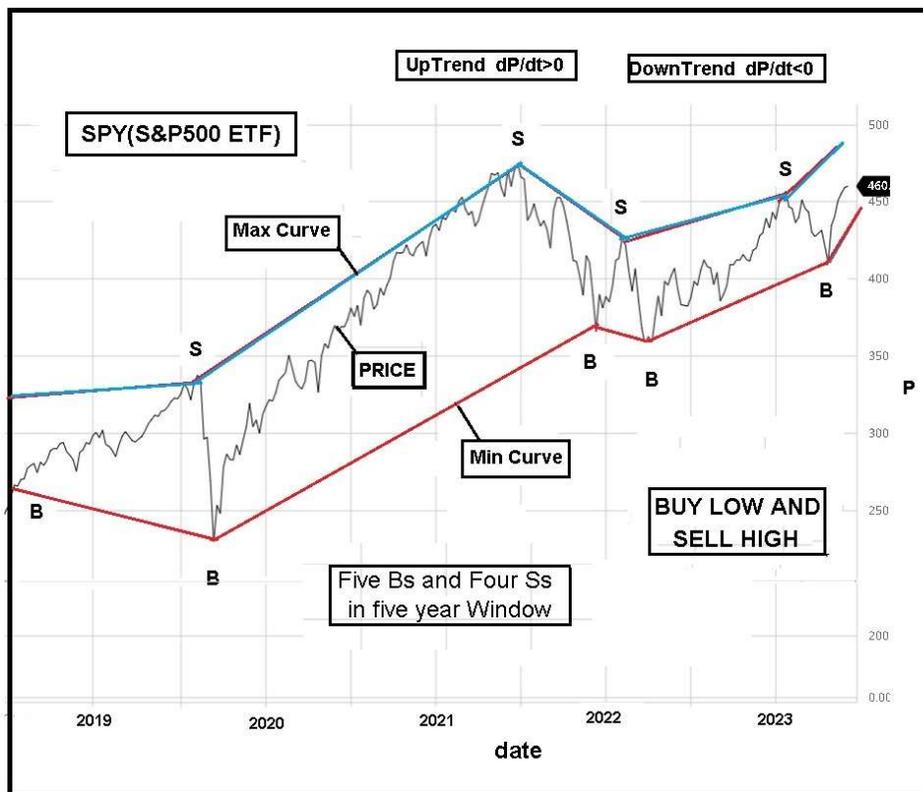


EXPECTED PRICE CHANGES BASED ON A MULTIPLE-YEAR PAST RECORD

Time can always be divided into past, present, and future. Past information concerning past price behavior is well known and can be represented conveniently in the form of price graphs extending from seconds to years into the past. The Wall Street Journal has been very skilled in the use of such price-time windows to support their written narratives. Prices in the present are also well known being supported by ever faster electronic computers required for price arbitrage. What is however not known, according to most analysts, are prices in the future. Indeed most stock analysts look at future prices as random events with the past having no predictive value (see B. Malkiel, "A Random Walk Down Wall Street"). We wish in the present note to show, contrary this popular belief, that future prices are indeed approximately predictable using past price records and past movements between price maxima and price minima curves.

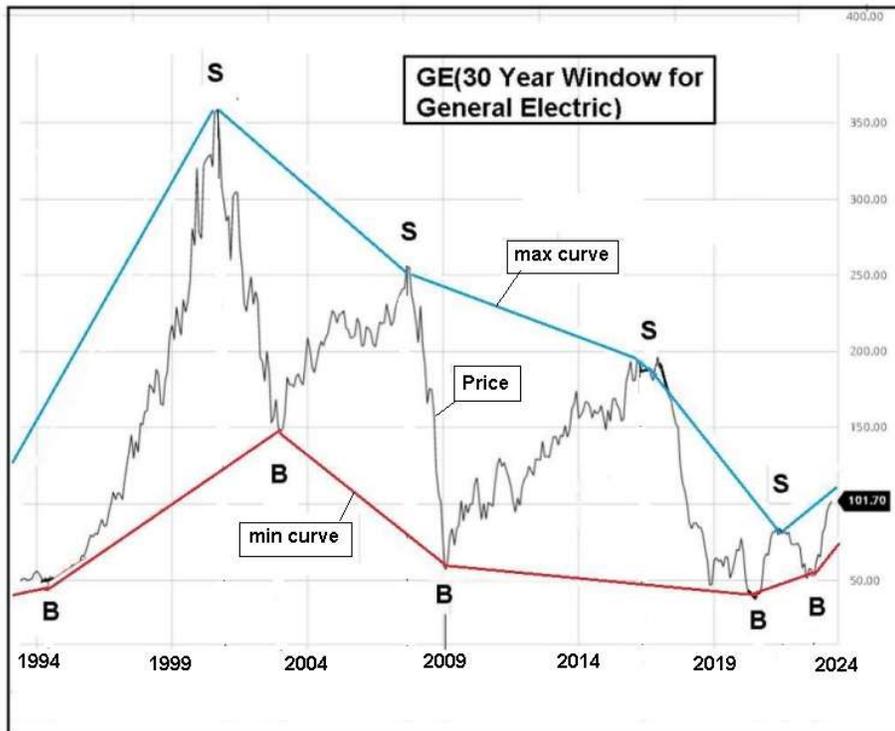
We begin by looking at a five year price-time record for SPY. This is the most active of the ETF funds and represents essentially all stocks in the S&P500 Index. Here is its five year price-time window as obtainable at BARCHARTS-



We have added a price channel constructed by straight lines between neighboring sell S points and buy B points as determined by visual inspection. The stock price remains confined within this channel. It is a buy whenever the slope dP/dt is positive and a sell whenever dP/dt is negative. This procedure guarantees that one always meets the Rothschild Criterion of buying

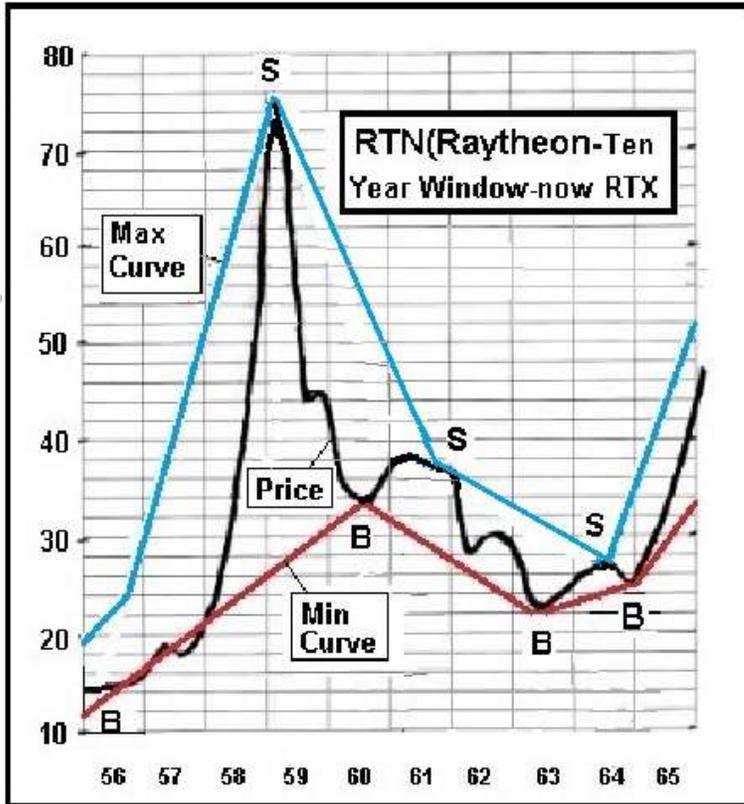
low near B and selling high near S. At the moment SPY is in an uptrend with future price prediction, before the next sell point S is reached, being around \$500/sh.

Next we examine the stock price for GE using a thirty year price window of past behavior. This time-price window was chosen so as to get some four local sell points and five buy points into the window. Here is its graph-



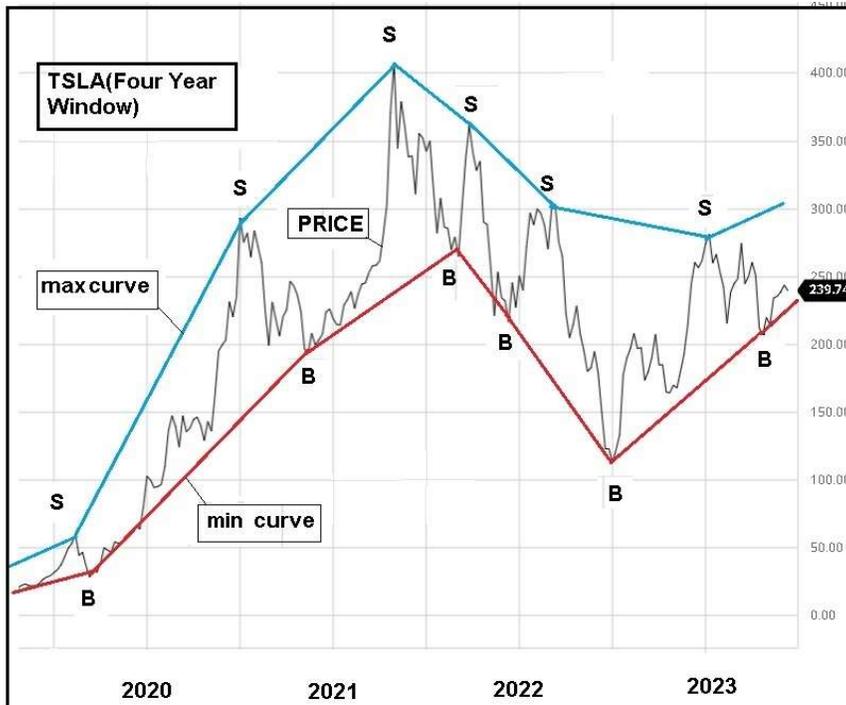
The stock, although in a long term decline, has sections where the price slope dP/dt is positive . It is there where the stock could have been held long. At those times where dP/dt is negative one should be completely out of the stock or be short. At the present time GE is near a sell point and so the stock should not be held long. Great times to have held the stock would have been in early 2003 or the beginning of 2009. The stock should have been shorted in 2000, 2007 and 2016. My own involvement with GE came in 2000 when I inherited several hundred shares at about \$350 per share. My chart at that time told me I was at an S point and thus time to sell. I did so and have had no regrets since that move.

As a third equity, as one my numerous stock trades in what is now a seventy year long hobby, I took a look at Raytheon (RTN now RTX) in 1958 . I had just entered graduate school at Princeton (fall of 1958) and as a hobby was doing some stock investing with my limited funds. Raytheon stood out since it had risen from 14 in 1956 to 76 by the fall of 1958 as shown in the following , reconstructed ten year price window graph-



The price channel falls between the blue sell curve and the red buy curve, with the black curve representing the price. The Bs mark the hypothetical buy points and the Ss the hypothetical sell points. By the summer of 1959 the price of RTN had dropped to about \$54 per share. With my still naïve mind concerning investments, I decided to buy one hundred shares at 54 since Raytheon would surely soon rise above its old recent high of \$76/sh. **Wrong.** The price failed to rise until many years later. The lesson learned was that one should never hold an equity long if $dP/dt < 0$. Only buy it after the next buy point B has been reached. I finally got out of RTN by the spring of 1966 with a few dollars gain and a valuable lesson learned. The future price indicator on the above RTN chart is estimated to be about \$56/sh by the middle of 1966.

As a final future price graph consider the active stock TSLA (Tesla Inc). Its four year price history until November of 2023 looks as follows-



The price projection is for \$300/sh within a year according to the price channel. Presently it is a buy unless something drastically changes concerning its EV product relative to China or problems arise in connection with Twitter.

The above examples have shown that it is possible to approximate the price of an equity a year or so into its future by the use of a past price-date window and the use of a price channel and B and S points. If the prediction proves wrong one should get out quickly and wait for an opportunity to enter the buy side again later.

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