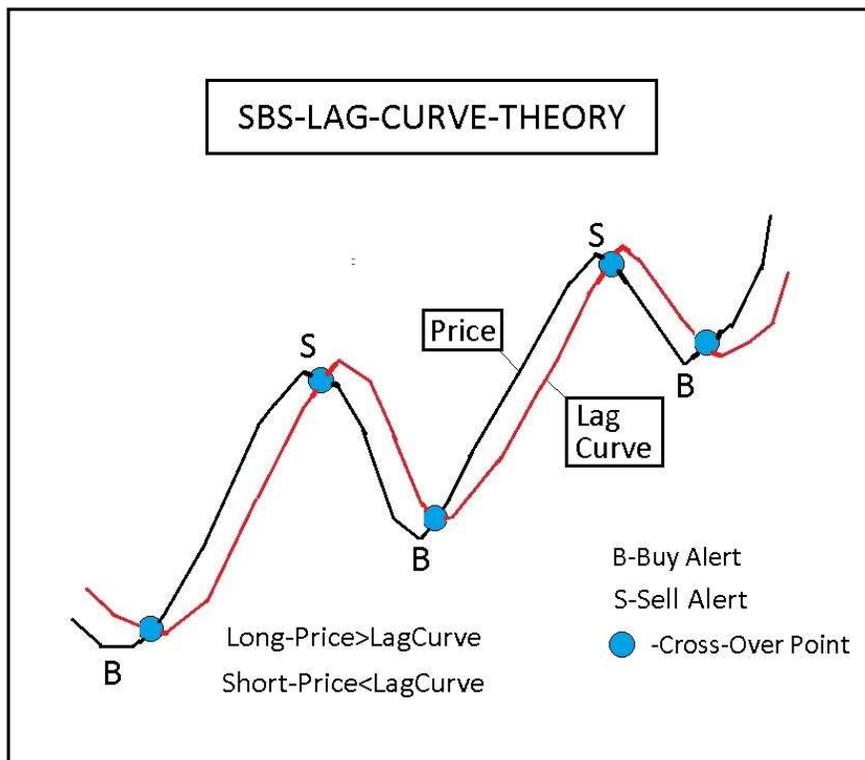


PRICE-LAGCURVE-TECHNIQUE-FOR-STOCK-INVESTING

Introduction:

Of all of the stock investment and speculation methods which I have used over the last 70 years, the most successful one has been to employ a five to twenty year price history graphs versus an appropriately drawn lag curve. In its most elementary form we have the following picture-



The price $P(t)$ typically involves a five or longer year period over which we mark down local price maxima(S) and minima(B)graph. These are alert points which will be confirmed if followed shortly afterwards by a cross-over point (blue dot). The cross-over point is where the Price $P(t)$ and an added LagCurve $\lambda(t)$ become equal. One has the buy-sell conditions-

Long when $P(t) > \lambda(t)$ Short when $P(t) < \lambda(t)$

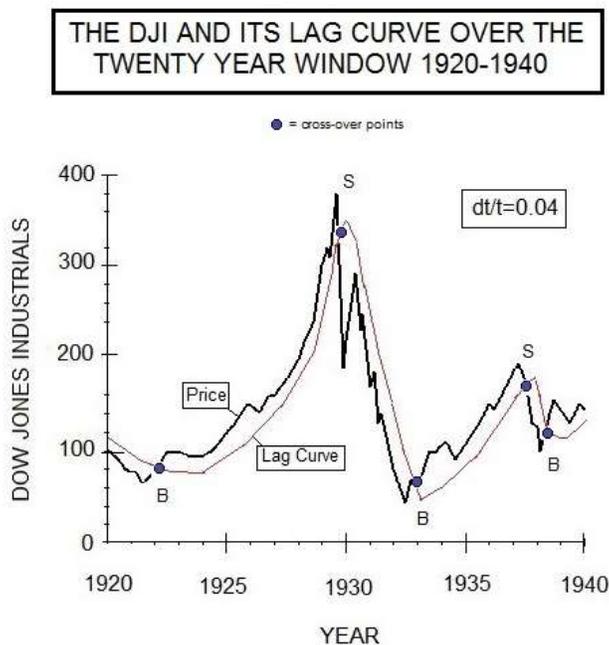
The Lag Curve is somewhat more flexible and sensitive compared to a standard running average. It is drawn in by eye, and typically has $dt/t=1/30$. Here t is the time period of the graph being used and dt the maximum shift in time between $P(t)$ and $\lambda(t)$.

Note that if no crossover point appears shortly after an S or B signal is given then the former trend remains. The procedure is found to work for any tradable equity including stocks, indexes, ETFs, art, real-estate, and other commodities. I usually stay away from use of margin in such transactions in order to avoid large losses if the price trend suddenly reverses. For the hypothetical graph shown above I would consider staying long until an S alert first appears. When people start talking a lot about a particular stock watch out. This usually means that one is close to a sell followed by a cross-over point. The closer you are in time to a confirmed B point the larger your positive return is likely to be.

We want in this note to examine some interesting time ranges over which to apply the present Price-LagCurve Method. Here are six such examples-

(1)-Roaring Twenties followed by the Great Depression

Here we have the following twenty year DJI price-time and lag curve behavior-



During the 1920s we had a strong uptrend from 1922 through September of 1929. This period was known as the roaring twenties during which time one had tremendous up moves produced in part by the heavy use of margin. Everyone was getting rich (with the exception of Florida land speculators). This upmove stopped suddenly in late summer of 1929 with a cross-over point reached in September of that year. After that it was all downhill. The stock market found itself in a bear market from October of 1929 through 1933. The Great Recession began in early 1930 and lasted pretty much for the rest of the decade. Millions of investors with bullish views were completely wiped out during this down market time. Only a very few investor bears such as

J.Paul Getty in oil and J.Kennedy in shorted stocks became extremely wealthy during that time. A buy alert for DJLI stocks was finally signaled in late 1932 and one had an upmarket until 1936 when the Federal Reserve started to drastically tightening the money supply.

(2)-B and S signals over a thirty year period for General Electric stock

As a good example for application of our Price-Lag Curve Theory to stocks, we have chosen the thirty year historical price of General Electric. Here is its graph showing not only its price $P(t)$ and Lag-Curve but also its B and S alerts and, most importantly, its crossover points-



Although GE has been in a long term decline due to poor management after Jack Welch, returns following the price-lag-curve theory have been excellent. From the graph one should have been long from 1991-2000, 2003-2008, and 2009-2017. Short over the intervals 2001-2003, 2008-2010, and 2017-2021. At the moment a buy signal is being given. I however, do not plan to participate in this since the future of GE no longer looks very promising to me despite of their successful jet engine business. I certainly have been having trouble with their appliances over the past decade having required extensive repair on our home GE refrigerator, dishwasher, and glass top stove.

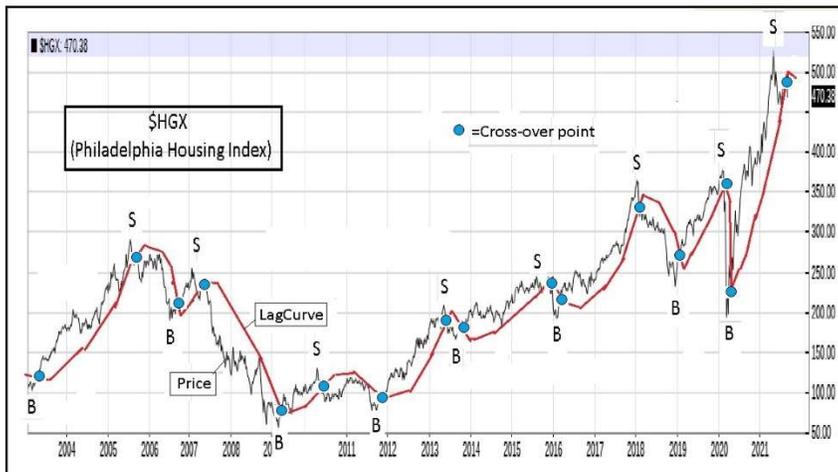
(3)-Applying the Price-Lag Curve approach to the Exchange Traded Fund SPY

A safer way to deal with stocks is to employ a stock fund typically containing hundreds of stocks. A good example of such a fund is SPY which mimics the S&P500 Index and is easy to trade because of its large daily volume. Here is a 24 year window for SPY showing the buy and sell alerts followed by cross over points-

We see at the moment that Brent Oil is a buy having already risen by over a factor of two from last year. The next expected signal will be an S. Until this occurs one should hold this commodity long. Note that the previous B alerts all were able to yield good returns provided one got out in time when an S alert first occurred.

(5)-Buy B and sell S Signals for US Home Prices via the $P(t)-\lambda()$ Approach

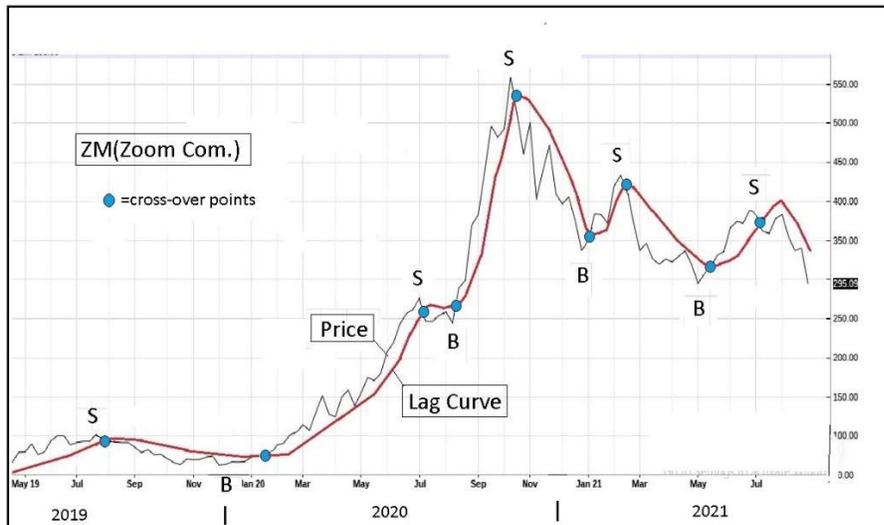
As another demonstration of the value of our Price-LagCurve Theory, we look at real estate and in particular the Philadelphia Housing Index designated by bacharts.com as \$HGX. It also gives a good measure of the overall US housing market given by the less volatile Case-Shiller Index. Here follows a twenty year price history of \$HGX-



We see that housing had a major peak in 2005 and again this year in 2021. The index has risen a factor of 2.5 since last year and is due for a major correction. I would not be long the \$HGX Index at the moment.

(6)-Use of the $P-\lambda$ Method to protect against large losses in what appear to be good stocks

One of the most difficult transactions that one needs to make using the present theory is to sell a good stock when an S alert is given and a cross-over point is reached. Most people cannot bring themselves to do this. They rather prefer to double down by buying more of the same stock. This dollar averaging works fine if eventually things go back above the old high price. However, there is no guarantee that this will happen leading to the possibility of large losses in time. Similarly there is a tendency for investors to not believe a new buy alert after a long drop in a previous bear phase. I give you here a good example of dealing with buy and sell alerts for which is believed to be a good stock. The stock is ZOOM (symbol ZM). Here is its price history extending over three years-



I first learned about ZOOM during a weekly lunch get-together with colleagues in early 2020. The idea behind the stock is that the company allows individuals throughout the world to hold secure electronic meetings requiring only a camera mounted office or home computer. One of our lunch participants even suggested we use ZOOM to replace our weekly lunch meetings because of the upcoming Covid epidemic. I sort of poured water on this idea by recognizing that ZM would charge us more than the tips given to our waitress. The method nevertheless has become very popular for business meetings. The steep rise in stock price in late 2020 confirms this point. Now the question which arises is what should someone do if he bought shares at \$540 before reaching the high point of \$560?. The answer is to sell according the present method. Had he not, the next buy point would have been at \$350 some 200 points lower. At the latest price of \$300 the loss from 500 to now would have been \$200/share. Clearly ZM is a good stock but the price trend in 2021 would indicate otherwise. The drop clearly has been motivated by expected upcoming competition with other vendors. This will reduce the profit margins for ZM in the future.

Summary:

We have shown how one can use the price history $P(t)$ of any tradable equity versus its Lag Curve $\lambda(t)$ to indicate when one should be long or short the equity in question. We typically only participate in the long portion of the signal where $P(t) > \lambda(t)$, staying in money funds during bear phases where $P(t) < \lambda(t)$. The returns on this method have been quite profitable over the years with no large losses occurring.

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