

# ETFs Turn 20 in Australia

## How the S&P/ASX Series Propelled the Growth of Index Investing

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Since its debut in April 2000, the S&P/ASX Index Series has helped to define the Australian equity market. As Australia's most widely followed market indicator, the S&P/ASX 200 serves as the de facto measure of the value and performance of the nation's stock market. Market peaks and valleys are defined by the level of the S&P/ASX 200.

Beyond the headlines, however, the index series serves an integral role in Australia's investment infrastructure. For example, the fund management industry utilizes the S&P/ASX 200 and other S&P/ASX Indices to serve as the investable universe for active investment strategies and to benchmark fund performance. Likewise, asset owners, such as superannuation funds, use S&P/ASX Indices to benchmark their domestic portfolios. With an estimated AUD 319 billion<sup>1</sup> in Australian equity funds benchmarked to S&P/ASX Indices, the series represents by far the most widely used benchmarks for Australian investment funds.

Perhaps most importantly, the S&P/ASX Index Series has served as

the foundation for the growth of index-based investing in Australia, including the nation's first exchange-traded fund (ETF). The deep ecosystem of liquid financial products tracking key S&P/ASX Indices allows active and passive investors to express investment views in an efficient manner. S&P Indices Versus Active (SPIVA<sup>®</sup>) research has also shined a light on the inability of most Australian fund managers to beat their benchmarks, further highlighting the benefits of passive investing. As has occurred in other parts of the world, the growth of index investing has democratized investment solutions that were previously only available to large institutions and lowered the cost of investing for millions of Australians.

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1. Source: S&P Dow Jones Indices LLC; Morningstar; Evestment. Data as of Dec. 31, 2020.



The S&P/ASX 200 serves as the de facto measure of the value and performance of the Australian stock market...

...and the S&P/ASX Index Series has served as the foundation for the growth of index-based investing in Australia.

### Evolution of the S&P/ASX Index Series (2000-2021)

April 2000 marked not only the introduction of the S&P/ASX 200, but also the launch of the S&P/ASX 300 and other size segment indices such as the S&P/ASX 50, S&P/ASX 100, S&P/ASX Small Ordinaries, and S&P/ASX MidCap 50. This landmark event paved the way for two decades of index innovation in the Australian market, as the S&P/ASX Series expanded to a wide range of equity market segments, asset classes, and investment themes and strategies. For a full chronology of the S&P/ASX Index Series, see Appendix A. However, we've highlighted several notable index innovations in Exhibit 1.

In 2001, a suite of sector indices using the Global Industry Classification Standard (GICS®) framework was created based on the S&P/ASX 200 and other size segment indices. This development allowed investors to dissect broad benchmark performance along sector lines and led to the creation of products linked to indices such as the S&P/ASX 200 A-REIT, S&P/ASX 200 Resources, and several other Australian equity sectors.

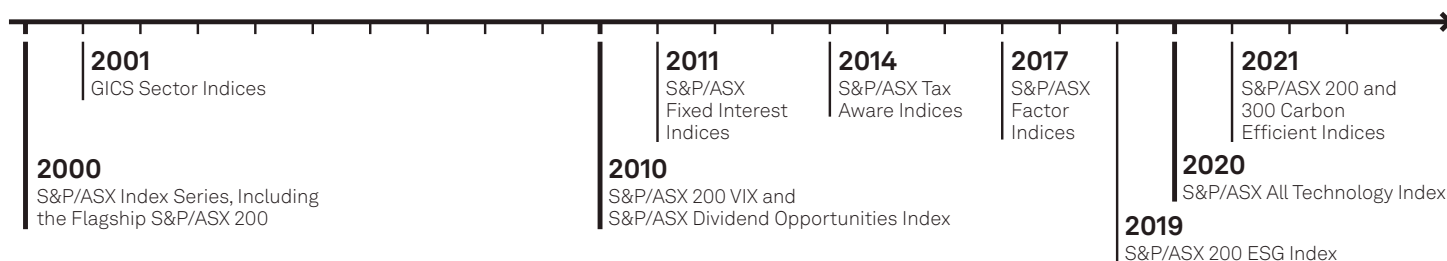
The S&P/ASX 200 VIX®—known as the “fear gauge” of the Australian market—was launched in 2010 with the aim of measuring implied equity market volatility. The S&P/ASX Dividend Opportunities Index was likewise introduced in 2010, offering insight into high-dividend-yielding Australian companies.

The S&P/ASX Fixed Interest Indices were brought to market in 2011, complementing the S&P/ASX Equity Series by providing a complete offering across key fixed interest asset classes.

In 2014, we rolled out our “Tax Aware” index suite, which incorporates the impact of franking credits on the total returns of several major S&P/ASX equity benchmarks. These indices have been adopted by many Australian superannuation funds and tax-exempt investors as benchmarks to better reflect after-tax investment performance.

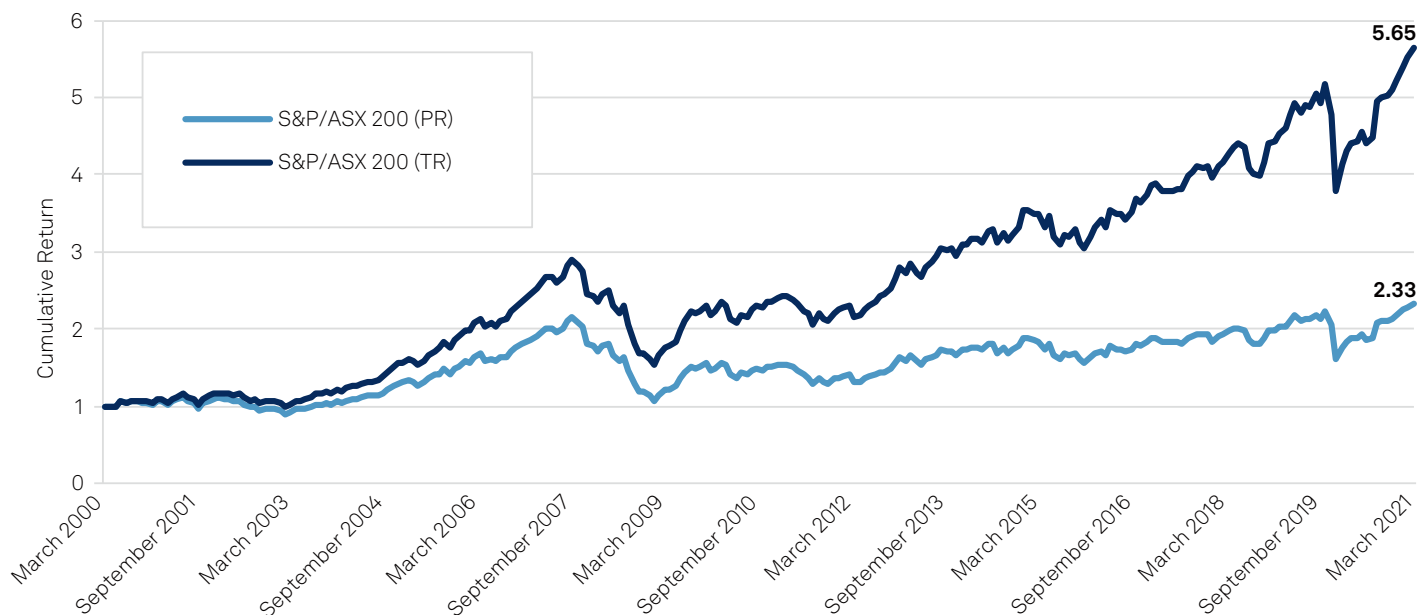
The S&P/ASX 200 Factor Indices were introduced to the Australian investment community in 2017, including four main factors: quality, enhanced value, momentum, and low volatility. These indices allow

### Exhibit 1: S&P/ASX Index Launch Highlights



Source: S&P Dow Jones Indices LLC. Chart is provided for illustrative purposes.

## Exhibit 2: Cumulative Price and Total Return of the S&P/ASX 200



Source: S&P Dow Jones Indices LLC. Data from March 31, 2000, to June 30, 2021. Indices rebased to 100 as of March 31, 2000. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

From the 2000 launch to June 2021, the S&P/ASX 200 gained 133% on a price return basis.

The index's total return was approximately 465% over the same period.

market participants to decompose the S&P/ASX 200 along factor lines and are designed to serve as the basis for index-linked products.

The [S&P/ASX 200 ESG Index](#) was introduced in 2019 and represents S&P DJI's first mainstream ESG offering for the Australian market. The index is designed to have similar risk/return characteristics as the S&P/ASX 200 while delivering an improved sustainability profile.

In February 2020, we launched the [S&P/ASX All Technology Index](#), which cuts across multiple technology-related GICS categories to capture the rapidly growing set of ASX-listed technology companies.

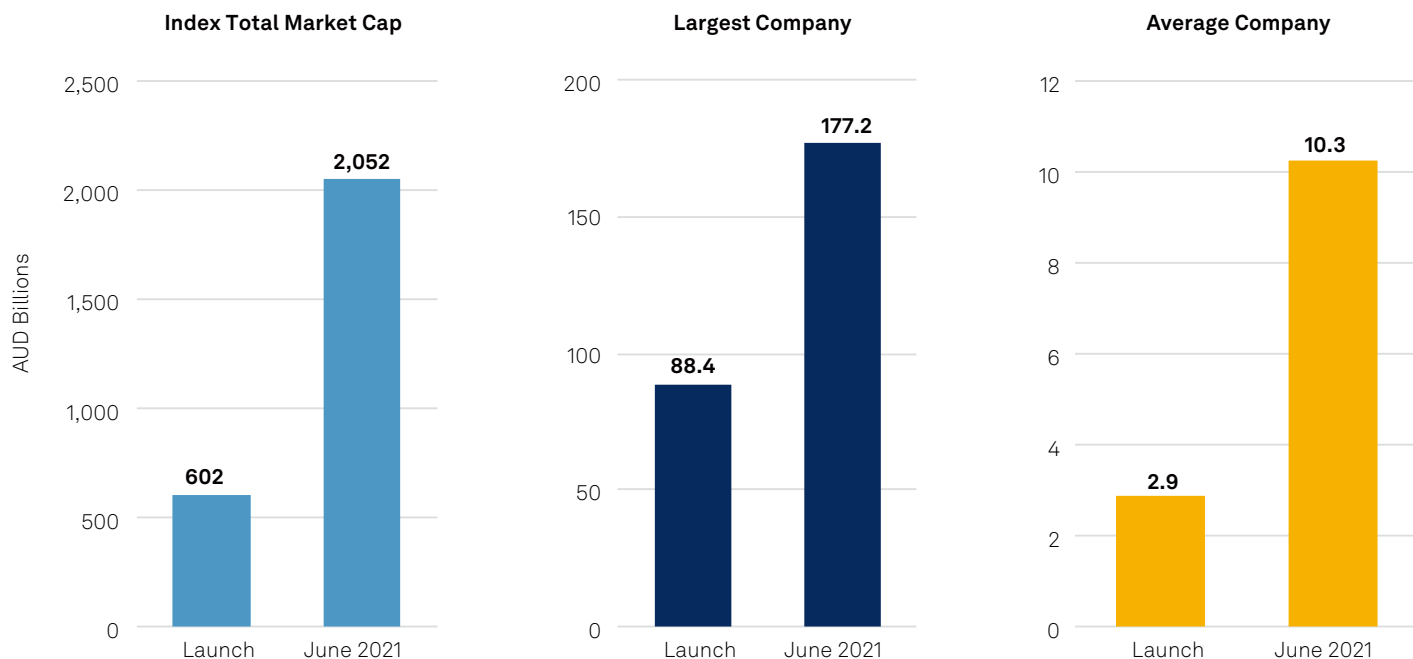
Finally, we extended our S&P Carbon Efficient Indices in June 2021, with the [S&P/ASX 200 Carbon Efficient Index](#) and [S&P/ASX 300 Carbon Efficient Index](#). The indices are

aimed at reducing the carbon of local investments by overweighting companies with lower levels of carbon emissions and underweighting companies with higher levels per unit of revenue.

### Charting the Past Two Decades with the S&P/ASX 200

From the 2000 launch through June 2021, the S&P/ASX 200 gained 133% on a price return basis. However, as even the most casual market observers are aware, it was far from a straight-line advance. After some fits and starts throughout the first few years, the index more than doubled in price between March 2003 and its pre-financial-crisis peak on Nov. 1, 2007. The index subsequently lost 54% of its value between November 2007 and the index low on March 6, 2009, during the depths of the Global Financial Crisis.

### Exhibit 3: S&P/ASX 200 Company Size Characteristics – Then and Now



Source: S&P Dow Jones Indices LLC. Data as of March 31, 2000, and as of June 30, 2021. Charts are provided for illustrative purposes.

The S&P/ASX 200 also provides a window into how the composition of Australia’s stock market has evolved over the past two decades.

The total market cap of companies included in the S&P/ASX 200 increased from just over AUD 600 billion at launch to AUD 2.05 trillion as of June 2021.

It then took more than a decade for the S&P/ASX 200 to surpass its pre-crisis peak, when the index closed at 6,863.998 on Nov. 28, 2019. During the pandemic-induced downturn in 2020, the index plunged nearly 37% from its February 2020 high. However, since the March 2020 low, the index gained 62% (as of June 30, 2021) and hit new all-time highs in June 2021.

While the S&P/ASX 200’s 133% return is respectable, it is important to remember that price appreciation is only one component of total returns. In a market like Australia, where companies are known for their hefty dividend payouts, incorporating dividends into the return calculation is critical. As illustrated in Exhibit 2, the S&P/ASX 200’s total return, which includes reinvested dividends, was

approximately 465% from March 31, 2000, through June 30, 2021; dividends accounted for about 71% of the index’s total return.

So, while AUD 1.00 invested on March 31, 2000, would have turned into AUD 2.33 through June 2021 based on price appreciation only, it would have grown into a much larger AUD 5.65 when including reinvested dividends.

Exhibit 3 illustrates how the total value of the S&P/ASX 200 and size characteristics of the index evolved over the past two decades. The total market cap of companies included in the S&P/ASX 200 increased from just over AUD 600 billion at launch to AUD 2.05 trillion as of June 2021, a more than threefold increase.

The reduction in weighting to Consumer Discretionary raised the weights of the largest sectors, such as Financials and Materials.

Other notable moves were the reduced weight to Communication Services and sharp increases in Health Care and Information Technology.

### A Window into the Evolution of the Australian Market via the S&P/ASX 200

In addition to measuring the growth in value of the market, the S&P/ASX 200 also provides a window into how the composition of Australia's stock market evolved over the past two decades. As depicted in Exhibit 4, the sector composition of the S&P/ASX 200 changed considerably over the past two decades.

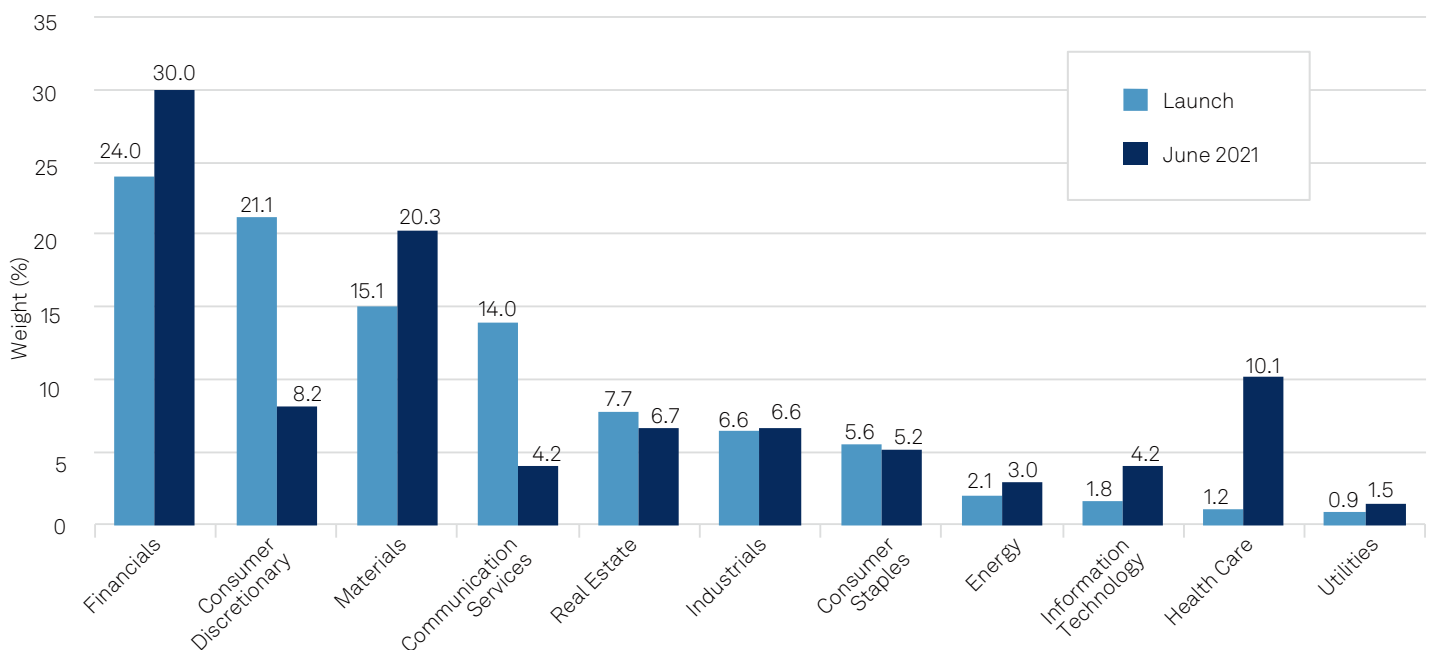
The most notable shift was the sharp drop in weight of the Consumer Discretionary sector, which was largely the result of News Corp's 2004 change in incorporation from Australia to the U.S. At launch, News Corp was the largest holding in the S&P/ASX 200, at roughly 15%. While it currently remains an S&P/ASX 200 component, its influence is much smaller, since foreign companies are represented

within the S&P/ASX Series at a reduced weighting factor reflective of their Australian shareholder base.

Naturally, the reduction in weighting to Consumer Discretionary raised the weights of the largest sectors, such as Financials and Materials. However, other notable moves were the reduced weight to Communication Services and sharp increases in Health Care and Information Technology.

Drilling down further into the top holdings, we can see in Exhibit 5 that out of the 10 largest S&P/ASX 200 constituents at launch (9 companies, since News Corp was represented via two share classes), 8 remained in the index as of June 30, 2021, and 5 remained in the top 10. Acquired by Singtel in 2001, Cable & Wireless Optus is the only original top 10 constituent to no longer be an S&P/ASX 200 member.

**Exhibit 4: S&P/ASX 200 Sector Composition – Then and Now**



Source: S&P Dow Jones Indices LLC. Data as of March 31, 2000, and as of June 30, 2021. Chart is provided for illustrative purposes.

CSL stands out as the star performer, posting a share price return in excess of 4,070% since March 31, 2000, propelling the company's market cap from AUD 2.7 billion to AUD 130 billion and becoming Australia's third-largest company behind only Commonwealth Bank and BHP Group.

Despite many similar names appearing in the top 10 holdings, there has been quite a bit of movement in their ranking. Most notably, Commonwealth Bank jumped from seven to number one.

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Most notably, Commonwealth Bank jumped from seven to number one.

#### Exhibit 5: S&P/ASX 200 Top 10 Constituents – Then and Now

Launch				
Constituent	Ticker	Sector	Index Weight (%)	Total Market Cap (AUD Millions)
Telstra Corporation	TLS	Communication Services	8.4	48,797
News Corporation	NCP	Consumer Discretionary	8.0	46,731
News Corporation	NCPDP	Consumer Discretionary	7.1	41,696
National Australia Bank	NAB	Financials	5.4	31,653
Broken Hill	BHP	Materials	5.4	31,622
Cable & Wireless Optus	CWO	Communication Services	4.3	24,909
Commonwealth Bank	CBA	Financials	3.5	20,364
Westpac Banking Group	WBC	Financials	3.2	18,912
AMP Limited	AMP	Financials	2.9	16,949
Australia & NZ Bank	ANZ	Financials	2.8	16,081
<b>Total</b>			<b>51.0</b>	<b>297,713</b>
June 2021				
Constituent	Ticker	Sector	Index Weight (%)	Total Market Cap (AUD Millions)
Commonwealth Bank Australia	CBA	Financials	8.6	177,179
BHP Group Ltd	BHP	Materials	7.0	143,080
CSL Ltd	CSL	Health Care	6.3	129,796
Westpac Banking Corp	WBC	Financials	4.6	94,686
National Australia Bank Ltd	NAB	Financials	4.2	86,489
ANZ Banking Group	ANZ	Financials	3.9	80,102
Wesfarmers Ltd	WES	Consumer Discretionary	3.3	67,010
Macquarie Group Ltd	MQG	Financials	2.6	53,204
Woolworths Group Ltd	WOW	Consumer Staples	2.4	48,336
Rio Tinto Ltd	RIO	Materials	2.3	47,011
<b>Total</b>			<b>45.2</b>	<b>926,892</b>

Source: S&P Dow Jones Indices LLC. Data as of March 31, 2000, and as of June 30, 2021. Table is provided for illustrative purposes.

In response to the increase in demand for indices more aligned with various personal or institutional values, the S&P/ASX 200 ESG Index Series was launched in May 2019.

The index takes a different approach to constituent selection, including the exclusion of companies with business activities related to issues that clash with the interest of ESG investors.

### The S&P/ASX 200 – Always Iconic, Now More Sustainable

In response to the increase in demand for indices that are more aligned with various personal or institutional values, the S&P/ASX 200 ESG Index Series was launched in May 2019. Utilizing S&P DJI ESG Scores as the underlying ESG dataset, the index was more strategically aligned with market-leading sustainability strategies, while maintaining a broad representation of the Australian equity market. By targeting 75% of the S&P/ASX 200's market capitalization, industry by industry, the S&P/ASX 200 ESG Index offers industry diversification and a return profile in line with the underlying S&P/ASX 200.

The index does take several meaningfully different approaches to constituent selection from the

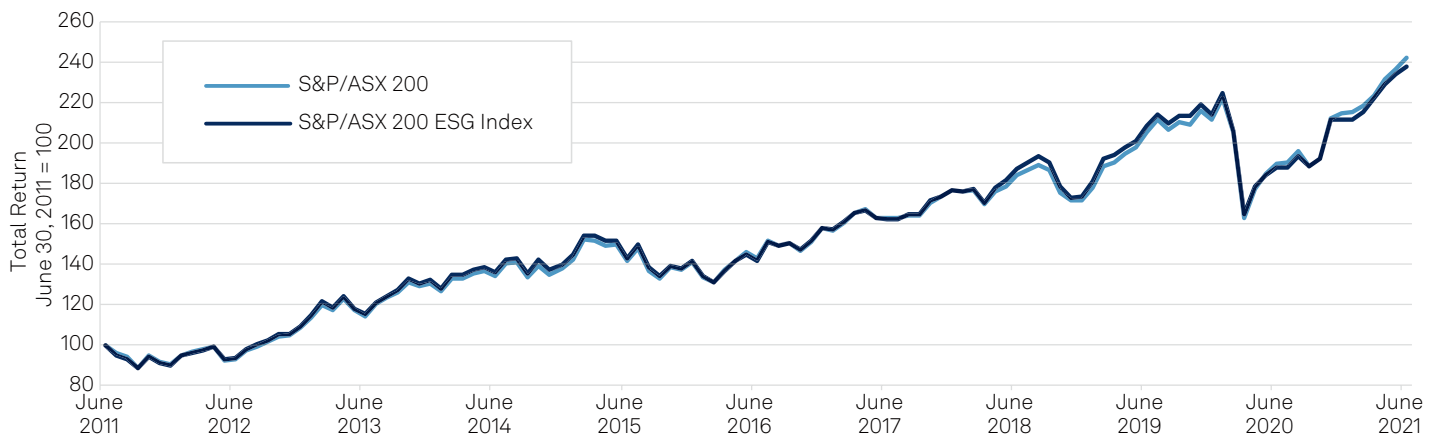
benchmark, including the exclusion of companies with business activities related to issues that clash with the interest of ESG investors. These excluded business activities include tobacco and controversial weapons, as well as exposure to fossil fuels. In addition, companies considered unaligned with the United Nations Global Compact are also excluded from the index.

The focus on reduction of S&P DJI ESG Score within the methodology, combined with the exclusion of companies with various business activities, resulted in an S&P DJI ESG Score improvement<sup>2</sup> of 28.32%, while maintaining a tracking error of 1.43%. Additionally, the weighted average carbon intensity was 17.56% lower than the benchmark.<sup>3</sup>

2. The index S&P DJI ESG Score improvement is calculated as the percentage difference between the index S&P DJI ESG Scores of the S&P/ASX 200 ESG Index and S&P/ASX 200, relative to the index's maximum potential improvement, based on only investing in the single highest-ranked ESG-scoring company. For more information, please see Perrone, Daniel and Ryan Christianson, "The S&P/ASX 200 ESG Index: Defining the Sustainable Core in Australia," S&P Dow Jones Indices, 2021.

3. Calculated as the percentage difference between the weighted average carbon intensity of the S&P/ASX 200 ESG Index and the S&P/ASX 200.

**Exhibit 6: Historical Returns of the S&P/ASX 200 ESG Index versus the S&P/ASX 200**



Source: S&P Dow Jones Indices LLC. Data from June 30, 2011, to June 30, 2021. Index performance based on total return in AUD. 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.



The increasing adoption of low-cost passive strategies may be one of the most important and fundamental changes in the global investment landscape this century.

### **The Adoption of Index Investing In Australia**

The increasing adoption of low-cost passive strategies may be one of the most important and fundamental changes in the global investment landscape this century. Aggregate assets under management in index-tracking funds have increased to record highs globally, and Australia has participated in the trend. The S&P/ASX Index Series provided the foundations for the growing adoption of indexing in Australia; as of June 30, 2021, approximately 30% of Australian domestic equity funds under management were invested through index-tracking vehicles.<sup>4</sup>

Since the original launch of broad-based equity benchmarks, a wide range of indices and associated products were developed to track size and sector segments of the Australian market, as well as other investment themes and strategies. Including products such as index funds and institutionally managed passive portfolios, S&P DJI estimated that there was approximately AUD 75 billion in assets tracking the various S&P/ASX Indices as of December 2020.<sup>5</sup>

ETFs proved to be a particularly popular format for index-based products. While it all started with one ETF based on the S&P/ASX 200 back in 2001, there are now more than 200

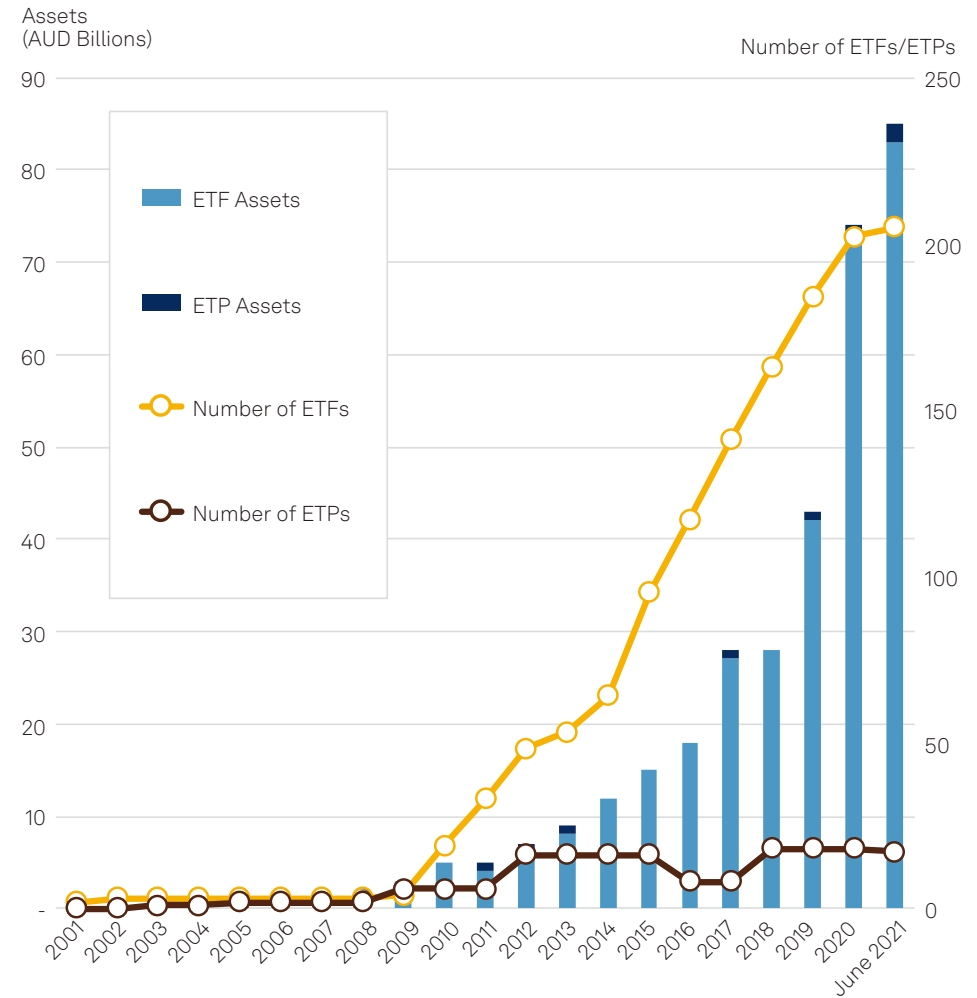
4. Rainmaker Information. Data as of June 30, 2021.

5. Source: S&P Dow Jones Indices LLC, Morningstar, Evestment Data as of Dec. 31, 2021. Includes enhanced index products.



As of June 2021, approximately 30% of Australian domestic equity funds under management were invested through index-tracking vehicles.

**Exhibit 7: Australian ETF Market Growth**



Source: ETFGI. Data as of June 2021. Chart is provided for illustrative purposes

The shift to passive investment has been driven, in part, by the relatively disappointing performance record of active managers in the past two decades.

ETFs listed in Australia, with assets in excess of AUD 85 billion. Over the past two decades, the compound annual growth rate of the Australian ETF industry was a remarkable 45%.

Today, the S&P/ASX Series remains at the heart of the growth of the Australian ETF industry. As of June 2021, domestic equity-focused ETFs

listed in Australia had attracted AUD 32.9 billion in investments, of which 75% (AUD 24.7 billion)<sup>6</sup> was based on the S&P/ASX Index Series. In addition, the top three Australian ETFs by assets under management are all linked to the S&P/ASX Series and are among the cheapest domestic ETFs.

6. Source: ASX Investment Products Monthly Update, as of June 2021. Figures include domestic equity and domestic property ETFs.

The first SPIVA Australia Scorecard was issued in 2009, measuring active fund performance in Australian equities, REITs, bonds, and international equities.

### **Drivers of the Growth of Index Investing In Australia**

The shift to passive investment has been driven, in part, by the relatively disappointing performance record of active managers in the past two decades. The [SPIVA Australia Scorecard](#), published semiannually, measures the performance of actively managed funds against a relevant benchmark. The first SPIVA scorecard for Australia was issued in 2009, measuring active fund performance in Australian equities,

international equities, Australian REITs, and Australian bonds. Exhibit 8 provides an outline of the relevant benchmark for each fund category used in the scorecards, while Exhibit 9 summarizes the record of active funds over the past decade.

Exhibit 9 illustrates that the past couple of years have been particularly challenging for active managers, with 56% of actively managed Australian Equity General funds underperforming the S&P/ASX 200 in 2020 and 82% underperforming over



In 2020, 56% of actively managed Australian Equity General funds underperformed the S&P/ASX 200 and 82% underperformed over the prior five years.

the prior five years. With the majority of active managers underperforming most of the time, it is perhaps not surprising that many investors turned instead to low-cost, index-based strategies for investment.

But what of those funds that did outperform? S&P DJI's annual [Persistence of Australian Active Funds](#) scorecard provides evidence

that for active funds, it's hard to stay at the top. According to the December 2020 report, none of the actively managed Australian Equity General funds that were in the top quartile of performance in December 2016 were able to maintain their position. In the Australian Equity General fund category, only 1.2% outperformed the S&P/ASX 200 for five consecutive years.

As of December 2020, no actively managed Australian Equity General funds that were in the top quartile of performance in December 2016 maintained their position.

### Exhibit 8: SPIVA Categories and Their Benchmarks

SPIVA Category	Benchmark Index
Australian Equity General	S&P/ASX 200
Australian Equity Mid- and Small-Cap	S&P/ASX Mid-Small Index
International Equity General	S&P Developed Ex-Australia LargeMidCap
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index
Australian Equity A-REIT	S&P/ASX 200 A-REIT

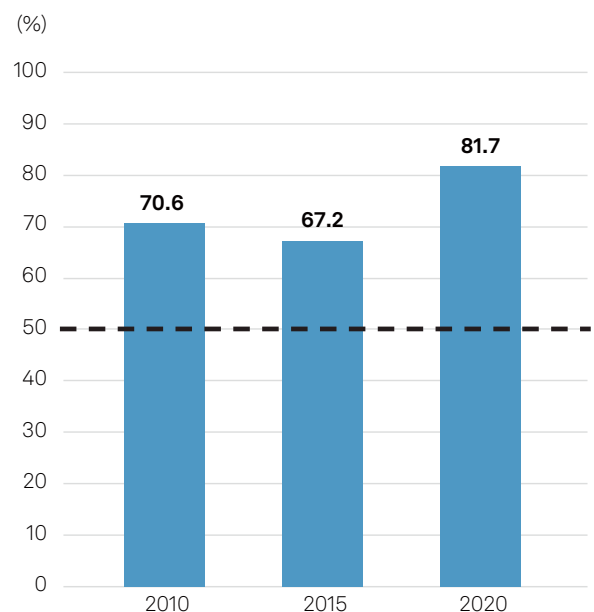
Source: S&P Dow Jones Indices LLC and Morningstar. Table is provided for illustrative purposes. Between 2009 and 2012, the MSCI World Ex Australia Index was used as the benchmark index for International Equity General. Between 2009 and 2011, the UBS Composite Bond Index 0+Y was used as the benchmark for Australian Bonds.

### Exhibit 9: Passive versus Active Investing in Australia

% of Active Funds Outperformed by the Benchmark over a One-Year Period

Year	Australian Equity General	Australian Equity Mid- and Small-Cap	International Equity General	Australian Bonds	Australian Equity A-REIT
2009	50.8	38.8	24.1	16.7	21.1
2010	80.9	44.2	68.6	62.2	76.5
2011	66.5	7.9	79.6	88.2	74.4
2012*	72.7	15.8	88.4	100.0	86.4
2013	32.2	5.4	77.6	44.6	59.6
2014	61.4	23.7	80.6	94.1	91.7
2015	36.2	27.3	72.3	85.7	84.1
2016	76.4	81.7	86.0	63.0	77.1
2017	59.0	74.0	52.5	68.6	43.9
2018	86.7	51.9	70.4	98.4	78.9
2019	61.5	46.9	71.3	72.2	65.2
2020	55.6	53.0	64.7	39.4	54.5

Percentage of Australian Equity Funds Outperformed by the S&P/ASX 200 Index over a Five-Year Trailing Period



Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2020. Note: \*Apart from figures for 2012, which are based on SPIVA Australia Mid-Year Scorecards, all other annual figures are based on SPIVA Australia Year End Scorecards. Past performance is no guarantee of future results. Chart and table are provided for illustrative purposes and reflect 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.

With the majority of active managers underperforming, it is perhaps not surprising that many investors turned to low-cost, index-based strategies.

### The S&P/ASX Index Ecosystem Is Notable for Its Liquidity

Interest in passive investments may have been supported by performance considerations, but other dynamics, in particular liquidity, have also encouraged investors toward the S&P/ASX Series. Futures and options based on the S&P/ASX 200 were first listed in 2000, and in August 2001, the first ETFs were listed in Australia, tracking the S&P/ASX 200, S&P/ASX 50, and S&P/ASX 100. With usage of index-linked products growing over the years, the associated trading has grown too.

In the paper, [“A Window on Index Liquidity: Volumes Linked to S&P DJI Indices,”](#) S&P DJI introduced a simple method for aggregating and reporting the depth of liquidity associated with flagship

benchmarks. Exhibit 10 provides a breakdown of the index equivalent trading volume<sup>7</sup> (IET) associated with selected S&P/ASX Indices. The data encompass a 12-month period of trading in more than 35 products tracking over 20 indices listed in five different countries.

With trillions of Australian dollars in reported annual volumes, the statistics associated with the S&P/ASX Index Series illustrate the deep ecosystem of liquid, tradable products available to support market participants as they enter (and exit) their investments. Additionally, although the S&P/ASX 200 stands out in particular for its associated liquidity, other indices have benefited from their connections to the flagship index.

7. The economic value, or IET, in futures and options trading represents the value of notional exposure to the underlying index that is being traded. See Bennett, Chris, Tim Edwards, and Sherifa Issifu, [“A Window on Index Liquidity: Volumes Linked to S&P DJI Indices,”](#) (2019), for details of how the IET is calculated for various types of products.

With trillions of dollars in reported annual volumes, the S&P/ASX Index Series has a deep ecosystem of liquid, tradable products available to support market participants.

### Exhibit 10: IET of S&P DJI Indices

Index Category	IET (AUD Millions, 12-Month Period)				
	Total	Futures	ETP	Index Option	ETF Option
S&P/ASX 200	2,779,942	2,629,953	8,858	141,071	60
S&P/ASX 300	5,682	-	5,682	-	-
S&P/ASX Sectors	4,547	2,263	2,284	-	-
S&P/ASX Dividend Income	290	-	290	-	-
S&P/ASX Other Equity	16,589	-	16,589	-	-
Fixed Income	1,074	-	1,074	-	-
<b>Total</b>	<b>2,808,124</b>	<b>2,632,216</b>	<b>34,777</b>	<b>141,071</b>	<b>60</b>

Source: S&P Dow Jones Indices LLC, FIA, Bloomberg. Data as of June 30, 2021. Each product was placed into one of three product categories: futures, options, or exchange-traded products (ETPs), the latter of which includes “vanilla” ETFs and less common structures, such as leveraged and inverse ETFs and exchange-traded notes. Note that the options column includes options linked to indices and options on index-linked ETPs. Further details are provided in Appendix B. Table is provided for illustrative purposes.



By enabling market makers to recycle their risks elsewhere, a large and active ecosystem helps to limit mispricings and improve price transparency.

**The S&P/ASX Trading Ecosystem**

Beyond the links between products tracking the same index, there is a network of connections between related products and indices, fostering a trading ecosystem within the S&P/ASX Series. Products linked to sectors of the S&P/ASX 200 provide one example of connected instruments, with a cumulative traded value of approximately AUD 5 billion for the one-year period ending in June 2021. Exhibit 11 illustrates this network, with trading

statistics for the different products linked to the S&P/ASX 200 on the left side, and the trading statistics for products tracking other related indices or exposures on the right.

By enabling market makers to recycle their risks elsewhere, a large and active ecosystem helps to limit mispricings and improve price transparency. For investors, one benefit of the broader ecosystem illustrated in Exhibit 11 is the potential for lower trading costs when entering or exiting a position tracking an index within the S&P/ASX Series.

The top three ETFs with the lowest average bid-offer spreads were linked to the S&P/ASX 200, S&P/ASX 50, or S&P/ASX 300.

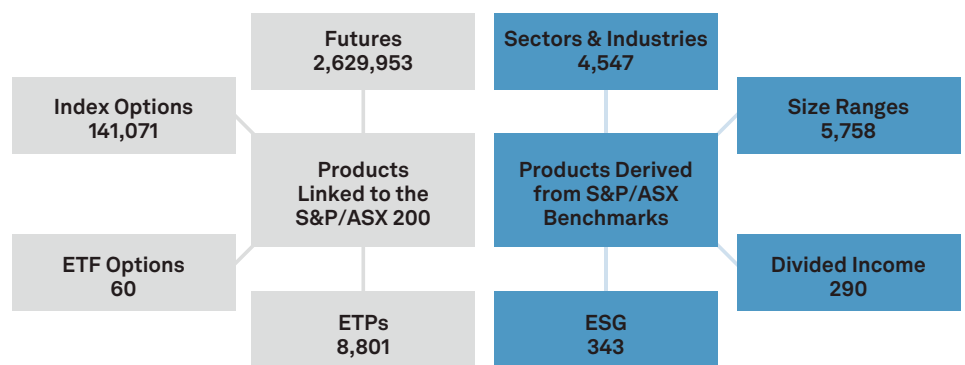
Demonstrating the potential reduction in costs, Exhibit 12 shows the average bid-offer spreads of all Australian-focused, equity-linked ETFs listed in Australia for the one-year period ending in June 2021, with those linked to the S&P/ASX Indices highlighted. The top three ETFs with the lowest average bid-offer spreads were linked to the S&P/ASX 200, S&P/ASX 50, or S&P/ASX

300. More broadly, the ETFs tracking S&P/ASX Indices tended to display lower-than-average spreads compared with those using other indices.

The variety of products, their performance, and their liquidity have all helped to make the S&P/ASX Index Series an integral part of investing in the Australian market.

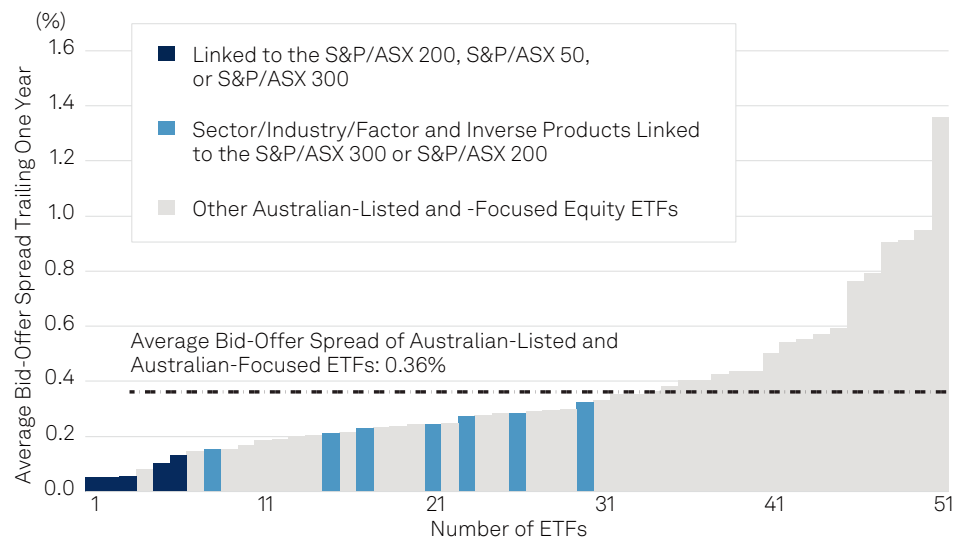
The variety of products, their performance, and their liquidity have all helped to make the S&P/ASX Index Series an integral part of investing in the Australian market.

**Exhibit 11: The S&P/ASX Ecosystem – Aggregate IET in AUD Millions**



Source: S&P Dow Jones Indices LLC, FIA, Bloomberg. Data from the 12-month-period ending June 30, 2021. Chart is provided for illustrative purposes. See Appendix B for more details.

**Exhibit 12: Average Bid-Offer Spread on Australian-Listed and Australian-Focused ETFs**



Source: S&P Dow Jones Indices LLC, Bloomberg. Data as of June 30, 2021. Average spreads are based on data from July 1, 2020, to June 30, 2021. Chart is provided for illustrative purposes.

The S&P/ASX 200 has served as the official barometer of the Australian equity market for over 20 years and will continue to do so for years to come.

## Conclusion

Much has happened in the two decades since the launch of the S&P/ASX Series and the introduction of ETFs in Australia. Australians have witnessed sharp ups and downs in the stock market, though over the long term, growth has trended upward. A deep and liquid ecosystem of financial products, including ETFs and listed futures and options, has developed around key S&P/ASX benchmarks, helping both active and passive investors to more efficiently deploy capital and hedge market exposures.

This has accompanied a broader trend toward index-based investing, which has reduced investment costs and allowed easier access to different segments of the Australian market via index-linked products. Through all of this, the S&P/ASX 200 has been there to serve as the official barometer of the market and will continue to do so for years to come. ■

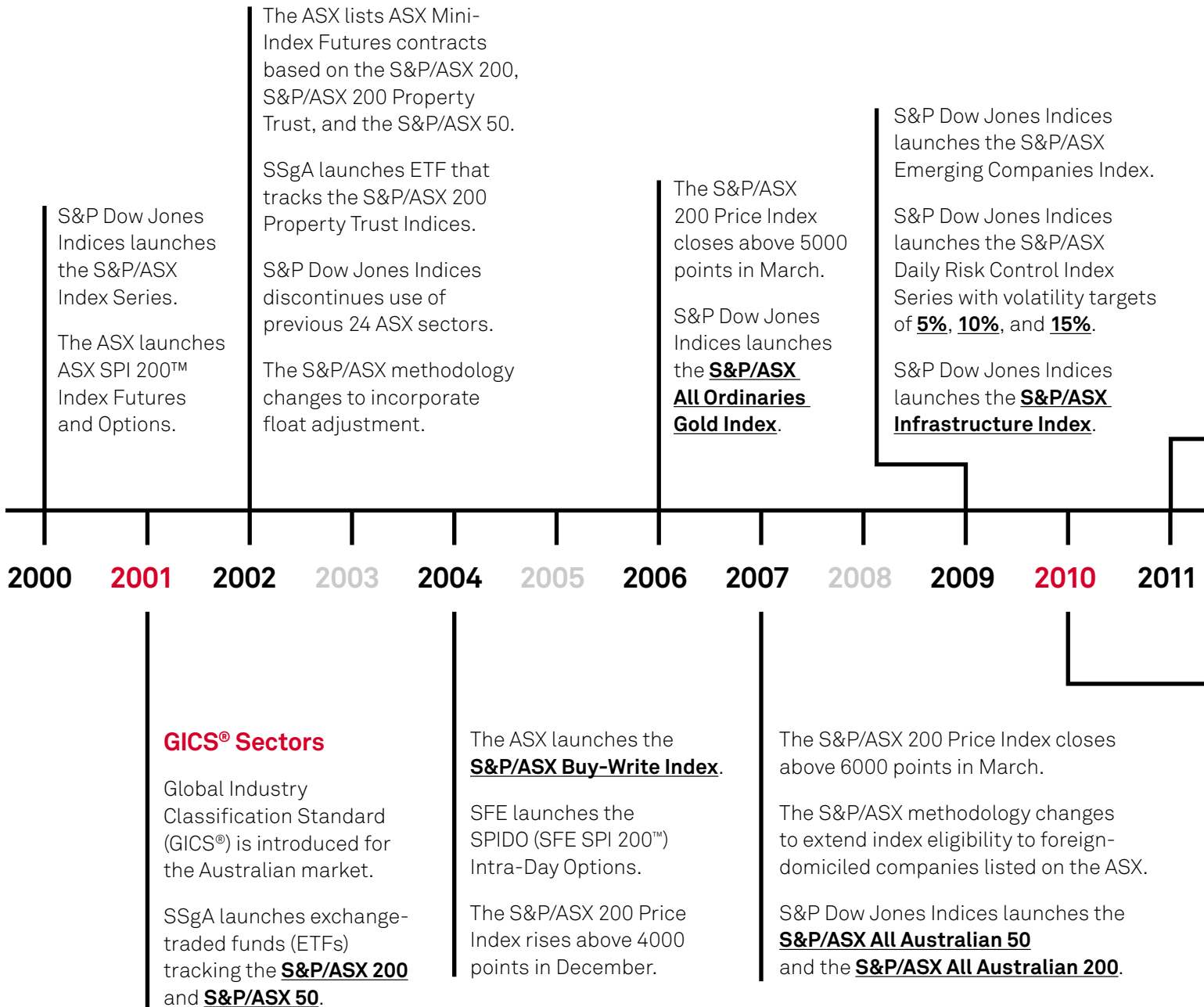
The authors would like to acknowledge Tim Edwards and Hector Huitzil Granados for their contribution to this paper.



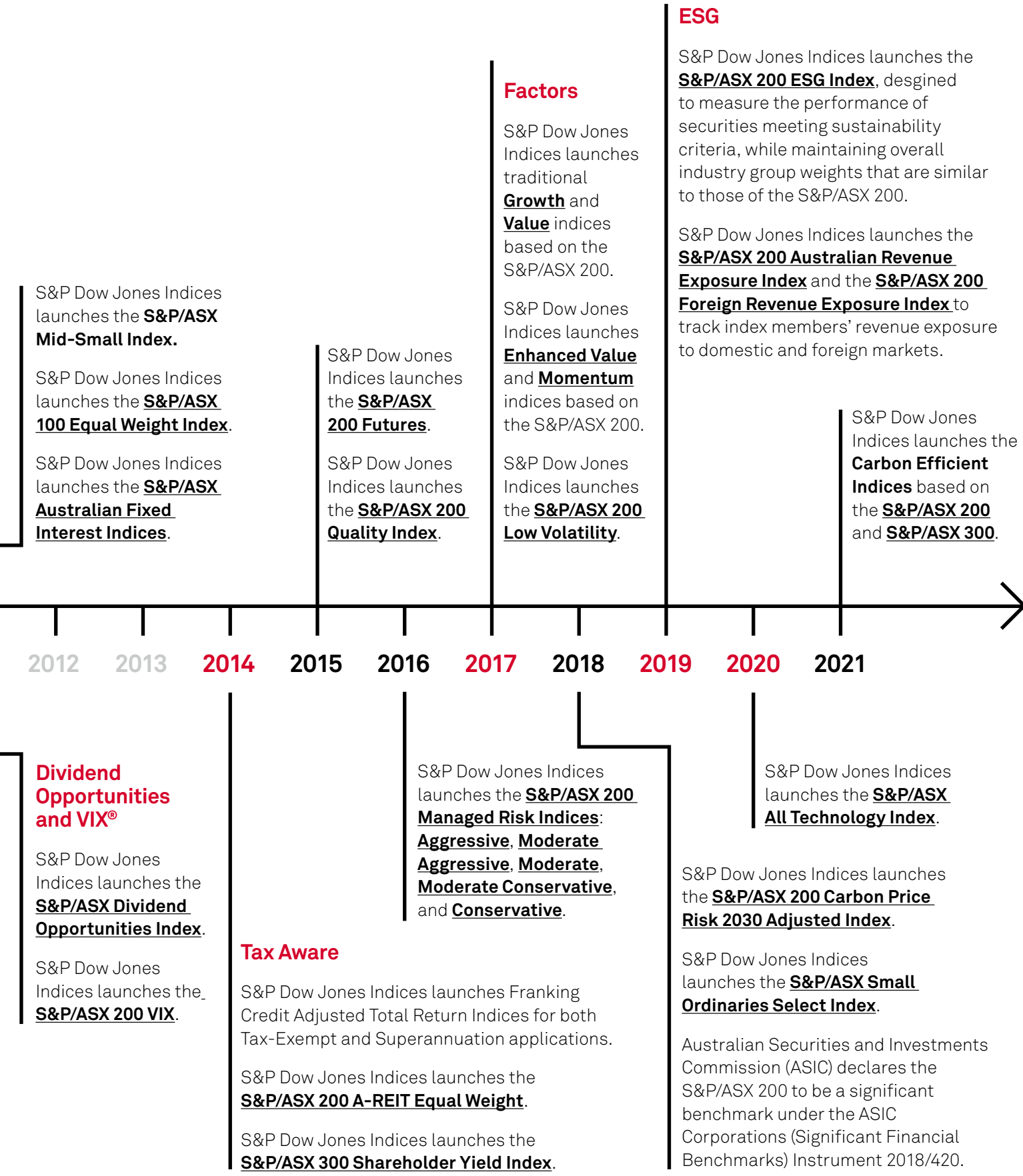


# A Chronology of S&P/ASX Indices

In 2000, the launch of the S&P/ASX Index Series paved the way for two decades of index innovation in the Australian market, as the index series expanded to a wide range of equity market segments, asset classes, and investment themes and strategies.



Source: S&P Dow Jones Indices LLC. Compiled as of Feb. 28, 2020. Chart is provided for illustrative purposes. For more information, please see <https://www.spglobal.com/spdji/en/landing/investment-themes/australia>



## Appendix B

### Exhibit 14: Australian- and New Zealand-Listed ETPs

Equity	ETP	Currency Hedged	Exchange	Ticker
<b>Australian &amp; New Zealand Equities</b>				
<b>All-Cap</b>				
S&P/ASX 200	SPDR S&P/ASX 200 Fund		ASX	STW
	iShares S&P/ASX 200 ETF		ASX	IOZ
	BetaShares Australian Equities Bear		ASX	BEAR
	BetaShares Australian Equities Strong Bear		ASX	BBOZ
	BetaShares Geared Australian Equity Fund		ASX	GEAR
	Smartshares S&P/ASX 200 ETF	NZD	NZX	AUS
S&P/ASX 200 ESG Index	SPDR S&P/ASX 200 ESG Fund		ASX	E200
S&P/ASX 300	Vanguard Australian Shares Index ETF		ASX	VAS
<b>Large-Cap</b>				
S&P/ASX 50	SPDR S&P/ASX 50 Fund		ASX	SFY
	Smartshares NZ Top 50 Fund		NZX	FNZ
	Smartshares S&P/NZX 50 ETF		NZX	NZG
S&P/ASX 20	iShares S&P/ASX 20 ETF		ASX	ILC
	Smartshares AUS Top 20 Fund		NZX	OZY
S&P/NZX 10	Smartshares NZ Top 10 Fund		NZX	TNZ
<b>Mid-Cap</b>				
S&P/ASX MidCap 50	Smartshares AUS Mid Cap Fund		NZX	MZY
	VanEck Vectors S&P/ASX MidCap ETF		ASX	MVE
S&P/NZX MidCap	Smartshares NZ Mid Cap Fund		NZX	MDZ
<b>Small-Cap</b>				
S&P/ASX Small Ordinaries	iShares S&P/ASX Small Ordinaries ETF		ASX	ISO
	SPDR S&P/ASX Small Ordinaries Fund		ASX	SSO
<b>International Equities</b>				
<b>Global</b>				
S&P Global 100	iShares Global 100 ETF		ASX	IOO
S&P Global 100 AUD Hedged	iShares Global 100 AUD Hedged ETF	AUD	ASX	IHO0
S&P Developed Ex-Australia LargeMidCap (AUD)	SPDR S&P World ex Australia Fund		ASX	WXOZ
S&P Developed Ex-Australia LargeMidCap AUD Hedged	SPDR S&P World ex Australia (Hedged) Fund	AUD	ASX	WXHG
<b>Asia (Developed)</b>				
S&P Asia 50	iShares Asia 50 ETF		ASX	IAA
S&P Japan Exporters Hedged AUD Index	BetaShares Japan ETF - Currency Hedged	AUD	ASX	HJPN
<b>Emerging Markets</b>				
S&P Emerging LargeMidCap	SPDR S&P Emerging Markets Fund		ASX	WEMG
<b>Europe (Developed)</b>				
S&P Europe 350®	iShares Europe ETF		ASX	IEU
S&P Eurozone Exporters Hedged AUD Index	BetaShares Europe ETF - Currency Hedged	AUD	ASX	HEUR

Source: S&P Dow Jones Indices LLC. Data as of March 2020. Table is provided for illustrative purposes.

## Appendix B

### Exhibit 14: Australian- and New Zealand-Listed ETPs (cont.)

Equity	ETP	Currency Hedged	Exchange	Ticker
<b>U.S.</b>				
S&P 500®	iShares Core S&P 500 ETF		ASX	IVV
	SPDR S&P 500 ETF Trust		ASX	SPY
S&P 500 AUD Hedged	US 500 Smartshares Fund		NZX	USF
	iShares S&P 500 AUD Hedged ETF	AUD	ASX	IHVV
S&P Midcap 400®	BetaShares Geared US Equity Fund - Currency Hedged	AUD	ASX	GGUS
	iShares Core S&P MidCap ETF		ASX	IJH
S&P SmallCap 600®	iShares Core S&P SmallCap ETF		ASX	IJR
<b>Smart Beta (Factor-Based) Equities</b>				
<b>Australian &amp; New Zealand</b>				
S&P/ASX 20	BetaShares Equity Yield Maximizer Fund (managed fund)		ASX	YMAX
S&P/ASX 200	BetaShares Managed Risk Australian Share Fund		ASX	AUST
	Aurora Dividend Income Trust (managed fund)		ASX	AOD
S&P/ASX 200 Accumulation	BetaShares Australian Dividend Harvester Fund (managed fund)		ASX	HVST
	ETFS S&P/ASX 300 High Yield Plus ETF		ASX	ZYAU
S&P/ASX 300 Shareholder Yield Index	iShares S&P/ASX Dividend Opportunities ETF		ASX	IHD
S&P/ASX Dividend Opportunities Index	Smartshares AUS Dividend Fund		NZX	ASD
S&P/NZX 50 High Dividend Index	Smartshares NZ Dividend Fund		NZX	DIV
<b>U.S.</b>				
S&P 500	BetaShares S&P 500 Yield Maximizer Fund (managed fund)		ASX	UMAX
S&P 500 Low Volatility High Dividend Index	ETFS S&P 500 High Yield Low Volatility ETF		ASX	ZYUS
<b>Global</b>				
S&P Global Dividend Aristocrats®	SPDR S&P Global Dividend Fund		ASX	WDIV
<b>Equity Sectors</b>				
S&P/ASX 200 Financials Ex-A-REIT	SPDR S&P/ASX 200 Financial ex A-REIT Fund		ASX	OZF
	Smartshares AUS Financials Fund		NZX	ASF
S&P/ASX 200 Resources	SPDR S&P/ASX 200 Resources Fund		ASX	OZR
	Smartshares AUS Resources Fund		NZX	ASR
S&P/ASX All Technology	Betashares S&P/ASX Australian Technology ETF		ASX	ATEC
<b>Global (Developed)</b>				
S&P Global 1200 Consumer Staples	iShares Global Consumer Staples ETF		ASX	IXI
S&P Global 1200 Health Care	iShares Global Healthcare ETF		ASX	IXJ
S&P Biotechnology Select Industry Index	ETFS S&P Biotech ETF		ASX	CURE
S&P Global Clean Energy Select Index	VanEck Global Clean Energy ETF		ASX	CLNE

Source: S&P Dow Jones Indices LLC. Data as of March 2020. Table is provided for illustrative purposes.

## Appendix B

### Exhibit 14: Australian- and New Zealand-Listed ETPs (cont.)

Equity	Exchange-Traded Fund	Currency Hedged	Exchange	Ticker
<b>Australia &amp; New Zealand</b>				
S&P/ASX Australian Fixed Interest Index	SPDR S&P/ASX Australian Bond Fund		ASX	BOND
S&P/ASX Government Bond Index	SPDR S&P/ASX Australian Government Bond Fund		ASX	GOVT
S&P/NZX Government Bond Index	Smartshares S&P/NZX Government Bond ETF		NZX	NGB
S&P/NZX A-Grade Corporate Bond Index	Smartshares NZ Bond Fund		NZX	NZB
S&P/ASX Bank Bill Index	iShares Core Cash ETF		ASX	BILL
	iShares Enhanced Cash ETF		ASX	ISEC
S&P/NZX Bank Bill 90-Day Index	Smartshares NZ Cash Fund		NZX	NZC
<b>Global (Developed)</b>				
S&P G7 Sovereign Duration-Capped 20+ Year AUD Hedged Bond	BetaShares Global Government Bond 20+ Year ETF	AUD	ASX	GGOV
<b>Real Assets</b>				
<b>Commodities</b>				
S&P/GSCI Agriculture	BetaShares Agriculture ETF - Currency Hedged (synthetic)	AUD	ASX	QAG
S&P/GSCI Crude Oil	BetaShares Crude Oil Index ETF - Currency Hedged (synthetic)	AUD	ASX	OOO
S&P/GSCI Light Energy	BetaShares Commodities Basket ETF - Currency Hedged (synthetic)	AUD	ASX	QCB
<b>Real Estate &amp; REITS</b>				
S&P/ASX 200 A-REIT	SPDR S&P/ASX 200 Listed Property Fund		ASX	SLF
S&P/ASX 200 A-REIT Equal Weight	Smartshares AUS Property Fund		NZX	ASP
S&P/ASX 300 A-REIT	Vanguard Australian Property Securities Index ETF		ASX	VAP
S&P/NZX Real Estate Select Index	Smartshares NZ Property Fund		NZX	NPF
Dow Jones Global Select Real Estate Securities Index	SPDR Dow Jones Global Real Estate Fund		ASX	DJRE
<b>Resources</b>				
S&P/ASX 200 Resources	SPDR S&P/ASX 200 Resources Fund		ASX	OZR
	Smartshares AUS Resources Fund		NZX	ASR

Source: S&P Dow Jones Indices LLC. Data as of March 2020. Table is provided for illustrative purposes.

## Performance Disclosure/Back-Tested Data

The S&P/ASX 200 ESG Index was launched May 6, 2019. The S&P/ASX Australian Fixed Interest 0+ Index was launched September 5, 2014. The S&P/ASX Mid-Small was launched August 15, 2011. 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.spglobal.com/spdji](http://www.spglobal.com/spdji). Past performance of the Index is not an indication of future results. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. Please refer to the methodology for the Index 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. Back-tested performance is for use with institutions only; not for use with retail investors.

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