Underlying all the disruptions that we are facing is an aspect of human nature that is not consistent with our ideal of rational man. It is an aspect that we as a society need to confront so that we can design our economic institutions to guard against decisions based on irrational exuberance. Robert Shiller, Irrational Exuberance

Words From Nerds Vol. 1, No. 1 July 2014

A Stock Market Bubble?

CAPE, Q, and other Measurements

From TDCapital Portfolio Strategies Group

Dear Clients and Friends: Part and parcel of the results of the structural changes we're implementing at TDCapital is an increase in the focus of my work in the area of portfolio strategies. John Harrell and I work together to research, develop, construct, fine-tune, enjoy, and change our client-centered portfolio models and implementations. We are calling our working team the "Portfolio Strategies Group."

The document that follows is the first in what we intend to be regular communication with you – sometimes to generalize and respond to your queries; sometimes to inform you of some new concepts or changes being considered for our portfolio work; sometimes to solicit your feedback on thoughts banging around in our heads; and sometimes our writings may fall under the category of "other."

In all cases, we are seeking to inform you. We are not necessarily trying to go "all-nerd" on you, but we do want you to recognize the frameworks supporting our work on your behalf. We will try to keep these musings pretty short and as light as appropriate. We invite you to call or come see us if you want to spend some time and energy on the subjects at hand.

Thank you and God Bless, Doug

A Bubble?

The most prevalent queries coming across our desks, email notes, client visits and phone calls have something to do with this: "The various equity (stock) markets have had stellar returns since around March of 2009. Have we reached some kind of 'bubble' level and, more to the point, is the market (stock) getting ready to go down a bunch and make me lose sleep?" Or something like: "I heard on TV that the stock market is getting ready to crash. What are you going to do about it?"

This is where the rub comes along: whether the various stock markets are getting ready to make moves in any direction – up, down, sideways is simply, and unfortunately, unknowable. We hear things on TV and read things in articles and publications, but the simple truth is that all the research and effort put into trying to find sure-fire (or even moderately dependable) methods of predicting market movements over the short-term have not resulted in useful, reliable techniques or systems for effective market-timing strategies. Proper planning and matching portfolios to the needs of our clients matters, short-term market movements are expected. Our interest lies in helping our clients reach longer-term goals.

What gets our attention is whether forward (longer term) returns are likely to be affected by current metrics (i.e. measurements), and to what degree. There are a couple of particularly interesting and useful measurements.

The longer-term value of stocks (equities) is predominantly determined by two factors: the earnings of the companies represented, and the value of the assets (minus liabilities) owned by the companies. So measuring these two factors gives us some credible evidence about expectations for the future (always think long-term).

CAPE: Earnings Measure

The earnings measurement that interests us is called the Cyclically Adjusted Price-Earnings ratio, CAPE, or Shiller P/E. This is also sometimes called something like the 10-year Shiller index. 10-year because it looks at the trailing ten years of earnings and makes some adjustments for inflation; and Shiller because it was developed by Robert Shiller at Yale.

The arithmetic is pretty straightforward – take the last ten years of earnings on a broad index of stocks (usually the S&P 500), adjust the earnings for inflation, and calculate the resulting annual average earnings. Then take the current value of the index and divide by the earnings number just calculated (or just google it). The current value of CAPE is around 26; the average value is around 16 ½. The value of CAPE has ranged from a low around 5 to a high around 45; the normal range about 10 to around 23 or 24. The current value of CAPE suggests that stocks are fairly expensive.

Q Ratio: Net Asset Valuation

Another analytical tool compiles net assets, i.e. assets minus liabilities, taken from the balance sheets of companies. The compilation is a great big number that represents the book (accounting) value of all the collective companies. This measurement needs to be put in a relative format to be useful. We look to something called the "Q Ratio" to get some perspective on the value of the stock index relative to the value of the net assets. This Q ratio or Tobin's Q – again out of Yale, this time by James Tobin, looks at the ratio of the current book value to the "replacement" value – or what one would have to pay to buy, i.e. replace, the assets already in place – market value / replacement cost.

On average the Q ratio is around .68, i.e., market value of stocks equals about 2/3 of asset replacement cost. The current ratio is a little over 1.00 – somewhat higher than average – again suggesting that stocks are somewhat expensive. Using a normal distribution, the expected range for this ratio is something like 50 to 90.

Other Measures

There are a couple of other measurements that we consider in our analyses, but we put them secondary to the two noted above. One is the expected inflation rate – or the inflation rate "implied" by the difference in current yield of traditional Treasury bonds (or notes) and inflation-protected Treasury bonds (TIPS). The other is implied volatility, sometimes called a "fear" index and trackable as VIX. Current inflation expectation for five years is around 2%, and the VIX is around 12 (average nearer 20). Inflation expectations are lower than historical averages, and the VIX indicator reflects rather mild investor sentiments about volatility (risk or fear).

So What?

Tying this all together – neither of the big two metrics described above (or anything else for that matter) have proven to be much use short-term. The simple fact that they are both near their higher ranges suggests that we should be modest and realistic in our expectations about returns over the next five to seven years. Returns for the S&P 500 have averaged around 10% historically; expectations for the next few years should be some lower than that. Inflation expectations suggest that lower returns may not have as much effect on spending as in higher inflation environments. The VIX or fear factor is low (indicating a general lack of fear by short term investors), but this has not been shown to be a reliable predictor of short or long-term returns, rather an indication of sentiment, and perhaps of naïveté.

We would be simply wrong to presume that predicting short-term returns is useful. Reacting to unsubstantiated short-term predictions can put us in a cycle of buying high and selling low – not an objective for prudent investors. We must realize that about five years ago these same metrics would have suggested higher than average returns looking forward; we must also recall that we were stunned and frightened by the financial crisis we had just endured. Recognition of the likelihood of more modest returns looking forward is important, though maybe disconcerting. Knowing that some of the long-term returns we seek have already happened (since 2009) is critical to understanding and comfort as rational investors.

When it comes to our investment portfolios, we all sit on a three-legged stool – the markets, our portfolio work, your confidence. The markets will do their thing – likely with fairly modest returns over the next few years; we will continue to focus on the controllable factors – diversification, provision of appropriate cash flow, cost and tax-efficiency; we recommend you stay focused on the long-term and enjoy the comfort of prudent portfolio strategies.