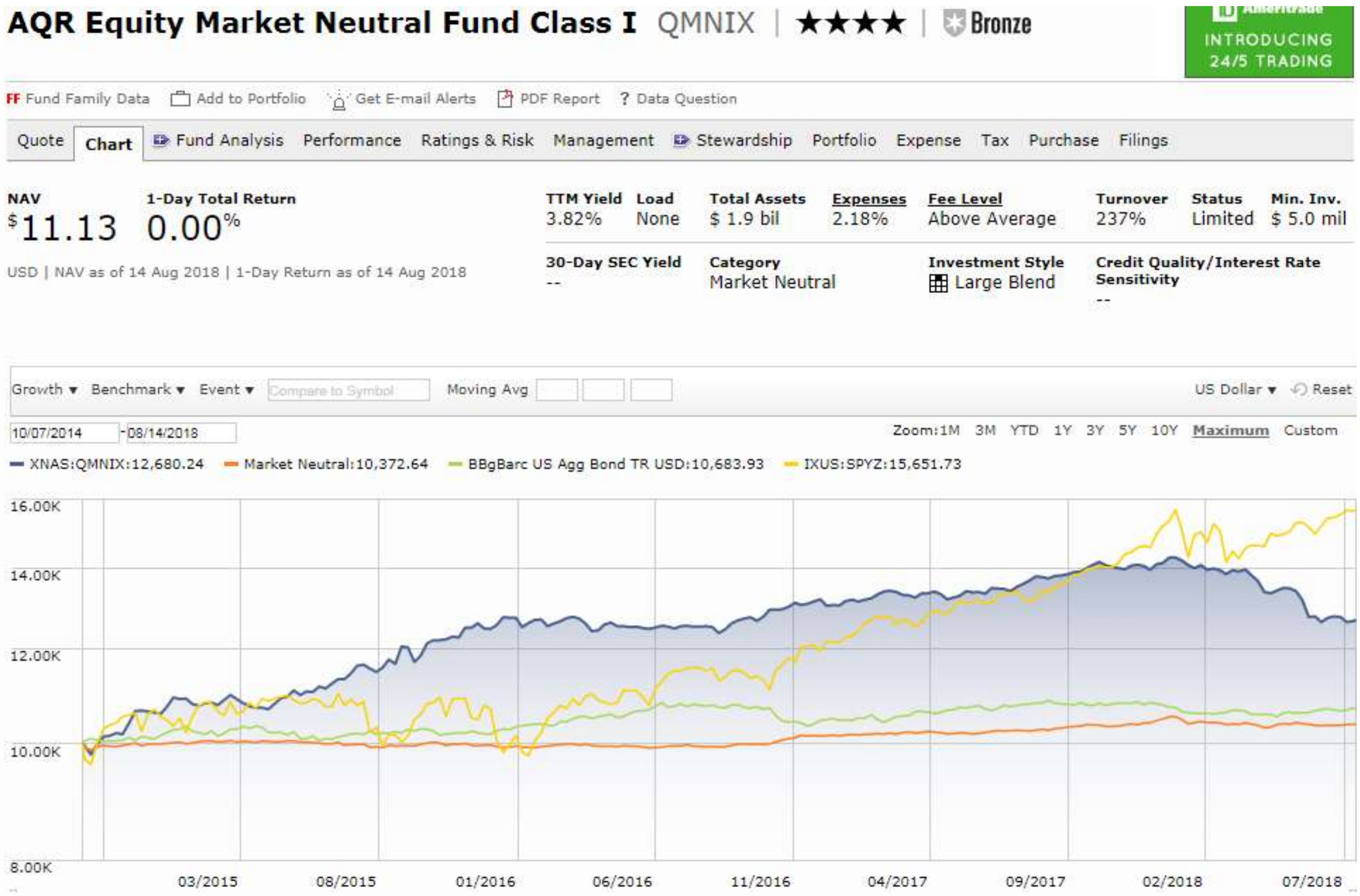
Morningstar's updated analysis of QMNIX

Received the following email yesterday from a client: "Not loving this QMNIX. Are you anticipating growth on this or should we get out of foreign?" We addressed what was happening to QMNIX on 7/13/18 in "Morningstar's current view on Long-Short and Market-Neutral Funds (inc. QMNIX)". As we have previously shared, QMNIX's underperformance has resulted from its Long-Short U.S. exposure to the Value Factor, not its foreign positions. Subsequent to that analysis, Morningstar's analyst for QMNIX updated her view, which we provide below. For comparison, we have added the S&P 500 (yellow line) to Morningstar's chart:



AQR applies its systematic approach to a market-neutral fund.

by Patricia Oey
07/24/2018

AQR has built a robust systematic stock-selection process that seeks to capture excess returns from well-established risk factors as well as proprietary datasets, complemented with efficient implementation. A seasoned and highly credentialed team and Positive Parent rating drive our Morningstar Analyst Rating of Bronze for AQR Equity Market Neutral.

The stock-selection process employs a quantitative model to rank developed-markets equities using well-established factors such as value and momentum, and more-proprietary factors, such as those that seek to quantify investor sentiment, which may use a metric such as the change in the percentage of shares shorted. The model employs hundreds of signals, and the resulting portfolio is diversified across countries, sectors, and factors. High-ranking stocks are held in a long portfolio, low-ranking stocks are sold short, and the portfolio is structured to be market (beta) neutral. The investment team employs a rigorous process to ensure the signals continue to be effective, as well as test new signals and datasets, in an effort to maintain an edge over similar strategies.

Since the fund's 2014 inception through June 2018, its annualized gain of 6.5% far exceeded the market-neutral Morningstar Category average's 1.1% return. The fund does not have an explicit return target but seeks to maintain a 6% volatility. Performance had been fairly consistent, in that quarterly returns were generally positive. With its diversified portfolio, weak performance in one area, such as momentum in 2016, was more than offset by strong performance by the other factors. But the second quarter of 2018 was challenging for value, one of the fund's largest risk allocations at 30% (the other being momentum), and the fund declined 8.5%, the worst performance among market-neutral funds. Investor sentiment signals were also a significant detractor that quarter, and the other factors did not offset these declines. The fund's higher leverage relative to peers further amplified losses. Investors should be prepared for periods of underperformance.

Process Pillar: Positive

This fund's systematic stock-selection process is based on AQR's rigorous research on equity factors, supporting a Positive Process rating.

The portfolio is constructed using AQR's global stock-selection model, which is maintained by Jacques Friedman and a 40-person team. The model scores developed-markets equities using about 200 signals that can be grouped into one of the following categories: valuation, momentum, stability, earnings quality, investor sentiment, and management signaling. The signals include well-known metrics (such as price/book and cash flow/enterprise value for the value factor) and proprietary ideas based on in-house research and lesser-known data sources. In an effort to maintain an edge over similar strategies, the team continuously monitors that the signals are working as expected and researches new signals and datasets.

The model ranks stocks using these signals relative to peers within and across industries and countries. High-ranking stocks are held long, while low-ranking stocks are shorted. These portfolios are structured to create a market-neutral portfolio with the help of an optimizer, which also seeks to minimize transaction costs while maintaining the portfolio's key traits. A portfolio implementation team provides additional support with its research on market liquidity and focus on continuous process improvement.

The portfolio is diversified, with 600-900 holdings on each side. For exposure to these securities, the fund takes long or short positions in individual stocks or uses swaps. The long portfolio tends to be higher-quality and lower-beta relative to the short portfolio, so the fund generally tilts toward the long portfolio, in dollar terms, to achieve a market-neutral positioning. As assets have grown, the fund's average portfolio market cap has trended higher. This bears monitoring, as it may affect future performance.

This fund's use of derivatives enables it to leverage the portfolio beyond the typical 33% restriction for mutual funds. As of June 2018, it had a long exposure of 145% and short exposure of 135%, for a total gross exposure of 280%. Historically, gross exposure has been as high as 390%. The fund's leverage is adjusted to achieve a targeted volatility of 6%.

Leverage is higher than most market-neutral category peers and can be a source of risk. The fund's diversified portfolio (of hundreds of stocks) mitigates the impact of a single stock going the wrong way, but if a group of stocks underperforms, leverage will amplify losses. The fund's counterparties for its derivative transactions are four large global banks. There is always the risk that the bank may not be able to honor these derivative contracts, particularly during periods of market stress.

Performance Pillar: Neutral

A short track record drives a Neutral Performance rating.

Over the three years through June 2018, the fund returned 4.9%, annualized, placing it in the top decile of the market-neutral category, whose average was 1.1%. But much of this trailing performance was driven by the fund's category-topping 2015 performance (its first calendar year) of 17.6%. In the subsequent two calendar years, returns were a little more modest, about 5.8%, but still a top-quintile performance. In 2016, momentum was a large detractor, and in 2017, value was a large detractor, but in both years, the other factors more than offset these declines.

After a short three-year track record of strong outperformance, the fund suffered an outsize loss of 8.5% in the second quarter of 2018, the worst return in the market-neutral category, whose average was a small decline of 0.3%. This decline is notable given the fund's market-neutral positioning. Value was the main detractor in the second quarter, as expensive stocks (which the fund would tend to short) continued to rally. Names with high short interest also rallied, which also contributed to losses as the fund tends to short these names as part of its investor sentiment factor exposure. The fund's other signals were not able to offset the large losses from the value and investor sentiment signals.

People Pillar: Positive

Like most systematic strategies, this fund is team-managed. Jacques Friedman and Andrea Frazzini have been on the roster since the fund's inception in October 2014, and Michele Aghassi and Ronen Israel were added in March 2016 when Lars Nielsen stepped down to become AQR's chief risk officer.

Friedman has been at AQR since its founding in 1998 and is head of the global stock-selection team, a group of about 40 individuals who research and test potential new signals/factors for the stock-selection model. He is a named comanager for the 30 AQR funds that employ this equity model. Prior to AQR, he developed quantitative stock-selection strategies at Goldman Sachs Asset Management, where he worked alongside Cliff Asness and the other AQR founders. Frazzini was an associate professor of finance at the University of Chicago, Aghassi worked at D.E. Shaw as a quant analyst, and Israel worked at Quantitative Financial Strategies. Many of the other senior members of the stock-selection team have doctorate degrees and quantitative investment experience. The team is also supported by a 40-person portfolio implementation team, which is focused on improving portfolio construction and trading.

Manager investment is reasonable; the portfolio managers invest in this fund and other AQR funds that employ the stock-selection model. Overall, this highly credentialed and experienced team earns the fund a Positive People rating.

Parent Pillar: Positive | 07/13/2018

AQR started as a single hedge fund in 1998, entered the mutual fund business in 2009 in the United States, and is now a global operation that manages $225 billion across its vehicles. While the firm is most known for its alternative strategies, it also offers equity funds, and in 2016 it launched its first bond fund. AQR's academic culture drives the quantitative research and the efficient, systematic implementation that defines the firm's investment approach. Thirty-five principals own over 70% of the firm, and the three remaining founding principals have final decision-making authority. AMG has the remaining minority stake, following a recent second round of investment in the firm. All the strategies are team-managed. Manager retention has been 99%, and only one portfolio manager has left the firm. These traits support a Positive Parent rating.

AQR is in a rapid growth phase, particularly outside the U.S. Over the past four years, assets have doubled, as has head count, which now tops 900. To address this growth, AQR has invested significantly in its risk management team, formalized a stand-alone portfolio implementation team in 2017, and has grown its technology team to support these and other initiatives. While growth appears to be well-managed, it does present risks with regard to capacity and future performance in its liquid alternative strategies, arguably the firm's most distinctive offerings.

Price Pillar: Neutral

On average, the fund's share classes are not cheap relative to similarly distributed peers. This fund earns a Neutral Price rating.

About 70% of the fund's assets are in the institutionally distributed shares. The I shares have a prospectus net expense ratio of 1.38%, which is close to its equity alternative (institutional) fee group median of 1.40%. In addition to these fees, the fund has incurred about 0.80% in annual dividend expenses for its short positions in the year ended December 2017, slightly lower than the market-neutral category average of 1.11% ...

The fund closed to new investors as of June 2017.

Our thoughts

Another way to visualize what is happening in the U.S. vs. Foreign Developed Markets is to compare MTUM, which most of our clients hold, to IMTM, which none of our clients hold. As previously shared, MTUM is our favorite Momentum Factor fund. As shown below, this 5-star (Morningstar's highest rating for past performance) ETF has significantly outperformed the S&P 500 (orange line) since inception on 4/16/2013. On 1/13/2015 iShares began offering IMTM, which applies MTUM's Quantitative process to Foreign Developed Markets. As shown below, it has underperformed both the S&P 500 (green line) and MTUM (orange line). This has resulted in IMTM becoming a 2-star ETF, with 140.6 million in Total Assets vs. MTUM's 9.46 billion. So does the Momentum Factor only work in the U.S.? Numerous academic studies have definitively shown otherwise. So what accounts for the significant difference in performance despite the exact same process? The short answer is the dominance of U.S. technology companies. MTUM has a 28.7% exposure to the Technology Sector, while IMTM only holds 14.9%. Provided that Trump's trade wars don't get out of hand, the continued dominance of U.S. tech companies over the foreseeable future is likely, but what is far less likely is the continued outperformance of their stocks. From our 7/13 Worth Sharing:

"For a purely market-neutral strategy (such as AQR Equity Market Neutral (QMNIX)), one would expect a diversified factor-neutral portfolio that is not overly exposed to a single factor’s performance. But the value factor underperformance, which included going long cheap and short expensive stocks, was so extreme that other factor exposures like momentum, investor sentiment, and defensive did little to offset the losses. The value factor overwhelmed results because the fund assumes factors would offset one another and correlations will remain stable over the long haul, but they aren’t always stationary in the short run ....

iShares Edge MSCI USA Momentum Factor ETF MTUM | ★★★★★

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Quote | **Chart** | ETF Analysis | Distributions | Performance | Ratings & Risk | Portfolio | Fees & Expenses | Tax | Ownership | Filings

Last Price $114.11 **Day Change** ↑0.80 | 0.71%

As of Tue 08/14/2018 4:42 PM EST |USD

Intraday Indicative Value $114.07 ↑0.74 | 0.66%

As of Tue 08/14/2018 6:59 PM EST |USD

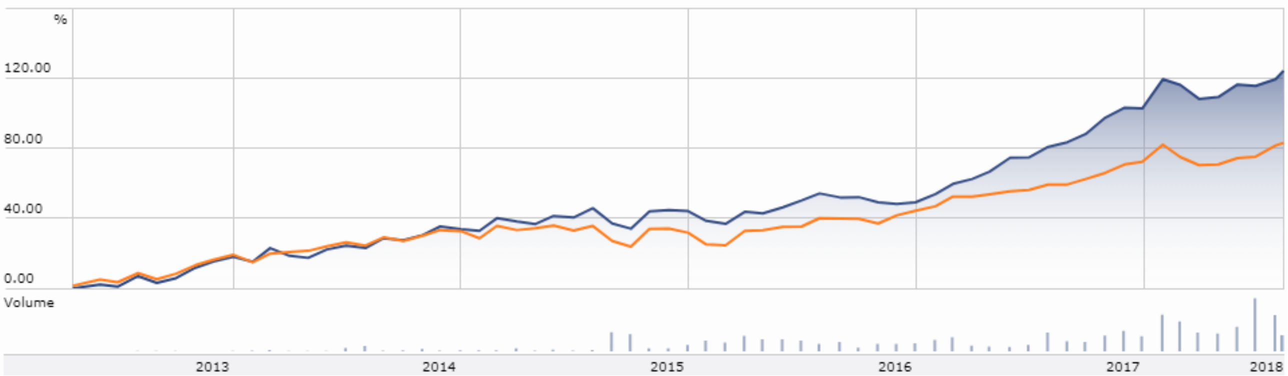
NAV	Open Price	Day Range	52-Week Range	12-Mo. Yield	Total Assets	Expenses
114.08 USD	113.96	113.31-114.20	90.67-115.33	1.06%	9.46 bil USD	0.15%

Prem/Discount	Volume	Avg Vol.	SEC Yield%	Bid/Ask/Spread	Category
0.03%	450026	769,782	1.21	109.56/ 128.00/ 15.52%	Large Growth

Benchmark ▾ Event ▾ Compare to Symbol Simple Moving Avg Reset

04/16/2013 - 08/14/2018 Zoom: 1D 5D 1M 3M YTD 1Y 3Y 5Y 10Y **Maximum** Custom

BATS:MTUM:+63.19|+124.10% IXUS:SPX:+1,287.59|+82.94%



iShares Edge MSCI Intl Momentum Factor ETF IMTM | ★★

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Quote | **Chart** | ETF Analysis | Distributions | Performance | Ratings & Risk | Portfolio | Fees & Expenses | Tax | Ownership | Filings

Last Price $29.30 **Day Change** ↑0.05 | 0.17%

As of Tue 08/14/2018 4:00 PM EST |USD

Intraday Indicative Value $29.22 ↓-0.03 | -0.09%

As of Tue 08/14/2018 4:29 PM EST |USD

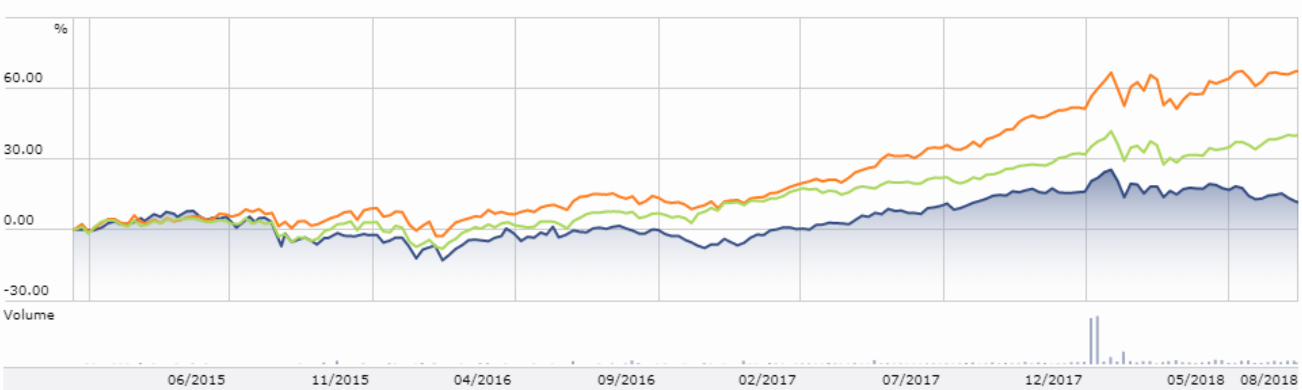
NAV	Open Price	Day Range	52-Week Range	12-Mo. Yield	Total Assets	Expenses
29.29 USD	29.26	29.24-29.37	28.54-33.00	1.98%	140.60 mil USD	0.30%

Prem/Discount	Volume	Avg Vol.	SEC Yield%	Bid/Ask/Spread	Category
0.28%	17405	35,006	1.57	27.46/ 0.00/ -200.00%	Foreign Large Growth

Benchmark ▾ Event ▾ ARCX:MTUM Simple Moving Avg Reset

01/13/2015 - 08/14/2018 Zoom: 1D 5D 1M 3M YTD 1Y 3Y 5Y 10Y **Maximum** Custom

ARCX:IMTM:+3.01|+11.45% ARCX:MTUM:+45.89|+67.27% IXUS:SPX:+811.69|+40.02%



In summary, having a value bias on the long side and shorting high-flying expensive stocks (that rely more on credit markets with little to no free cash flow generation) is a sensible approach, and it should produce good results in the long run. ... This, however, can take some patience to be realized, as results can suffer in the short run when certain factors may not behave as expected. ... we remain confident in the above-referenced funds."

Exhibit 4 breaks down the performance of the S&P 500 with respect to P/E ratio deciles over the first half of 2018.

Exhibit 4

Source: Morningstar Direct.

To repeat one of our favorite quotes, **“If something cannot go on forever, it will stop.”** - economist Herb Stein