

Understanding investor psychology seems to be a common thread that connects successful investors

THE REFLEXIVE RELATIONSHIP OF MARKET VARIABLES

The stock market is the story of cycles and of the human behavior that is responsible for overreactions in both directions.

- Seth Klarman

In the last two editions of 'The Stoic Investor', we explored how narratives impact decision making and how we, as human beings, have a comfort in being with the crowd. Herding leads to break down of the diversity in market, which is essential for efficient price discovery, and leads to markets undergoing the boom-bust cycle.

We add another concept in this framework today to create a model of market trends. George Soros has explained a concept called 'Reflexivity' in his book "The Alchemy of Finance" published in 1987. I came across this book during my B-school days and I confess I had a hard time grasping the profundity of the idea. I lacked the firsthand investment experience to fathom its importance. In my second attempt (after a few years as security analyst), I gained better perspective of the model with the help of behavioral finance. In fact, understanding investor psychology seems to be a common thread that connects successful investors. The **Behavioral Edge** ([read more about the different investing edges here](#)) is evident as we go through this rudimentary yet effective market model.

Soros' concept of reflexivity is at loggerheads with the theory of efficient markets. He has often mentioned that if the markets were efficient, his investment career would not have been so successful. In his words, "I am not well qualified to criticize the theory of rational expectations and the efficient market hypothesis because as a market participant I considered them so unrealistic that I never bothered to study them?"

THE CONCEPT - REFLEXIVITY

One of the most important differences between the efficient market hypothesis and the model put forth by Soros is about how each of them treat the investor biases. While efficient market hypothesis goes to great lengths to avoid its influence, Soros makes investor biases an important part of the analysis. He introduces 'Prevailing Bias' as a residual bias left after many individual biases negate each other. As diversity of views breaks, the market carries a dominant sentiment which is reflected in the prevailing bias. A positive prevailing bias is, hence, positive for the stock prices and a negative prevailing bias is negative for the stock prices.

Another important difference is the role of stock prices in determining the future of the underlying companies. Most of the economic models assume only a one-way influence - the fundamentals of the company are reflected in its stock price. The possibility of stock price affecting company's fortunes is not considered. Stock prices influence many important decisions about the company's future like in mergers, acquisitions, going public, going private, share issuances buybacks et.



al. Stock prices also influence company's credit ratings, public image, consumer confidence, management credibility etc. Soros defines Reflexivity as this two-way relationship between the variables: prevailing bias, stock prices and company fundamentals.

The stock price is a composite of the prevailing bias and fundamentals. Change in fundamentals affects prevailing bias, which in turn, influences the company fundamentals through stock price movement. Let's take the example of a Non-Banking Finance Company (NBFC). If the NBFC enjoys good valuations in the stock market, its ability to raise money at a low cost to fuel the growth in its loan book improves. Also, the ability to raise equity at a high valuation, enhances capital and reserves, thus creating a strong balance sheet. The credit rating of the company improves providing it with low cost borrowings. The general good reputation attracts depositors pushing the cost of funds further down. This company now enjoys good spreads without lending into the risky areas of the economy and keep its asset quality strong.

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THE WORKING OF THE BOOM BUST MODEL

I have simplified the model presented in the book with small modifications for better understanding of the creation of the boom-bust cycle. Let's begin with the fundamental trend not yet being recognized by the market and the prevailing bias being negative. When the market participants see the improvement in fundamentals, there is a change in perception and stock price moves up. The rising stock price has some impact on the fundamentals and there is a beginning of a self-reinforcing process. The stock trend will also raise expectation of further acceleration (confirmation bias). A positive bias develops to provide a further improvement in fundamentals. The reflexive process leads to a positive momentum on the upside.

At some point in time, the rising stock price and high expectations represented in the prevailing bias become vulnerable to disappointment. Eventually, the trend does not sustain and the correction sets in. If the fundamentals had become too dependent on the stock price, the correction would turn into total reversal. In that case, stock price falls, fundamentals trend is reversed, and expectations fall even further. A self-reinforcing trend begins on the downside. Eventually the downturn also reaches the climax and reverses itself.

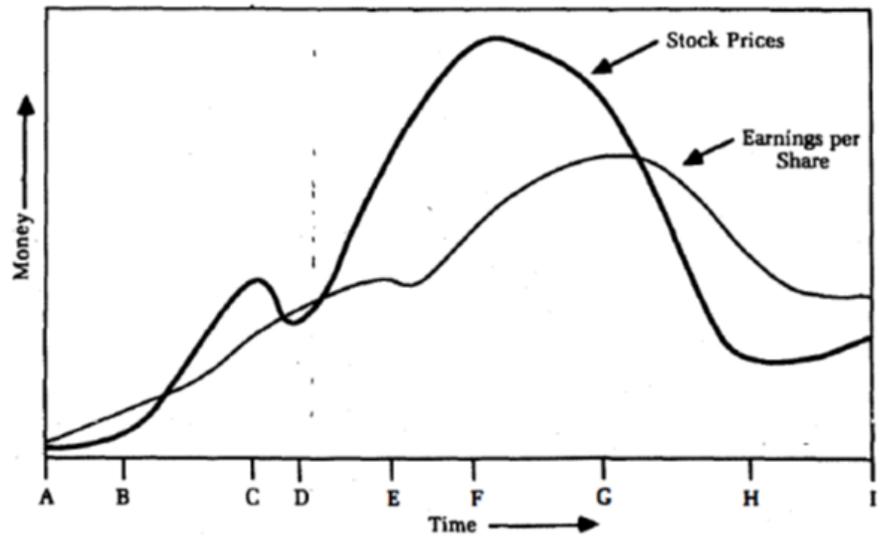
It (Reflexivity Model) also makes the investor conscious that the intrinsic value of the company is not a static number; it does get influenced by market conditions

GRAPHICAL REPRESENTATION

The graph below uses stock prices and the earnings per share (representing Fundamentals) to explain the concept of reflexivity. The divergence between the EPS curve and the stock price is the prevailing bias. The typical path of the two curves may be as follows: at first the recognition of the fundamental trend is lagging but it manifests itself in EPS (A-B). When the EPS trend is recognized, it is reinforced by higher expectations. Doubts arise but the trend survives (C-D). Eventually, a strong conviction develops in the market and the positive bias ignores small changes in the EPS trend (D-E). Eventually, expectations become excessive and are not supported by reality (E-F). Expectations are lowered and the stock prices plunge (F-G). The fundamental trend reverses and the self-reinforcing process pushes downwards. Eventually the pessimism is overdone, and market stabilizes.

Whether an investor chooses to ride the herd through momentum investing or go against the herd through contrarian investing strategies, knowing the position in the cycle would definitely improve investment outcomes

Reflexivity in the Stock Market



UNDERSTANDING THE BOOM-BUST CYCLE

The reflexivity model shows how fundamentals and biases interact to create cycles in stock prices. It can act as a good guidepost to indicate to investors what stage of the cycle the market is in. It also makes the investor conscious that the intrinsic value of the company is not a static number; it does get influenced by market conditions.

A good understanding of this model will work as a valuable addition to the toolkit of a smart investor. In fact, whether the investor chooses to ride the herd through momentum investing or go against the herd through contrarian investing strategies, knowing the position in the cycle would definitely improve investment outcomes.

Soros attributes his investing success to the reflexivity model. He also advises other investors to use this framework: *“Investors operate with limited funds and limited intelligence: they do not know everything. As long as they understand something better than the others, they have an edge”*.



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ABOUT STOIC INVESTOR:

The word "Stoic" is used to describe someone who remains calm under pressure and avoids emotional extremes. For the purpose of this newsletter we refer to the "Stoic investor" as an investor who is realist (avoiding extreme optimism and extreme pessimism), resilient (withstand difficult conditions) and rational (who acts with logic and reason).

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