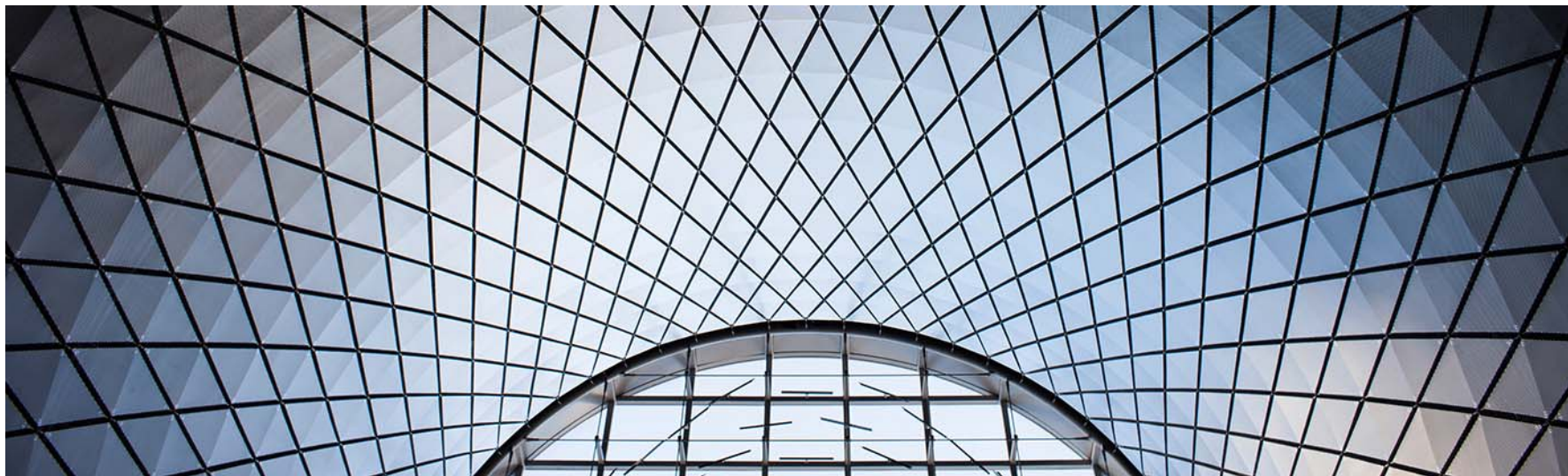


# バイオテクノロジー指数に関する考察と S&P 日本 バイオテクノロジー指数(コンセプト)

Copyright © 2020 by S&P Global.  
All rights reserved.



2020年10月6日  
S&Pダウ・ジョーンズ・インデックス  
日本オフィス統括責任者  
牧野 義之

**S&P Dow Jones  
Indices**

A Division of **S&P Global**

# なぜバイオテクノロジー指数への投資をするのか？ ～米国市場の事例～

バイオテクノロジー産業：

遺伝子分析とエンジニアリングに基づいて、バイオテクノロジー企業は主に研究、開発、製造に従事しており、遺伝子分析とエンジニアリングに基づいたヘルスケア製品のマーケティングを行っています。バイオテクノロジーには、いくつかの重要な業界固有の特性があります。

A. 高額な投資と長い研究開発期間：

実際の研究実験から薬局の棚に新薬が届くまでに10年以上もかかる場合があります。このリードタイムの間、バイオテクノロジー企業は収益を生み出さない可能性があるため、ベンチャーキャピタルファンドに大きく依存し、研究開発に資金を提供するために証券取引所へ上場し、公に取引されています。

B. 高リスク：

新薬の発見は、費用がかかり、時間がかかり、リスクのあるビジネスです。

投資家は、バイオテクノロジーベンチャーへの投資に際して、新薬が承認に達しないリスクが非常に高いことを認識する必要があります。米国市場においても、通常、すべての新薬の85%～95%が承認に達しません。

C. 収益期待の高さ：

研究段階では、バイオテクノロジー企業は不採算になる傾向があります。しかし、病気の治療に成功することが証明された画期的な新薬が発見されると、それは非常に（または指数関数的に）利益をもたらす可能性があります。次に、高い収益性は適切なIPまたは著作権によって保護され、会社がその研究および設計結果を適切に処理し、競合他社による模倣の可能性を低減できるようにします。

バイオテクノロジー株式に投資することのリターンとリスクは非常に大きくなる可能性があります。考慮すべき重要な要素には、研究パイプライン、研究段階と臨床試験、将来の資金調達の安全なソース、規制の変更、合併と買収などがあります。

**S&P Dow Jones  
Indices**

An S&P Global Division

# 米国市場で上場されているバイオテクノロジー企業の成長

米国では、ほとんどのバイオテクノロジー企業は個人所有です。2015年には、2,772のバイオテクノロジー企業のうち2,336が非公開でした。しかし、公開(または上場)企業数は徐々に増加しています。2015年には、2012年の316と比較して、442の公開バイオテクノロジー企業がありました。2019年の400を超えるバイオテクノロジー公開企業のうち、349がS&Pトータルマーケットインデックス(S&P TMI、米国で最も幅広いベンチマークインデックス)に適格であったのに対し、2009年は170の企業でした。企業数は4倍になり、2,120億米ドルから860億米ドルになりました(図1を参照)。

Exhibit 1: Growth of Biotechnology Companies in the U.S.



Source: S&P Dow Jones Indices LLC. Data from June 30, 2009, to June 30, 2019. Past performance is no guarantee of future results. Chart is provided for illustrative purposes. Number of biotech companies in the U.S. as measured by the S&P Total Market Index.

# 上場バイオテクノロジー銘柄によるベンチマーク インデックスの構築 ～米国の現状～

米国株式市場には、数多くのバイオテクノロジー企業で構成されたバイオテクノロジー指数があります。それらは主にカバレッジと構成銘柄へのウエイト付けが異なります。

一部の投資家は、純粹にバイオテクノロジー企業への投資を支持するかもしれませんが、バリューチェーンの一部を考えると、バイオファーマ企業を含む指数を選択する可能性もあります。

投資家は、指数構成銘柄のウエイト付けの方法についても異なる見方をしています。

均等ウエイト方式は、各企業がインデックスのトータルリターンに貢献する機会を均等にすることができると考える投資家に支持され、業界全体を捉えるために時価総額加重ウエイト方式を選択する投資家も多数存在します。

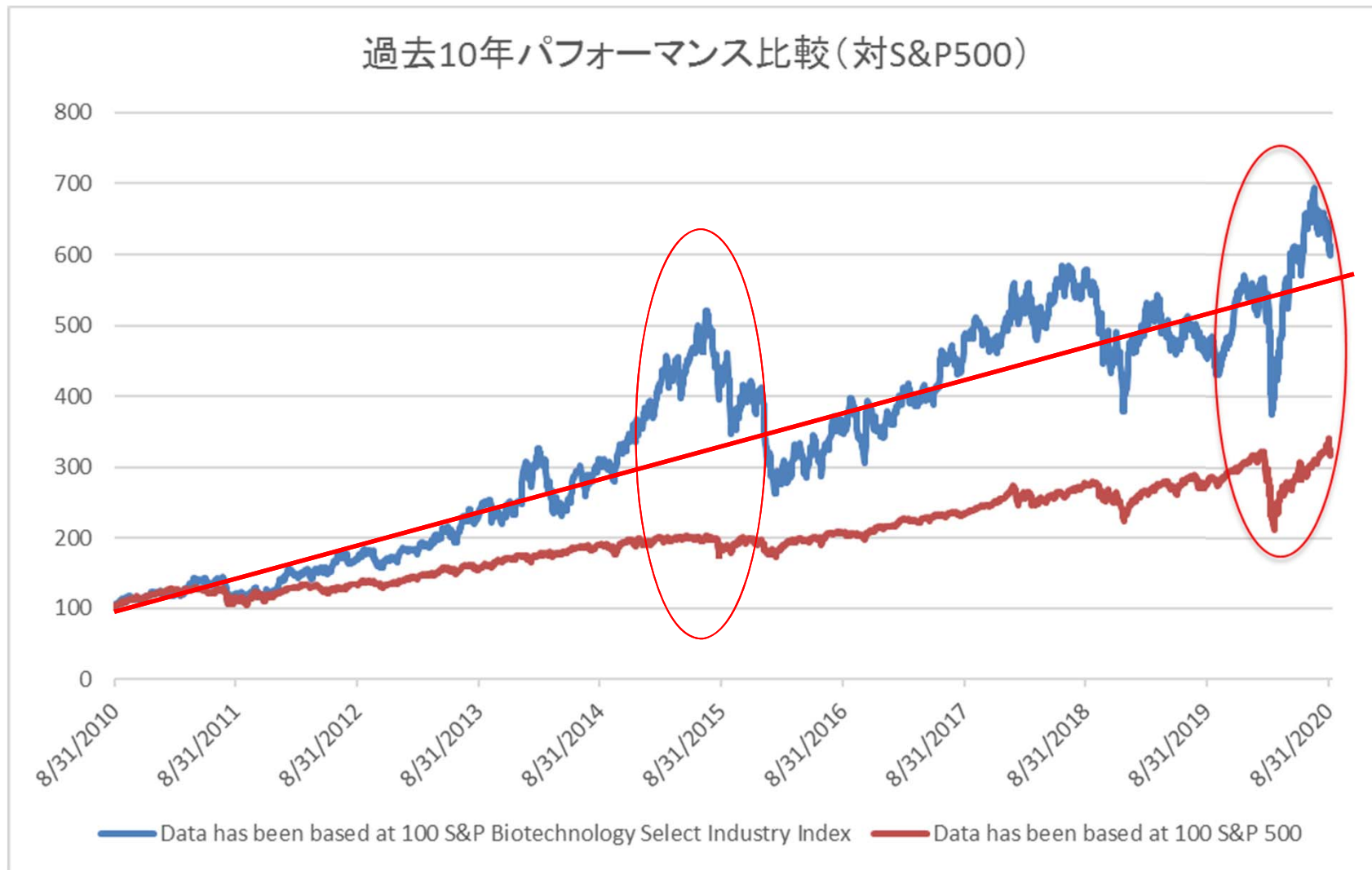
# S&Pバイオテクノロジーセレクトインダストリー インデックス

S&Pバイオテクノロジーセレクトインダストリーインデックスは、主要なバイオテクノロジーインデックスです。それは2006年1月から算出され、1999年12月17日からのバックテストデータを有する指数です。この指数は、純粋なバイオテクノロジーのエクスポージャーを提供し、修正された均等加重アプローチに従って、大型株、中型株、小型株などサイズに関係なくバイオセクターへの投資エクスポージャーを提供します。米国における主要な競合指数としては、**NASDAQバイオテクノロジーインデックス**（バイオテクノロジー企業と製薬企業の幅広いバスケットを含み、時価総額加重方式に従う）と**NYSEアルカバイオテクノロジーインデックス**（上位30の大型株バイオテクノロジー企業を含み、それらに等しく加重する）です。

<https://www.spglobal.com/spdji/en/indices/equity/sp-biotechnology-select-industry-index/#index-linked-product>



# S&Pバイオテクノロジーセレクトインダストリー インデックス：パフォーマンス比較



S&P Dow Jones  
Indices

An S&P Global Division

基準日：2010年8月31日を100として

Private & Confidential

6

# S&Pバイオテクノロジーセレクトインダストリー インデックス連動ETF

Direxion Daily S&P Biotech Bear 3X ETF  
Country: United States Ticker: LABD

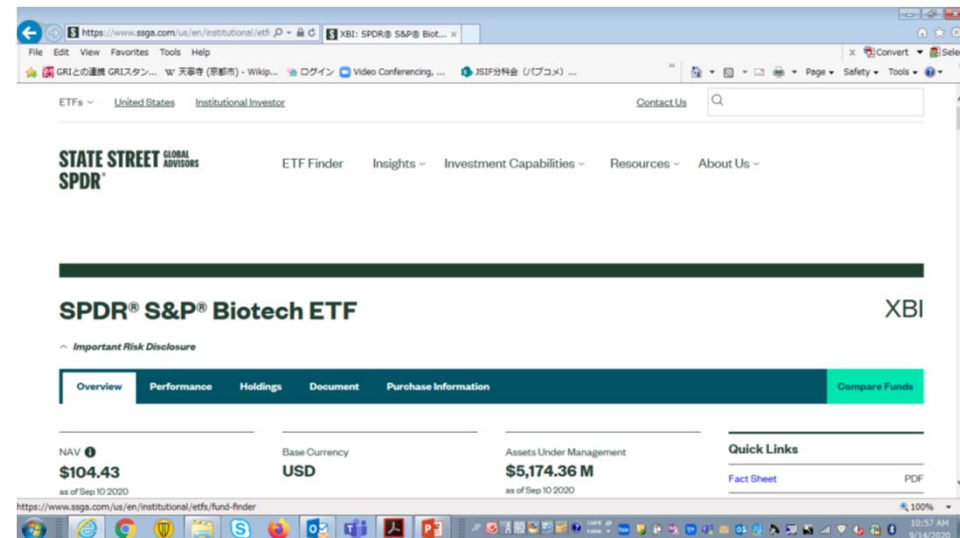
Product Name: Direxion Daily S&P Biotech Bull 3X ETF  
Country: United States Ticker: LABU

Product Name: ETFS S&P Biotech ETF  
Country: Australia Ticker: CURE

Product Name: KODEX Synth-US BIO  
Country: South Korea Ticker: 185680

Product Name: SPDR® S&P Biotech ETF  
Country: United States Ticker: XBI

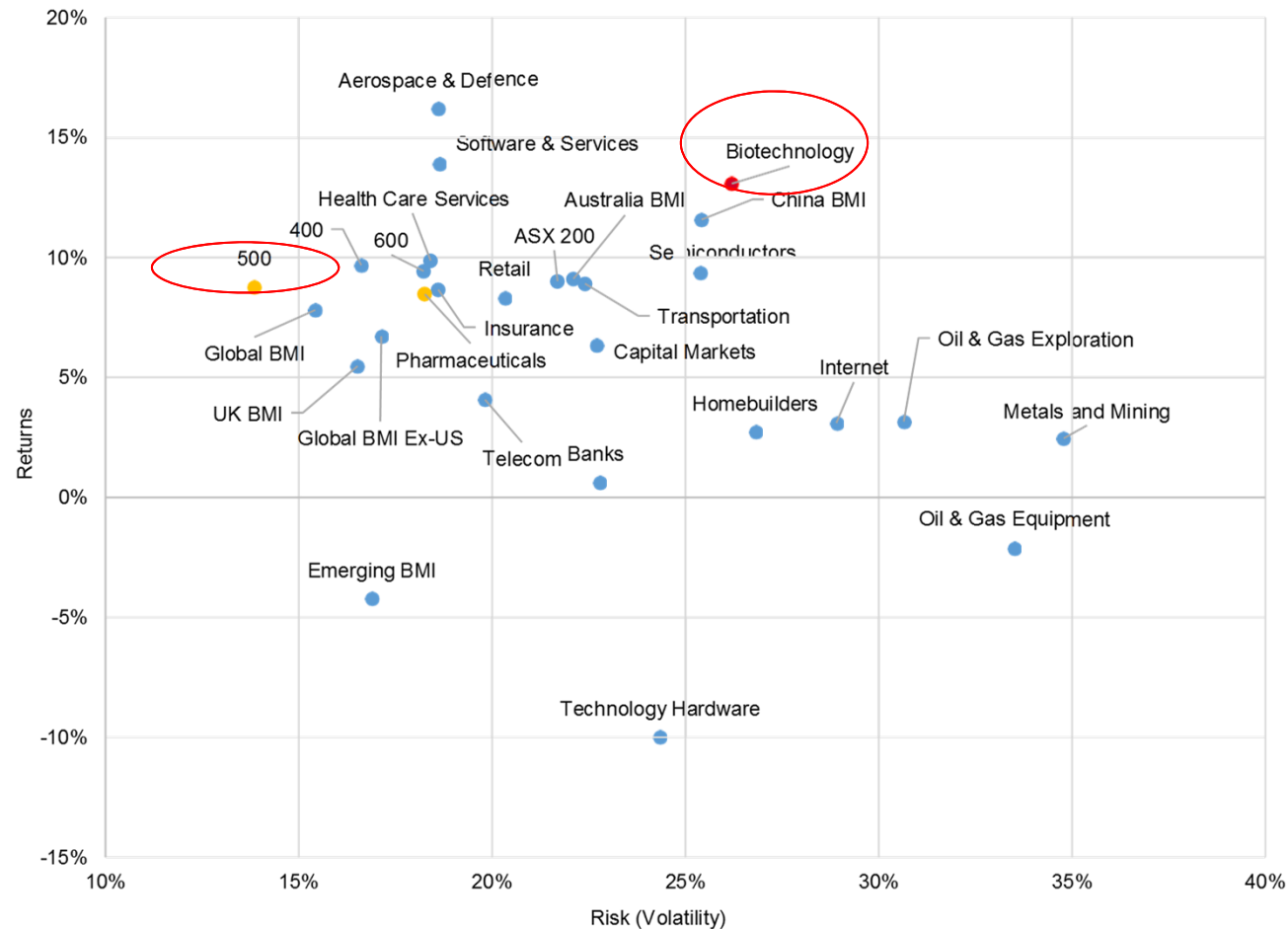
<https://www.ssga.com/us/en/institutional/etfs/fund/s/spdr-sp-biotech-etf-xbi>



**S&P Dow Jones  
Indices**

An S&P Global Division

# S&Pバイオテクノロジーセレクトインダストリー インデックスと様々な指数のリスク/リターンのプロ ファイル比較



Source: S&P Dow Jones Indices LLC. Data from June 30, 2004, to June 30, 2019. Index performance based on monthly total return in USD. Past performance is no guarantee of future results. Chart 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.

**S&P Dow Jones  
Indices**

An S&P Global Division

Private & Confidential

8



## APPENDIX A: COMPETITOR INDICES COMPARISON

### Index Methodology Comparison

Exhibit 14: Methodology Comparison

CRITERIA	S&P BIOTECHNOLOGY SELECT INDUSTRY INDEX	NYSE ARCA BIOTECHNOLOGY INDEX	NASDAQ BIOTECHNOLOGY INDEX																
Universe	S&P Total Market Index (TMI)	NA	NA																
Classification	Global Industry Classification Standard® (GICS)® - <b>Main Sub-Industry:</b> Biotechnology ( <i>Supplementary sub-industry: Life Sciences Tools &amp; Services</i> )	Companies engaged in biotechnology business (primarily involved in the use of biological processes)	Industry Classification Benchmark (ICB) - Biotechnology or Pharmaceutical																
Listings	Listing on various U.S. exchanges eligible	Not Available	New security - exclusively NASDAQ																
Size and Liquidity	Stock must float-adjusted market capitalization (FMC) and float-adjusted liquidity ratio (FALR) that is greater than or equal to as below <table border="1"> <thead> <tr> <th></th> <th>FMC</th> <th>FALR<sup>2</sup></th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="2">Existing</td> <td>USD 300 million</td> <td>50%</td> <td rowspan="2">OR</td> </tr> <tr> <td>USD 500 million</td> <td>90%</td> </tr> <tr> <td rowspan="2">New</td> <td>USD 400 million</td> <td>150%</td> <td rowspan="2">OR</td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		FMC	FALR <sup>2</sup>		Existing	USD 300 million	50%	OR	USD 500 million	90%	New	USD 400 million	150%	OR			<b>Total Market Cap -</b> New stock > USD 1 billion Existing stock > USD 900 million  <b>3-Month ADVT -</b> New stock > USD 1 million Existing stock > USD 0.9 million	Total Market Cap > USD 200 million Volume > 100,000 shares
	FMC	FALR <sup>2</sup>																	
Existing	USD 300 million	50%	OR																
	USD 500 million	90%																	
New	USD 400 million	150%	OR																
Constituent Count	Variable (at present 119 stocks); minimum 35 stocks	Fixed (30 stocks)	Variable (at present > 200 stocks)																
Weighting	Quarterly - Equal Weighted; subject to adjustment for portfolio liquidity	Equal Weighted	Modified Market Cap Weighted  Quarterly; maximum stock weight capped at 8%																
Rebalancing	Quarterly in March, June, September, December	Quarterly in January, April, July and October	Annually in December																

Source: S&P Dow Jones Indices LLC, [www.nyse.com](http://www.nyse.com), [www.indexes.nasdaqomx.com](http://www.indexes.nasdaqomx.com). Data as of June 28, 2019.

Table is provided for illustrative purposes.

# S&P日本バイオテクノロジー指数: メソドロジー

## S&P Japan Biotechnology Index: Methodology

- S&P日本バイオテクノロジー指数は、バイオテクノロジービジネスに従事する日本企業の株価の推移を捉えるために設計されている。
- The S&P Japan Biotechnology Index is designed to track the performance of Japanese companies engaged in biotechnology businesses.
  
- **親インデックス:**
  - 東証一部
  - 東証二部
  - 東証マザーズ
  - JASDAQ スタンダード
  - JASDAQ グロース
  
- **Parent Index:**
  - TSE 1st Section
  - TSE 2nd Section
  - TSE Mothers
  - JASDAQ Standard
  - JASDAQ Growth

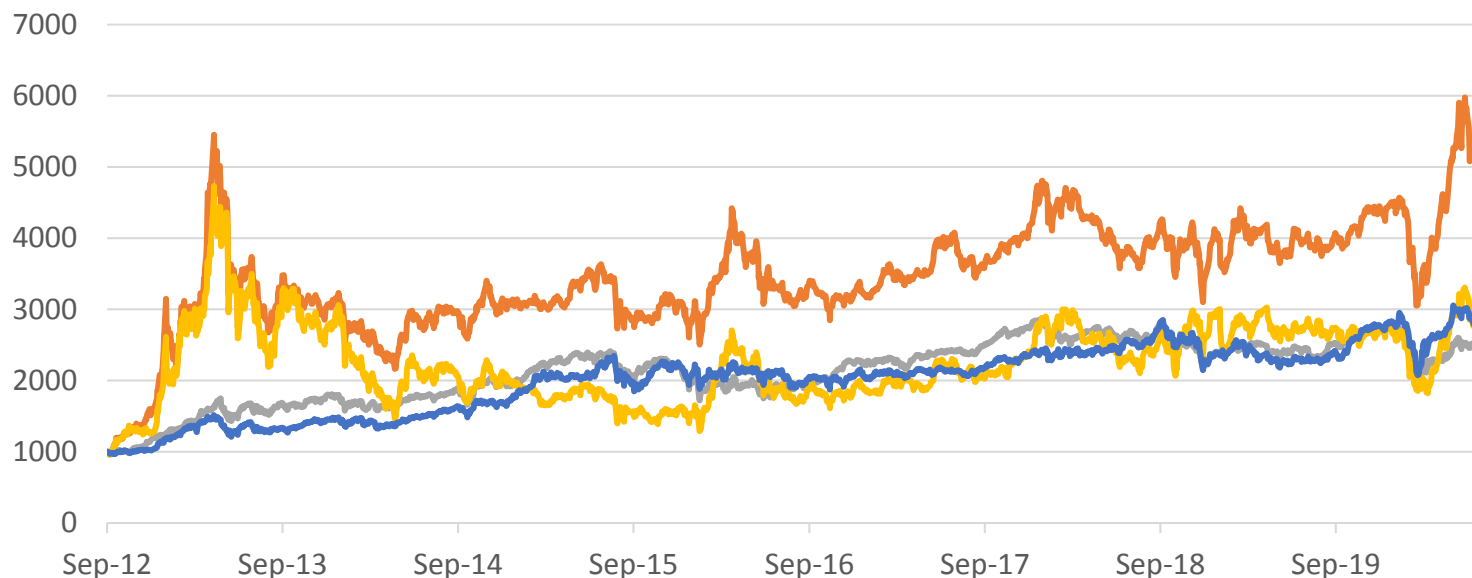
**S&P Dow Jones  
Indices**

A Division of **S&P Global**

# S&P日本バイオテクノロジー指数: 成長性

## S&P Japan Biotechnology Index: Growth of Wealth

Growth of Wealth



- Japan METI Biotechnology (TR, JPY)
- TOPIX (TR, JPY, Rebased)
- S&P Japan BMI Biotechnology (352010, TR, JPY, Rebased)
- S&P Japan BMI Pharmaceuticals, Biotechnology & Life Sciences (3520, TR, JPY, Rebased)

### S&P Dow Jones Indices

A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data as of July 31, 2020 based on total returns in JPY. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# S&P日本バイオテクノロジー指数: リスク・リターン特性

## S&P Japan Biotechnology Index: Risk & Return Profile

Period	S&P Japan Biotechnology	S&P Japan BMI				TOPIX
		Biotech	Pharma	Life Science	Pharma & Biotech & Life Science	
<b>Annualized Return (TR, JPY)</b>						
1-Yr	16.3%	-12.3%	21.2%	-35.8%	19.6%	-1.9%
3-Yr	6.3%	4.2%	9.3%	-16.2%	9.0%	-0.3%
7-Yr	5.6%	-2.1%	12.1%	-14.3%	11.6%	6.3%
Since 9/28/12	21.9%	12.4%	14.2%	-7.5%	13.9%	11.8%
<b>Annualized Volatility</b>						
1-Yr	33.0%	39.8%	24.1%	32.6%	23.9%	21.7%
3-Yr	29.7%	36.3%	21.0%	29.6%	20.9%	17.7%
7-Yr	30.7%	39.9%	21.3%	33.5%	21.2%	19.3%
Since 9/28/12	37.5%	45.5%	21.4%	37.3%	21.4%	19.9%
<b>Risk Adjusted Return</b>						
1-Yr	0.49	-0.31	0.88	-1.10	0.82	-0.09
3-Yr	0.21	0.12	0.44	-0.55	0.43	-0.02
7-Yr	0.18	-0.05	0.57	-0.43	0.54	0.33
Since 9/28/12	0.58	0.27	0.67	-0.20	0.65	0.59
<b>Rolling 252-Day Max Drawdown</b>						
Since 9/28/12	-60.3%	-69.1%	-29.6%	-63.2%	-29.7%	-29.1%

### S&P Dow Jones Indices

A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data as of July.31, 2020 based on total returns in JPY. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# S&P日本バイオテクノロジー指数: リスク・リターン特性

## S&P Japan Biotechnology Index: Risk & Return Profile

Period	S&P Japan Biotechnology	S&P Japan BMI			
		Biotech	Pharma	Life Science	Pharma & Biotech & Life Science
<b>Annualized Excess Return (TR, JPY)</b>					
1-Yr	18.2%	-10.4%	23.2%	-33.9%	21.5%
3-Yr	6.6%	4.5%	9.6%	-15.9%	9.3%
7-Yr	-0.7%	-8.5%	5.8%	-20.6%	5.2%
Since 9/28/12	10.1%	0.7%	2.5%	-19.2%	2.1%
<b>Annualized Tracking Error</b>					
1-Yr	25.0%	35.2%	14.1%	22.2%	13.8%
3-Yr	22.6%	31.2%	12.7%	21.5%	12.4%
7-Yr	23.6%	34.3%	12.8%	27.4%	12.6%
Since 9/28/12	31.8%	40.7%	12.9%	32.1%	12.7%
<b>Information Ratio</b>					
1-Yr	0.73	-0.29	1.64	-1.53	1.56
3-Yr	0.29	0.15	0.76	-0.74	0.75
7-Yr	-0.03	-0.25	0.45	-0.75	0.42
Since 9/28/12	0.32	0.02	0.19	-0.60	0.17
<b>Beta</b>					
Since 9/28/12	0.99	1.02	0.87	0.95	0.87

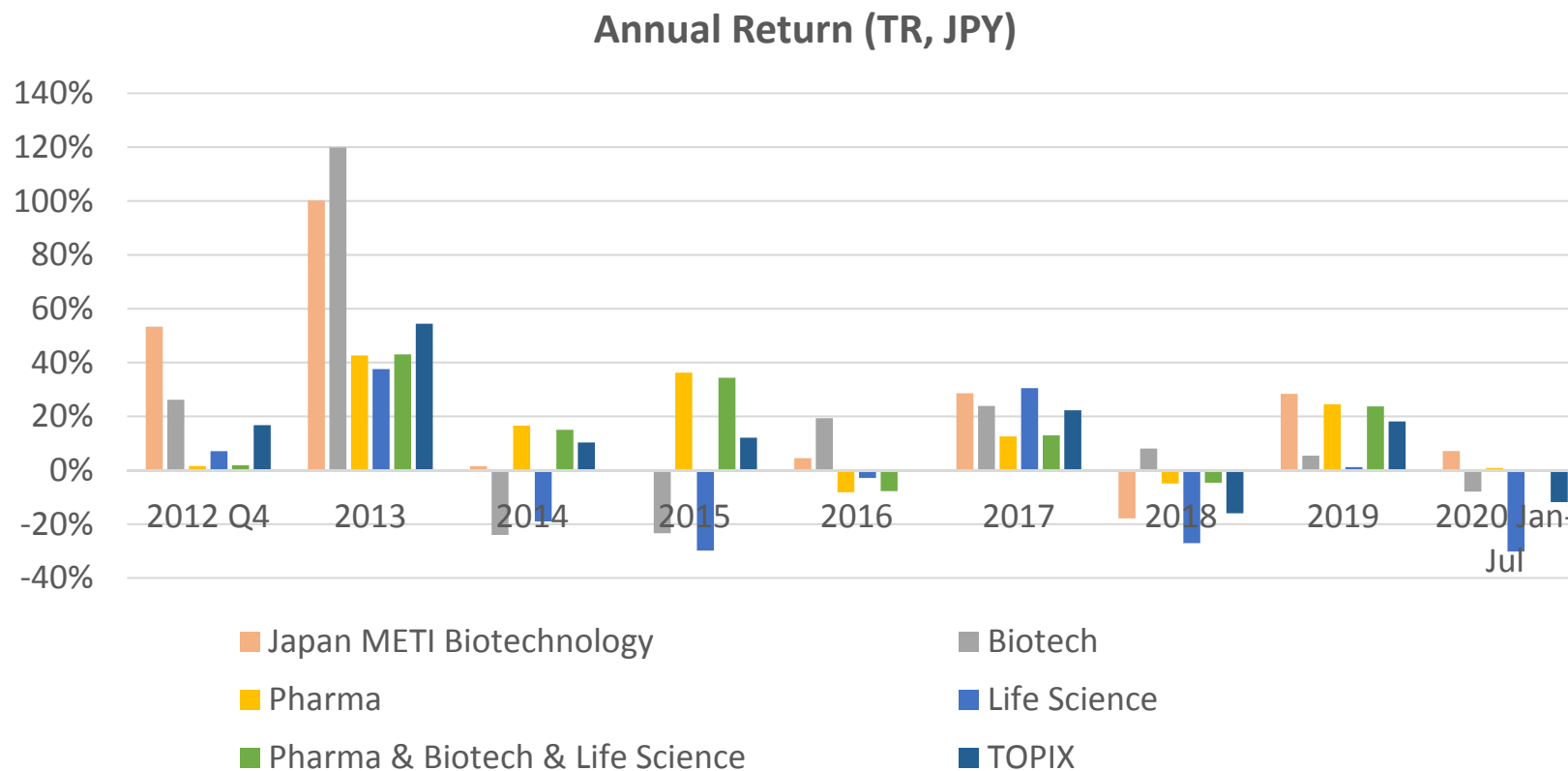
### S&P Dow Jones Indices

A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data as of July.31, 2020 based on total returns in JPY. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# S&P日本バイオテクノロジー指数: 年間リターン

## S&P Japan Biotechnology Index: Annual Returns



### S&P Dow Jones Indices

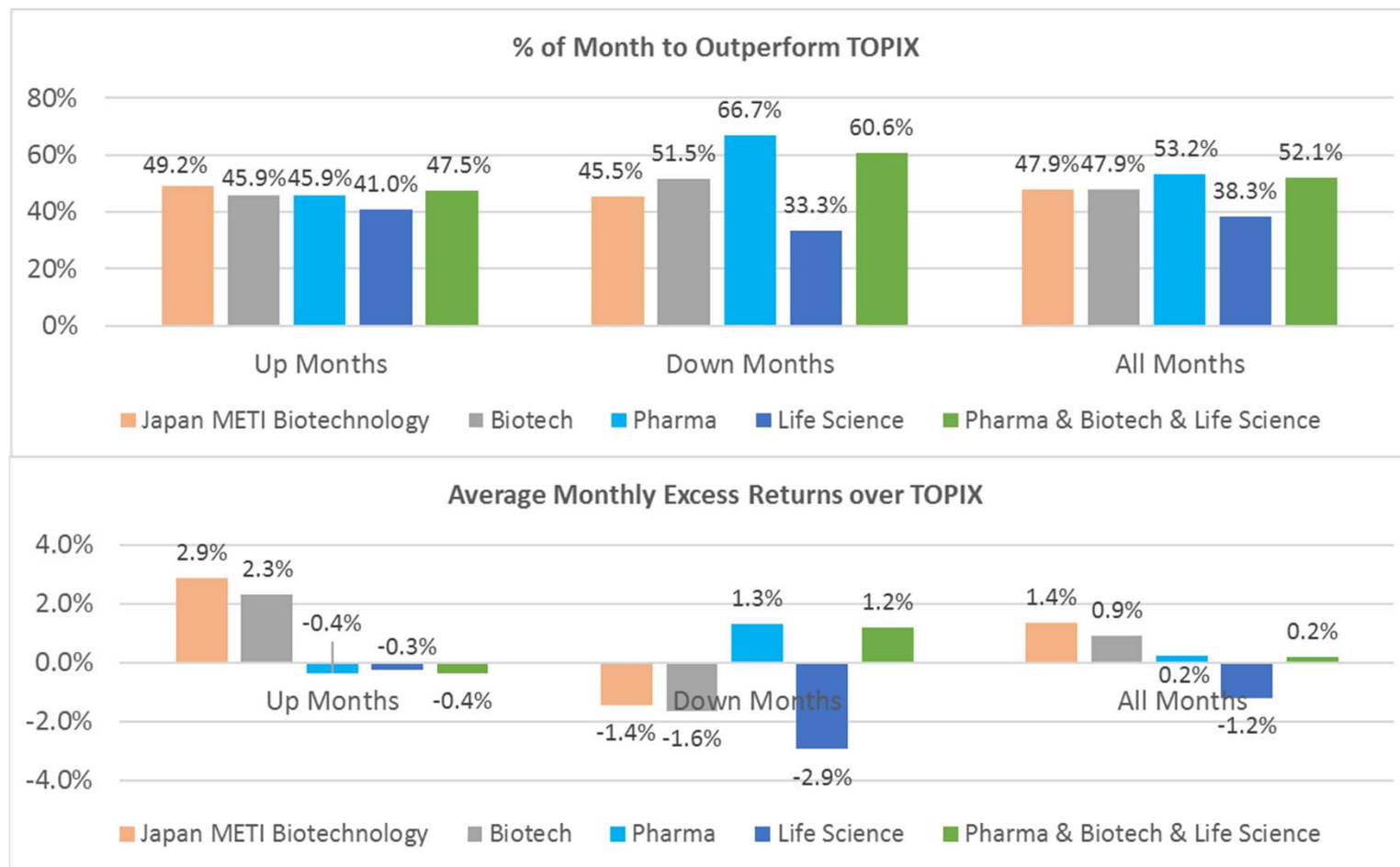
A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data as of July.31, 2020 based on total returns in JPY. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.



# S&P日本バイオテクノロジー指数: 上昇・下落局面におけるパフォーマンス

## S&P Japan Biotechnology: Up & Down Market Performance



### S&P Dow Jones Indices

A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data based on monthly total returns in JPY from September 28, 2012 to July 31, 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# S&P日本バイオテクノロジー指数: 業種配分

## S&P Japan Biotechnology: Industry Breakdown

S&P Japan Biotechnology Sub Industry	S&P Japan Biotechnology	
	# Stocks	Weight
<b>Biotechnology</b>	<b>23</b>	<b>48.2%</b>
<b>Pharmaceuticals</b>	<b>19</b>	<b>39.7%</b>
TSE 1st & 2nd Sections	14	30.0%
TSE Mother & JASDAQ	5	9.7%
<b>Life Sciences Tools &amp; Services</b>	<b>10</b>	<b>12.1%</b>
<b>Total</b>	<b>52</b>	<b>100.0%</b>

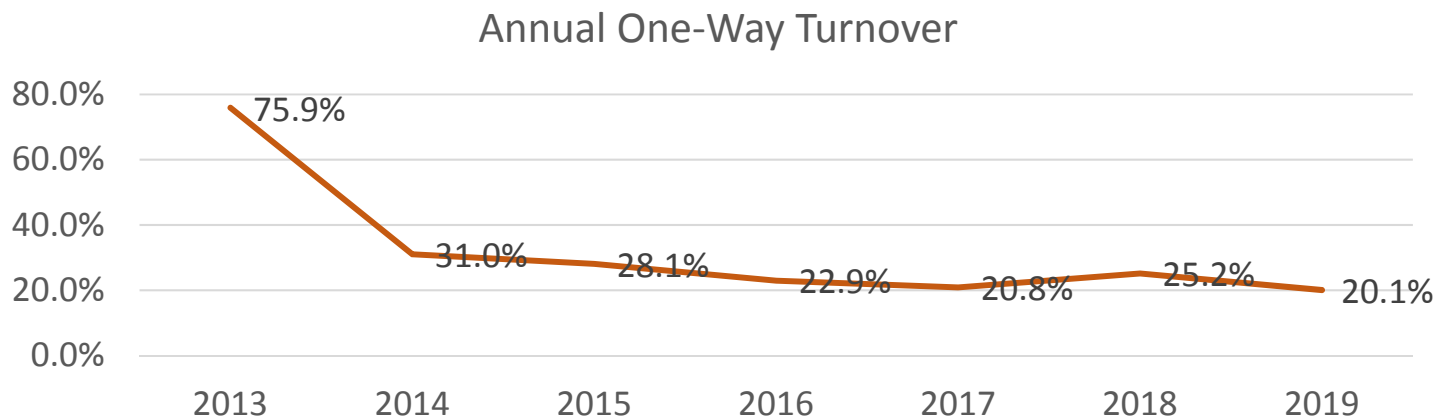
### S&P Dow Jones Indices

A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data based on rebalance in March 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# S&P日本バイオテクノロジー指数: 売買回転率と取引可能性

## S&P Japan Biotechnology Index: Turnover & Tradability



Basket Liquidity	
At 6M MDVT	
Japan METI Biotechnology	
# Days Needed to Turnover 10 Billion JPY	
Min	0.0
Max	5.0
Median	0.7
Average	1.1
Maximum Daily Fund Turnover (JPY, Million)	1983.2

### S&P Dow Jones Indices

A Division of S&P Global. Turnover data based on rebalances from March 2013 to September 2019. Liquidity data based on 6M MDVT as of Mar. 31, 2020 and the new basket to be effective on March 31, 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# S&P日本バイオテクノロジー指数: 1年・年率ボラテリティー

## S&P Japan Biotechnology: 1-Yr Annualized Volatility

Annualized Volatility (8/1/2019-7/31/2020)			
Individual Stocks		Indices/Portfolios	
Min	28.4%	Biotechnology	39.8%
Max	125.8%	Pharmaceuticals	24.1%
Median	61.5%	Life Sciences Tools & Services	32.6%
Average	61.8%	Pharma & Biotech & Life Science	23.9%
Wt. Avg.	64.8%	Japan METI Biotechnology	33.0%

### S&P Dow Jones Indices

A Division of **S&P Global**

Source: S&P Dow Jones Indices. Data as of July 31, 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

# General Disclaimer

Copyright © 2020 by S&P Dow Jones Indices LLC, a part of S&P Global. All rights reserved. Standard & Poor's®, S&P 500® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"), a subsidiary of S&P Global. Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). Trademarks have been licensed to S&P Dow Jones Indices LLC. Redistribution, reproduction and/or photocopying in whole or in part are prohibited without written permission. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, Dow Jones, S&P or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. 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. Past performance of an index is not a guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is 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 vehicle. 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 Dow Jones Indices keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P Dow Jones Indices may have information that is not available to other business units. S&P Dow Jones Indices 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.

**S&P Dow Jones  
Indices**

A Division of **S&P Global**

# Performance Disclosure

All information presented prior to the launch date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at [www.spdji.com](http://www.spdji.com). It is not possible to invest directly in an index.

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.

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. 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](http://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).

## S&P Dow Jones Indices

A Division of **S&P Global**



# Thank you

Priscilla Luk

Managing Director & APAC Head

Global Research & Design

S&P Dow Jones Indices

[priscilla.luk@spglobal.com](mailto:priscilla.luk@spglobal.com)

Liyu Zeng

Director

Global Research & Design

S&P Dow Jones Indices

[liyu.zeng@spglobal.com](mailto:liyu.zeng@spglobal.com)

**S&P Dow Jones  
Indices**

A Division of **S&P Global**