RESEARCH SPOTLIGHT

Lost in the Crowd? Identifying and Measuring Crowded Strategies and Trades

The "quant meltdown" of 2007 and the subsequent global financial crisis highlighted the risks of crowded investment strategies. The recent growth of "smart beta" indexes and their use in ETFs has added to concerns about crowding. In this Research Spotlight, we explore the risks posed by crowded strategies and explain how the MSCI Crowding Scorecard enables asset managers to assess these risks as they exist in today's markets. The Scorecard employs four metrics that can help managers understand the risks of overlapping trading strategies, which may not be apparent by focusing on a single metric alone. To read the full white paper, **click here**.

KEY FINDINGS

- Asset managers are increasingly aware of crowding in the investment markets and of the risks associated with it. Many are seeking more reliable ways to assess and understand these risks as markets and investment strategies evolve.
- MSCI has developed a multi-faceted Crowding Scorecard that takes into account both the current patterns of trading activity and their effects on asset pricing.
- The MSCI Crowding Scorecard helps increase the chances of achieving investment outcomes based on fundamentals, rather than on the effects of undetected market crowding.

SEEKING TO CURB RISK, QUANT STRATEGIES CREATE NEW DANGERS

Since the “quant meltdown” of August 2007 and the global financial crisis that followed, there has been increased interest in measuring and monitoring the crowding of assets in identical or similar strategies. The rapid growth of “smart beta” indexes and the rise of ETFs have created the need for an even greater degree of scrutiny.

Subsequent studies of the quant meltdown have shown that losses during that period were exacerbated by several factors:

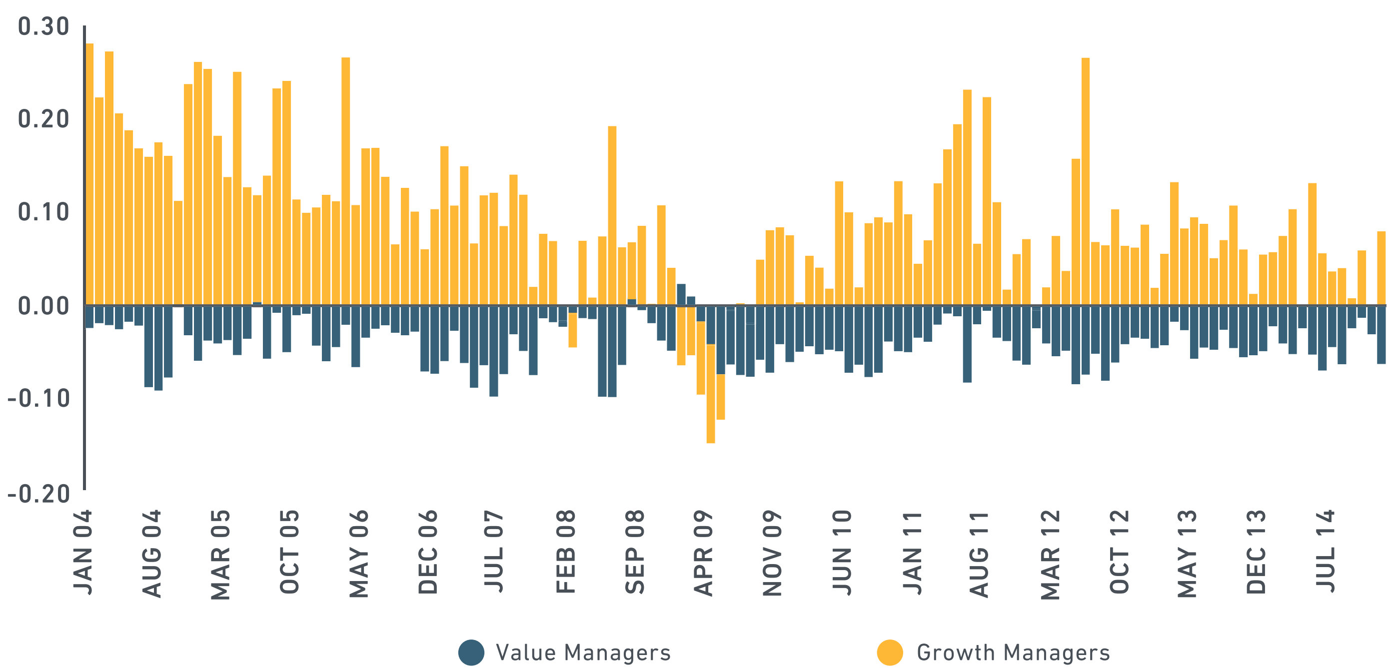
- “Crowded” trading, with a large number of market participants following identical or very similar investment strategies
- “Crowded” positions, as asset managers’ overlapping allocations in many cases came to represent a large portion of a stock’s total market capitalization
- A sudden lack of liquidity caused by large-scale redemptions at the same time as asset values were falling sharply

These factors combined to drive returns down sharply, as investors rushed to exit similar strategies and positions. The sudden bounce-back of U.S. securities during March 2009 resulted in one of the worst-ever historical performances of the Momentum factor (which relates to buying past winners and selling past losers) and Momentum-based investment strategies.

Mutual funds’ exposure to the Momentum factor has varied over time. From 2004-2007, mutual funds were net buyers of Momentum. In 2008, mutual funds became net sellers of the factor, continuing until early 2011. Afterwards, net purchases returned to near their pre-crisis levels in 2011 and 2013.

EXHIBIT 1

TRADING ACTIVITY OF U.S. MUTUAL FUNDS IN MOMENTUM FACTOR



Source: *Barra* US Total Market Model, *Barra* Peer Analytics

THE MSCI CROWDING SCORECARD: MEASURING CROWDING RISK

The MSCI Crowding Scorecard is designed to assess the risk of entering an already crowded trade when choosing an individual stock or implementing the strategies employed to construct a portfolio—either quant strategies or those based on fundamental analysis.

In the case of a portfolio, the first step is the use of a suitable risk model, such as MSCI's U.S. Total Risk Model, which incorporates Systematic Equity Strategy (SES) factors. SES factors represent rules-based equity investment signals that can be implemented systematically.

The MSCI Crowding Scorecard assesses four metrics that, in combination, can help managers understand risks of overlap in their trading strategies that might not be apparent by focusing on one of them in isolation. The first two measure crowding among managers employing strategies with a particular style, as in the case of Value or Growth portfolios, as well as the overlap in the trades of otherwise heterogeneous investors. The third and fourth metrics track the effects of such trading activities on pricing and relative valuations.

EXHIBIT 2

THE MSCI CROWDING SCORECARD COMBINES FOUR METRICS:

MSCI CROWDING SCORECARD

1	MUTUAL FUND TRADING	Aggregated trading activity of U.S. mutual funds and their exposures to factors as calculated using MSCI's Peer Analytics dataset.
2	HEDGE FUND TRADING	Changes in short interest for the bottom- and top-ranked names; the larger the changes in short-interest, the greater the trading activity of hedge funds.
3	PAIR-WISE CORRELATIONS	High pair-wise correlations generally indicate that a factor or strategy is becoming more popular, thus increasing the possibility of crowding.
4	VALUATION DISPERSION	The spread between the average book-to-price ratio (B/P) in the top decile of stocks, ranked by the factor exposure, and that of the average among the bottom-decile stocks.

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WHAT ARE THE CROWDING PRESSURES IN THE MARKET?

The MSCI Crowding Scorecard showed there was a possibility of crowding in the U.S. Momentum factor in late 2014:

- The mutual fund selling of the Momentum factor had stopped in September 2014.
- At the same time, shorting activity had been trending upwards.
- On average, pair-wise correlations among stocks in the top and bottom deciles have risen to levels exceeded only in the 2009 "Momentum Crash" or the earlier "Tech Bubble."
- Valuation spreads between high- and low-momentum stocks are widening and below median.

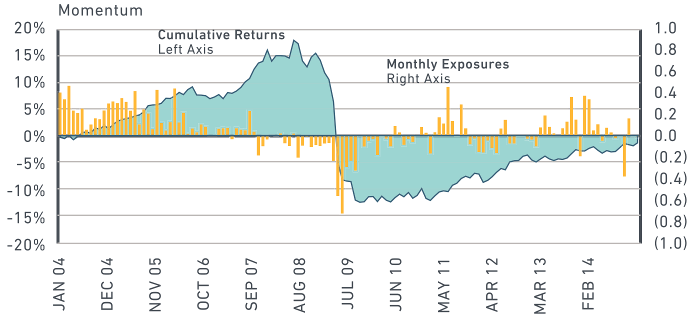
EXHIBIT 3

MSCI CROWDING METRICS FOR THE MOMENTUM FACTOR

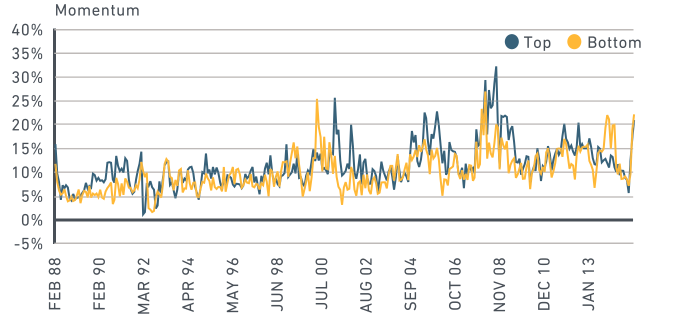
MSCI CROWDING SCORECARD

LOOKING AT MOMENTUM

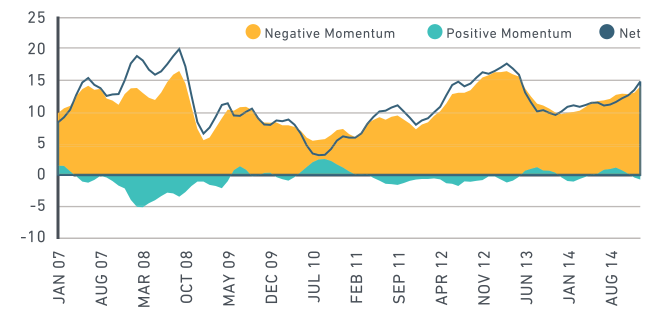
1 US MUTUAL FUND TRADING ACTIVITY
Momentum



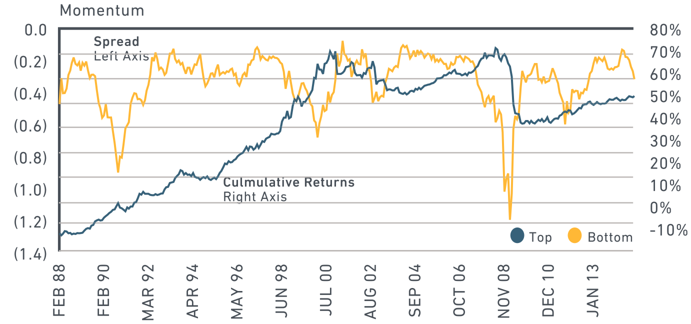
3 AVERAGE PAIRWISE CORRELATIONS
Momentum



2 SHORT INTEREST (in %)



4 VALUATION SPREAD
Momentum



CONCLUSION

Many of today's market participants are aware of the problem of crowded strategies and are now looking for tools that can help them monitor the changing levels of crowding risk. The MSCI Crowding Scorecard is a multi-faceted measuring tool that takes into consideration the current patterns of trading activity and their effects on asset valuations, thus helping investors avoid the consequences of undetected market crowding.

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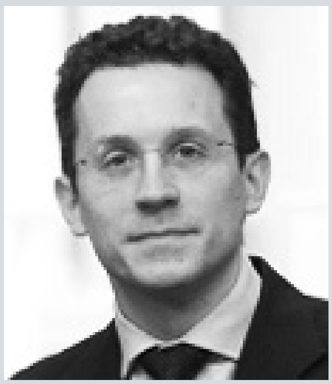

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About MSCI

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