TJT Capital Group's InVEST Risk Model ®

Investing is trickier than most people realize. Even so-called experts get it very, very wrong from time to time. If you need evidence, here are some examples that prove just how far off investors can be:

- Did you know that the best consecutive four-year performance in the history of the U.S. stock market occurred during the Great Depression? It's true: the worst economic crisis in American history actually produced the best four-year return on record.

- By the same token, what many investors believed was the best time to invest – judging by the record amount of money that went into the U.S stock market (mostly the NASDAQ) in the first quarter of 2000 – resulted in a roughly 78 percent decline over the next two years.

- The rout caused by the so-called "Great Recession," from its peak in October 2007 through to March 2009, resulted in a devastating 56.7 percent loss in the S&P 500 index. What many bankers, regulators, academics and investors got so profoundly wrong was deeming so-called "AAA-Rated" pools of sub-prime mortgage bonds to be as safe and liquid as U.S. Treasury securities. As a result, those bonds required no reserves against them, based on accepted accounting rules. When the bonds began to default, there was no financial cushion – and the global markets and economy seized up as a result.

- More recently, between 2012 and 2014, despite a litany of potentially negative issues – including a government shutdown, elections, Federal Reserve concerns, and the elimination of tax cuts, among others – the cumulative return for the S&P 500 index was more than 74 percent.

The point here is that investing is not easy. Bull markets and bear markets are part of investing reality. Add to that the fact that investors are often influenced by the crowd (aka, market predictions, biases, opinions, narratives and consensus), and you begin to understand why so many struggle.

TJT Capital Group's proprietary **InVEST Risk Model ®** is a unique and trusted tool that guides us to help clients meet their financial goals by simplifying the complex, filtering the noise, and increasing the probability of success. Specifically, we have researched and documented five indicators that really matter when it comes to determining the health of the markets, and we use these as the basis for managing all portfolios.

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InVEST is an acronym for the following critical indicators.

- **In**terest rates
- **V**aluation
- **E**conomic cycle
- **S**entiment
- **T**echnical factors

Simply put, when our **InVEST Risk Model ®** is positive, we seek to grow the value of our clients' assets. When our **InVEST Risk Model ®** turns negative, we look to protect our clients' capital.

The 5 Critical Indicators

Interest Rates (Monetary Policy)

Monetary policy has a huge influence on asset prices. The major direction of the stock market is dominated by monetary considerations that are determined primarily by the Federal Reserve. The Fed uses monetary policy – including interest rate policy – to add or subtract liquidity from the economy. Generally speaking, excess liquidity is good for markets, while tight money is bad.

The most obvious sign of tight monetary policy is an inverted yield curve, where short-term interest rates are higher than long-term interest rates. **Inverted yield curves were present before each of the last seven recessions going back to the 1960s,** so we know it's a significant indicator! And since seven of the past eight bear markets began with the onset of an economic recession, an inverted yield curve is a pretty powerful warning sign.

An inverted yield curve was present prior to the 2000 and 2008 bear markets.

	Federal funds (overnight) rate	10-Year U.S. Treasury Yield
June 1, 2000	6.53%	6.20%
August 1, 2007	5.02%	4.76%
January 16, 2008	4.25%	3.66%

Following the financial crisis, the Federal Reserve adopted a "highly accommodative monetary policy" to support the economic recovery, employment and "key financial markets" as former Fed Chairman Ben Bernanke put it. In December 2008, the Fed cut interest rates on the federal funds rate to zero and began a series of large-scale asset purchases known as "quantitative easing" or QE.

Quantitative easing was – and is – designed to reduce interest rates and inflate asset prices. As

Bernanke wrote in a Washington Post editorial on November 4, 2010, "higher stock prices will boost consumer wealth and help increase confidence, which can also spur spending. Increased spending will lead to higher incomes and profits that, in a virtuous circle, will further support economic expansion."

Other statements highlighting the QE objectives include:

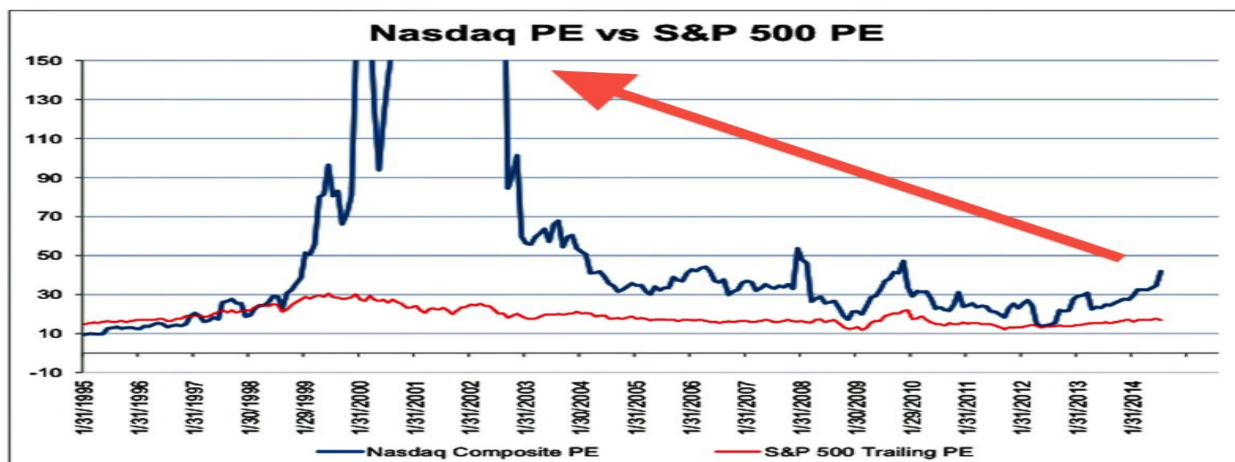
- "QE [was] intended to…**raise asset prices** to help further the Federal Reserve's economic objectives." – Fed Chair Janet Yellen, April 4, 2013
- QE "played a role, lowering long-term interest rates and **raising equity prices** and home prices." – Federal Reserve Bank of St. Louis President Jerome Powell, October 11, 2013
- "Asset purchases push down longer-term interest rates and **boost asset prices**." – Ben Bernanke, January 3, 2014
- The Bank of England (BOE) said QE causes share "prices to rise" and "higher asset prices make people better off."

Again, monetary policy is an overwhelmingly important variable for financial markets.

Valuation

Valuation is important to determine whether markets are fairly valued, overvalued or undervalued relative to the level of corporate earnings, interest rates, and inflation. Overvaluation by itself doesn't lead to a bear market, just as undervaluation doesn't directly cause a bull market. However, every major decline has started from extreme overvaluation.

The following is a chart of the Price/Earnings (P/E) ratio of the NASDAQ Index. You can see that the P/E ratio was literally off the chart (around 300 times earnings). This is clearly an extreme case of overvaluation – prior to the 78 percent collapse in price over the next two years.



Source: Bloomberg, Thompson Reuters, Haver Analytics and Citi Research

Economic Cycle

The economic cycle refers to whether the economy is in an expanding or contracting phase. This is important for markets because **seven of the last eight bear markets in stocks began with the onset of an economic recession.** To put it simply, bad things happen in recessions. Unemployment increases, consumer confidence falls, corporate revenues and earnings decline, credit spreads widen, and asset prices tend to decline.

The challenge for investors is that economists are terrible at forecasting recessions. So if you wait for an official recession to be declared, it's pretty likely that a significant amount of damage has already occurred.

Here's an example: In early 2008, when markets began to sell off significantly, a survey of leading forecasters by the Federal Reserve Bank of Philadelphia showed that **none** predicted negative growth for that year. Then on December 1, 2008, after months of extremely weak economic data, mounting job losses and several high profile financial bailouts, the members of the National Bureau of Economic Research (NBER) Business Cycle Dating Committee (that's the organization tasked with determining when an official recession begins and ends) declared a recession officially began in December 2007 – a full year earlier! By December 1, 2008 the S&P 500 index had already declined nearly 48 percent from its October 2007 peak.

We believe there are a number of reasons why economists are so bad at forecasting. First, there is a wide gap between the theoretical economic world and the real one. Second, there's a career risk. No one wants to be wrong, especially not publicly! Third, there are those who believe forecasting a "recession" tomorrow is bad for business today, so they suspect financial companies try to avoid doing so.

Nevertheless, in determining where the economy is in the cycle, we focus on a number of key indicators. A few telling examples include:

- **Employment:** There has never been a 0.6 percent increase in the unemployment rate that did not translate into a recession.
  - Case in point: In January 2008, the unemployment rate was 5.0 percent, up from 4.4 percent in May 2007
- **ISM Index**: When the Institute for Supply Management (ISM) index falls below 50, there is a 65 percent chance of recession. When it falls below 46, there is a 100 percent chance of recession.
  - Case in point: The ISM index fell below 46 in 1990, 2001, and 2008
- **LEI**: No recession in the past 55 years has begun without the Leading Economic Index (LEI) peaking and turning down
  - Case in point: In November 2007 the LEI was down 1.4 percent year-over-year

Sentiment

Markets may change, but human nature does not. People actually have a powerful influence on the economy. In fact, investor psychology has been similar at nearly every major market peak and bottom.

When investor optimism and pessimism swing to extremes, these can yield important contrary signals. For example, if everyone believes in the merits of a particular investment, chances are that a large sum of money has already been committed, leaving fewer potential buyers to invest. On the other hand, if a majority of investors are fearful about the market's prospects, the likelihood is that there would be idle cash to invest that could fuel a market advance if their outlook changes.

To illustrate, in the first quarter of 2000, just as U.S. markets were peaking, net flows into equity mutual funds were $101 billion – far greater than any quarter in history. These funds were largely concentrated in NASDAQ stocks. After the NASDAQ almost doubled in price in the previous twelve months, investors were convinced that the advance would continue. As a result, they created a buying climax by capitulating very near the top.

After the devastating effects of a nasty bear market between June 2002 and October 2002, approximately $91 billion in net flowed out of equity mutual funds. The extremes in investor sentiment closely followed the market's cyclical peak and bottom.

NASDAQ Composite:

Cycle High Date	Price	Cycle Low Date	Price	Decline
March 10, 2000	5048.62	October 9, 2002	1114.11	**77.9%**

In October 2007, at almost exactly the same time the U.S. equity markets peaked, and just prior to a 57 percent decline in the S&P 500 index, the difference between the number of "Bulls" and "Bears" according to Investors Intelligence was 42.2, the greatest difference ever. Said another way, at the October 2007 market peak there was an extremely high reading of "bullish" stock market sentiment - more than three-to-one - as compared to "bearish" sentiment. High levels of bullish and bearish sentiment are meaningful.

Technical Factors

We use a variety of technical indicators to gauge the overall health of the markets. The best signals tend to be when the fundamentals (interest rate policy, economic cycle, etc.) and technical factors are pointing in the same direction. For example, one technical indicator known as the "Dow Theory" gave a "sell" signal just before the 2000-2002 and 2008-2009 declines.

Other technical market observations that can be important signals involve extreme price movements. For instance, after a relatively long bull market or bear market phase, extreme price moves in the same direction can signal the end – or the capitulation phase – of that move. After more than doubling in price, the NASDAQ Composite rose another 24 percent between December 31, 1999 and March 10, 2000. This was known as the "2000" peak. In addition, the Dow Jones Industrial Average saw a gain of 499 points in March 2000, which was largest one-day gain in history. That record stood until October 2008.

In contrast, between December 31, 2008 and March 9, 2009 (the March 2009 "bottom"), the S&P 500 index fell 25 percent. Contrary to public opinion, markets often top on "good" news and bottom on "bad" news.

Again, we examine a number of technical factors to see if they are "in-line" with the fundamentals or they are signaling something different.

Combination vs. Isolation

The key point here is that investment conditions are determined by the combination of Variables, rather than any single factor taken in isolation. Why? Because markets are Dynamic, and from time to time one or more variable(s) may have more influence. For instance, many people believe stocks rise when earnings rise. As you can see below, that's not always the case:

	Year/**Stocks Rise**	Year/**Stocks Fall**
Earnings Rise	2013/ **(+32.4%)**	2000/ **(-10.1%)**
Earnings Decline	1991/ **(+30.5%)**	2008/ **(-37.0%)**

You'd see the same variability in outcome if you assumed (incorrectly) that higher interest rates are automatically bad for markets and lower interest rates are good, or that higher GDP is automatically good for markets and lower GDP is bad.

A Vast Majority of Investors Consistently Underperform

It's a well-known fact that a vast majority of investors consistently underperform. According to the research firm DALBAR, the average investor has underperformed in the long-term equity market by more than 40 percent over rolling 20-year periods – and has consistently for almost two decades.

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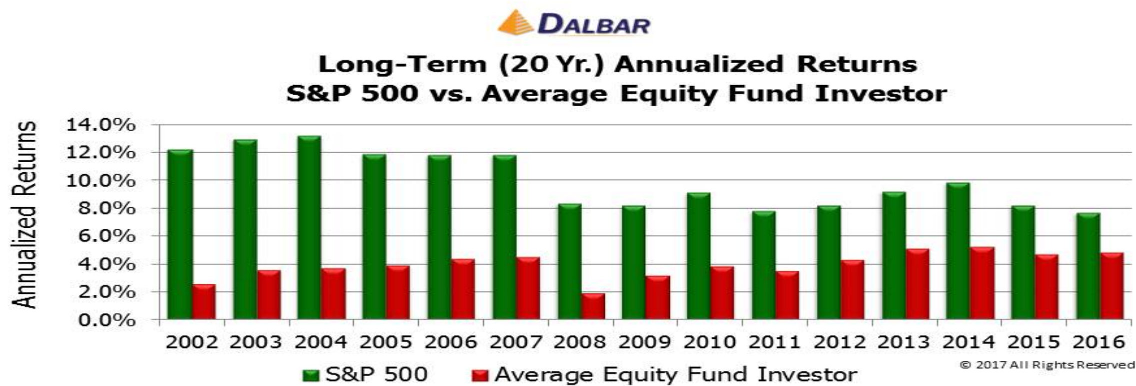

**The original analyses began in 1984, so 2002 represents a 19 year analysis. Starting in 2003, the long-term analysis covers a 20-year timeframe.*

The Value of TJT Capital Group

Many investors have adopted different approaches that offer little or no real prospects of long-term success. To be successful, investors need to be objective, focus on facts – not opinions, predictions, biases or other "noise" – and assess the variables that affect markets.

Furthermore, many investors don't have the time, or would rather spend their time doing something other than managing their portfolio. Some don't have the discipline required and others just don't want the burden of following things so closely. Many of our clients use TJT Capital Group as a responsible succession plan should anything happen to them.

TJT Capital Group uses our proprietary **InVEST Risk Model®** as the basis for all client portfolio allocations. We help our clients participate in bull markets and look to avoid or significantly reduce the devastating impacts of a bear market.

Whether you are seeking to grow your wealth, generate income, or a combination of both, TJT Capital Group's solutions can make a big difference as they have for years.

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