S&P Dow Jones Indices

A Division of S&P Global

TalkingPoints

Benchmarking Quality Small-Cap Equities in Brazil



A. Silvia Kitchener
Director
Global Equities, Latin America
S&P Dow Jones Indices

To view this interview on S&P DJI's Index TV watch:
Benchmarking Quality
Small-Cap Equities
in Brazil

When it comes to small-cap equities, profitability matters. Over the past 25 years, the <u>S&P SmallCap 600</u>® has outperformed the Russell 2000 by almost 1.7% on an annual basis. A key driver of this outperformance was the quality bias that comes from the profitability screen that is built into the S&P SmallCap 600. What happens when that same methodology is applied to small caps in other markets?

1. What are the characteristics of small-cap stocks and how have market participants used them traditionally?

An important characteristic of small-cap stocks is that they are considered growth stocks, because they have a higher potential for growth. Historically, small caps have outperformed large caps over the long term. Studies have shown that stocks with attractive price valuation and good growth prospects tend to outperform. Small-cap stocks also tend to be focused more domestically, offering a purer local play on Brazil growth. Furthermore, in smaller markets like those in the Latin American region, small-cap indices can actually help develop the overall market by drawing attention to the smaller stocks, which may help create more demand for direct or indirect investment, either through individual stocks or through index-based strategies tracking small-cap indices.

2. The S&P/B3 SmallCap Select Index is part of a broader index series, the S&P Global SmallCap Select. What type of small-cap stocks do these indices track?

Small cap can be defined based on either a fixed market size or on a relative size range, the latter being what we use in Brazil. We start with a broad view of the market, with our country index taking into account all Brazilian companies that trade on B3 and meet the minimum size and liquidity criteria. We segment those by total market cap and then take the cumulative weight of the float-adjusted market cap to categorize the different segments. We use 70%, 15%, and 15%. The top 70% represents the large caps, the next 15% the mid caps, and the bottom 15% the small caps.

3. Why is the S&P/B3 SmallCap Select Index being introduced now?

In late December 2018, we launched the <u>S&P Global SmallCap Select Index</u> and several regional subindices that included developed and emerging markets, among other market segments. This series takes advantage of the concept of quality by applying rules that select companies with positive earnings for the index. As a result of this launch, clients became more interested in country-specific indices, like small cap indices in Australia, the UK, and more recently—Brazil.

Brazil had a high risk-free interest rate for many years. However, in the past 12 months, things began to change and the rate dropped below 5% for the three-month bond yield, when it had previously been around 14%. The long-term 10-year bond rose to around 7%, down approximately 3% for the year. This has helped to open the equities market in Brazil. As mentioned, small caps have been an important segment of equity investment because they have historically offered higher returns. Our research on the S&P SmallCap 600 and the S&P SmallCap Global Select Index has further demonstrated that this framework also has the potential to control risk and volatility.

4. What are the key benefits of an index like the S&P/B3 Smallcap Select Index?

Overall, we have seen improved long-term total returns in small-cap indices when companies without a track record of generating positive earnings are excluded. The S&P Global SmallCap Select Indices have typically outperformed broader small-cap indices in down cycles and underperformed slightly in up cycles.

Reduced Risk: The S&P Global SmallCap Select Indices have provided a smoother ride in the small-cap space. Volatility, beta, and drawdowns have been lower relative to conventional small-cap benchmarks.

Low Tracking Error: The indices have historically had low tracking error relative to conventional small-cap benchmarks.

Enhanced Liquidity: By eliminating the 20% least liquid and 20% smallest securities in each country, the index liquidity profile is improved, without introducing any significant geographic biases.

5. What does the back-tested data say about how adding an earning screen could impact performance in Brazilian small caps?

As of the end of November 2019, Brazil was having a great year. The <u>S&P Brazil BMI</u>, the broad country benchmark, had a return of 25.3%, while the S&P/B3 SmallCap Select Index generated 40.1%. When looking at longer-term periods, we see that the S&P/B3 SmallCap Select Index outperformed across the 1-, 3-, 5-, and 10-year periods (see Exhibit 1). One may wonder, "how volatile is the index?" Surprisingly, when we look at the risk measured using standard deviation, the volatility was lower than the broad benchmark (see Exhibit 2). This translates into higher risk-adjusted returns for the S&P/B3 SmallCap Select Index (see Exhibit 3).

Exhibit 1: Returns of Brazilian Indices

Period	S&P/B3 SmallCap Select Index (BRL) TR (%)	S&P Brazil SmallCap (LCL) TR (%)	S&P/B3 SmallCap Select Index (USD) TR (%)	S&P Brazil Smallcap (USD) Gross Total Return (%)
YTD	40.14	41.85	28.15	30.42
1-Year	43.64	44.67	31.63	32.98
3-Year	29.80	31.35	20.49	22.61
5-Year	18.60	18.01	7.41	7.23
10-Year	12.37	10.75	2.86	1.55

Source: S&P Dow Jones Indices LLC. Data as of November 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 2: Risk (Standard Deviation) for Brazilian Indices

S&P/B3 SmallCap Select Index (BRL) TR (%)	S&P Brazil SmallCap (LCL) TR (%)	S&P/B3 SmallCap Select Index (USD) TR (%)	S&P Brazil SmallCap (USD) Gross Total Return (%)
14.56	15.47	25.69	26.29
17.07	18.56	30.41	31.74
16.48	16.93	28.53	28.96

Source: S&P Dow Jones Indices LLC. Data as of November 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 3: Risk-Adjusted Returns for Brazilian Indices

S&P/B3 SmallCap Select Index (BRL) TR	S&P Brazil Smallcap (LCL) TR	S&P/B3 SmallCap Select Index (USD) TR	S&P Brazil SmallCap (USD) Gross Total Return
2.046	2.027	0.798	0.860
1.089	0.970	0.244	0.228
0.751	0.635	0.100	0.053

Source: S&P Dow Jones Indices LLC. Data as of November 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

6. How broad is the range of potential applications for the S&P/B3 SmallCap Select Index?

The S&P/B3 SmallCap Select Index can be used to support index-linked investment products or serve as a benchmark for active strategies. The index could provide the following benefits.

- Relative to traditional small-cap indices, it could provide improved risk-adjusted returns, low tracking error, and enhanced liquidity.
- Relative to active strategies, it could provide lower costs, broader exposure to the asset class (resulting in diversification benefits), and increased transparency.
- Many active managers may screen out unprofitable companies as part of their investment process. The S&P/B3 SmallCap Select Index could serve as a more precise benchmark for such strategies.

For more information on the S&P/B3 SmallCap Select Index, please visit www.spdji.com.

Performance Disclosure

The S&P/B3 SmallCap Select Index was launched January 20, 2020. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at www.spdji.com. Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance. The Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices LLC maintains the Index and calculates the Index levels and performance shown or discussed, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

General 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, a division of S&P Global ("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, 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. B3, BM&F, and BOVESPA are trademarks of Bolsa de Valores de São Paulo and have been licensed for use by S&P Dow Jones Indices.