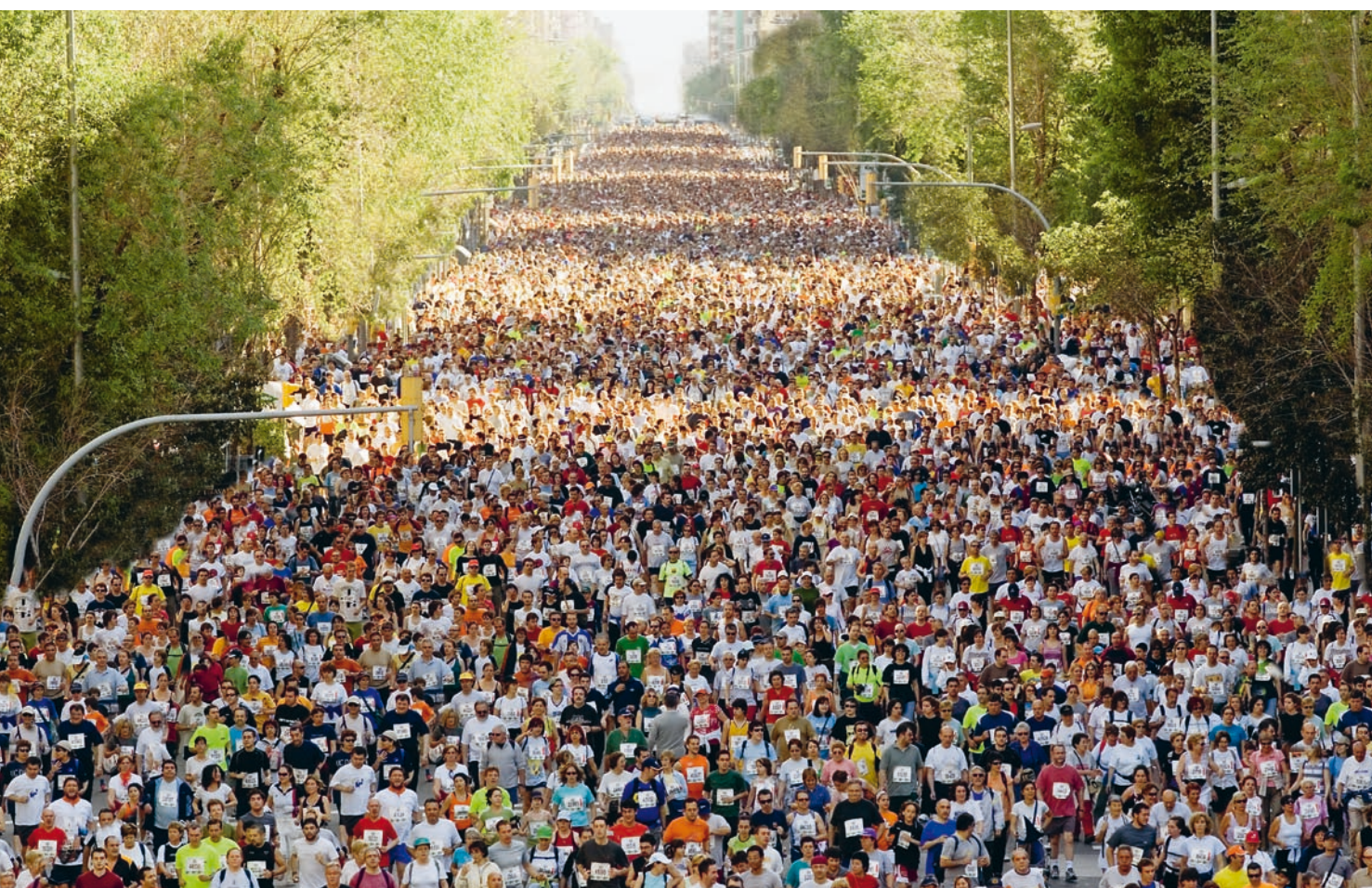


A world of biases and anomalies

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The times when markets were supposed to be efficient and the investors rational are definitely gone. Luckily for the investors, the relatively new field of Behavioural Finance is well suited to improve the quality of client advice and to generate superior returns.



*Go with the flow:
A procyclical strategy
is one of many
behavioural biases.*

Behavioural Finance studies the behaviour of investors and of markets. As simple as this sounds, it is remarkable that before Behavioural Finance came into play, finance focussed on models in which investors are completely rational and markets are always efficient. Those models seemed to be appropriate for the fifty rather calm years that financial markets had seen after World War II. But, as a by-product of the dotcom bubble it became evident that complete rationality and market efficiency are not sufficient to understand financial markets. The dotcom

bubble burst from March 2000 to March 2003 and in 2002 Daniel Kahneman and Vernon Smith, two founding fathers of Behavioural Finance, were awarded the Nobel Prize in economics. Now after the second large bubble of this century has burst this evidence has become so overwhelming that the general public is much interested to learn from these new insights. Behavioural Finance has two main areas: behavioural biases and market anomalies. The former studies the typical mistakes investors make and then it develops methods to avoid them. The latter studies the ineffi-

ciencies of markets and shows how one can design active strategies exploiting them.

Behavioural biases

A behavioural bias is a departure from rational behaviour. This means in practise that an investor should know his assets and liabilities, determine his goals and then assess (and update) the chances and risks of various investment opportunities. Moreover, future payoffs from assets should be discounted to present values by the interest rates of the various time horizons. Suppose, for example, the investor has 1 million CHF out of which he needs 0.5 million CHF for the education of his children. His goal is realistic relative to the current market situation. He wants to achieve a return of 2 percent p.a. over the next 10 years but in no case wants to lose that much that he can no longer afford to pay for the education of his children. He first sets aside 0.5 million CHF in risk-free asset like inflation protected government bonds of triple A countries. Then he assesses the returns and risks of a large set of risky assets and builds a well diversified portfolio that is expected to achieve 4 percent p.a. over the next 10 years. Along the investment process he does not care so much about the gains and losses his portfolio has made but always updates the chances and risks of all investments he considers and if necessary forms a new portfolio. Most likely however, the market movements are not indicative for him to change his portfolio allocation so that along the ups and downs of the market he just rebalances his asset allocation. I.e. he makes sure that he is always invested in the same asset allocation proportions. Also note that the rational investor does not change the target return.

Value the future more than the present

In the same situation an investor prone to behavioural biases may make the following mistakes. First he may not clearly assess his assets and liabilities neither he may be willing to plan ahead for a decade. This is typically the case if the investor suffers from «hyperbolic discounting», which means that he values the present always much more than the future. He may agree to manage his wealth properly next year but when next year comes he will still postpone the planning for another year. He behaves like a child

which when offered one chocolate bar next week Saturday or two chocolate bars the following Sunday will chose the later option while when it is offered one chocolate bar today or two tomorrow will chose the earlier option. The mistake in this choice arises next week on Saturday. Since then the child wants to reverse its earlier choice and have the one chocolate bar immediately.

Do not trust your experience

The second mistake that a behavioural investor will most likely make is that his target return is formed «adaptively», i.e. it is determined by his recent experience instead of the forward looking interest rate on e.g. government bonds. After a year like 2008 he will be satisfied with not losing any further money while only one year later he shoots for another 20 percent as he had just experienced it due to the quick recovery of financial markets. Moreover, in the course of the investment process the behavioural investor will experience the gains and losses in his portfolio as rewards and punishments that will make him more confident and risk taking when he gains and more concerned and risk avoiding when he loses. As an effect he will most likely change his asset allocation procyclically while the rebalancing rule would imply that he keeps his asset allocation and thus sells those assets that have gained and buys more of those that have lost. The latter would be a countercyclical strategy, which is typical for rational investors with long horizons and infrequent opportunities to alter their asset allocation.

Ignore irrelevant information

Finally, the behavioural investor is typically distracted by the arrival of irrelevant information as we find it in many marketing brochures that are selling glamorous stories instead of solid facts. Hence he might be tempted to make frequent switches in his assets. These are just a few examples from the very long list of behavioural biases that behavioural finance has by now filled. Any investor should keep this list as a check list like he is aware of a long list of diseases he might have when he does not feel well.¹

The fairy tale of the efficient market

An efficient market is composed of rational investors only that behave exactly as de-

¹The following books provide such lists accompanied by the necessary remedies to cure the behavioural biases:
Montier, J. (2007), «Behavioural investing: A practitioner's guide to applying behavioural finance», John Wiley and Sons.
Hens, T. and Bachmann, K. (2008), «Behavioral Finance for Private Banking», Wiley-Finance.

scribed above. As an effect they perfectly diversify their portfolios and they all react instantaneously and correctly to the arrival of new information. The «left-over» of the diversification is the market risk, i.e. the risk that is common to all assets, like business cycle risk for stock markets or inflation risk for bond markets. In the long run stock investments will then track the economic growth and the success of bond investments will be determined by the monetary policy of the central banks. Hence any investor can increase the return of his portfolio only by swallowing more of the market risk. The first point behavioural finance made was that in reality stock markets do track long-term growth, however they do this by being much more volatile than they should be if they really were determined by the interaction of only rational investors. This point is Bob Shillers «excess volatility» that he reports on a monthly basis on his web page in Yale University. Excess volatility implies that investors should be investing even more counter-cyclically than rebalancing would suggest. After a sequence of good stock market years they should decrease the percentage of their stock holdings and after very bad stock markets they should increase that percentage.

If crowds of investors rush in the same direction, they might be fooled by a «good story».

Beware of the term «new era economics»
Severe examples of excess volatility arise during stock market bubbles. These are periods in which investors collectively get fooled

by a good story (e.g. the invention of the railways, the mass production, the internet, or the securitization to mention just a few) and stock prices rock to ever higher levels before they eventually crash. Along stock market bubbles even unsophisticated investors could in principle see that fundamental things are out of line, as for example price-earnings ratios for broad indices increase above 30 or even 40. However, they get fooled because during these times there is a lot of talk about «new era economics», a term that can be found in the media in any of the bubbles just mentioned.

The «new normal» market years

Besides these inefficiencies on the overall market valuation there are interesting inefficiencies that concern the relative valuation of assets or the valuation of individual assets. Certain companies are linked to each other, e.g. through cross holdings. But sometimes it happens that the market seems to ignore these links, so that the valuations of two companies depart from economic parities. This happened for example during the carve out of Palm as a subsidiary of 3Com in 2000 and this also happened more recently in 2008 during the takeover fight of Porsche and Volkswagen. Mispricing of individual assets is also a clear sign of market inefficiencies. A nice example is the stock price of Holcim, a Swiss construction company that moved in accordance to the price of UBS and Credit Suisse during those times Holcim was still named «Holderbank», i.e. «yet another Swiss bank», as the market seemingly believed.

Inefficiencies can also be found in markets for derivatives. Examples are the overpricing of out-of-the-money options relative to in-the-money options or the mispricing of options on market indices relative to the basket of individual options the index is composed of. These mispricing in derivatives markets are today the most successful Hedge Fund strategies. Due to the leading edge knowledge of the researchers in behavioural finance and their close connection to the financial industry we can expect good and stable returns for investors even in the next years which by researchers from traditional finance have already been denoted by «new normal», i.e. periods of minimal returns on stock and bond markets.



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