

Equal-Weight Indexing: One-Stop Shopping for Size and Style

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INTRODUCTION

The S&P Equal Weight U.S. Indices include the equal-weight versions of the widely used [S&P 500®](#), [S&P 100](#), [S&P MidCap 400®](#), and [S&P SmallCap 600®](#). The equal-weight indices include the same constituents as their respective market-cap-weighted indices, but each company is allocated a fixed equal weight in the index at each quarterly rebalance. The result is a simple and elegant way to access broad market returns with exposure to the size (small-cap premium) and style (value) factors.

Created in 1957, the S&P 500 was the first broad U.S. market-cap-weighted stock market index. Today, it is the basis of many listed and over-the-counter investment instruments. Launched in 1983, the S&P 100 is a sub-set of the S&P 500 and includes 100 of the largest, most stable companies in the S&P 500 with listed options. Sector balance is considered in the S&P 100 composition across multiple industry groups.

Following research in the early 1990s by Fama and French that showed the small-cap premium,¹ demand grew for mid- and small-cap indices, especially with quality screens. To meet this demand, the S&P MidCap 400 and S&P SmallCap 600 were created in 1991 and 1994, respectively. Sizes are determined by unadjusted full market capitalization. As of Nov. 30, 2018, a company's market cap must be greater than or equal to USD 6.1 billion in order to be eligible for the S&P 500, between USD 1.6 billion and USD 6.8 billion for the S&P MidCap 400, and between USD 450 million and USD 2.1 billion for the S&P SmallCap 600. The combination of the S&P 500, S&P MidCap 400, and S&P SmallCap 600 is measured by the [S&P Composite 1500®](#).

In addition to the equal-weight versions of the broad U.S. benchmarks, S&P Dow Jones Indices (S&P DJI) also calculates individual sector indices based on the Global Industry Classification Standard® (GICS®) for the S&P 500, S&P MidCap 400, and S&P SmallCap 600. Developed in 1999 and jointly managed by S&P DJI and MSCI, the GICS assigns companies to a single classification at the sub-industry level according to its principal business activity using quantitative and qualitative factors, including revenues, earnings, and market perception. The sector is the first level of

¹ Fama, E., and K. French, "The Cross-Section of Expected Stock Returns," Journal of Finance, 1992.

Fama, E., and K. French, "Common Risk Factors in the Returns on Stocks and Bonds," Journal of Financial Economics, 1993.

the four-tiered, hierarchical industry classification system that includes 11 sectors, 24 industry groups, 69 industries, and 158 sub-industries.

COMPOSITION

The equal-weight indices include the same constituents as their respective market-cap-weighted indices...

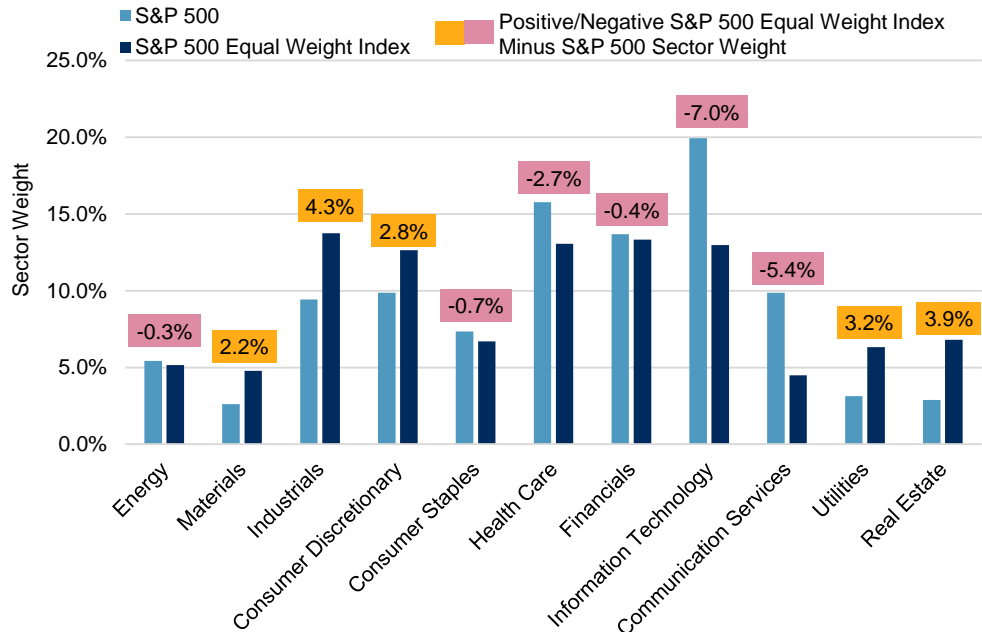
On a market-capitalization basis, approximately 90% of available U.S. market cap is represented by the S&P Composite 1500. The S&P Equal Weight U.S. Indices assign the weight equally across all index components. Because there is no upper bound on the market capitalization for the S&P 500, the top 10 components accounted for over 20% of the index weight as of Nov. 30, 2018. After equally weighting the components, this is reduced to approximately 2%. Concurrently, the smaller-cap companies in the index have larger weights compared with the float-adjusted market-cap versions and thus have contributed more to the overall index return.

...but each company is allocated a fixed equal weight in the index at each quarterly rebalance.

In the S&P Equal Weight U.S. Indices, sector exposure is simply a function of the number of companies in each sector rather than the float-adjusted market capitalization of those constituents. Information Technology (19.94%), Health Care (15.77%), and Financials (13.69%) accounted for nearly 50% of the S&P 500 as of Nov. 30, 2018. The exposure to these three sectors falls to approximately 40% in the S&P 500 Equal Weight Index. In the S&P 500 Equal Weight Index, Industrials had the largest sector weight, at 13.74%, with 71 index components (see Exhibit 1).

In the S&P Equal Weight U.S. Indices...

Exhibit 1: Weighting Method Changes Sector Representation



...sector exposure is simply a function of the number of companies in each sector...

...rather than the float-adjusted market capitalization of those constituents.

Source: S&P Dow Jones Indices LLC. Data as of Nov. 30, 2018. Chart is provided for illustrative purposes.

Index Construction

The S&P Equal Weight U.S. Indices' components are drawn from the corresponding market-cap-weighted index, thus the same eligibility criteria apply (see Exhibit 2). Constituent changes are incorporated in the equal-weight index as they are made in the underlying index.

The S&P Equal Weight U.S. Indices' components are drawn...

Exhibit 2: Eligibility Criteria for S&P Equal Weight U.S. Indices	
Domicile <ul style="list-style-type: none"> U.S. domiciled Primary listing on eligible U.S. exchange Files 10-K annual reports 	Liquidity <ul style="list-style-type: none"> Annual dollar value traded to float-adjusted market cap of at least 1.00 Minimum of 250,000 shares in each of the six months
Exchange Listing <ul style="list-style-type: none"> Listed on major U.S. exchange, OTC, and pink sheets ineligible 	Investable Weight Factor (IWF) <ul style="list-style-type: none"> An IWF of at least 0.50 is required.
Organizational Structure and Share Type <ul style="list-style-type: none"> Eligible: Corporations with common stock Ineligible: Companies with multiple share class structures, tracking stocks, limited partnerships, LLCs, closed-end funds, and certain other types of securities 	Financial Viability <ul style="list-style-type: none"> Positive sum of trailing four consecutive quarters' earnings Positive most recent quarter's earnings
Market Capitalization <ul style="list-style-type: none"> S&P 500: at least USD 6.1 billion S&P MidCap 400: USD 1.6 billion to USD 6.8 billion S&P SmallCap 600: USD 450 million to USD 2.1 billion. 	Trading History <ul style="list-style-type: none"> IPOs must be traded for at least 12 months before being considered for addition Spin-offs from existing constituents are not required to have 12 months of trading prior to their inclusion

...from the corresponding market-cap-weighted index...

Source: S&P Dow Jones Indices LLC. Data as of Nov. 30, 2018. Table is provided for illustrative purposes. The U.S. Index Committee periodically reviews the market capitalization ranges and can make adjustments as needed.

...thus the same eligibility criteria apply.

Constituents in the S&P Equal Weight U.S. Indices are allocated a fixed weight quarterly after the market close on the third Friday of March, June, September, and December. At each rebalance, each company is assigned a weight equal to 1 divided by the total number of companies in the index.

$$\text{Weight}_i = \frac{1}{\text{Total Number of Companies in the Index}}$$

In order to achieve this target weight, the market capitalization for each stock used in the calculation of the index is redefined by introducing an adjustment factor. The additional weight factor (AWF) of each stock is assigned at each index rebalancing date to make all index constituents' modified market capitalizations equal (and therefore, equal weight), while maintaining the total market value of the overall index.

Changes to share counts and IWFs do not affect the S&P Equal Weight U.S. Indices. In order to maintain the target weights, changes to shares outstanding or IWFs are offset by changes to the AWF. The result of offsetting changes to the shares outstanding and/or IWF with an AWF change is a market-cap neutral event, which will have no impact on the index calculation and does not require an index divisor adjustment.

PERFORMANCE

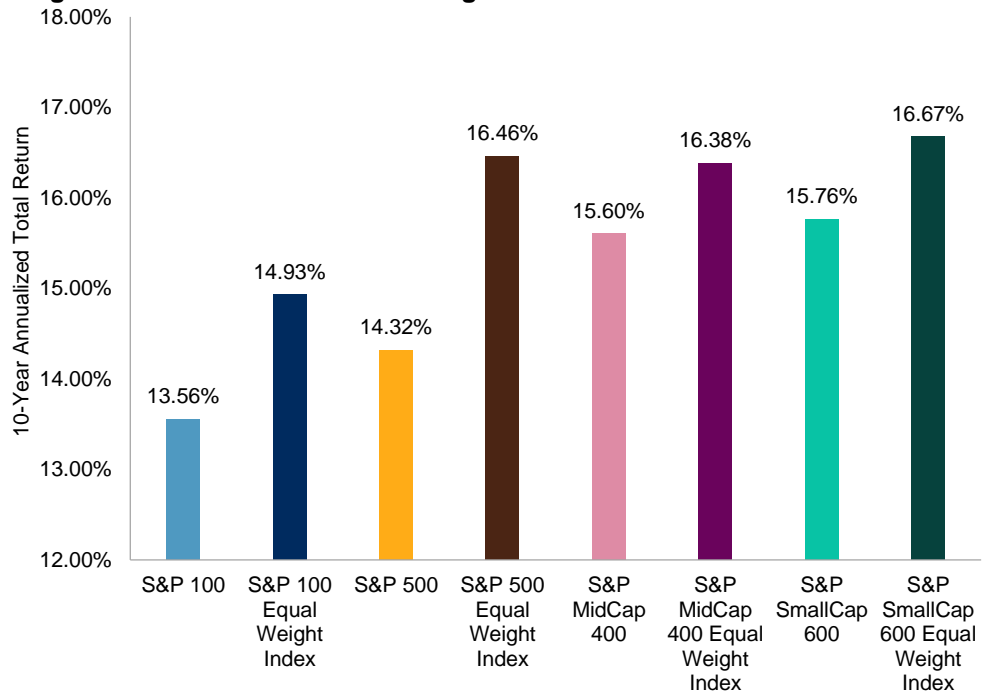
Over the long term, the market-cap-weighted small-cap and mid-cap indices have outperformed the large-cap indices. Similarly, the equal-weight indices have outperformed the traditional market-cap-weighted indices (see Exhibit 3).

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Similarly, the equal-weight indices have outperformed the traditional market-cap-weighted indices

Exhibit 3: S&P Equal Weight Indices Outperformed Their Market-Cap-Weighted Benchmarks Over the Long Term



Source: S&P Dow Jones Indices LLC. Data as of close of business month-end on Nov. 30, 2018. 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 outperformance may be attributed to...

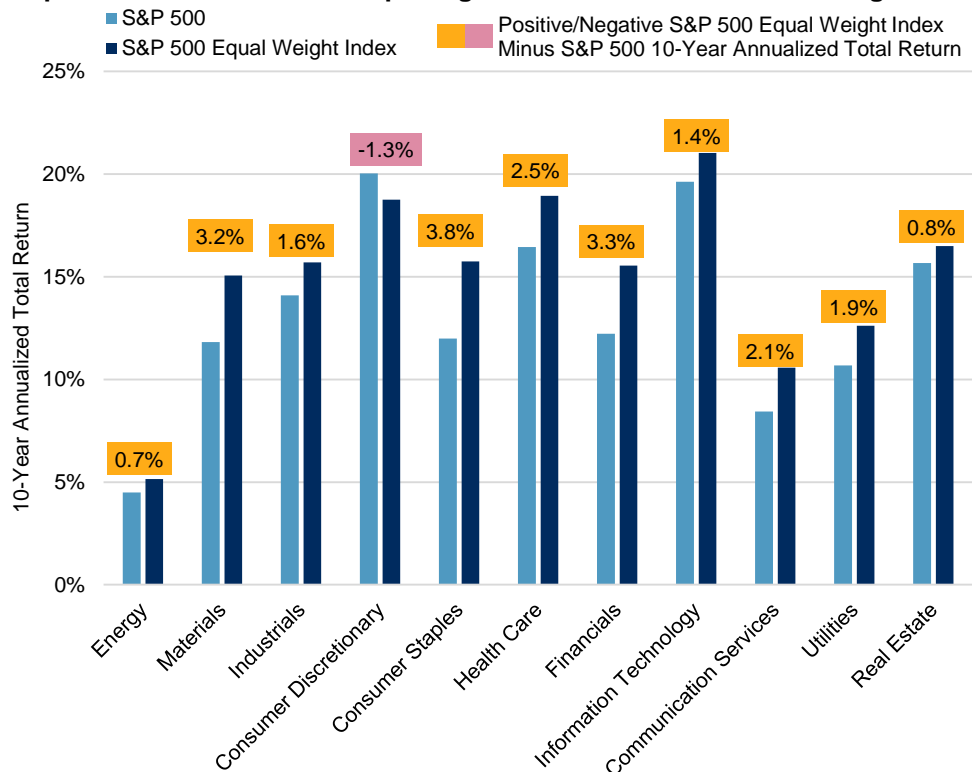
In addition to the reduced portfolio concentration risk resulting in more balanced allocation, equal-weight indices have smaller capitalizations, mathematically. Thus, the outperformance may be attributed to the larger weights assigned to the smaller-cap companies within the equal-weight index. Additionally, the quarterly rebalancing creates a “buy low, sell high” effect as a byproduct of the price movement between rebalances over time.

...the larger weights assigned to the smaller-cap companies within the equal-weight index.

Most of the equal-weight sector indices also outperformed. As of Nov. 30, 2018, 10 of 11 S&P 500 Equal Weight Sector Indices outperformed on a 10-year annualized total return basis. On average, large-cap equal-weight sectors outperformed their mid-and small-cap counterparts. The [S&P 500 Equal Weight Materials Index](#), [S&P 500 Equal Weight Consumer Staples Index](#), and [S&P 500 Equal Weight Financials Index](#) outperformed by over 3% (see Exhibit 4). The [S&P 500 Equal Weight Consumer Discretionary Index](#) was the only equal-weight sector index that underperformed the corresponding cap-weighted index.

Most of the equal-weight sector indices also outperformed.

Exhibit 4: A Majority of the S&P 500 Equal Weight Sector Indices Outperformed Their Market-Cap-Weighted Benchmarks Over the Long Term



The S&P 500 Equal Weight Consumer Discretionary Index was the only equal-weight sector that underperformed.

Some of this outperformance may be attributed to...

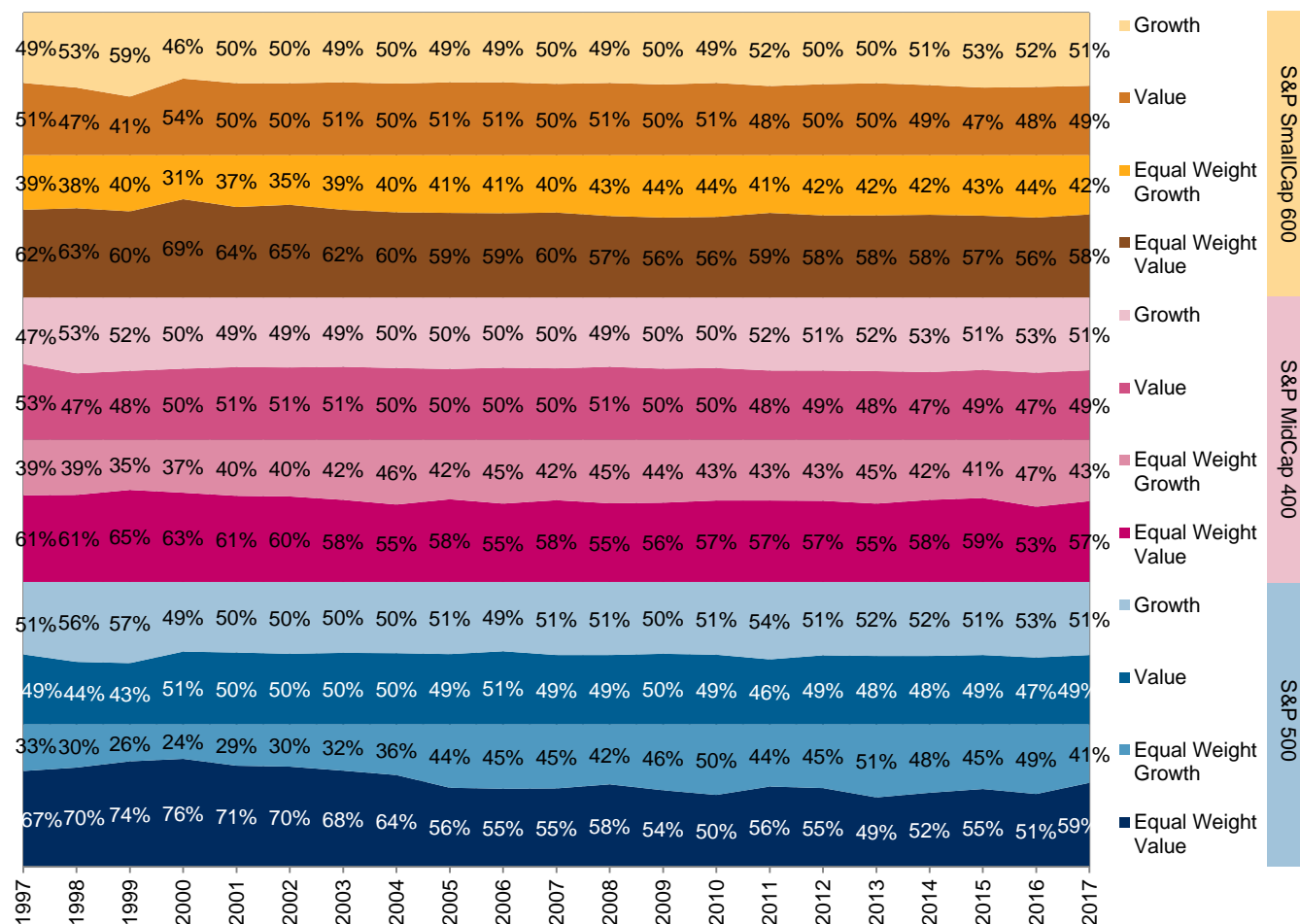
...the value tilt of the equal-weight indices, especially in large caps.

Source: S&P Dow Jones Indices LLC. Data as of close of business on Nov. 30, 2018. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Some of this outperformance may be attributed to the value tilt of the equal-weight indices, especially in large caps. Based on the S&P U.S. Style Indices Methodology,² which divides the benchmark indices approximately equally into growth and value (as determined by style scores for each security), equal weighting the indices produces a value tilt in comparison to the float-adjusted market-cap-weighted indices. For example, the S&P 500 Equal Weight Index had higher exposure to the size and value factors and lower exposure to the momentum factor compared with the S&P 500 (see Exhibit 5).

² [S&P U.S. Style Indices Methodology](#).

Exhibit 5: Value Tilts of the Size, Value, and Growth Factors of the S&P U.S. Style Indices and Their Equal-Weight Counterparts



Source: S&P Dow Jones Indices, LLC. Data as of close of business on Dec. 29, 2017. 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.

Exhibit 6: Size, Value, and Momentum Factors of the S&P 500 and S&P 500 Equal Weight Index

FACTORS	S&P 500 EQUAL WEIGHT INDEX	S&P 500
Size (SMB)	0.03	-0.18
<i>t-stat</i>	1.75	-30.94
Value (HML)	0.26	0.02
<i>t-stat</i>	13.14	3.64
Momentum	-0.15	-0.02
<i>t-stat</i>	-11.85	-4.55
R-Squared	0.95	0.99

Source: S&P Dow Jones Indices LLC. Data from Jan. 31, 1990, to May 31, 2018. Fama-French factor portfolios are from the [Ken French data library](#). 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.

Although the S&P Equal Weight U.S. Indices have outperformed the traditional cap-weighted approach over the long term, the yearly returns have varied.

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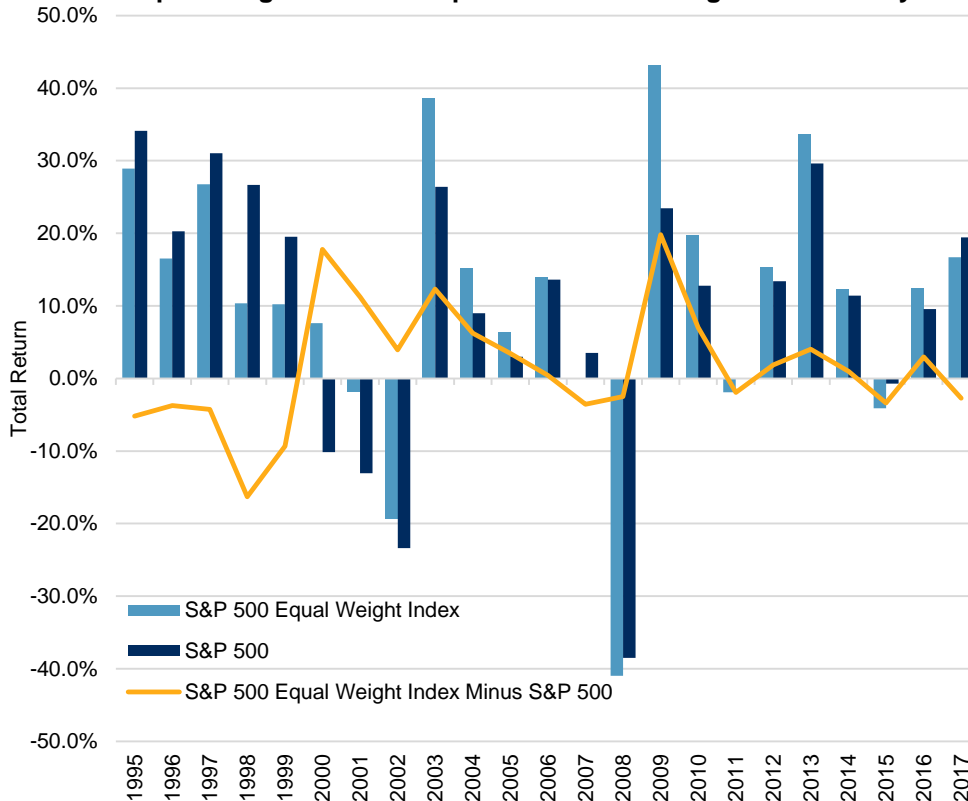
...the yearly returns have varied.

Equally weighting the components of the underlying benchmark...

...offers potential outperformance and...

...changes the size, sector exposure, fundamental characteristics, and style features of an index.

Exhibit 7: Equal-Weight Indices Outperformed on Average but Varied by Year



Source: S&P Dow Jones Indices, LLC. Data as of close of business on Dec. 29, 2017. 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.

CONCLUSION

The S&P Equal Weight U.S. Indices have historically offered outperformance potential versus the traditional cap-weighted approach. Equally weighting the components of the underlying benchmark changes the size, sector exposure, fundamental characteristics, and style features of an index. There is reduced portfolio concentration risk, resulting from more balanced allocation. Concurrently, the S&P Equal Weight U.S. Indices have produced size premium and value tilts, resulting in outperformance over the long-term period studied.

PERFORMANCE DISCLOSURE

The S&P 500 Equal Weight Index was launched on January 8, 2003. The S&P MidCap 400 Equal Weight Index and the S&P SmallCap 600 Equal Weight Index were launched August 23, 2010. The S&P 100 Equal Weight Index was launched August 25, 2009. The S&P 500 Equal Weight Materials Index, S&P 500 Equal Weight Industrials Index, S&P 500 Equal Weight Consumer Staples Index, S&P 500 Equal Weight Consumer Discretionary Index, S&P 500 Equal Weight Utilities Index, S&P 500 Equal Weight Financials Index, S&P 500 Equal Weight Information Technology Index, S&P 500 Equal Weight Communication Services Index, S&P 500 Equal Weight Health Care Index, S&P 500 Equal Weight Energy Index, S&P 500 Equal Weight Real Estate Index were launched June 20, 2006. 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).

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