Prota Challenge 2017

QUESTION:

What is the appropriate timespan for backtesting a portfolio in order to understand it's likely behavior in the future? For purposes of consideration, assume two different Americans, one aged 30 and seeking long-term growth, and the other 60 years old and approaching retirement and primarily seeking income with an expected lifespan of 90 years.

DETAILS:

Many people backtest portfolios based on a limited amount of data, often as little as 5 or 10 years. However, we believe that this short of a timespan has been limited to both a stock and bond bull market. Others may go further, such as to 1970, or even 1955, but that leaves out tail events like world war and the great depression.

What we want to understand is if it adds relevant information to include such data, or if those events do not have predictable probabilities on portfolios. Further, when considering a diversified, global portfolio, many countries have had markets that effectively went to zero. The Weimar inflationary period in Germany, post-war Japan, and of course the Dutch tulip mania are all examples where people lost effectively everything. How do we account for these events in building a backtest over your recommended duration?

Further, other events weigh: the US was on the Gold Standard until 1971; In 1934 the SEC was created, thereby improving transparency and regulation of markets. Given these large changes, is data from prior periods even relevant when applying it to modern portfolios?

PRIZE:

A cash prize of **$1,000** will be given to the winning team, which will be chosen by a panel of judges at the 7th Eubank Conference on Real World Markets at Rice University on April 24, 2017. Team entrants must present their work as a poster at the conference. For Prota Challenge rules and specifications, see website below.

Prota Challenge Website

Investor advisory services offered through Prota Financial, a registered investment advisor.