

S&P Dow Jones Indices

A Division of **S&P Global**

S&P U.S. IPO Contrarian Opportunities Index *Methodology*

September 2020

Table of Contents

Introduction	3
Index Objective and Highlights	3
Supporting Documents	3
Eligibility Criteria	4
Index Universe	4
Eligibility Factors	4
Multiple Classes of Stock	4
Index Construction	5
Constituent Selection	5
Constituent Weightings	5
Index Calculations	5
Index Maintenance	6
Rebalancing	6
Corporate Actions	6
Index Adjustments	6
Other Adjustments	6
Currency of Calculation and Additional Index Return Series	6
Base Date and History Availability	7
Index Data	8
Calculation Return Types	8
Index Governance	9
Index Committee	9
Index Policy	10
Announcements	10
Pro-forma Files	10
Holiday Schedule	10
Rebalancing	10
Unexpected Exchange Closures	10
Recalculation Policy	10
Contact Information	10

Index Dissemination	11
Tickers	11
Index Data	11
Web site	11
Appendix A	12
Fundamental Ratios Calculation	12
Appendix B	13
Z-score & Quality Score Computation	13
Appendix C	14
Short-Term Momentum Value Calculation	14
Disclaimer	15

Introduction

Index Objective and Highlights

The S&P U.S. IPO Contrarian Opportunities Index measures the performance of U.S. companies added to the S&P U.S. BMI (the “Index Universe”) as initial public offerings (IPOs) within the past 12 months. To be eligible, IPOs must have lower six-month non-risk adjusted momentum than the index universe, and be ranked in the top 80%, by quality score, of the index universe. Index constituents are float-adjusted market capitalization (FMC) weighted, subject to a single constituent weight cap of 5%.

For information on the S&P U.S. BMI, please refer to the S&P Global BMI, S&P/IFCI Methodology available at www.spdji.com.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology	Equity Indices Policies & Practices
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment Methodology	Float Adjustment Methodology

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

Eligibility Criteria

Index Universe

At each rebalancing the index universe consists of all companies in the S&P U.S. BMI.

Eligibility Factors

To be eligible for index inclusion, stocks must, as of the rebalancing reference date, satisfy the following:

- **IPOs.** Be an IPO within the past 12 calendar months, and have a minimum six-months of trading history. In addition, IPOs are only eligible for inclusion for a maximum of five years (60 months). After five years the IPO becomes ineligible and is removed from the index.
- **Market Capitalization.** Have an FMC of at least US\$ 200 million (US\$ 150 million for current constituents).
- **Liquidity.** Have a six-month median daily value traded (MDVT) of US\$ 1 million (US\$ 800,000 for current constituents).
- **Quality Score Rank.** Be ranked within the top 80% of the index universe quality score (84% for current constituents).
- **Short-Term Momentum Score.** In addition to the above, IPOs eligible to be added to the index must also have a six-month non-risk adjusted momentum score lower than the six-month non-risk adjusted momentum score of the S&P U.S. BMI, calculated as a price return based on the index levels.

For information on the quality score and short-term momentum score calculations, please refer to Appendices A, B, and C.

Multiple Classes of Stock

All publicly listed multiple share class lines are eligible for index inclusion, subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Construction

Constituent Selection

At each rebalancing the eligible securities are selected and form the index, subject to the following:

If fewer than 20 securities are eligible, the requirements for current constituents are relaxed, in sequential order, as follows:

1. Six-month MDVT is relaxed to US\$ 500,000.
2. FMC is relaxed to US\$ 100 million.
3. Six-month MDVT is relaxed to US\$ 250,000.

If, after this there are still not 20 constituents, the requirements for the addition of non-constituents are relaxed in the same order, and by the same magnitude, as the relaxations listed above for current constituents.

If there are still fewer than 20 constituents after relaxing the requirements for both current constituents and non-constituents, IPOs added to the index universe over the past 24 months become eligible. Any constituent that remains in the index via extending the eligibility window must satisfy the FMC and MDVT requirements.

Finally, if the deletion of a constituent at the quarterly rebalancing would result in a constituent count of less than 20, the deletion will be delayed until the next rebalancing in which the constituent count would be at least 20.

Constituent Weightings

The index is FMC weighted, subject to a single constituent weight cap of 5%. At each rebalancing, any constituent with weight exceeding 5% is capped, and the weight is proportionally redistributed to all uncapped constituents. This process proceeds iteratively until no constituent breaches the cap.

Index Calculations

The index is calculated using the divisor methodology used in S&P Dow Jones Indices' equity indices.

For more information on index level calculations please refer to the Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

Index Maintenance

Rebalancing

The index rebalances quarterly, effective after the close of the third Friday of March, June, September, and December. The fundamental data reference date is five weeks prior to the rebalancing date. The rebalancing reference date is the last business day of February, May, August, and November.

Constituents' index shares are calculated using closing prices as of the Wednesday prior to the second Friday of the rebalancing month as the reference price. Index shares are calculated and assigned to each stock to arrive at the weights determined on the reference date. Since index shares are assigned based on prices seven business days prior to rebalancing, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.

Additions. Except for spin-offs, no additions are made between rebalancings.

Deletions. Constituents removed from the index universe are removed from the index simultaneously.

Spin-Offs. Spin-offs are ineligible for index inclusion. The spun-off company is added to the index at a zero price and will be dropped from the index after at least one day of regular way trading.

For more information on Spin-offs, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Corporate Actions

For general information on corporate actions, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Adjustments

Index adjustments and corporate action treatments follow those of the index universe.

Other Adjustments

In cases where there is no achievable market price for a stock being deleted, it may be removed at a zero or minimal price at the Index Committee's discretion, in recognition of the constraints faced by investors in trading bankrupt or suspended stocks.

Currency of Calculation and Additional Index Return Series

The index calculates in U.S. dollars.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to [S&P DJI's All Indices by Methodology Report](#).

For information on the calculation of different types of indices, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at www.spdji.com.

Base Date and History Availability

Index history availability, base date, and base value are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P U.S. IPO Contrarian Opportunities Index	08/31/2020	12/16/2005	12/16/2005	100

Index Data

Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (“.SDL”).

For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

For more information on the calculation of return types, please refer to S&P Dow Jones Indices’ Index Mathematics Methodology.

Index Governance

Index Committee

An S&P Dow Jones Indices' Index Committee maintains the index. The Index Committee meetings regularly. At each meeting, the Index Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the index to the market, companies that are being considered as candidates for addition to the index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Policy

Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced via the Index Corporate Events report (.SDE), delivered daily to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

For more information, please refer to the Announcements section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the index rebalances. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents and their corresponding weights and index shares effective for the upcoming rebalancing.

Please visit www.spdji.com for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule

The index is calculated on all business days of the year when the U.S. equity market is open.

A complete holiday schedule for the year is available at www.spdji.com.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Contact Information

For any questions regarding an index, please contact: index_services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at www.spdji.com, major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to [S&P DJI's All Indices by Methodology Report](#) for a complete list of indices covered by this document.

Index	Return Type	Bloomberg
S&P U.S. IPO Contrarian Opportunities Index (USD)	Price Return	SPIPCOUP
	Total Return	SPIPCOUT
	Net Total Return	SPIPCOUN

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spdji.com/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spdji.com.

Appendix A

Fundamental Ratios Calculation

The first step to determine the overall quality score is to calculate, as of the rebalancing reference date, the three fundamental ratios below for each security in the index universe. They are defined as follows:

- **Return on Equity (ROE).** This is calculated as a company's trailing 12-month earnings per share (EPS) divided by its latest book value per share (BVPS):

$$\text{ROE} = \frac{EPS}{BVPS}$$

- **Accruals Ratio.** This is computed using the change of a company's net operating assets (NOA) over the last year divided by its average net operating assets over the last two years:

$$\text{Accruals Ratio} = \frac{(NOA_t - NOA_{t-1})}{((NOA_t + NOA_{t-1}))/2}$$

- **Financial Leverage Ratio.** This is calculated as a company's latest total debt divided by its book value.

$$\text{Leverage} = \frac{\text{Total Debt}}{(BVPS \times \text{Common Shares outstanding})}$$

Outlier Handling and Winsorization. Outlier fundamental ratios are winsorized to ensure that the average values used to calculate the overall quality score are less distorted by extreme values.

- **Return on Equity and Accruals Ratio.** For a given fundamental variable, the values for all securities are first ranked in ascending order. Then, for securities that lie above the 97.5 percentile rank or below the 2.5 percentile rank, their value is set as equal to the value of the 97.5 percentile ranked or the 2.5 percentile ranked security, whichever is applicable. If the underlying data points for a given stock's ROE are both negative, leading to a positive ROE, its ROE value will be excluded and the stock will be assigned a ROE Z-score set as equal to the ROE Z-score value of the 2.5 percentile ranked security.
- **Financial Leverage Ratio.** The values for all securities are first ranked in ascending order. Then, for securities that lie above the 97.5 percentile rank or below the 2.5 percentile rank, their value is set as equal to the value of the 97.5 percentile ranked or the 2.5 percentile ranked security, whichever is applicable. If the underlying data point for a given stock's BVPS is negative, leading to a negative Leverage, its Leverage value will be excluded and the stock will be assigned a Leverage Z-score set as equal to the Leverage Z-score value of the 2.5 percentile ranked security.

Appendix B

Z-score & Quality Score Computation

Z-score Computation. Computing a z-score is a widely adopted method of standardizing a variable in order to combine it with other variables that may have a different scale or unit of measurement. After winsorizing all the three fundamental ratios, the z-score for each of the three ratios for each security is calculated using the mean and standard deviation of the relevant variable within the index universe.

- **Return on Equity.** The z-score is calculated as follows:

$$z_{\alpha} = \frac{(x_{\alpha} - \mu_{\alpha})}{\sigma_{\alpha}}$$

- **Accruals and Financial Leverage Ratios.** The z-score is calculated as follows:

$$z_{\alpha} = - \frac{(x_{\alpha} - \mu_{\alpha})}{\sigma_{\alpha}}$$

where:

z_{α} = Z-score for a given security

x_{α} = Winsorized variable for a given security

μ_{α} = Arithmetic mean of the winsorized variable in a given index universe, excluding any missing values

σ_{α} = Standard deviation of the winsorized variable in a given index universe

Average Z-score Computation. For each security, the average z-score is computed by taking a simple average of the three scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index.

Outlier Handling and Winsorization. Outlier average z-scores are winsorized to ensure that the overall quality scores are less distorted by extreme values. To do this, for a given average z-score, the values for all securities are first ranked in ascending order. Then, for securities that lie above 4 or below -4, their value is set as equal to 4 or -4, whichever is applicable.

Quality Score Computation. Using the winsorized average z-scores, a quality score is computed for each of the securities. For a given security, if its winsorized average z-score is above 0, then its quality score will be the addition of 1 and the average z-score. On the other hand, if its winsorized average score is below 0, then its quality score will be the result of the reciprocal of 1 subtracted by its average z-score.

If average $Z > 0$, Quality Score = $1 + Z$

If average $Z < 0$, Quality Score = $(1 / (1 - Z))$

If average $Z = 0$, Quality Score = 1

Appendix C

Short-Term Momentum Value Calculation

Short-term momentum value is calculated for each of the securities in the index universe and for the S&P U.S. BMI on each of the rebalancing reference dates. The momentum value is determined as follows:

The momentum value is computed as the six-month price change, excluding the most recent month of the security, in local currency. The effective rebalancing month is stated as month (M).

$$\text{Momentum Value} = \frac{\text{Price}_{M-2}}{\text{Price}_{M-8}} - 1$$

NOTE 1: For example, if the effective rebalancing date is on 03/15/2019, the reference date is 02/28/2019, and the momentum value will be calculated as of the reference date based on the prices from 01/31/2019 (price_{M-2}) and 07/31/2018 (price_{M-8}).

NOTE 2: If there is no price available on day $M-2$ or day $M-8$, the price from the day prior will be used. If there is no price available on any of the ten days prior, the stock is excluded from the index.

NOTE 3: For a stock to be included in the index with six-month measurement periods, it must be trading for at least seven months prior to the rebalancing reference date.

Disclaimer

Copyright © 2020 S&P Dow Jones Indices LLC. All rights reserved. STANDARD & POOR'S, S&P, S&P 500, S&P 500 LOW VOLATILITY INDEX, S&P 100, S&P COMPOSITE 1500, S&P MIDCAP 400, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, S&P TARGET DATE INDICES, GICS, SPIVA, SPDR and INDEXOLOGY are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"). DOW JONES, DJ, DJIA and DOW JONES INDUSTRIAL AVERAGE are registered trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, S&P, S&P Trucost Limited, SAM (part of S&P Global), Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other investment product or vehicle. S&P Dow Jones Indices LLC is not a tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be

liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.

The Global Industry Classification Standard (GICS®) was developed by and is the exclusive property and a trademark of S&P and MSCI. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.