

# A Smart Beta ETF Due Diligence Checklist

Smart beta is a rules-based approach that seeks to capture specific factors — or investment characteristics — that active managers commonly seek exposure to, while preserving the benefits of traditional passive investments, including transparency, consistency and low cost.

As interest in smart beta grows, the number of funds continues to increase. Such a crowded landscape demands investors conduct ample due diligence before choosing a smart beta strategy. This worksheet provides a thorough analytical framework to help ensure the smart beta ETFs you choose best meet your investment needs.

## Understand the Factor Exposure of Existing Portfolios

What is the factor exposure of your existing portfolio?

Understanding your existing factor exposure will enable you to identify factors that complement your current strategies.

## Choose the Factor(s) to Capture that Align with Investment Goals

What are the investment goals?

Are you looking to strengthen the core, reduce risks, enhance returns, generate yield, or a combination of a few goals?

An outcome-oriented mindset is crucial for implementation, as your investment objectives will drive which factor(s) you want to capture in the portfolio.

Are you looking for single-factor or multi-factor exposure?

Individual factors can experience periods of underperformance relative to market cap-weighted indices. Multi-factor approaches may help investors mitigate the cyclical nature of factors, while still being able to harness certain factor premia.

## Choose the Factor(s) to Capture that Align with Investment Goals (cont'd)

<p><input type="checkbox"/> How will the smart beta fund be used?</p> <p>As a replacement for a broad market cap index fund or for an active fund?</p> <p>Or as a complement to existing passive or active holdings?</p>	<p>While smart beta may be able to replace active or passive exposures, the end client goal and preference will drive which factor index construction methodology to use. For example, a high exposure index<sup>2</sup> may be more suitable to replace an active fund which is usually less benchmark-aware and holds more concentrated positions. A high capacity index<sup>3</sup> may be a better replacement for a broad market-cap index fund that provides broader security coverage.</p>
<p><input type="checkbox"/> What is the overall risk tolerance of the portfolio?</p> <p>How much risk budget is going to be allocated to smart beta portfolio(s)?</p>	<p>Factor risks should be considered in the context of the overall risk tolerance of the portfolio. The risk budget to smart beta portfolio(s) drives the decision-making process on which smart beta indices to use.</p>

## Understand Index Construction and Historic Performance

<p><input type="checkbox"/> Does the smart beta index include a subset of the parent market cap-weighted index constituents (high exposure index) or include every security but re-weight them based on their fundamental metrics (high capacity index)?</p>	<p>Variations in index construction may result in different levels of factor exposure, thus yielding different performance results.</p>
<p><input type="checkbox"/> What metrics are used to select the index constituents?</p>	<p>An understanding of the selection criteria will enable you to understand how the index captures the factor premia.</p>
<p><input type="checkbox"/> How does the index weight and rebalance the securities to target the factor(s)? (i.e. rules-based vs. optimization)</p>	<p>Differences in weighting methodology and rebalancing frequency may lead to different sector allocations and index turnover.</p>
<p><input type="checkbox"/> What is the tracking error relative to a market cap-weighted index?</p>	<p>The tracking error helps quantify the risk level of the factor-based strategy and evaluate whether it is aligned with your risk budget or tolerance to deviate from traditional market cap-weighted strategies.</p>
<p><input type="checkbox"/> How does the index/fund perform in different market environments?</p>	<p>Factors tend to outperform market cap weighted indices over the long term, but they have periods of out/underperformance in different shorter term market environments. Understanding how factors performed can help you set reasonable performance expectations.</p>

## Additional Considerations for a Multi-Factor Exposure

<p><input type="checkbox"/> What is the correlation between/among factors?</p>	<p>Certain factors have exhibited a low correlation with one another while others may be highly correlated. Factors that are highly correlated may exacerbate underperformance during certain market environments.</p>
<p><input type="checkbox"/> Are you looking to blend a few single-factor products at your own investment discretion or use a multi-factor product which employs pre-defined rules to allocate between/among factors?</p>	<p>The decision should be made based on the investors' level of experience and knowledge of factor investing. A multi-factor product may reduce transaction costs and avoid factor timing. Factor timing requires a sophisticated and advanced framework that may be better left up to skilled active managers.</p>

## Additional Considerations for a Multi-Factor Exposure (cont'd)

<p>□ How do you capture multiple factors in one portfolio?</p> <p>Blend single factor portfolios by assigning weights to each of them (combination approach) or incorporate all factor characteristics of each security into a composite factor score (bottom-up approach)?</p>	<p>The combination approach has benefits of transparent factor attribution and easy implementation, but may miss some of the interaction between factors at the security level. The bottom-up approach captures interaction between factors, but it may be more difficult for investors to dissect which factor exposure is driving returns.</p>
<p>□ How are factors weighted?</p> <p>Equally weighted among factors or focused on a certain factor?</p>	<p>Equally weighting factors is commonly adopted by investors who believe in long-term risk premia from multiple factors and do not want to target any particular single factor. Focused factor strategies, where a certain factor within a multi-factor combination is emphasized, may address investors' targeted objectives, such as income generation or volatility reduction while still mitigating single factor cyclicalities.</p>

## Quantitative Metrics to Consider When Evaluating Smart Beta ETFs

<p><b>Active Risk</b></p> <ul style="list-style-type: none"> <li>• Tracking error</li> <li>• Sector active risk</li> <li>• Country active risk</li> </ul>	<p><b>Liquidity/Capacity</b></p> <ul style="list-style-type: none"> <li>• Portfolio turnover</li> <li>• Number of securities</li> <li>• Top 10 security weights</li> <li>• Overlap with market cap-weighted index</li> <li>• Weighted average daily volume of index constituents</li> </ul>	<p><b>Factor Exposure</b></p> <ul style="list-style-type: none"> <li>• Factor exposure per unit of tracking error</li> <li>• Stability of factor exposures</li> <li>• Non-targeted factor exposure(s)</li> </ul>
<p><b>Performance</b></p> <ul style="list-style-type: none"> <li>• Absolute return and total risk Sharpe ratio</li> <li>• Return and risk relative to the benchmark</li> <li>• Information ratio</li> <li>• Downside risk, maximum drawdown</li> </ul>	<p><b>Costs</b></p> <ul style="list-style-type: none"> <li>• Total expense ratio</li> <li>• Trading costs</li> <li>• Bid-ask spread</li> </ul>	

## Endnotes

- 1 High exposure smart beta indices hold a subset of stocks from within a parent market cap-weighted index that best represent a particular factor.
- 2 High capacity smart beta indices hold every security in the parent index, but re-weight the constituents to be tilted toward the targeted factor.

## ssga.com/etfs

### Glossary

**Absolute Return** The return that an asset or investment strategy achieves over a certain period of time.

**Active Risk** Risk created by an active investment manager attempting to outperform its benchmark.

**Bid-Ask Spread** The difference between the highest price a buyer is willing to pay for an asset and the lowest price the seller will accept to sell. Bid-ask spreads are a key measure of the liquidity of an asset or security.

**Correlation** The historical tendency of two investments to move together. Investors often combine investments with low correlations to diversify portfolios.

**Factor Exposure** The level of exposure to a factor or investment characteristic (such as momentum and yield).

**Factor Exposure per Unit of Tracking Error** A portfolio's factor exposures divided by the portfolio tracking error relative to market cap weighted benchmarks.

**Factor Premia** The historical outperformance of factors (such as momentum and yield) versus market cap weighted indices.

**Stability of Factor Exposures** The volatility of factor exposures over a period of time.

**Information Ratio** A unit of measure showing the difference between a portfolio's return and that of its benchmark index, per unit of volatility.

**Market Cap-Weighted Indices** A type of market index in which individual components

are weighted according to their market capitalization, so that larger components carry a larger percentage weighting in the index.

**Maximum Drawdown** An investment's largest loss from a peak to a trough over a certain time period.

**Relative Return** The return that an asset or investment strategy achieves over a period of time compared to a benchmark.

**Relative Risk** The volatility of an asset or investment strategy's return compared to the return of another asset or strategy.

**Sharpe Ratio** A measure for calculating risk-adjusted return that has become the industry standard for such calculations. It was developed by Nobel laureate William F. Sharpe. The Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk.

**Smart Beta** Smart beta defines a set of investment strategies that use alternative index construction rules to achieve outperformance over first-generation market capitalization based indices. Smart beta indices isolate six particular "factors" – small size, value, high yield, low volatility, quality and momentum – and are again designed to deliver better risk-adjusted returns than cap-weighted indices.

**Total Risk** The sum of systematic or market risk plus any risk attributable to the investment itself, also known as unsystematic risk.

**Tracking Error** A measure of how consistent a portfolio's return is with that of its benchmark. In reality, no indexing strategy can perfectly match the performance of the index or benchmark, and the tracking error quantifies the degree to which the strategy differed from

the index or benchmark, by measuring the standard deviation between the two values, annualized.

**Learn More:** For more information on ETFs, please visit [ssga.com](http://ssga.com) for comprehensive product information and a wide range of educational resources.

**State Street Global Advisors**  
State Street Global Advisors, One Iron Street, Boston, MA 02210-1641. T: +1 617 786 3000.

### State Street Global Advisors Worldwide Entities

**Abu Dhabi:** State Street Global Advisors Limited, Middle East Branch, 42801, 28, Al Khatem Tower, Abu Dhabi Global Market Square, Al Maryah Island, Abu Dhabi, United Arab Emirates. Regulated by ADGM Financial Services Regulatory Authority. T: +971 2 245 9000. **Australia:** State Street Global Advisors, Australia Services Limited (ABN 16 108 671 441) (AFSL Number 274900) ("SSGA, ASL"). Registered office: Level 15, 420 George Street, Sydney, NSW 2000, Australia. T: 612 9240-7600. F: 612 9240-7611. **Belgium:** State Street Global Advisors Belgium, Chaussée de La Hulpe 120, 1000 Brussels, Belgium. T: 32 2 663 2036. F: 32 2 672 2077. SSGA Belgium is a branch office of State Street Global Advisors Ireland Limited. State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Canada:** State Street Global Advisors, Ltd., 1981 McGill College Avenue, Suite 500, Montreal, Quebec, H3A 3A8, T: +514 282 2400 and 30 Adelaide Street East Suite 800, Toronto, Ontario M5C 3G6. T: +647 775 5900. **France:** State Street Global Advisors Ireland Limited, Paris branch is a branch of State Street Global Advisors Ireland Limited, registered in

Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Paris Branch, is registered in France with company number RCS Nanterre 832 734 602 and whose office is at Immeuble Défense Plaza, 23-25 rue Delarivière-Lefoullon, 92064 Paris La Défense Cedex, France. T: (+33) 1 44 45 40 00. F: (+33) 1 44 45 41 92. **Germany:** State Street Global Advisors GmbH, Briener Strasse 59, D-80333 Munich. Authorised and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. T: +49 (0)89-55878-400. F: +49 (0)89-55878-440. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103-0200. **Ireland:** State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered number 145221. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano), is registered in Italy with company number 10495250960 - R.E.A. 2535585 and VAT number 10495250960 and whose office is at Via Ferrante Aporti, 10 - 20125 Milano, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Japan:** State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan. T: +81-3-4530-7380 Financial Instruments Business Operator, Kanto Local Financial

Bureau (Kinsho #345), Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association. **Netherlands:** State Street Global Advisors Netherlands, Apollo Building, 7th floor Herikerbergweg 29 1101 CN Amsterdam, Netherlands. T: 31 20 7181701. SSGA Netherlands is a branch office of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Singapore:** State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D, regulated by the Monetary Authority of Singapore). T: +65 6826-7555. F: +65 6826-7501. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Authorised and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No.

577659181. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. **United States:** State Street Global Advisors, One Iron Street, Boston, MA 02210-1641. T: +1 617 786 3000.

#### Important Risk Information

Diversification does not ensure a profit or guarantee against loss. ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs' net asset value. Brokerage commissions and ETF expenses will reduce returns. Investing involves risk including the risk of loss of principal. It is not possible to invest in an index. There can be no assurance that a liquid market will be maintained for ETF shares. Frequent trading of ETF could significantly increase commissions and other costs such that they may offset any savings from low fees or costs. Passive management and the creation/redemption process can help minimize capital gains distributions. While the shares of ETFs are tradeable on the secondary markets, they may not readily

trade in all market conditions and may trade at significant discounts in periods of market stress. The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without SSGA's express written consent. The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information. The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or timeliness of the data and have no liability for damages of any kind relating to the use of such data.

Standard & Poor's®, S&P® and SPDR® are registered trademarks of Standard & Poor's Financial Services LLC, division of S&P Global (S&P); Dow Jones is a registered trademark of Dow Jones Trademark Holdings LLC (Dow Jones); and these trademarks have been licensed for use by S&P Dow Jones Indices LLC (SPDJI) and sublicensed for certain purposes by State Street Corporation. State Street Corporation's financial products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and third party licensors and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability in relation thereto, including for any errors, omissions, or interruptions of any index. **Distributor:** State Street Global Advisors Funds Distributors, LLC, member FINRA, SIPC, an indirect wholly owned subsidiary of State Street Corporation. References to State Street may include State Street Corporation and its affiliates.

© 2020 State Street Corporation. All Rights Reserved. ID283851-2175312.31.GBL.RTL 0820 Exp. Date: 08/31/2021