MSCI Factor Crowding Model

The MSCI Factor Crowding Model helps managers gain insight into how the industry is positioned, through the lens of factors.

The growth and popularity of factor investing increases the potential for strategy crowding. If a factor strategy does become too crowded, there is a risk of a liquidity or drawdown event when the positioning changes. The first generation MSCI Factor Crowding Model can help active managers analyze their investments compared to the industry as a whole and help make better factor investing decisions.

Key features

- Enable timely decision-making on positioning in potentially crowded factors
- An easy to interpret dashboard to quickly view what is and isn't crowded
- · Leverages MSCI Barra's latest generation of factor models
- The model is available for the US equity market and global market
- Data delivery through API making it more accessible and secure
- Start date for both Global and US crowding is January 1, 1998

Use cases

- Determine where factor crowding/drawdown risks may be growing, or what is out of favor
- · Monitor susceptibility of portfolio to crowding risk
- Alert to potential bubbles and provide insight into when they may not exist
- · Ride the crowding "wave"

MSCI Factor Crowding Summary

If too many investors are chasing the same strategies or factors, crowding will be evident in various ways. MSCI Factor crowding uses these metrics to provide one easy to interpret integrated measure with transparency to these drivers.



VALUATIONS: Prices Bid Up



PAIRWISE CORRELATION & VOLATILITY:

Stocks of a Factor moving together with wider swings



FACTOR REVERSAL:

Strong recent performance promotes performance-chasing



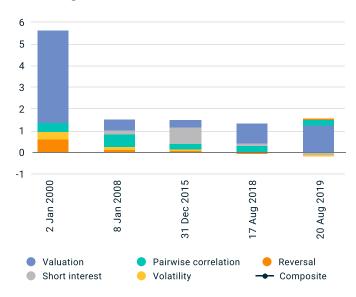
SHORT INTEREST SPREAD:

Bottom quintile heavily shorted relative to top



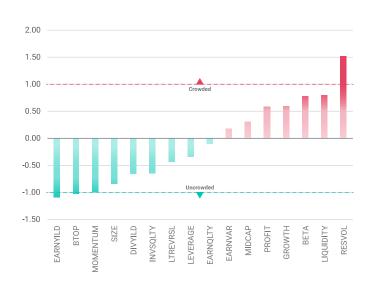
The MSCI Factor Crowding Model allows investors to examine Factor Crowding over time using multiple dimensions providing further insight into risk and return drivers.

Crowding, standardized contribution



The MSCI Factor Crowding Model can also order Factors by crowding scores at any point in time, enabling investors to make decisions on potentially crowded factors.

Crowding score



Factor crowding integrated score as of May 31, 2021

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading researchenhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.

The information contained herein (the "Information") may not be reproduced or disseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or MSCI index or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information or any MSCI index is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "MSCI PARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY REGRANDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PURITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.

©2021 MSCI Inc. All rights reserved | CFS0621

