MSCI Security Crowding

Helping asset managers seeking to assess crowded security holdings

Security crowding happens when too many investors chase the same stocks. It can drive the price of a stock up during the accumulation phase, but it can also create liquidity shortages that lead to forced selling at fire-sale prices when the stock moves out of favor. Assessing security crowding can benefit both the stock selection and risk management processes.

**Key Features**
- Facilitate timely decision-making on positioning in potentially crowded stocks
- An easy to interpret dashboard to quickly view Crowding
- Visibility into US and global market equities
- Data delivery through API enabling more accessibility and security

**MSCI Security Crowding**

MSCI Security Crowding Model offers the crowding metrics of individual stocks resulting from too many investors seeking alpha from the same stocks. It provides easy-to-interpret standardized scores that can be used to help identify exposure to crowding.

Our model considers a variety of metrics to quantify crowdedness, including:

- Valuation
- Short Interest
- Turnover
- Volatility
- Reversal

Our model measures the degree to which a stock is or has been chased by investors. Our solution offers simple and easy-to-understand reports to enable you to make timely decisions about your crowding exposure.

**Use Cases**
- Determine where stock crowding/drawdown risks may be growing, or what is out of favor
- Monitor susceptibility of portfolio to crowding risk
- Monitor for potential stock bubbles and provide insight into when they may not exist

**Security Crowding Score Examples**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEAM THERAPEUTICS INC</td>
<td>3.52</td>
</tr>
<tr>
<td>APPLIED MOLECULAR TRANSPORT INC</td>
<td>3.38</td>
</tr>
<tr>
<td>MICROSTRATEGY INC</td>
<td>2.99</td>
</tr>
<tr>
<td>CEREVEL THERAPEUTICS HLDGS INC</td>
<td>2.97</td>
</tr>
<tr>
<td>SABRE CORP</td>
<td>2.91</td>
</tr>
<tr>
<td>DRAFTKINGS INC</td>
<td>2.85</td>
</tr>
<tr>
<td>NORWEGIAN CRUISE LINE HOLDINGS LTD</td>
<td>2.83</td>
</tr>
<tr>
<td>UPSTART HOLDINGS INC</td>
<td>2.79</td>
</tr>
<tr>
<td>AIRBNB INC</td>
<td>2.78</td>
</tr>
<tr>
<td>LINDBLAD EXPEDITIONS HOLDINGS INC</td>
<td>2.71</td>
</tr>
</tbody>
</table>

As of May 31, 2021
The model provides four levels of crowding scores. The highest level is the final Integrated Crowding score that combines the level-2 Time-Series and Cross-Sectional crowding scores, each of which is composed of five different level-3 measures. The Value Crowding in level 3 is further decomposed into two level-4 metrics. The following chart illustrates the hierarchy of the crowding metrics along with the linear weights for the lower-level crowding scores to form the higher-level score.

Understanding crowding can provide insight into the behavior and potential risks of widely held stocks and may be a valuable addition to understanding portfolio risk and performance drivers. The MSCI Crowding Model helps asset managers and asset owners seeking to analyze their investments compared to the industry as a whole and make better and more timely decisions about potentially crowded or uncrowded trades.

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 research-enhanced 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 other product 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 REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, 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