

T H E L O N G V I E W

September, 2000

Managing Through a Mania

At Manitou we focus on finding and valuing exceptionally good companies, and don't spend much time thinking about the broader stock market. However, it has not escaped our notice that, over the past two years, the prices in the North American stock markets have been higher than at any time in the past 100 years – and substantially higher than in 1929.

The overvalued stock market is an important issue for all of us. Ask yourself how you would invest your money if, knowing what you know today, you found yourself living in the late 1920's – but did not know whether it was 1927, 1928 or 1929.

In this edition of *The Long View* we discuss the market mania and how it has come about. We also talk about why this overvaluation does not create a danger for investors who recognize that the value of a stock – or any other asset – is tied to the earnings it produces.

Valuing a Stock Market

When we say the stock market is overvalued, we mean that the market prices for many companies are well above the true value of those companies.

As our readers may be tired of hearing, the true value of an individual company – to which the market price will move over time – is simply the present value of its free cash flow during its remaining life. This is easier to say than to calculate. To do even a rough calculation of the true value, you have to estimate the remaining life of the company and the likely rate of growth in profits. This requires an in-depth knowledge of the business and its management.

Valuing a large basket of companies is, in fact, easier than valuing an individual company. Take, for example, the Standard & Poors 500 index, which measures the market price of 500 of the largest U.S. public corporations – and represents more than two thirds of the value of all publicly traded U.S. companies. Unlike individual companies, the S&P 500 has an infinite life because declining companies are dropped from the index and replaced by growing companies.

And, as these 500 companies are an effective proxy for the U.S. economy, the profits of the S&P 500 will, over longer periods of time, grow at a rate that will not diverge greatly from the rate of growth of the U.S. gross national product.

The Impact of Growth on Valuations

Most investors measure how expensive a stock – or a basket of stocks – is by referring to the price to earnings ratio (the P/E ratio). If the P/E ratio of a company or group of companies is 14 an investor is paying \$14 for every dollar earned in the past year. The greater the expected growth in earnings, the higher the P/E ratio investors will be willing to pay.

Over the past century, the average P/E ratio of the companies in the S&P 500 index has been 14. Today it is twice the average – about 27.

Clearly, investors are expecting very high growth in corporate earnings over the next several years. They may be looking at the future through a rear-view mirror. The market is projecting that the growth in earnings we have experienced in the recent past will continue. However, as we said earlier, over an extended period of time the earnings of the S&P 500 cannot grow faster than the U.S. economy.

Robert J. Shiller, a Yale University economist, recently published a book entitled *Irrational Exuberance* (Princeton University Press). It included two charts, annexed as a Schedule to this newsletter, comparing the price and the earnings of the S&P 500 over the past 140 years.

The charts show that investors who bet on high earnings growth continuing for a long time by holding unusually high P/E stocks did not have to live long to regret it.

The Impact of Profitability on Valuations

Not only is the price to earnings ratio extremely high, but earnings – measured as a percentage of shareholders' equity – are also at an all-time high. Currently the S&P 500 index generates a return on shareholders' equity (ROE) that is almost twice the long-term average – in excess of 25%. The only time in the past 100 years when reported return on equity was as high as it is today was 1929.

But perhaps this time it is different.

Some argue that earnings are high because of the explosion in productivity resulting from new information technology. In practice, however, in the absence of monopolies, competition drives the price of goods and services down toward their cost of production – which includes a reasonable profit. Consequently, over time, an increase in productivity can be expected to result in higher living standards, not higher profits.

For example, the automotive industry can now use business-to-business software to access the lowest cost supplier of parts. This should result in lower costs for the car companies and correspondingly lower revenue for the suppliers (with no change in *total* profits). However, in the absence of monopoly pricing, competition will result in the lower costs being passed on to the consumer – who is now able to use the Internet to readily find the lowest price for any type of car.

The Internet is a wonderful development that will result in a higher standard of living for all of us. But, by creating more efficient markets, it is more likely to *reduce* aggregate corporate profits than to increase them.

So why are earnings, expressed as a percentage of shareholders' equity, so high? In part it is because of increased leverage. In recent years many companies have reduced their shareholders' equity by buying back their own shares for cancellation.

Lower interest rates have also played an important role. In addition to reducing the cost of borrowing, declining interest rates have increased the values for stocks and bonds – at a time when a record proportion of North Americans own publicly traded securities. Naturally investors perceived that their wealth had increased – and spent accordingly. This helped drive the economy.

In addition, we think that *reported* profits are higher than real profits because of the way they are calculated. Many large corporations such as Nortel have recently taken huge “one-time” write-offs in order to reduce expenses – and increase profits – in future years.

More significantly, the calculation of profits omits the increasingly large compensation cost attributable to employee stock options. Andrew Smithers, a U.K. economist who has studied this question closely, estimates that fully accounting for the cost of stock options would reduce profits of the largest U.S. companies by more than 18%. And in a speech last year Alan Greenspan acknowledged that stock options were responsible for increasing the level of growth in reported corporate profits. The overstatement of profits is most extreme in the information technology and telecommunication services sectors. We discussed this issue at some length in our October 1999 edition of *The Long View*, which is available on our website.

So reported earnings may not be real and, in any event, are likely to decline. And without continued high levels of growth in earnings per share, the P/E ratios must also decline. The stock market is doubly leveraged to earnings.

A Constant Level of Value

Let’s look at valuations from a somewhat different angle.

Economists who have studied whether there is a level to which the market will in the long run return, have found that the closest thing to a measurable constant is not the P/E ratio, but rather the ratio of the stock market value to the book value (i.e. the assets less the liabilities) of the underlying companies.

James Tobin, a Nobel Laureate and one of this century’s most admired economists, has pointed out that the market value of companies’ shares and the replacement cost of their assets are simply two ways of measuring the same thing – the value of companies. If the stock market value is greater than the replacement cost of the assets, it is cheaper to start a new company – or expand an existing one – than to buy shares in the existing companies. This presents an arbitrage opportunity that results in the prices coming together. Over time, the market value of companies therefore should return to a number that approximates the replacement cost of the companies’ assets.

The replacement cost of assets is, of course, not readily available. Tobin concluded, however, that the relationship between the reported book value of a very large basket of companies and the replacement cost of the companies' assets changes very little over time. He therefore postulated that the ratio of market price to book value – which he defined as q – would over time be reasonably constant.

Studies of data over the past 100 years have proven that Tobin was correct. In the language of statistics, q “reverts to the mean”. Operating like an elastic, the further q moves from the mean value, the greater the likelihood that it will return to the mean quickly. And, as you have probably guessed, when q snaps back it is the market value, not the book value, that moves.

Tobin's q is currently higher than at any point in the past 100 years – and more than three times its average value during this period.

Why is the Market So Overvalued?

How did the market become so overvalued? Most professional investors know that the recent rate of growth in earnings is not sustainable. So why does the market not reflect this? We think that the most important factor is that today the vast majority of professional investment managers either operate index funds or manage money as “closet indexers”.

Indexing and Closet Indexing

Index funds simply mirror a basket of stocks – such as the S&P 500 or the TSE 300. Given that, in the recent past, most active money managers have failed to beat the index (after fees), index investing has proven to be a successful strategy.

In the United States more than two thirds of the money in the stock market is invested by professional managers. Much of this money is invested in very low cost index funds. And most of the rest might as well be.

The performance of all institutional money managers is continually compared to the relevant market index. The remuneration of so-called active investment managers is therefore tied to their ability to match or slightly outperform this benchmark. Significantly deviating from the index is regarded as dangerous.

It can cause the investment firm to lose clients and the investment manager to lose his job.

Consequently, almost all pension plans, insurance company portfolios and mutual funds that are not operated as index funds are in fact managed by closet indexers. Let's look at how this affects market prices.

Neither the S&P 500 Index nor the TSE 300 Index is weighted equally among all stocks in the index. Rather, they are weighted based on the market capitalization of the underlying stocks. That means larger market cap companies – today often in the technology sector – account for the lion's share of the index.

Although there are 500 stocks in the S&P 500 Index, the stocks at the top – Intel, Cisco, Microsoft, Oracle, GE etc. – have a weighting several hundred times that of the stocks at the bottom. In the case of the TSE 300, the imbalance is even more extreme. Nortel currently accounts for more than 30% of the 300 company index.

The indexing trend is self-reinforcing. The higher the price of a company's stock, the more of the index it represents – and so the more of that stock the indexers must buy, regardless of price.

The operation of the system is seen most clearly when a stock is added to or dropped from an index. In July it was announced that JDS Uniphase was to be added to the S&P 500. The next day the JDU stock price rose by 18%.

Recently we have seen many of the larger market cap companies buying other companies and paying for them with their overvalued shares. Of course, the issuance of the purchaser's treasury stock to the sellers increases the purchaser's market cap further, which in turn increases the proportion of new money directed to the purchase of that stock.

The fact that institutional investment managers are measured against an index not only turns them into closet indexers, it affects what they say publicly. When investment professionals are talking off the record, they virtually all agree that both the P/E multiple and the profitability of the S&P 500 and the TSE 300 will decline *substantially* over the next five years. But you would never know that from their pronouncements in the media or what they say to their pension fund clients. That would be very bad for business.

Consequently, the general public gets the impression that the professional investment community is overwhelmingly bullish about the broader market. Nothing could be further from the truth.

Nobody Is Valuing Stocks

So why is the index greatly overvalued today? Because the job of valuing stocks is no longer being carried out.

So long as a majority of investors properly valued companies before deciding to buy or sell, the indexers could hitch a free ride. But today almost everyone is an indexer, a closet indexer or a momentum investor. And when no one is valuing stocks, prices can for a while cease to bear any relationship to likely future earnings. The broader market (and in particular the companies forming the largest part of the index) is overvalued today because most investors are buying stocks without even *thinking* about their underlying value.

Waiting for the Perfect Storm

“Forecasts” said Sam Goldwyn “are dangerous, particularly those about the future.”

While we believe that the general stock market is hugely overvalued, we cannot predict when it will correct or how that correction will come about – and we don’t think anyone else can either. It has been overvalued for the last few years and could well go higher.

And the correction, when it does come, could take the form of a sharp drop as in 1929 or it could resemble a long and ragged sideways motion as was experienced between 1966 and 1982 when investors in the broader U.S. stock market realized *no capital gains for 16 years*.

However, regardless of the form the market correction takes, it is certain that the most overvalued companies will fall the farthest.

And it is likely that a correction will cause an economic downturn as the wealth effect reverses itself. Personal savings rates in the United States have been at historically low levels for the past few years because consumers, aware of the market price of their investments, have not felt a need to save. Any reversal – or even an extended pause – in the rise of the broader market will result in an increase in the personal savings rate and a consequent decline in consumer demand.

No Need for Pessimism

We would have to concede that, up to now, this has been a pretty gloomy newsletter. But it should be seen as gloomy only for investors who own a stock portfolio that mirrors the broader market, or own companies which dominate an index. For the investor who applies a value discipline and purchases common stock selectively, as if he or she were buying a piece of a private business, there is no need for pessimism.

Because of indexing, many companies such as Cisco and Nortel, which drive the index, are overvalued by the market. The happy corollary is that less money is being invested in some highly profitable, growing companies which do not form a major part of the index. Many excellent companies, such as Jean Coutu Group, The Toronto-Dominion Bank and Berkshire Hathaway, trade at reasonable prices. And some good companies, such as Samuel Manu-Tech, trade at mouthwateringly low prices.

At Manitou we will continue to focus our investments in companies that we know have strong balance sheets and the ability to produce growing amounts of free cash flow far into the future. And we will buy shares of those companies only if they can be purchased at a significant discount to our estimate of their true value.

This is how we invest our own money and that of our clients. We are confident that this approach will continue to produce superior long term returns. More importantly, it preserves capital. This allows both us and our clients to sleep well at night – regardless of the gyrations in the broader market.

Schedule

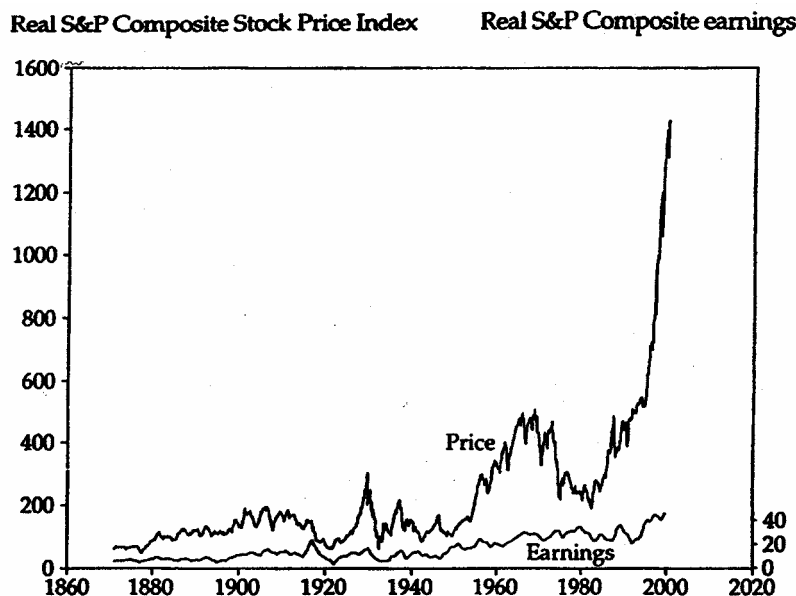


Figure 1.1

Stock Prices and Earnings, 1871 – 2000

Real (inflation-corrected) S&P Composite Stock Price Index, monthly, January 1871 through January 2000 (upper series), and real S&P Composite earnings (lower series), January 1871 to September 1999. Source: Robert J. Shiller's calculations using data from S&P Statistical Service; U.S. Bureau of Labor Statistics; Cowles and Associates, Common Stock Indexes; and Warren and Pearson, Gold and Prices. This chart copyright © 2000 Robert J. Shiller.

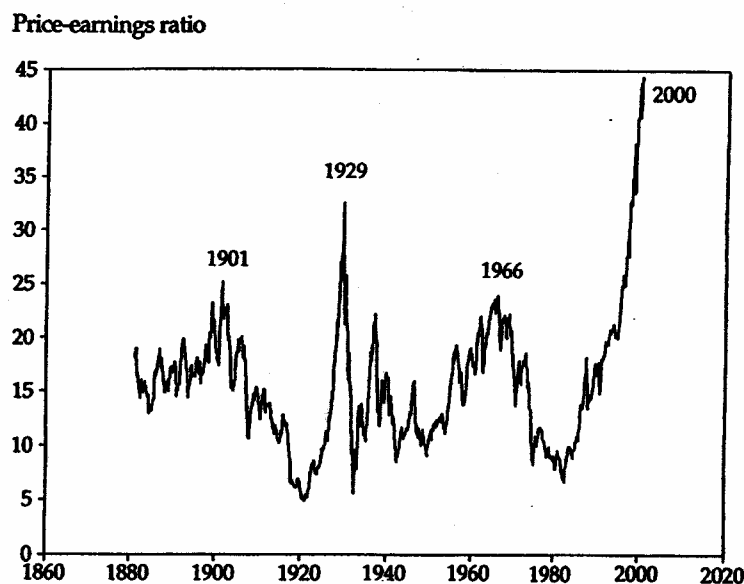


Figure 1.2.

Price-Earnings Ratio, 1881 – 2000

Price-earnings ratio, monthly, January 1881 to January 2000. Numerator: real (inflation-corrected) S&P Composite Stock Price Index, January. Denominator: moving average over preceding ten years of real S&P Composite earnings. Years of peaks are indicated. Source: Robert J. Shiller's calculations using data from sources given in Figure 1.1. This chart copyright © 2000 Robert J. Shiller.