Outlook for Financial Markets

Market sentiment & the benefits of contrarian thinking

"All models are wrong, but some are useful."
– George Box

The quote above from the famous statistician, George Box, is worth remembering as we refresh another component of our U.S. equities tactical model – the Sentiment Metric. Financial markets and their participants are too complex to allow for a single model to give perfect direction in all possible market environments. Nonetheless, if constructed rigorously, models can provide guidance on the likely distribution of outcomes which can vary considerably based on different conditions. This guidance, while not guaranteeing a particular outcome, is helpful in determining tactical positioning.

Market sentiment, or psychology, is a particularly slippery topic. It is generally interpreted in a contrarian manner – that is, when sentiment is "too low" the environment may tend toward excessive pessimism, extreme selling pressure, and overdone downside momentum that should ultimately stall out and reverse course. Sentiment that is "too high" may indicate froth and exuberance beyond what fundamentals can justify, and which is likely to be associated with a market top or impending correction.

As these broad and somewhat vague descriptions suggest, sentiment is difficult to pin down. Indicators that point toward sentiment being too low or too high in the equity market are often inconsistent across time, have fickle thresholds, or provide only very short-term signals. Two of the most prominent academic studies in this area[1] examine the same set of sentiment indicators, but get differing results for most of the indicators studied. Our own sentiment model builds off these prior studies and also incorporates additional elements that provide guidance on the distribution of market outcomes. Admittedly, the model cannot

[1] "Investor Sentiment and the Cross-Section of Stock Returns," Baker, M., and Wurgler, J., The Journal of Finance, August 2006, Vol. 61(4), p.1645-1680; and "Investor Sentiment Aligned: A Powerful Predictor of Stock Returns," Huang, D., Jiang, F., Tu, J, and Zhou, G., The Review of Financial Studies, Vol. 28(3), p. 791-837.

Executive Summary

Our refreshed Sentiment Metric, while not infallible, provides guidance on the likely distribution of stock market outcomes over the next 12 months

While bullish sentiment has clearly increased over the past few months, our research suggests it is still below levels previously associated with market tops.

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capture all of the complex interactions that move markets up or down, but we do believe it is a useful tool to inform our decisions.

Our Sentiment Metric has three underlying components, each treated as a contrarian signal: 1) a measure defined by an average of bullish minus the bearish respondents to the American Association of Individual Investors (AAII, www.aaii.com) survey; 2) an excess sentiment measure that considers the expected change in sentiment when the stock market is treading higher; and 3) a measure capturing historical IPO returns, which have long been positioned as a gauge of market exuberance (i.e. the willingness to embrace what generally tends to be newer, less profitable firms). We analyze these components, both individually and collectively, with respect to the U.S. stock market's return over the subsequent 12-month period to generate a medium-term sentiment reading that coincides with our tactical asset allocation horizon.

Another notable attribute of our model is that it uses different input weights based on whether the stock market is experiencing a downturn or a more positive result over the recent period. This accounts for the fact that many people behave differently in up vs down markets, as "losses loom larger than gains" (Kahneman & Tversky, 1979). We find that conditioning the underlying indicator weights based on the market environment improves the model's predictability.

Table 1 »12-month S&P 500 Returns by Sentiment Metric Ranking

	Rankings				
	1	2	3	4	5
Mean	16.6%	9.8%	7.8%	5.7%	-10.8%
Median	18.7%	14.4%	10.8%	8.3%	-14.3%
Standard Deviation	19.1%	16.5%	13.3%	15.2%	14.6%

Source: BMO Wealth Management Strategy

Table 1 shows the next 12-month stock market returns and volatility of those returns based on the Sentiment Metric's ranking, with "1" being the most positive position. Clearly, the lowest ranking of "5" is associated with deeply negative returns, on average, but this worst ranking is only present about 10% of the time. A modestly negative ranking of "4" is also associated with below average market returns, but still positive. Median returns increase across rankings, with a "1" ranking, which has occurred approximately 20% of the time over the period indicated, providing the best average returns. It is important to note, however, that even "1" or "5" rankings have at times given false signals. We use this Sentiment Metric as one input among several; including the quantitative metrics we have developed for market liquidity, technical conditions, and equity valuation, as well as various economic indicators and qualitative considerations, to guide our overall tactical positioning.

Our present ranking for the Sentiment Metric is a favorable "2," but has been recently inching closer to a more neutral "3" ranking. While bullish sentiment has clearly increased over the past few months, our research suggests it is still below levels previously associated with market tops. This suggests an overall positive environment from a contrarian sentiment perspective on a 12-month forward-looking basis, which supports our favorable view of U.S. equities.

Update on trade negotiations

Both the U.S. and China recently indicated substantial progress in trade negotiations, including sticky issues such as ongoing enforcement. In mid-April, Secretary Mnuchin stated that the two sides are, "close to a final round," and that statement follows President Trump's prediction the week before that a deal could be hammered out in about four weeks. That timeline may be overly aggressive as another top White House trade official emphasized areas where the U.S. is still unsatisfied, and it remains to be determined how to handle existing tariffs that the two sides have already levied. While the terms and timing of the final deal remain uncertain, clearly the market has priced in a relatively positive outcome. It's still quite possible that the final deal, while beneficial to the U.S. and helping to reduce corporate uncertainty, has a wart or two that prevents the final announcement from lighting yet another fire under the equity markets.

Even as the U.S. and China seem to be nearing the final round, it's possible that the U.S. may not skip a beat in working down the list of major trading partners. On April 9th, President Trump threatened tariffs on $11 billion worth of European imports in retaliation for European subsidies to Airbus (the WTO found the EU guilty of subsidizing Airbus and the U.S. guilty of subsidizing Boeing). It remains to be seen whether that threat is an opening salvo on a broader EU trade front. President Trump has previously threatened the EU with tariffs on imported automobiles and auto parts, but it is possible that his campaign trail strategy wants to avoid the market volatility and economic slowdown that another trade war could entail.

The White House has been sitting on the "Section 232" report from the Commerce Department since mid-February that assesses whether auto imports constitute a national security threat. While the Trump administration has so far kept the contents hush-hush, our suspicion is that the report has likely found these auto imports to be a national security threat. If so, the clock is ticking for the President to decide whether to continue working down the list of major trading partners. Headline risk around trade, particularly relating to the EU and Japan, remains.

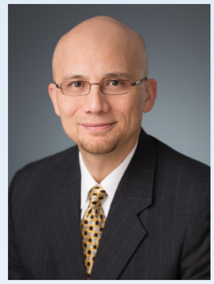
Michael Stritch, CFA®
Chief Investment Officer &
National Head of Investments
BMO Wealth Management - U.S.

Yung-Yu Ma, Ph.D.
Chief Investment Strategist
BMO Wealth Management - U.S.

Michael Stritch, CFA®
Chief Investment Officer & National Head of Investments BMO Wealth Management - U.S.

As Chief Investment Officer and National Head of the Investment team, Michael chairs the Personal Asset Management Committee and is responsible for setting investment policy and strategy for our clients throughout the United States. He joined BMO Wealth Management in 2013 as a Managing Director of Investments for our Ultra High Net Worth group, and became National Head of Investments in 2015. In January 2018, Michael took over the role of Chief Investment Officer. With close to two decades of experience in money management, Michael has a deep background in economic analysis, portfolio construction and risk management.

Michael earned a BA in economics from Northwestern University and an MBA with distinction in finance and decision sciences from the J.L. Kellogg Graduate School of Management at Northwestern University in Evanston, Illinois. He is a member of the Beta Gamma Sigma International Honor Society, holds a Chartered Financial Analyst designation, and is a member of the CFA Institute, CFA Society of Chicago, and the Chicago Quantitative Alliance. He is also a graduate of the American Bankers Association – National Trust School.



Yung-Yu Ma, Ph.D.
Chief Investment Strategist BMO Wealth Management - U.S.

As Chief Investment Strategist, Yung-Yu is responsible for performing macroeconomic analysis, valuation modeling and market analysis across asset classes to guide strategic and tactical asset allocations for client portfolios.

Prior to joining BMO Wealth Management, Yung-Yu was a finance professor at Lehigh University, where he taught courses in fixed income, equities and derivatives. His academic studies have been cited in the *Wall Street Journal*, in leading finance journals, top law journals, the *Handbook of High Frequency Trading*, and in *Oxford Handbook of Corporate Governance*. During his tenure at Lehigh, he was awarded the Staub Outstanding Teacher Award, awarded to one faculty member by a vote of faculty and students. Prior to his academic career, Yung-Yu worked for a global consulting firm performing financial and market analysis for global companies with operations in Hong Kong, Taiwan and Mainland China. Later, he oversaw the operations at a Fortune 500 subsidiary in Taipei and Mainland China.

Dr. Ma earned his Ph.D. in Finance at the University of Utah and his B.A. in Economics and Political Science, *magna cum laude*, at Williams College.

Yung-Yu lives in Portland, Oregon with his wife and two children. He is a basketball fan and enjoys cheering on his children's teams.

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BMO Wealth Management

Corporate Office: 111 W. Monroe Street, Chicago, IL 60603

C-11# 8465750
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