OPINION

These formulas provide a shortcut approach to value investing

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SPECIAL TO THE GLOBE AND MAIL
PUBLISHED YESTERDAY

Value investing is about stock picking: how to find and buy stocks that trade significantly below intrinsic value. By following a process to identify truly undervalued assets, a value investor wants to buy a stock that is worth $1 for 50 cents.

Value investors believe that prices diverge significantly from value in the short run. If they buy stocks that trade significantly below intrinsic value, and are patient and wait for markets to approach intrinsic value, they will make money.

It is human nature and conflicts of interest by professionals that move prices away from fundamentals in the short run. A requirement, however, for investors to make money is for stock prices to eventually approach fundamental value, which means that in the long run, markets must price stocks efficiently.

Value investing involves a three-step process. In the first step, value investors try to identify stocks that look like they are undervalued.

Some (such as Ben Graham) focus on obscure equities (small cap and those with low analyst coverage) and undesirable stocks (low price to earnings, low price to book). Others (such as Warren Buffett) focus on stocks that have barriers to entry and sustainability. This step enables them to reduce the sample of stocks they will examine in depth later and to make sure that these stocks have desirable characteristics.

However, a low price-to-earnings stock is potentially undervalued, not truly undervalued. This is because a stock can have a low PE simply because it is a bad stock.

How do value investors separate the good low PE stocks from the bad low PE stocks? This is determined in the second step, where they value these stocks in depth to determine their intrinsic value – which entails in-depth, firm specific, bottom up, fundamental analysis and due diligence.

In the last step, they make a decision to buy only the stocks that are truly undervalued: that is, those that meet a predetermined margin of safety. Value investors consider a stock to be truly so and worth buying if it trades at a price considerably below – nowadays at one-third of – intrinsic value.

So the most important step in the value investing process is that of valuation. Good quality accounting information and consistently presented financials are key to good valuations.

But this step is a very time-consuming exercise and requires a certain level of expertise in accounting and finance. Consequently, some academic researchers have devised further screenings (instead of in-depth valuation) based on historical financial ratios and/or other metrics to separate good companies from the bad ones.

They call this "formula investing." The most popular types of this approach are the following:

1. Piotroski F-score

The F-score is based on the sum of nine binary signals obtained from financial ratios and/or metrics that enables one to separate the good from the bad low price-to-book stocks.

2. Magic Formula

The Magic Formula is based on the earnings yield (measuring relative cheapness) and return on capital (measuring operational efficiency). This formula identifies good quality companies that can be bought cheap.

3. Acquirer's Multiple

The Acquirer's Multiple is the only formula that is based on only one signal, calculated as the ratio of the company's enterprise value to its operating earnings. It is the inverse of the previously discussed earnings yield.

4. Conservative Formula

The Conservative Formula is based on three market anomalies: low volatility, momentum and net payout yield (the sum of dividend yield and share buyback). Unlike the previous formulas, this formula does not rely on accounting data. These three anomalies are combined into one score. Low volatility, higher momentum and higher net payout stocks are those related to positive signals, meaning leading to highest potential stock returns.

Which formula works the best? Researchers Marcel Schwartz and Matthias Hanauer at the Technical University of Munich in a recent paper examined the formulas using US stock data from NYSE, NYSE MKT (formerly AMEX) and NASDAQ between 1963 and 2022 in detail. (The paper also goes into more detail on what goes into all those formulas.)

The research conclusions: All formulas exhibit predictive power and produce market outperformance by providing exposure to value (Mr. Graham) and quality (Mr. Buffett) factors. But no formula dominates in all economic environments.

The Magic Formula and the Conservative Formula are most effective in the post-2000 period. The former formula provides strong relative performance with moderate risk. The latter formula yields the highest risk adjusted return with the lowest maximum drawdown and low volatility. It is the most defensive approach of the four.

So with formula investing, investors can use a shortcut approach to value investing that circumvents the rigorous step of valuation, providing equally impressive results without the need of high-level accounting and finance knowledge.

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