SMARTER INVESTING BY TRYING TO UNDERSTAND THE MOOD OF MR. MARKET

Valentijn Van Neuwenhuijzen
Chief Strategist and Head of Multi-Asset
NN Investment Partners[1]

1 NN Investment Partners is the asset manager of NN Group N.V., a publicly traded company listed on Euronext Amsterdam. NN Investment Partners is head-quartered in The Hague, The Netherlands. NN Investment Partners in aggregate manages approximately EUR 195 bln/USD 205 bln "Figures as of 31 December 2016" in assets for institutions and individual investors worldwide. NN Investment Partners employs over 1,000 staff and is active in 15 countries across Europe, U.S., Latin America, Asia and Middle East.
NN Investment Partners is part of NN Group N.V., a publicly traded corporation.

The impact of investor sentiment on markets has increased dramatically over the past decade. It is therefore crucial for multi-asset managers to critically analyze market behavior in order to be successful. Big Data and the study of human biases are leading to a deeper understanding of the emotional forces that influence investor behavior. Combining these elements into the investment process creates a robust framework for guarding against common investor pitfalls. Valentijn van Nieuwenhuijzen, Head of Multi Asset at NN Investment Partners, explains how he and his team continuously challenge each other to keep driving their investment process forward.

Adjusting to a new normal

Investors are still adjusting to a "new normal" of record-low interest rates, persistently low growth and inflation, increased political and policy uncertainty, and lower expected returns on savings and investments, amongst others. Contrary to the "irrational exuberance" we saw in the late 1990s, it seems that the near-death experience of the global financial system in 2008/2009 has installed a fair degree of "dread risk" in the minds of investors: an excessive focus on downside risks, which in turn can create its own reality. Such dread risk only wears off slowly and in the meantime risk premiums can be elevated, volatile, and more susceptible to shocks than before 2008. In addition, financial markets have lost some of their fundamental anchors. Massive, price-insensitive asset buying programs of central banks, reduced liquidity in secondary markets, increased usage of ETFs and derivatives, and the rapid gains in speed of information processing and trading activity have increased the impact of investors' emotions on markets.

The importance of analyzing investor behavior

For a multi-asset manager, this means that for making deliberate asset allocation decisions, next to fundamental analysis, the study of market behavior has become more important than ever before. Behavioral factors are just as important as fundamentals as a driver of financial markets, as we have learnt that markets can influence the underlying "rear economy" just as easily as the other way around. This means that these market emotions cannot be ignored. Mapping the mood of the market by finding and assessing signals to understand its behavior allows for differentiation in positioning rather than getting lost in the noise.

In order to assess the possible upside or downside of the market, especially in the light of "risk events" like elections or central bank decisions, it is necessary to have a good understanding of how investors are positioned and whether market trends could be ready for a short-term reversal. Strong consensus overweight positions in a certain market or asset class are usually a contrarian indicator and signal caution. It is particularly important to analyze the exposures of active allocation managers such as other multi-asset funds, macro hedge funds and long-short equity funds. In addition to current positioning, one has to look at the strength of investment flows of both institutional and retail investors to various asset classes and try to assess their persistence. As an increasing amount of money is invested in passive products, the study of ETF flows has grown in importance in this matter.

Mapping the mood of the market by finding and assessing signals to understand its behavior allows for differentiation in positioning rather than getting lost in the noise.

The continuous cycle of technological innovation means that asset managers will have to constantly develop their analysis toolkits, nurture an open-minded team culture, and keep on learning, improving, and adapting if they want to stay on top of their game.

Next to flow and price dynamics, the analysis of observed emotions, or sentiment, of the market is very useful. The desire to measure market sentiment is not new. Investor surveys—like the well-known weekly Bull-Bear survey among US investors or the monthly Bank of America/Merrill Lynch Fund Manager Survey—have been common for many years and provide a good insight in how bullish or bearish investors say they are when asked directly. However, digitalization and the emergence of social media, self-teaching algorithms, and the ability to process large amounts of data, practically in real time, have created an entirely new way to measure sentiment in an indirect manner. These digital news and social media feeds can be converted into sentiment indices such as optimism, fear, joy, or conflict. This provides real-time insight into the sentiment that plays a role in driving markets.

Measuring emotions through analyzing the digital space

One of the innumerable impacts of the internet is the window it provides into the sentiments and beliefs of the world's investors. The influence of what John Maynard Keynes coined "animal spirits" on markets has never been greater than in today's rapidly changing world where opinions, emotions, and information are increasingly shared instantaneously through digital networks that stretch across the globe. This rapid transmission of information adds to the ways in which investor emotions can exert influence on markets. If the resulting market swings create feedback loops strong enough to affect the "real" economy, then self-fulfilling prophecies are created.

The complex nature of markets demands that all available insights are exploited in order to understand the market organism and its interaction with its environment better than the rest of the investment community. None of us will ever fully comprehend how "Mr. Market" really thinks or moves, but a better understanding of his digital footprint will certainly help us better assess his most probable path. One of the latest additions to a fund manager's toolkit is the analysis of news or Big Data from digital channels. This creates the ability to objectively measure emotions, perceptions of uncertainty, and political risk in a high-frequency (daily) and timely manner. Ignoring the intelligence that can be gleaned from these digital channels would be a major oversight, if not perilous, in our view.

Doing this effectively means not only collecting digital news flow data, but also being able to identify where it comes from and understand what it means. Interpreting the data, appreciating the emotions it reflects and identifying any insights these opinions and emotions might actually provide on the future direction of markets are the key challenges to integrating these data into an investment decision-making process.

The spectrum of emotions that can be distilled through digital channels is far broader than that of traditional binary (positive/negative) sentiment indicators. These channels make it possible to decipher emotions along the dimensions of expectations, uncertainty or urgency. This type of information provides additional insight or hints on future market direction that can be derived from more "fundamental" information on corporate earnings or other economic data.

Big Data is an additional, but not to be underestimated, source of return
A good example of how this works in practice occurred in January 2016. The digital media analysis we received on a particular day showed an above-average number of articles on “stress,” “gloom,” and especially “conflict.” Even before the market collapsed, it was possible for investors to cut their equity exposure and extend their cash positions. It turned out to be just in time: the world’s equity markets subsequently collapsed, with the S&P 500 equity index falling nearly 5% in the following few days.

This example shows that big data can be very helpful, but it remains a complementary source of information rather than the only one. Our research shows it adds between 10 and 20 percent informative value to final decisions. But there can be no doubt that in a world in which a rapidly increasing amount of information and emotions is shared through digital channels, it is essential to tap into the networks of financially-oriented news platforms, blogs, and social media to understand how the broad economic and financial mindset is evolving.

Embedding this digital news flow into our decision-making process is one of our most important innovations that has helped us to adapt to a changing investment landscape. At NN Investment Partners we use robust statistical methods to assess whether the data inputs we are receiving have informational content that can be used in the construction of the toolkit that supports our investment decisions. The structure of this toolkit allows for a great variety of input signals, both fundamentally and behavioral-based, and we believe that the behavioral elements can be just as accurately assessed for their predictive value as any other. The toolkit makes use of digital news and social media feeds, converted into indices through text analytic techniques, to capture real time sentiment within different segments of the asset markets.

What we are seeing today is a difference in the nature or degree of the approach adopted.

"Assisted" manager or "augmented" manager

Even though the use of artificial intelligence in asset management is now mostly of an exploratory nature, many management companies are examining the capacities offered by data mining, knowledge engineering, semantic analysis or even the combination of pragmatic artificial intelligence applications.

What we are seeing today is a difference in the nature or degree of the approach adopted.

The first steps in the process, therefore, seek to add a supplementary layer of information by scanning networks for relevant and fresh data, so as to fully understand the market trend and respond to it. The approach may be two-dimensional, which is to say both macro (by analyzing the declarations of economic decision-makers for example) and micro (by consulting the latest developments for the companies monitored and their competitors).

A further goal could also be pursued. It involves expanding the investment universe or the perimeter of signals observed.

Looking at the macro angle, for example, this would involve identifying unofficial leading indicators for economic aggregates (inflation, economic growth), through the analysis of consumer trends for supermarkets or global freight.

The calculators should be sufficiently powerful to extend the scope of the buy-side analysis conducted by the management company's internal teams, ranging from a regional to a global dimension.

Added to the computing power of current applications are the corrections that can be effected in relation to the bounded rationality of the human brain. Numerous university studies have documented what is evident: algorithm predictions systematically beat the predictions of human experts. Our minds need algorithms to unbias our judgements and decisions. However, it is the "human, machine, process" association that determines the organization of strategic and tactical choices.

Pascal Koenig
Partner in Consulting and Advisory at Deloitte.

Implementing behavioral analysis into the decision-making process

Individual asset managers will give greater or lesser weight to big data analysis. In our view, the best approach is to base a top-down multi-asset strategy on a combination of fundamental and behavioral analyses. Along with an assessment on macro and corporate fundamentals, this provides an understanding of investor emotions, which is indispensable for maximizing investment performance and making better-informed investment decisions.

An essential point is of course how to combine the model inputs with the fundamental research and insights of strategists, economists, and portfolio managers to come to a coherent view on the markets. In other words: combining the best of man and machine.

The construction of our proprietary toolkit provides a framework for assessing markets, essentially the machine inputs that are then used by our strategists and portfolio managers to meld, with their own research and insights, into a coherent view on financial markets. One of the benefits of this approach is that it helps to protect against the known behavioral pitfalls of investors, such as the underestimation of risk and overestimation of returns, but also fear and loss aversion. The use of human judgement, which is still better able to assess the consequences of geopolitical events, shifting political alliances, changes in corporate governance, and central bank policy, alongside the use of data-derived signals that protect against known human biases, enables the manager to make better balanced decisions.

Moreover, the data help to continuously improve the accuracy of the forecasting process. In other words, the data will not replace human insight, but augment the ability of multi-asset managers to make the right judgments in the ever-changing world of financial markets.

This is not the end of the story of course. Big Data and artificial intelligence are currently hot topics, yet it is quite possible that our next round of innovation will be driven by something completely different. The continuous cycle of technological innovation means that asset managers will have to constantly develop their analysis toolkits, nurture an open-minded team culture, and keep on learning, improving, and adapting if they want to stay on top of their game.

An essential point is of course how to combine the model inputs with the fundamental research and insights of strategists, economists, and portfolio managers to come to a coherent view on the markets. In other words: combining the best of man and machine.

To the point:

- The impact of investor sentiment on markets has increased dramatically over the past decade.
- For an investment manager it is therefore crucial to critically analyze market behavior and to implement this in his investment process.
- Big Data and the study of human biases are leading to a deeper understanding of the emotional forces that influence investor behavior.
- Combining these elements into the investment process creates a robust framework for guarding against common investor pitfalls.