Using Cyclically Adjusted Price Earnings ratios (CAPE P/E10) to forecast future earnings.

By Bruce Baker for clients of Puzzle Financial Advice.
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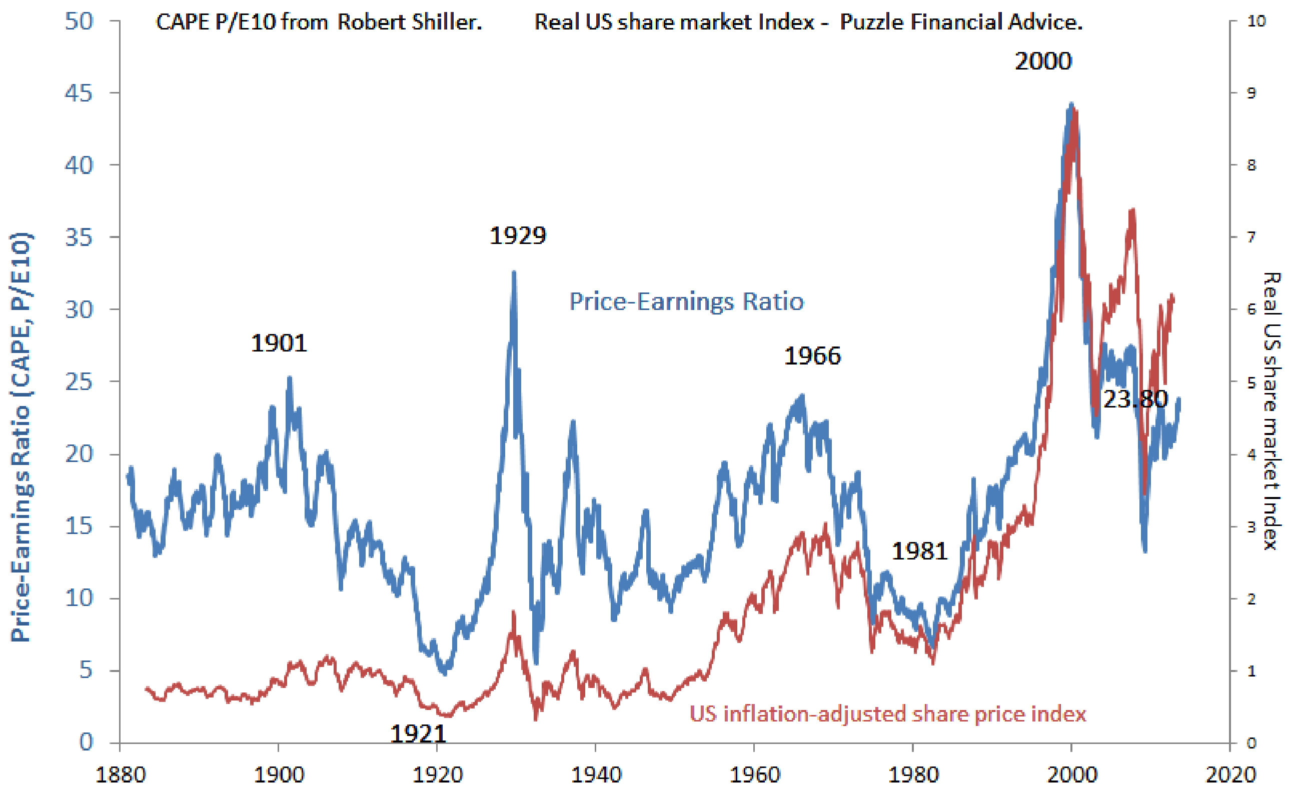
Simplistically, if you invest in a broad market index, when Price/Earnings ratios are very high, then your average returns over the next 10 years are likely to be low or negative. What is some evidence for this:-

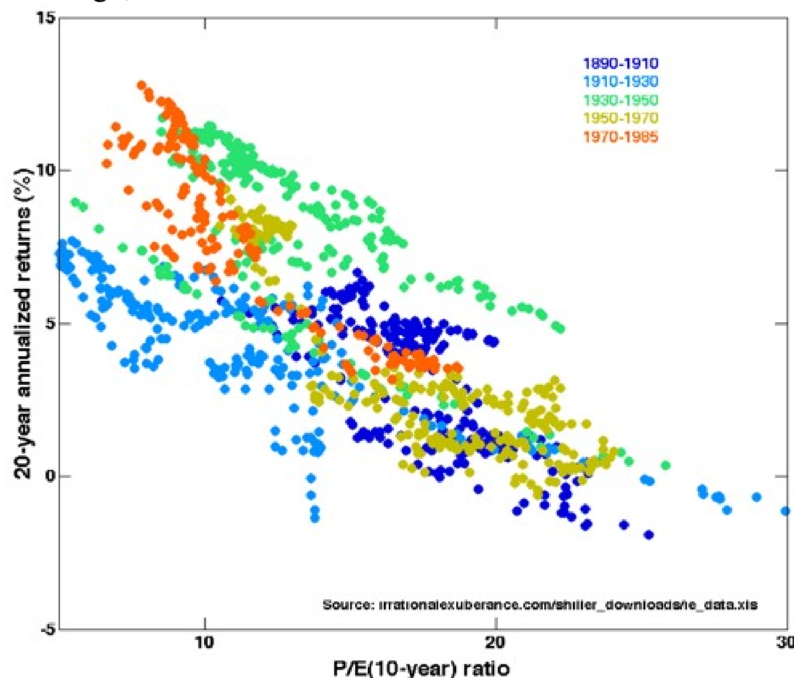
- First, let us start off with one of the very basic points, at the risk of telling you how to suck eggs. The Price/Earnings ratio of a stock is ONE way you can gather SOME information to help you can assess the valuation of a stock i.e. whether it is expensive or cheap.
  - If you are buying a stock at a Price/Earnings ratio of 20, you are buying it on a 5% profit yield – to give you something to simplistically compare to current returns on cash & fix yields.
  - If you are buying a stock on a price/earnings ratio of 5, you are buying a stock on a 20% profit yield.
    - Note: Just for the record, another way to value a stock is to do a discounted cash flow valuation of a stock. The most useful way to value a stock will depend on the particulars of a stock.
  - However, unlike a term deposit, the value of a stock depends heavily on future earnings and not just this year's earnings. One of the things that influences future earnings, is the economic cycle. The approach discussed in the following point, has been offered as a way to obtain a more useful price/earnings ratio when assessing valuations.
    - http://www.advisorperspectives.com/dshort/updates/PE-Ratios-and-Market-Valuation.php
    - As Doug Short says in the attached link:-
      - “Legendary economist and value investor Benjamin Graham noticed the same bizarre P/E behavior during the Roaring Twenties and subsequent market crash. Graham collaborated with David Dodd to devise a more accurate way to calculate the market's value, which they discussed in their 1934 classic book, Security Analysis. They attributed the illogical P/E ratios to temporary and sometimes extreme fluctuations in the business cycle. Their solution was to divide the price by a multi-year average of earnings and suggested 5, 7 or 10-years. In recent years, Yale professor Robert Shiller, the author of Irrational Exuberance, has reintroduced the concept to a wider audience of investors and has selected the 10-year average of "real" (inflation-adjusted) earnings as the denominator. Shiller refers to this ratio as the Cyclically Adjusted Price Earnings Ratio, abbreviated as CAPE, or the more precise P/E10, which is my preferred abbreviation.”

- So if you wish to use Price/Earnings ratios more reliably to help you forecast future investment returns (and current valuations), you are better off using Cyclically Adjusted Price Earnings Ratios (CAPE). Robert Shiller has calculated the long-term Cyclically Adjusted Price Earnings Ratio for the US stock market. See chart below.

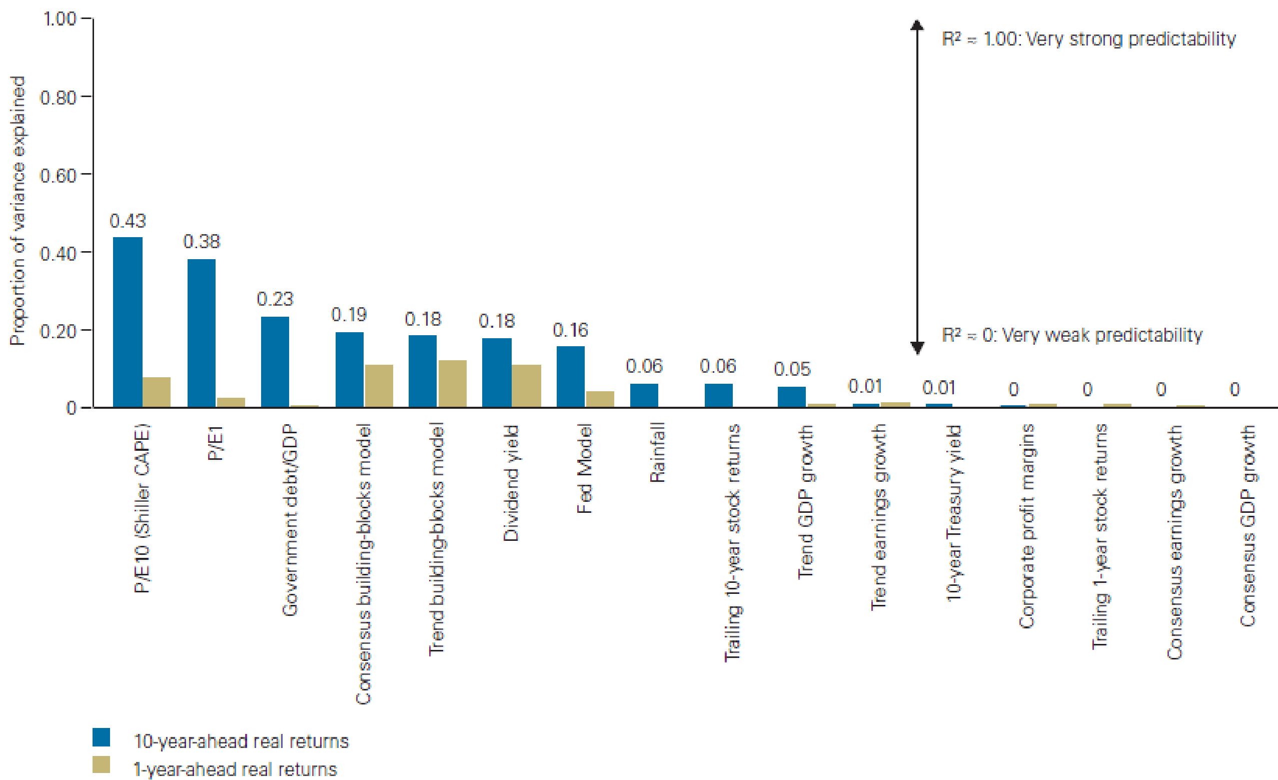


  - Note: When CAPE P/E10 is high, a large fall in real terms tends to follow. The CAPE P/E10 can help you identify whether a market is in a “bubble” (very expensive) phase.

- Robert Shiller provides more historical evidence that buying stock markets when P/Es are high, tends to lead to low returns.



- http://www.emarotta.com/the-shiller-ten-year-p-e-ratio/
- Some work by Vanguard indicates that Shiller's P/E 10 is one of the most useful indicators for the next 10 year's share market returns.
  - https://personal.vanguard.com/pdf/s338.pdf



- Crestmont have also done some analysis to illustrate how there is a high correlation between buying stocks on high P/Es and low returns on average over the next 10 years.
  - http://www.crestmontresearch.com/docs/Stock-Matrix-Index5-11x17.pdf
  - This is a matrix of “returns” for US stocks. You will notice that fairly typically, the periods that tend to deliver negative (red) or low (pink) returns are ones where the 10-year period commenced when P/Es were high.
  - Likewise, fairly typically, the periods that tend to deliver high (dark green) or good (light green) returns are ones where the 10-year period commenced when P/Es were low.
  - Discussion.
    - http://www.crestmontresearch.com/stock-matrix-options/
    - http://www.crestmontresearch.com/docs/Stock-Secular-PE.pdf