, it is uncertain whether the really low rates of inflation we have seen can be expected to continue. For now, continuation of low inflation appears a likely prospect, but low inflation is at best a stable factor, not a factor encouraging further growth of the stock market. In addition, other factors supporting a high market are quite likely in the future to falter. The salutary effects of baby boomers on the stock market in the United States will most certainly weaken. We know that there will be many more retired persons in 2030 than there are now. Although retirees will live longer because of improved medical technology, they also will face increased dependency, requiring them to cash in on their stock market investments. As important, the sense of American "victory" that developed after some of our close competitors abroad began to falter after 1990 is unlikely to persist. In particular, if attention is drawn to some flaw in American corporations by some big event, the sense of victory could fade

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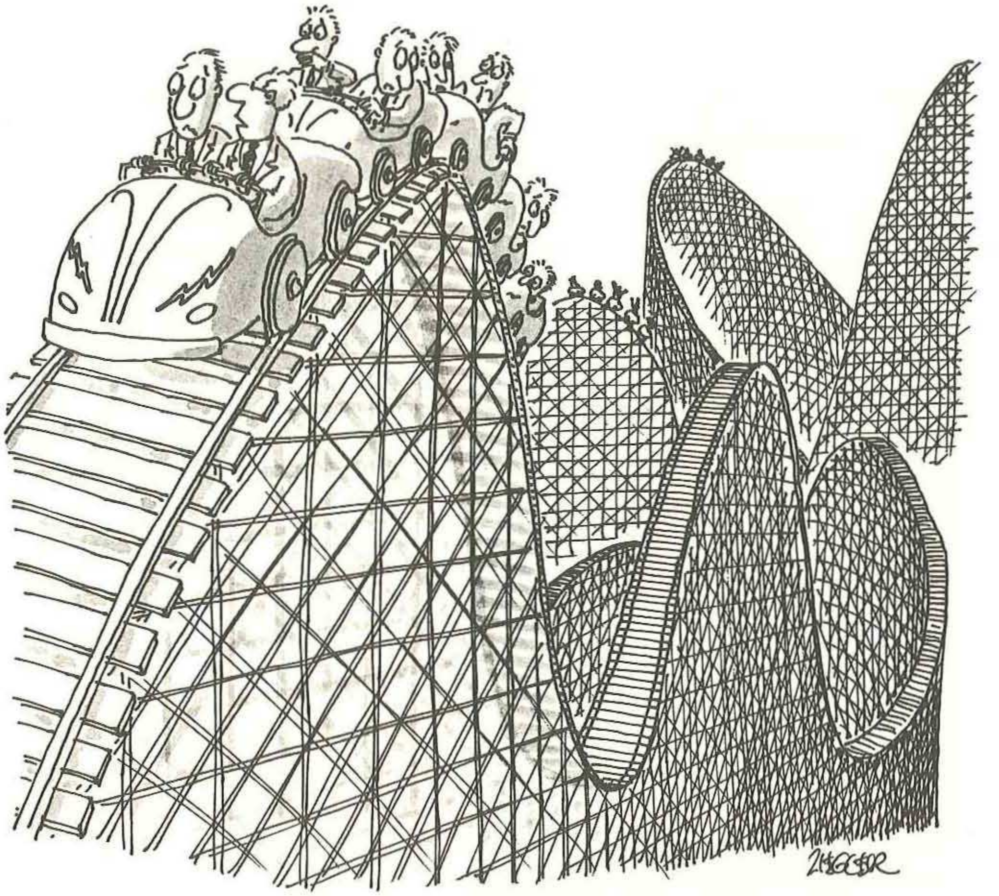

"Dow Jonesy enough for you?"

quickly. One of the most likely aspects to change, finally, is the emotional frame of investors. If stock returns become more modest, there gradually will be less excitement, less attention paid to the stock market, and quite possibly less willingness to take risks in the stock market. As time wears on, the sense that one is "playing with the house's money" with one's investments will certainly fade.

Issues of Fairness and Resentment

Many of these potential causes of earnings reversal have ultimately to do with changes in morale, loyalty and a sense of fairness. Currently, overt resentment by American citizens against their own corporations appears to be at an unusual low. Businessmen are lionized, and labor unions are very weak by historical standards. But deteriorating income distribution, and the increasingly frequent stories of fabulous wealth earned by the dealmakers, may make public opinion less favorable toward business. Further, according to calculations of economist Ray Fair, if market expectations for earnings growth are to be realized (assuming US gross domestic product growth of 4% a year) then corporate profits as a fraction of gross domestic product must be over 12% in 2010. This fraction is almost twice as high as we have seen since 1948. It is hard to imagine that the public would tolerate such levels of corporate profit. Resentment by foreigners towards the United States is another potential limiting factor of the bull market. Something may seem unfair about America's dominance in, among other areas, high technology. How, one might ask, did Microsoft attain such dominance? The company is often described as cutthroat and grasping. And why does the United State dominate the Internet? The World Wide Web was a European invention, developed by a British and a Belgian scientist working in a Swiss lab. Resentment against the United States and its strong free enterprise system has moral overtones too; people in many other countries not as strong economically wonder if their relative lack of economic success is due to their greater concern with equity, fairness, and human values. If such a moral basis for resentment gains solid ground in public thinking, it could lead to heightened efforts to compete with American corporations or exclude them entirely.

What Should Individuals Do Now?

If the market declines to the point it was a few years ago or even lower, then people are going to find themselves poorer, in the aggregate amount of trillions of dollars. The real losses could be comparable to the total destruction of all the schools, farms, or houses in the nation. One could say that such a fall is really harmless, since nothing is physically destroyed by the fall, which only brings us back to where we were a few years ago in terms of market value. Losses will not be borne equally, however. Some who rode the market up to new prosperity will have lightened up on their holdings and will keep their gains, while others who have entered the market only recently will take the losses. Thus, a substantial fall in the market would make some people really poor, leaving others rich.

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We can imagine the effects on those who had become too dependent on stocks as investments, and too hopeful for how these investments would do in future. People who have put away only a modest amount in the stock market for their children's college education may find their savings are inadequate, and that the real value of the portfolio falls far short of the increased cost of a college education. Students may have to take out substantial loans, accept unrewarding jobs to pay for their education, or forgo a dream career. They might decide to not go to college at all. Others, who are a little older, may find that their careers or ambitions are thwarted. With smaller economic resources, the need to maintain an income level and fulfill everyday obligations will be destructive to individual fulfillment.

Those who have saved virtually nothing for their retirement because of their faith in stock market investments held by their pension plans may find that those pension plans, even when coupled with Social Security, cannot provide them with a comfortable living standard in their retirement. The "amazing power" of compounding, which is an article of faith among so many, vanishes if the returns are not there. Thus those with meager savings will have to fend for themselves in a world with greatly more dependent elderly people relative to young people. They may have to live very simply, and that may mean sitting at home and doing little that they are interested in. So, what can one do today to minimize the impact of a possible market fall?

Savings The natural first thing for an individual to do may be (depending on current holdings and other circumstances) to reduce one's stock holdings. Yet this is advice is problematic, since if large numbers of people divested their holdings in stocks, the market would immediately plummet. An important action that all individuals can take now is to decrease their reliance on the stock market in their future economic decisions, and instead increase their saving rate. The amount of additional saving that must be done to offset a large stock market decline is quite large—on the order of an additional 10% of pretax income each year.

Retirement Plans Since the bottom of the market in 1982, the growth of employer defined-contribution pension plans (where the company makes contributions to an investment fund that is owned by the employee) has far outstripped the older defined-benefit corporate pension plans (where the company guarantees specified pension benefits for the employee upon retirement). With it, this transition marks a *shift away* from the notion of a shared responsibility to care for the elderly, and *toward* a feeling that each person is responsible for his or her own welfare. Further, 401(k) plans, which are designed to give ordinary people economic security in retirement, simply encourage them to imitate the portfolio strategies long pursued by the wealthy. Commonly, however, little attention is given to the fact that wealthy people had less reason to worry about losing substantial amounts in a market decline, since their wealth was already so high.

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The change towards defined-contribution pension plans is likely in many respects to have been a good thing, since people who retired and lived a long time under defined-benefit plans often saw a substantial part of the real value of their pension eroded by inflation. Although the switch to defined-contribution plans eliminated this problem, what is lost is the sense of group responsibility for the standard of living of pensioners. Participants in pension plans must now simply choose their investments and take their chances. Further, although the Labor Department has ruled that there be at least three choices for 401(k) plan participants, virtually no government regulations exist concerning what these choices need to be. Further, plans that include government inflation-indexed bonds are a rarity, despite the fact that they are riskless, an obvious choice for those planning for retirement. Yet there is no leadership to encourage a shift to bonds as a part of 401(k) plans. Finally, because so much of the 401(k) investments are in the stock market, a sharp market decline would have important consequences for many retirees. Given the meagerness of most social security benefits, and given that most retirees have little more than their pension plan, their house, and their social security benefits, these declines would be noticeable. There is a curious lack of public concern about this risk. If anything, concerns are expressed that some plan participants are not putting *enough* in the stock market.

Social Security The current bull market has prompted some to advocate investing the Social Security Trust Fund in the stock market. Those who have realized high returns on the market are wondering why they have earned so much less on their contributions to Social Security than they could have earned. However, governmental implementation of any sort of proposal to invest Social Security funds in the stock market would compromise another important national risk-sharing institution.

For ages, young people have felt a sense of obligation to care for their aging parents, in return for the care they received as children. Routinely, middle-aged people care simultaneously for their elderly parents as well as for their children. Since morals and feelings rather than legal bonds dictate the precise obligations for care giving, this old family system encouraged effective intergenerational risk sharing. We divide our attention between our dependent children and elderly parents according to their (and our) needs, and not by some contract formula. But in the United States and many other countries, social security is primarily a pay-as-you-go system, meaning that the contributions made by working people are not invested in any real assets, but are given immediately to the retired people who need the money now. In a pay-as-you-go system, social security simply *mimics* the traditional family system, and because of exaggerated public confidence in stocks, we wrongly accept that we can invest in the future care of elders.

It would be a great error to adopt the policy of investing social security funds in the stock market. Variations on this plan abound; yet *any* such plan would replace current societal commitments to the elderly with only a *hope* that financial markets will do as well as in the past. We must reform the social security system in the direction of making it more like a system that would seem just and humane within a family, a system that shares risk and that does not leave anyone bearing an inordinate share of economic risks.

Ways to Reduce Volatility

At times, tightening monetary policy is introduced in order to burst a stock market bubble. For example, on February 14, 1929 the Federal Reserve raised the rediscount rate from 5% to 6%, with the ostensible purpose of checking speculation. In the early 1930s, the Fed continued the tight monetary policy and saw the initial stock market decline turn into the largest US depression ever. While precise causal links are hard to disentangle even in these dramatic episodes, one thing we do know about interest rate policy is that it affects the entire economy in fundamental ways, and is not focused on the speculative bubble it might be used to correct. A small, but symbolic, increase in interest rates by monetary authorities at a time in which markets are perceived by them to be overpriced may be a useful step if the increase is accompanied by a public statement that the increase was done to restrain speculation. Authorities should not, however, try to burst a bubble with aggressive tightening of monetary policy.

The Stabilizing Authority of Opinion Leaders Another time-honored way of restraining speculation in financial markets is for intellectual and moral leaders to try to call public attention to overpricing and underpricing errors when they occur. This approach has been used repeatedly in the history of our financial markets, with success that is hard to judge. In a 1996 statement intended to warn against stock market excesses, Alan Greenspan suggested that "irrational exuberance" was driving the very high market levels. There is no way to judge the success of such rare statements, but the real trouble with such appeals to moral authority is that such views express only an opinion that is in accord with a larger or smaller number of financial experts. Further, the person who makes such statements makes an intuitive judgment about the state of the market fundamentals and psychology, a judgment so hard to prove that he probably feels it is an act of courage to speak out at all.

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Interrupting, Discouraging, and Encouraging Trade Another method to reduce market volatility has been to shut down markets at times of rapid price change. These "circuit breakers" are intended to give traders time for reflection, thereby reducing panic trading. But it is not clear that these closings do much to restrain one-day price changes. (The two biggest stock market crashes in history, the crashes of October 1929 and October 1987, occurred on Mondays after price declines of the previous trading day were interrupted by a weekend.) Further, these policies of closing the market for a matter of seconds, minutes, hours or days do not address longer-term price movements.

Other proposals have been to slow down the pace of trade by discouraging frequent trading, that is, to "throw sand in the wheels" of speculative markets. James Tobin, for one, suggests that speculative price movements in the market for foreign currencies can be restrained by placing a transaction tax on such trades. The idea is that such transaction taxes will discourage short-run speculators in favor of investors concerned with long-run fundamentals. While I feel that there may be some merit in a Tobin-style transaction tax in reducing speculative volatility, I have not found the case strong enough to recommend any such action.

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It may be that the best stabilizing influence on markets is to broaden them, allowing as many people to trade as often as possible. This is just the opposite of the previous proposals. (In my previous book, *Macro Markets: Creating Institutions for Managing Society's Largest Economic Risks,* I offered arguments justifying expansion of the number and variety of markets. These macro markets are international markets that include, for instance, markets for long-term claims on national incomes for each major country in the world.) Besides the obvious benefits of creating new risk management opportunities, creating new markets would have a salutary effect on speculative excesses by broadening the scope of market participation. The creation of such markets would also allow us to discover the prices of assets as yet unmarketed. No one today knows what the United States economy, the Japanese economy, or any other economy is worth. There appear to be unseen speculative bubbles in unobserved prices, as people go through waves of optimism or pessimism for their own economies, and as they individually make career choices based on current fashion. At times these changes encourage excessive investment in real and human capital and, at other times, inadequate investment. The diversity of investment opportunities and attention focused on fundamental risks permitted by macro markets around the world ought to be generally stabilizing to our economies and our lives.

Conclusion: Speculative Volatility in a Free Society

The problems posed for policy makers by the tendency for speculative markets to show occasional bubbles are deep ones. Policy makers will have to take full account of our evolving understanding of the nature of these bubbles when formulating measures to deal with the problems they cause. Unfortunately, the nature of the bubbles is sufficiently complex and changing that we can never expect to document the particular role of any given policy in bringing about the objective of long-term economic welfare.

Ultimately, in a free society, we cannot protect people completely from the consequences of their own errors. We cannot protect them without preventing them from the possibility of achieving their own fulfillment. We also cannot protect society from the effects of the waves of irrational exuberance or irrational pessimism, emotional reactions that are part of the human condition. Policies to deal with speculative bubbles should take the form of allowing more opportunities for people to take positions in more and freer markets. By designing better forms of social insurance and creating better financial institutions, real risks can be managed effectively. The most important thing to keep in mind as we experience today's speculative bubble in the stock market is that we should not let it distract us from such important tasks.

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