10 YEARS LATER: WHERE IN THE WORLD IS EQUAL WEIGHT INDEXING NOW?

1: SUMMARY

- The S&P 500[®] Equal Weight Index (EWI) was introduced in January 2003, pioneering the subsequent development of non-capitalization weighted indices, which have become the dominant theme of index innovation for the past decade.

- Equal weighing is factor indifferent. Because it randomizes factor mispricing, it is an attractive option for proponents of the theory that the market is inefficient and, at times, misprices factors.

- Equal weighting represents a choice of portfolio construction in which the constituent weightings are not correlated with their expected returns. Consequently, an equal-weight index can serve as the performance benchmark for all alternative-weighted indices.

- The S&P Equal Weight Indices have different properties from their underlying headline indices, including a lower concentration of individual stocks and slower-changing sector exposures.

- Historically, the S&P Equal Weight Indices have outperformed their market capitalization (market cap) weighted equivalents over longer time periods. The level of outperformance has also varied considerably under different market conditions.

- The outperformance of the S&P Equal Weight Indices results from differing weighting and rebalancing processes. In terms of risk factor exposure, a complex and dynamic combination of size and style risk factors have contributed to return differences. It may be difficult to replicate the equal weight index return outcomes through a simplistic combination of style and sector indices.

- Equal weighting has also demonstrated long-term outperformance internationally.

- Criticism of equal weight indices has centered on increased turnover and capacity constraints relative to market-cap weighted indices. While true in abstract theory, neither is a serious hurdle in practice.

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2: THE S&P 500 EQUAL WEIGHT INDEX AND ALTERNATIVE WEIGHTED INDICES

The S&P 500 EWI was introduced 10 years ago on Jan. 8, 2003. Prior to its launch, most indices were weighted by market cap. The theoretical underpinnings for market cap weighted indices as a basis for investment lie in the Capital Asset Pricing Model (CAPM) and the Efficient Market Hypothesis. According to the CAPM model, the expected return implicit in the price of a stock should be commensurate with the risk of that stock. However, stocks are subject to two types of risk—systematic risk, resulting from potential movements in market factors, and unsystematic risks, resulting from factors associated with individual assets. Since unsystematic risk can be diversified away, stocks should be priced solely based on systematic risk. This also implies that it is optimal to hold a well-diversified portfolio in order to minimize unsystematic risk for a given level of expected return. According to the efficient market hypothesis, it is impossible to beat the market because prices already incorporate all relevant information. Based on this, the most efficient portfolio would be the entire market, and a broad market cap index would represent the optimal investment.

However, there is much debate as to how efficient the market is in practice. Consequently, there are countless different strategies being used in an attempt to beat the market. This has led to the creation of indices based on alternative factors that measure different strategies. Alternative-weighting has become a fertile ground for index research and product developments for much of the past decade. With the benefit of hindsight and without exaggeration, the launch of the S&P 500 EWI ushered a new exciting era in indexing.

From a methodological standpoint, all equity indices can be thought of as weighted by a certain factor raised to a power, as displayed below:

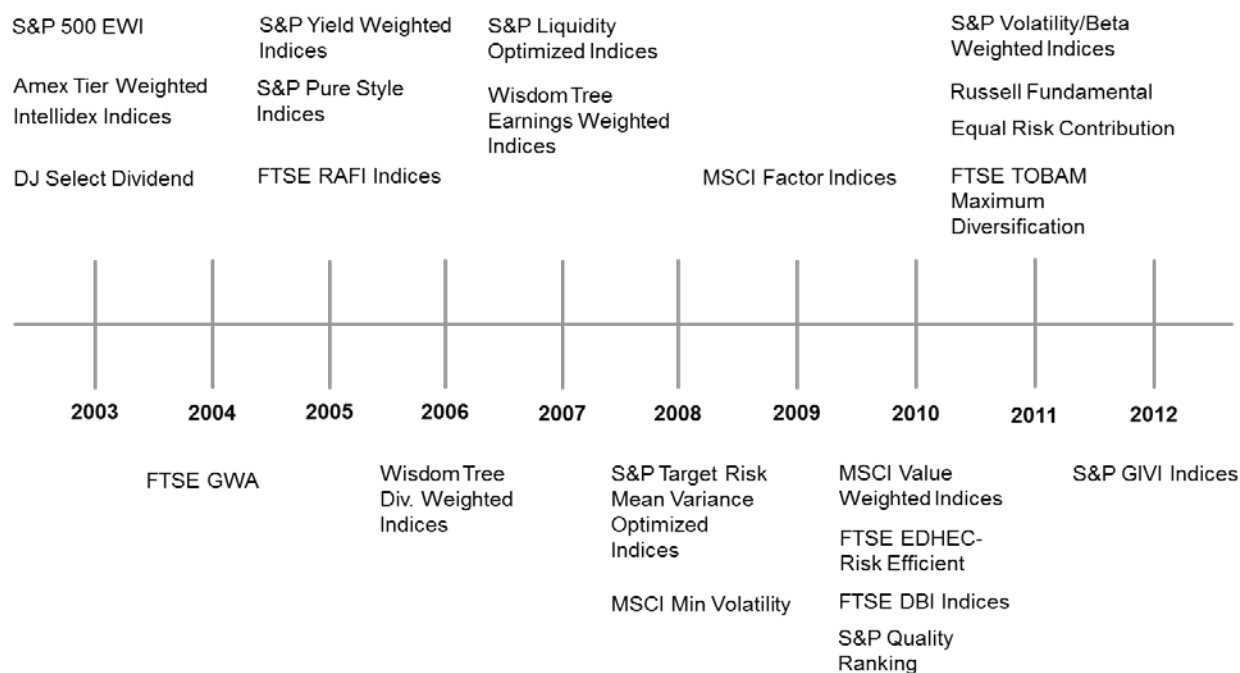$$Weight_i = Factor_i^{Exponent} / \sum_i Factor_i^{Exponent}$$

The factor used can be one of any number of attributes, such as market cap. An exponent can be applied if it is desired to amplify the factor influence. For instance, to achieve a portfolio with as high a dividend yield as possible, the index could be weighted based on dividend yield squared. In general however, most indices do not use an exponent and are, therefore, weighted by a factor or a score derived from several factors. The S&P 500 EWI is unique in that its methodology is defined not by factor but by exponent. In an equal weighted index, the exponent used is zero. Therefore, regardless of what factor is used, the overall score for each component stock is always one, and the weight of each stock in the index is one divided by the total number of components in the index. Since the index is factor indifferent, it randomizes factor mispricing and is thus an attractive option for proponents of the theory that the market is inefficient and, at times, over- or underweight certain factors.

In addition to being factor neutral, the equal weighting captures another important stock price behavior, the mean-reversion, in a simple way. As shown in recent research[1], an equal weight portfolio has built-in "alpha"; as it must be rebalanced periodically, the portfolio is in effect buying the losers at "low" and selling the winners at "high", which benefits automatically from the short-term mean-reverting price behaviors.

At the time of its release, the S&P 500 EWI represented the first major equity index to use an "alternative" weighting methodology. Since the introduction of the S&P 500 EWI, several indices and index families using alternative weighting schemes have been developed, examples of which are shown in Exhibit 1. (The S&P 500 EWI was certainly not the first non-market cap weighted index - MSCI GDP weighted indices and GRA wealth weighted indices were published in the 1990s–but the S&P 500 EWI was the first such index to be widely used for index products).

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[1] *Yuliya Plyakha, Grigory Vilkov and Raman Uppal, ""Why Does an Equal-Weighted Portfolio Outperform Value- and Price-Weighted Portfolios?", 2011*

Exhibit 1: Index Products Utilizing Alternative Weight Factors

S&P 500 EWI	S&P Yield Weighted Indices	S&P Liquidity Optimized Indices			S&P Volatility/Beta Weighted Indices
Amex Tier Weighted Intellidex Indices	S&P Pure Style Indices	Wisdom Tree Earnings Weighted Indices			Russell Fundamental
					Equal Risk Contribution
DJ Select Dividend	FTSE RAFI Indices		MSCI Factor Indices		FTSE TOBAM Maximum Diversification

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

FTSE GWA		Wisdom Tree Div. Weighted Indices			S&P Target Risk Mean Variance Optimized Indices		MSCI Value Weighted Indices		S&P GIVI Indices
							FTSE EDHEC-Risk Efficient		
					MSCI Min Volatility		FTSE DBI Indices		
							S&P Quality Ranking		

Source: S&P Dow Jones Indices. Not all index series are covered.

Equal weighting not only opened the floodgate for innovative alternative-weighted indices, but it is also a sensible performance benchmark in the alternative space. As shown by Arnott and his colleagues[2], the return of any index portfolio where each stock in the portfolio has return r_i and weight w_i can be divided into two components:

$$\mathrm{Re}\,turn_p = E[\sum_i r_i w_i] = \sum_i E[r_i]*E[w_i] + \sum Co\,\mathrm{var}\,iance(r_i, w_i) = EW + Skill$$

The first term represents the portfolio return under equal weighting where the returns and weights are not correlated, while the second term is the covariance term between weights and future returns that can be attributed to the skill of the strategy in security-selection.

There has been strong interest in the S&P 500 EWI since the introduction of the index. By the end of February 2013, ETF assets linked to the index and related equal weighted sector indices reached USD 4.46 billion.

3: PROPERTIES OF S&P 500 EQUAL WEIGHT INDEX

Due mostly to the nature of the equal weighted scheme, an equal weighted index has several different properties from its corresponding headline index. For instance, the S&P 500 EWI tends to have a lower stock concentration than the S&P 500®, a higher turnover due to the quarterly rebalancing of weights back to equal weights, and higher liquidity constraints since all stocks in the index are given the same weight regardless of market cap.

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[2] *Rob Arnott, Jason Hsu, Vitali Kalesnik and Phil Tindall, "The surprising "Alpha" from Malkiel's Money and Upside-down Strategies", 2012*

3.1: Stock Weighting and Concentration

The size distribution of the market, and thus the large-cap indices such as the S&P 500, tends to be long-tailed with a few stocks that have market caps significantly higher than the mean of the index and many stocks that have market caps below the mean. Therefore, the equal weighted version of a large-cap index naturally will be underweight a few large stocks and overweight a large number of smaller stocks. Exhibit 2 shows the difference in constituent weights between the S&P 500 EWI and the S&P 500.

Exhibit 2: Difference in Constituent Weights between the S&P 500 EWI and S&P 500
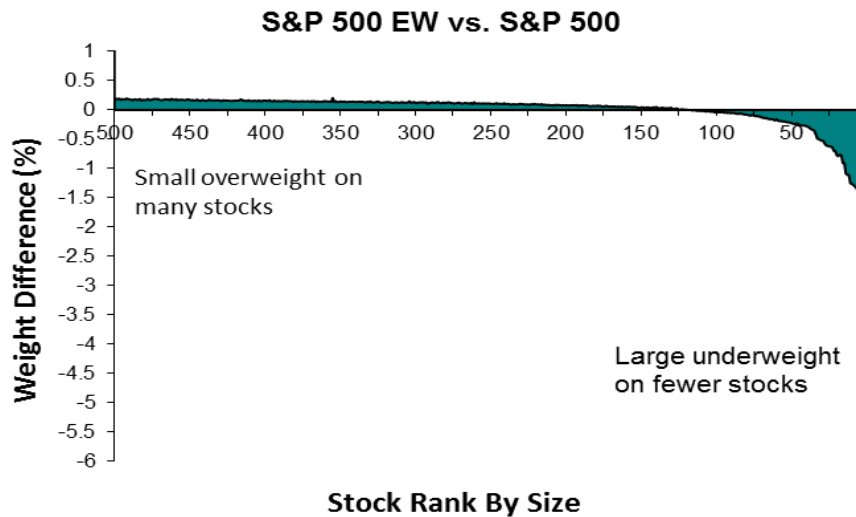
Source: S&P Dow Jones Indices. Data as of December 31, 2012. Charts are provided for illustrative purposes. .

By definition, the S&P 500 EWI will have a lower stock concentration than the S&P 500. Exhibit 3 plots the Herfindahl Index, a commonly used measure of concentration, for the S&P 500 EWI and the S&P 500. Since at each rebalancing the weights of an equal weighted index are always evenly distributed among its constituents, the S&P 500 EWI will always have a Herfindahl Index of about 20, while the Herfindahl Index for the S&P 500 will track the concentration of large-cap U.S. equities.

Exhibit 3: Herfindahl Index for the S&P 500 EWI and S&P 500
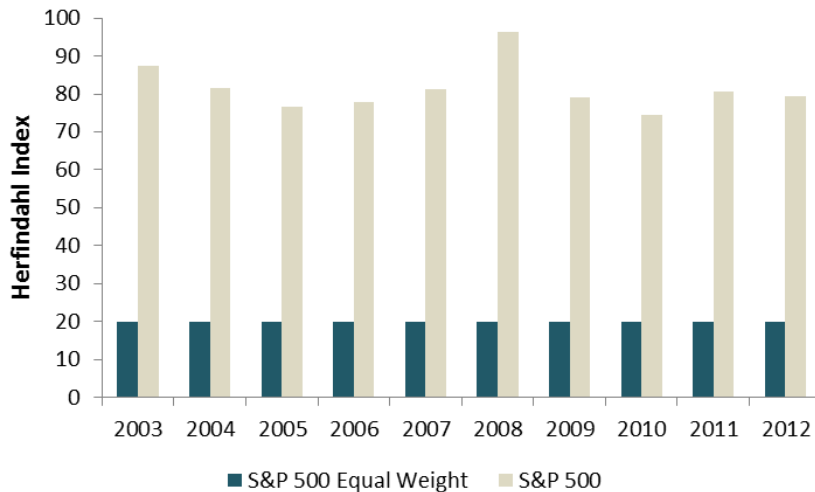
Source: S&P Dow Jones Indices. Data as of year-end 2003 through year-end 2012. The Herfindahl Index is a commonly used measure of concentration that is calculated as the sum of squares of percent weight of each stock in a portfolio. Charts and graphs are provided for illustrative purposes only.   Past performance is no indication of future results.

3.2: Sector Weightings

At any time, an equal weighted index in large-cap space will have different sector exposure than its market cap weighted headline index. The reason is very simple. In a market cap weighted index, the weight of each sector is determined by the total market cap of the stocks in that sector relative to the market cap of the entire index. However, the sector weights in an equal weighted index are only determined by the number of stocks in each sector. Therefore, an equal weighted index will be overweight/underweight sectors that contain stocks that are, on average, smaller/bigger than the average stock in the index.

Intuitively, the sector breakdown of an equal weighted index should be much more stable than that of the corresponding headline index, as its sector weights are solely determined by the numbers of stocks in each sector at rebalance and do not allow big drifts in weights due to the disciplined quarterly rebalancing of weights back to equal weights. A market-cap weighted index, on the other hand, has much more freedom for sector adjustment, as the market goes up and down and sectors react differently. Therefore, the changes in relative sector weights between an equal weighted index and its headline index would be attributed mostly to the changes in the headline index itself. Exhibit 4 illustrates how the sector weights for the S&P 500 and S&P 500 EWI have evolved over time.

Exhibit 4: Sector Weightings of the S&P 500 EWI vs. S&P 500
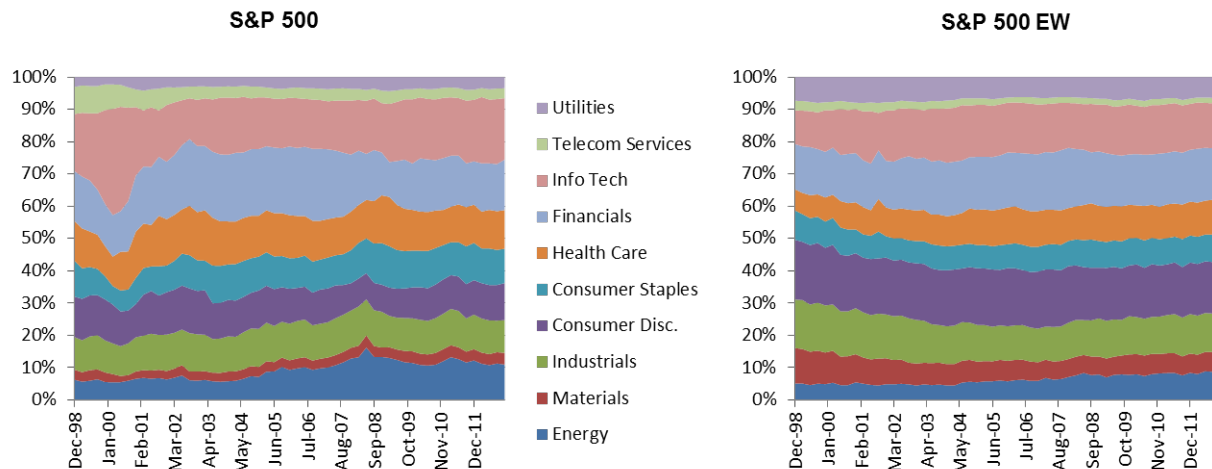
Source: S&P Dow Jones Indices. Data is quarterly from December 31, 1998 to December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical data. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested data.

Since 1999, the S&P 500 EWI has been consistently overweighted materials, consumer discretionary and utilities, and underweighted energy, health care and telecommunication services relative to the S&P 500. However, for other sectors the situation has varied considerably over time. In fact, even for sectors for which the S&P 500 EWI has been consistently overweight or underweight, the difference in concentration between the two indices has altered significantly.

Throughout the history, the largest change in the relative sector weights of the two indices has been in the information technology (IT) sector, mainly due to the change in the sector weights of the S&P 500 itself. During the technology bubble in the late 1990s, the IT sector weight of the S&P 500 increased to 33% in March 2000 from 13% at the start of 1998. Correspondingly, the S&P 500 EWI went from being underweight in the sector by less than 3% to being underweight by more than 20% in the same period. This has a very important implication that explains the different performance of the S&P 500 EWI relative to the S&P 500, which we further explore in the next section.

4. PERFORMANCE OF THE S&P 500 EQUAL WEIGHT INDEX

Exhibit 5 illustrates the performance of the S&P 500 EWI relative to the S&P 500. In the past 20 years ended 2012, the S&P 500 EWI had outperformed the S&P 500 by 2.0% annually. However, the level of out- or underperformance had varied considerably over time in line with different market cycles. The S&P 500 EWI outperformed the S&P 500 in the early 1990s but lagged for six straight years from 1994 through 1999, significantly underperforming during the technology bubble of the late 1990s. The S&P 500 EWI significantly outperformed the S&P 500 during the correction from 2000 through 2002, and beat it for seven consecutive years through 2006.

Exhibit 5: Risk & Return Profile of the S&P 500 EWI

| As of Dec.31, 2012	US Large Cap			As of Dec.31, 20	US Large Cap	
Risk & Return	**S&P 500**	**S&P 500 EW**		**Annual Return**	**S&P 500**	**S&P 500 EW**
Return (p.a.)				1990	-3.1%	-11.9%
1 Yr	16.0%	17.7%		1991	30.5%	35.5%
3 Yrs	10.9%	12.7%		1992	7.6%	15.6%
5 Yrs	1.7%	4.8%		1993	10.1%	15.1%
10 Yrs	7.1%	10.2%		1994	1.3%	1.0%
20 Yrs	8.2%	10.2%		1995	37.6%	32.0%
				1996	23.0%	19.0%
				1997	33.4%	29.0%
Stdev (p.a.)				1998	28.6%	12.2%
1 Yr	10.5%	11.3%		1999	21.0%	12.0%
3 Yrs	15.3%	17.2%		2000	-9.1%	9.6%
5 Yrs	19.0%	23.0%		2001	-11.9%	-0.4%
10 Yrs	14.8%	18.0%		2002	-22.1%	-18.2%
20 Yrs	15.1%	16.8%		2003	28.7%	41.0%
				2004	10.9%	17.0%
				2005	4.9%	8.1%
Risk Adj Return				2006	15.8%	15.8%
1 Yr	1.52	1.56		2007	5.5%	1.5%
3 Yrs	0.71	0.74		2008	-37.0%	-39.7%
5 Yrs	0.09	0.21		2009	26.5%	46.3%
10 Yrs	0.48	0.57		2010	15.1%	21.9%
20 Yrs	0.54	0.61		2011	2.1%	-0.1%
				2012	16.0%	17.7%

Source: S&P Dow Jones Indices. Data as of December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Exhibit 6: Annual Returns of the S&P 500 EWI
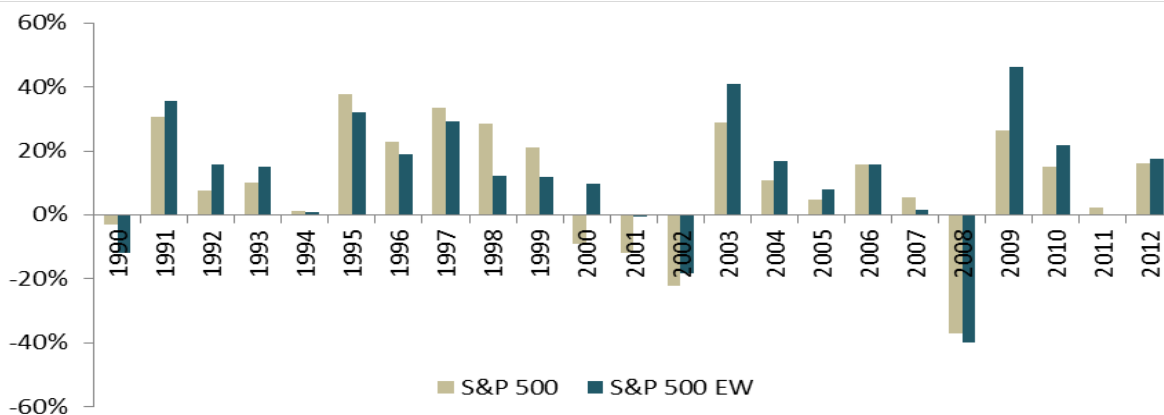
Source: S&P Dow Jones Indices. Data from December 1989 to December 2012. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no indication of future results.

As shown in Exhibit 7, the S&P 500 EWI had higher probability to outperform the S&P 500 when the market trended upward. This asymmetric pay-off pattern is not surprising, as equal weighted indices usually have small-cap bias by nature. Therefore, it is highly likely the indices would have higher beta—outperforming in the up-markets and underperforming in down-markets.

Exhibit 7: Beta and Percentage of Months that the S&P 500 EWI Beat S&P 500
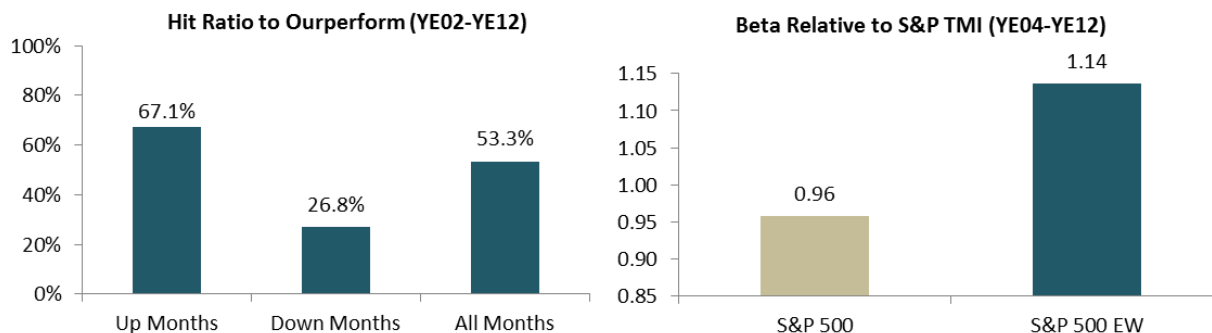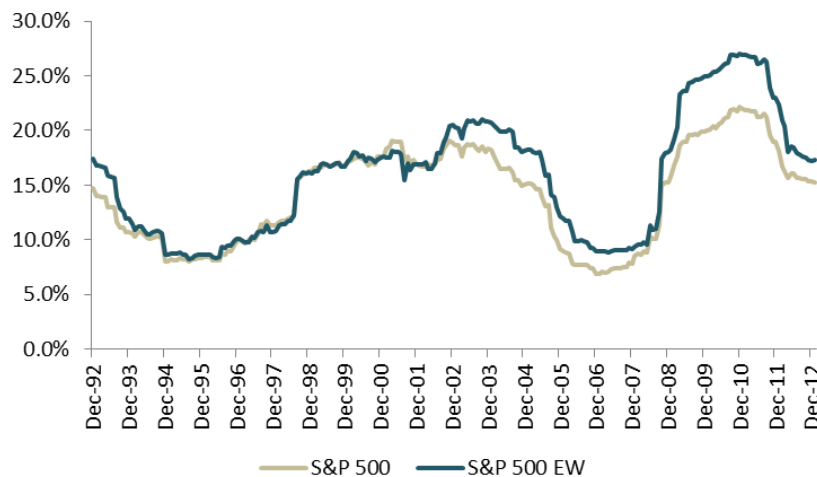

Source: S&P Dow Jones Indices. Hit ratio is calculated as the percentage of months over the period tested in which the S&P 500 EWI outperformed the S&P 500 Index Data related to hit ratio are from December 31, 2002 to December 31, 2012. Data related to beta are from December 31, 2004 to December 31, 2012. The S&P TMI stands for the S&P Total Market Index. Charts and graphs are provided for illustrative purposes only. Past performance is no indication of future results.

Exhibit 8 traces the historical volatility of the S&P 500 EWI relative to the S&P 500. The historical volatility was measured by rolling three-year annualized standard deviations. Historically, the S&P 500 EWI had higher volatility than the S&P 500 due to its small-cap biased feature.

The correlation between the S&P 500 EWI and the S&P 500, as measured by rolling 36 monthly returns in Exhibit 9, has, for the most part, consistently stayed between 95%-99%. The one major exception to this was the technology bubble of the late 1990s and the following correction. As the exhibit shows, the correlation was lower between the S&P 500 EWI and the S&P 500 during this time period.

Exhibit 8: Volatility of the S&P 500 EWI and S&P 500

Source: S&P Dow Jones Indices. Volatility was measured as rolling three-year annualized standard deviation. Data are from December 31, 1992 through December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Exhibit 9: Correlation between the S&P 500 EWI and S&P 500

Source: S&P Dow Jones Indices. Data are from December 31, 1992 through December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

5. SECTOR ATTRIBUTION ANALYSIS

The sector contribution analysis of the S&P 500 EWI yields results mostly in line with expectations. Exhibits 10-13 show contribution by sectors in four periods: 1995 through 1999, the major period of significant underperformance for the S&P 500 EWI; 2000 through 2006, a period of significant outperformance for the S&P 500 EWI; 2007 through 2008, the financial crisis period; and 2009 through 2012, the after-crisis period.

Exhibit 10: Sector Contribution from 1995 through 1999

Period (12/30/94 - 12/31/99)	S&P 500		S&P 500 EW		Contribution to
Sector	Avg. Weight	Annualized Return	Avg. Weight	Annualized Return	Exess Cum. TR
Energy	8.2%	19.8%	5.6%	14.6%	-7.5%
Materials	5.0%	12.1%	11.2%	8.5%	2.7%
Industrials	11.8%	24.4%	16.0%	15.3%	-6.3%
Consumer Discretionary	12.6%	26.3%	18.2%	16.6%	-8.3%
Consumer Staples	11.7%	18.1%	8.8%	17.8%	-5.3%
Health Care	10.9%	28.7%	6.5%	21.2%	-14.1%
Financials	14.8%	29.1%	13.7%	27.3%	-6.5%
Information Technology	14.0%	52.3%	9.9%	41.1%	-42.6%
Telecommunication Services	7.6%	29.8%	2.8%	40.2%	-11.9%
Utilities	3.5%	12.8%	7.5%	13.7%	3.6%
Index Level	100.0%	28.6%	100.0%	20.6%	-96.2%

Source: S&P Dow Jones Indices. Data is from December 30, 1994 through December 31, 1999. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical data. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested data.

Exhibit 11: Sector Contribution from 2000 through 2006

Period (12/31/99 - 12/31/06)	S&P 500		S&P 500 EW		Contribution to
Sector	Avg. Weight	Annualized Return	Avg. Weight	Annualized Return	Exess Cum. TR
Energy	7.1%	13.9%	5.2%	20.2%	3.2%
Materials	2.8%	6.9%	7.2%	12.3%	6.6%
Industrials	11.0%	4.2%	12.5%	10.1%	8.0%
Consumer Discretionary	11.7%	1.1%	17.4%	9.1%	14.4%
Consumer Staples	9.3%	5.9%	7.4%	9.2%	3.2%
Health Care	13.3%	4.0%	9.7%	13.3%	7.4%
Financials	19.2%	8.8%	15.9%	13.1%	8.5%
Information Technology	18.1%	-10.7%	15.3%	-5.6%	15.3%
Telecommunication Services	4.4%	-7.3%	2.2%	-4.6%	3.3%
Utilities	3.1%	7.9%	7.1%	11.6%	6.3%
Index Level	100.0%	1.1%	100.0%	9.1%	76.2%

Source: S&P Dow Jones Indices. Data is from December 31, 1999 through December 31, 2006. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical data. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested data.

Exhibit 12: Sector Contribution from 2007 through 2008

Period (12/31/06 - 12/31/08)	S&P 500		S&P 500 EW		Contribution to
Sector	Avg. Weight	Annualized Return	Avg. Weight	Annualized Return	Exess Cum. TR
Energy	12.3%	-6.4%	7.1%	-14.5%	0.6%
Materials	3.3%	-18.4%	5.7%	-18.9%	-0.8%
Industrials	11.3%	-18.0%	11.0%	-14.8%	0.9%
Consumer Discretionary	9.2%	-24.0%	17.0%	-29.3%	-5.4%
Consumer Staples	10.5%	-1.7%	8.1%	-7.4%	-0.7%
Health Care	12.3%	-9.1%	10.9%	-8.8%	0.7%
Financials	18.2%	-39.7%	17.4%	-38.4%	1.1%
Information Technology	15.8%	-18.7%	14.5%	-25.4%	-1.4%
Telecommunication Services	3.5%	-11.8%	1.8%	-19.6%	0.1%
Utilities	3.7%	-7.9%	6.4%	-10.1%	-0.5%
Index Level	100.0%	-18.5%	100.0%	-21.8%	-5.3%

Source: S&P Dow Jones Indices. Data is from December 31, 2006 through December 31, 2008. Charts and graphs are provided for illustrative purposes only.

Exhibit 13: Sector Contribution from 2009 through 2012

Period (12/31/08 - 12/31/12)	S&P 500		S&P 500 EW		Contribution to
Sector	Avg. Weight	Annualized Return	Avg. Weight	Annualized Return	Exess Cum. TR
Energy	11.9%	10.7%	8.2%	18.4%	1.5%
Materials	3.5%	17.2%	6.0%	22.5%	4.2%
Industrials	10.5%	15.1%	11.8%	17.5%	4.2%
Consumer Discretionary	10.2%	24.1%	16.1%	28.0%	12.5%
Consumer Staples	11.3%	13.4%	8.3%	18.0%	0.7%
Health Care	12.3%	13.1%	10.5%	19.2%	3.1%
Financials	14.6%	8.9%	16.0%	15.9%	9.3%
Information Technology	18.8%	20.3%	14.8%	20.9%	-1.5%
Telecommunication Services	3.2%	13.0%	1.7%	18.1%	-0.3%
Utilities	3.7%	9.4%	6.7%	12.5%	3.5%
Index Level	100.0%	14.6%	100.0%	20.3%	37.3%

Source: S&P Dow Jones Indices. Data is from December 31, 2008 through December 31, 2012. . Charts and graphs are provided for illustrative purposes only.

As expected, most of the underperformance of the S&P 500 EWI during the late 1990s can be attributed to the information technology sector, which contributed 42.6% of total underperformance (96.2%). During this period, information technology had the largest return among all sectors in both the S&P 500 and S&P 500 EWI. However, the S&P 500 EWI had both a lower weight in this sector and a lower sector return. Health care and telecommunication services were also large contributors to the underperformance. For the time period from 2000 through 2006, the largest contributors to outperformance were information technology and consumer discretionary. During this period, the contribution was much more spread out among sectors. In fact, all of the sectors positively contributed to the outperformance of the S&P 500 EWI during this period.

Interestingly, the result of sector contribution analysis further highlights the importance of the differences in constituent weights due to equal weighting. For the period from 1995-1999, the S&P 500 EWI not only underperformed as a whole but also in eight out of the 10 sectors. Conversely, for the period of 2000-2006, the S&P 500 EWI outperformed in every sector, and every sector had a positive contribution—implying that most of the outperformance is due not to differences in sector weightings but to the sector returns of the S&P 500 and S&P 500 EWI. However, since the stocks in the indices, and thus in each of the sectors, are the same, the differences are caused solely by the different weighting and rebalancing schedules of the two indices.

From 2007-2008, consumer discretionary was the biggest contributor to the underperformance, and the S&P 500 EWI underperformed in seven out of the 10 sectors. In the following correction period from 2009 through 2012, the S&P 500 EWI outperformed in all sectors. Again, this pay-off pattern of outperforming in up-markets and underperforming in down-markets was driven by the small-cap bias and high beta feature of equal weighted portfolios.

Based on the attribution analysis shown in Exhibit 14, the relative performance of the S&P 500 EWI in all four periods was attributed more to selection effect (equal weighting) than sector allocation effect.

Exhibit 14: Attribution Effect in Different Periods

Attribution (S&P 500 EW vs. S&P 500)	Allocation Effect	Selection Effect	Interaction Effect
Period (YE94-YE99)	33.3%	52.7%	14.0%
Period (YE99-YE06)	25.0%	80.4%	-5.4%
Period (YE06-YE08)	21.1%	84.4%	-5.5%
Period (YE08-YE12)	20.3%	84.7%	-5.0%

Source: S&P Dow Jones Indices. Data is from December 31, 1994 through December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

6. STYLE AND FACTOR EXPOSURE OF THE S&P 500 EWI

The question often arises—where is the outperformance of the S&P 500 EWI derived? Exhibit 15 shows a style map of the S&P 500 EWI, which exhibits the influence of both style and size on the relative performance of the index. In most of the periods over the past six years, the S&P 500 EWI had been influenced both by the size factor and value factor relative to the S&P 500, as it falls on the value side of the chart and below its corresponding headline index.

Exhibit 15: Style Map of S&P Equal Weight Indices
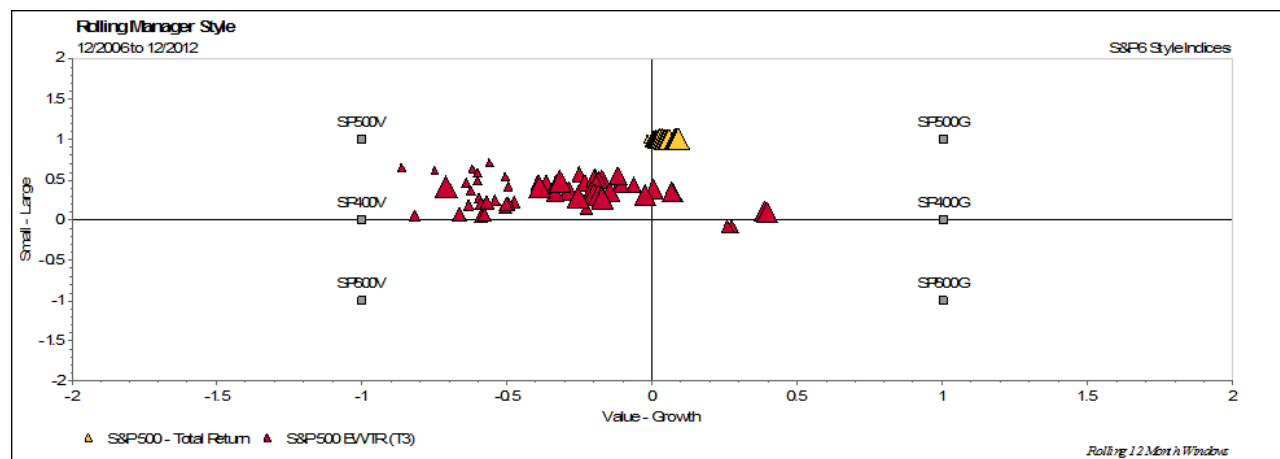
Source: S&P Dow Jones Indices, Factset. Data calculated from December 31, 2006 through December 31, 2012 on Factset SP2 platform. Larger triangles show more recent time periods. Charts and graphs are provided for illustrative purposes only. Past performance is no indication of future results.

Compared to other alternatively weighted indices covering the U.S. market, equal weighted strategy represented by the S&P 500 EWI had achieved one of the highest returns in the past 10 years. However, it had the highest volatility than other alternative indices in the same period.

Exhibit 16: Risk & Return Profile of Alternative Weighting Indices

As of Dec. 31, 2012	Annualized Return (p.a.)				Annualized Volatility (p.a.)				Risk Adjusted Return			
Alternative Weighted Indices	1 Yr	3 Yrs	5 Yrs	10 Yrs	1 Yr	3 Yrs	5 Yrs	10 Yrs	1 Yr	3 Yrs	5 Yrs	10 Yrs
S&P 500	16.0%	10.9%	1.7%	7.1%	10.5%	15.3%	19.0%	14.8%	1.52	0.71	0.09	0.48
S&P 500 EW	17.7%	12.7%	4.8%	10.2%	11.3%	17.2%	23.0%	18.0%	1.56	0.74	0.21	0.57
S&P 500 Div Aristocrats	16.9%	14.8%	8.4%	9.9%	6.7%	12.4%	17.5%	13.6%	2.51	1.19	0.48	0.73
SPHYDA	11.9%	12.0%	5.2%	7.9%	6.1%	12.5%	19.1%	14.7%	1.96	0.96	0.27	0.54
S&P500HQR	15.2%	14.5%	4.8%	7.2%	7.4%	13.3%	18.9%	14.8%	2.04	1.09	0.25	0.48
S&P 500 LV	10.3%	12.8%	6.1%	9.1%	6.0%	8.8%	12.7%	10.2%	1.72	1.45	0.48	0.89
SPLVHD	6.7%	13.8%	9.7%	11.8%	7.4%	10.7%	17.2%	13.8%	0.90	1.29	0.56	0.86
S&P GIVI US	14.4%	12.1%	3.6%	8.7%	8.8%	13.0%	16.5%	13.1%	1.64	0.92	0.22	0.66
FTSE RAFI US 1000	17.2%	12.1%	3.7%	9.2%	10.5%	16.2%	22.7%	17.4%	1.64	0.75	0.16	0.53
MSCI USA Value	17.5%	11.6%	1.5%	7.3%	11.2%	16.0%	21.1%	16.3%	1.57	0.72	0.07	0.45
MSCI USA Min Vol	11.2%	12.9%	4.3%	7.7%	6.2%	9.8%	14.7%	11.5%	1.82	1.32	0.29	0.67
Lyxor SmartIX ERC USA	16.0%	11.3%	4.0%	N/A	8.8%	14.2%	19.1%	N/A	1.82	0.80	0.21	N/A

Source: S&P Dow Jones Indices, Bloomberg. Data from December 31, 2002 through December 31, 2012. SPHYDA stands for the S&P High Yield Dividend Aristocrats Index. S&P500HQR is the S&P 500 High Quality Rankings Index. S&P 500 LV is the S&P 500 Low Volatility Index. SPLVHD stands for the S&P Low Volatility High Dividend Index. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

The factor exposure analysis further clarifies the small-cap and value tilts of equal weight strategy. This suggests that equal weighting results in a unique exposure to a complex and dynamic combination of size and style risk factors. It may be difficult to replicate the S&P 500 EWI return outcomes through a simple combination of style and sector indices.

Exhibit 17: Factor Exposure of Alternative Weighting Indices in the U.S. Market

Alternative Index Strategy	Annual Alpha	Market Beta	Small-Cap	Value	Momentum	Volatility	ST Reversal	R Square
Equal-Weighted	2.77%	1.04	0.21	0.34	0.05	0.01	-0.07	0.96
Statistical Significance	*	**	**	**			**	
Dividend (HYDA)	3.19%	1.01	0.39	0.30	0.06	-0.45	-0.08	0.86
Statistical Significance		**	**	**		**	*	
RAFI	1.82%	0.98	0.12	0.45	0.10	0.00	-0.07	0.97
Statistical Significance		**	**	**	**		**	
Value Weighted	0.12%	1.00	0.03	0.29	0.03	-0.03	-0.02	0.99
Statistical Significance		**		**	*			
Minimum Variance	1.05%	0.86	0.04	0.09	0.07	-0.16	-0.01	0.93
Statistical Significance		**		*	**	**		
Low Volatility	4.41%	0.80	0.10	0.17	0.10	-0.31	-0.01	0.81
Statistical Significance	*	**		**	*	**		
LVHD	5.88%	0.95	0.19	0.31	0.06	-0.31	-0.08	0.84
Statistical Significance	**	**	**	**		**	*	
GIVI	2.67%	0.92	0.13	0.21	0.11	-0.17	-0.01	0.94
Statistical Significance	*	**	**	**	**	**		
Equal Risk Contribution	1.26%	0.92	0.10	-0.11	-0.12	0.04	0.08	0.99
Statistical Significance		**	**	**	**		**	
High Quality Ranking	1.21%	1.03	0.23	0.24	0.03	-0.31	-0.05	0.92
Statistical Significance		**	**	**		**		
High Beta	-1.95%	1.20	0.10	0.25	-0.22	0.70	0.05	0.94
Statistical Significance		**		*	**	**		

**Denotes statistical significance at the 1% level and * denotes statistical significance at the 5% level.
Source: S&P Dow Jones Indices, MSCI, FTSE. Data related to the Equal Risk Contribution strategy were from January 31, 2006 to December 31, 2010. The rest were from December 31, 1999 to December 31, 2010. The Equal Weight Strategy is represented by S&P 500 Equal Weight Index; the Dividend (HYDA) Strategy is represented by S&P High Yield Dividend Aristocrats Index; the RAFI Fundamental Index is represented by FTSE RAFI US 1000 Index; the MSCI Value Weighted is represented by MSCI USA Value Weighted Index; the Minimum Variance Strategy is represented by MSCI USA Minimum Variance Index; the Low Volatility Strategy is represented by S&P 500 Low Volatility Index; the LVHD Strategy is represented by S&P 500 Low Volatility High Dividend Index; the S&P GIVI is represented by S&P GIVI U.S. Index; the Equal Risk Contribution Strategy is represented by Lyxor SmartIX ERC USA Equity Index; the High Quality Ranking Strategy is represented by S&P 500 High Quality Index; and the High Beta Strategy is represented by S&P 500 High Beta Index. This graph may 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. Charts are provided for illustrative purposes.

7. EQUAL WEIGHTING BEYOND THE S&P 500 IN THE U.S: DOES IT WORK IN MEGA-/MID-/SMALL-CAP SPACE?

As shown in Exhibit 18 and 19, the excess returns of the S&P 400 EWI and S&P 600 EWI were not as great as those of the S&P 100 EWI and S&P 500 EWI. In fact, in the 10-year investment horizon ended 2012, the S&P 600 EWI actually underperformed the S&P 600.

This is not surprising. As in the mid-/small-cap space, the headline index is already small-cap biased, and the weights of these indices are more evenly distributed among constituents than those of a large-cap headline index, which limits the potential to capture the excess returns of equal weighted portfolios driven by the different weightings among stocks and sectors.

Exhibit 18: Risk & Return Profile of the S&P 100 EWI, S&P 400 EWI and S&P 600 EWI

Risk & Return	US Mega Cap		US Large Cap		US Middle Cap		US Small Cap	
As of Dec. 31, 2012	S&P 100	S&P 100 EW	S&P 500	S&P 500 EW	S&P 400	S&P 400 EW	S&P 600	S&P 600 EW
Return (p.a.)								
1 Yr	16.1%	17.5%	16.0%	17.7%	17.9%	17.8%	16.3%	18.5%
3 Yrs	10.4%	11.5%	10.9%	12.7%	13.6%	13.8%	14.1%	14.2%
5 Yrs	1.3%	2.7%	1.7%	4.8%	5.1%	7.6%	5.1%	7.2%
10 Yrs	6.2%	9.1%	7.1%	10.2%	10.5%	11.8%	10.5%	11.3%
20 Yrs	8.3%	N/A	8.2%	10.2%	11.2%	11.3%	N/A	N/A
Stdev (p.a.)								
1 Yr	10.8%	10.6%	10.5%	11.3%	11.2%	11.7%	11.9%	13.8%
3 Yrs	15.0%	16.1%	15.3%	17.2%	18.2%	19.2%	19.2%	20.8%
5 Yrs	18.2%	20.6%	19.0%	23.0%	22.7%	24.8%	23.9%	27.4%
10 Yrs	14.2%	16.3%	14.8%	18.0%	17.8%	19.5%	19.3%	21.8%
20 Yrs	15.4%	N/A	15.1%	16.8%	17.5%	18.1%	N/A	N/A
Risk Adj Return								
1 Yr	1.48	1.65	1.52	1.56	1.60	1.53	1.37	1.34
3 Yrs	0.70	0.71	0.71	0.74	0.75	0.72	0.73	0.68
5 Yrs	0.07	0.13	0.09	0.21	0.23	0.31	0.21	0.26
10 Yrs	0.44	0.56	0.48	0.57	0.59	0.60	0.54	0.52
20 Yrs	0.54	N/A	0.54	0.61	0.64	0.63	N/A	N/A

Source: S&P Dow Jones Indices. Data as of December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Exhibit 19: Relative Risk & Return of S&P Equal Weight Indices vs. Their Headline Indices

YE 02 - YE 12	S&P 100 EW	S&P 500 EW	S&P 400 EW	S&P 600 EW
Excess Return (p.a.)	2.9%	3.1%	1.2%	0.8%
Increase in Annualized Vol	15.3%	21.8%	9.4%	13.1%
Risk Adj Return	0.56	0.57	0.60	0.52
Benchmark Risk Adj Return	0.44	0.48	0.59	0.54
Excess Risk Adj Preturn	0.12	0.09	0.01	-0.02
Avg Herfindahl Index Value	209	81	33	25
Benchmark Avg Herfindahl Index Value	100	20	25	17

Source: S&P Dow Jones Indices. Data as of December 31, 2012. Avg. Herfindahl Index was calculated based on the data as of the end of year from 2003 through 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Exhibit 20: Difference in Constituent Weights between S&P Equal Weight Indices and Their Headline Indices
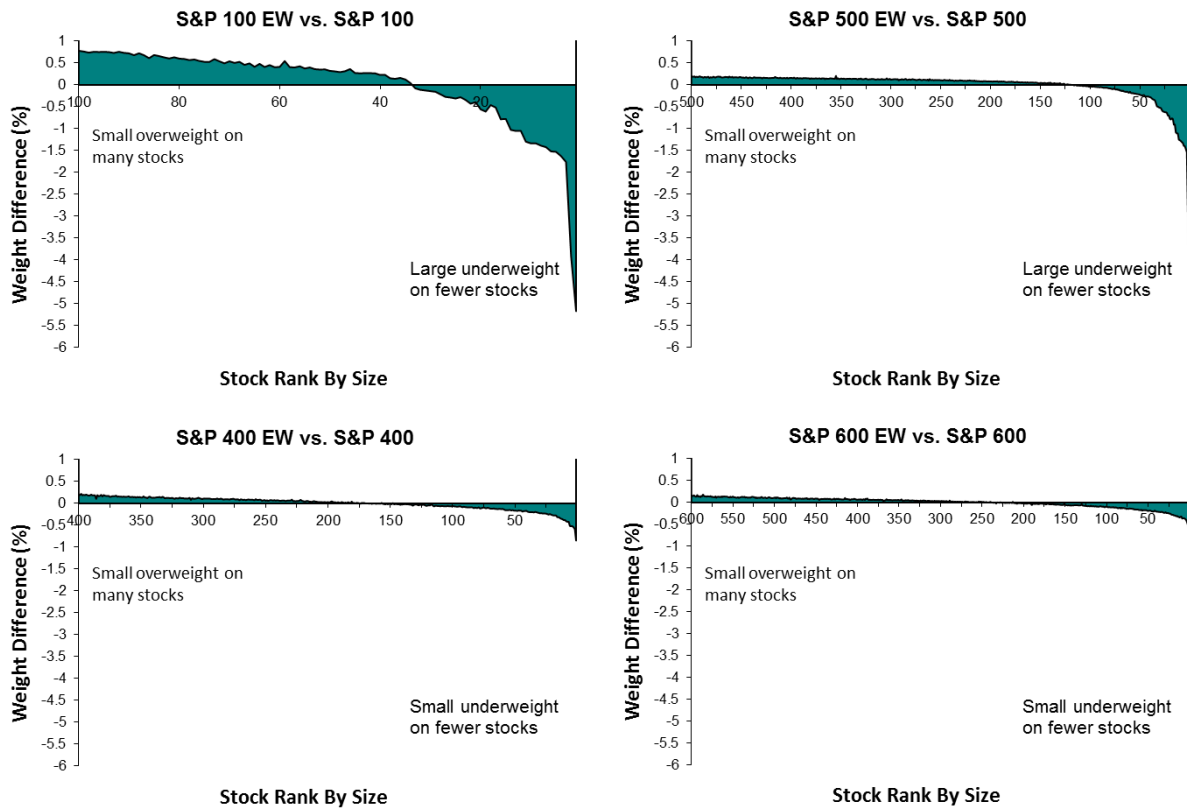
Source: S&P Dow Jones Indices. Data as of December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no indication of future results.

Exhibit 21: Herfindahl Index for S&P Equal Weight Indices and Their Headline Indices
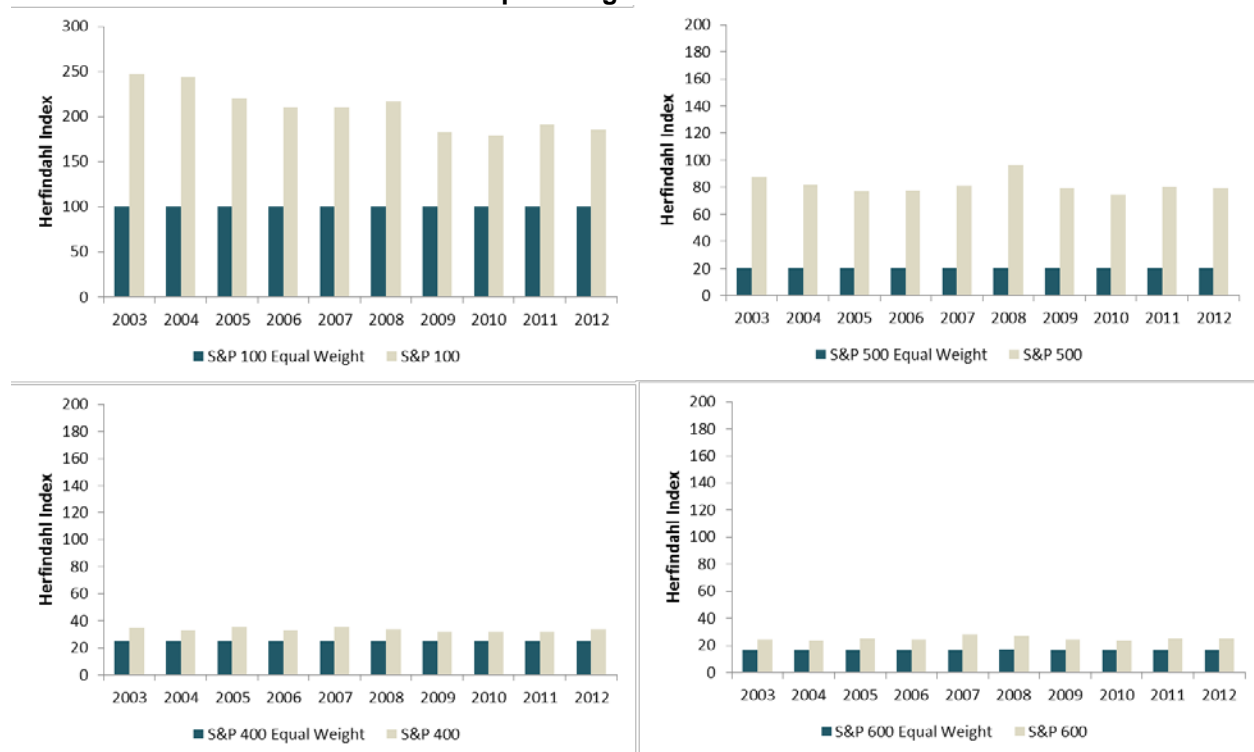
Source: S&P Dow Jones Indices. Data as of the end of year from 2003 through 2012. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no indication of future results.

8. Equal Weighting Beyond The U.S.: Does it Work for International Equities?

It would be interesting to see if equal weighting an international portfolio results in similar differences in the risk/return characteristics of the portfolio as it does when equal weighting a U.S. portfolio. To provide some insight into this issue, S&P Dow Jones Indices ran a backtest for an equal weighted version of the S&P International 700, with a similar methodology and rebalancing schedule as the S&P 500 EWI. The S&P International 700 is the international equivalent of the S&P 500. The index consists of 700 of the largest, most liquid stocks from outside the U.S. The S&P International 700 and the S&P 500 together make-up the S&P Global 1200.

To construct the international equal weighted index, we equal weighted constituents of each of the following regional indices–S&P Europe 350, S&P TOPIX 150 for Japanese stocks, S&P/TSX 60 for Canadian stocks, S&P/ASX 50 for Australian stocks, S&P Asia 50 representing Asia ex-Japan stocks and S&P Latin America 40. These equal weighted regional indices were then market cap weighted or GDP weighted to arrive at the composite international equal weighted index. We adopt this process to ensure that each region's weight is driven by its market performance or economic output, and not the count of stocks in its benchmark index.

Our results suggest that equal weighting does seem to work as well in international markets. Similar to the S&P 500 EWI, the S&P International 700 EWI outperformed relative to its market cap weighted equivalent, had somewhat higher volatility, particularly in recent years, and over time had become increasingly correlated to its market cap weighted equivalent.

Exhibit 22: Risk & Return Profile of the S&P International 700 EWI

As of Dec. 31, 2012	S&P Int 700	SPINT700EW_MCAP	SPINT700EW_PPPGDP
Return (p.a.)			
1 Yr	17.6%	19.5%	18.3%
3 Yrs	4.3%	5.2%	5.4%
5 Yrs	-2.4%	-0.6%	0.8%
10 Yrs	9.9%	11.9%	14.0%
Stdev (p.a.)			
1 Yr	16.1%	17.9%	18.2%
3 Yrs	19.5%	20.6%	20.4%
5 Yrs	23.9%	25.6%	25.4%
10 Yrs	18.9%	20.3%	20.2%
Risk Adj Return			
1 Yr	1.09	1.09	1.01
3 Yrs	0.22	0.25	0.26
5 Yrs	-0.10	-0.03	0.03
10 Yrs	0.52	0.59	0.69

Source: S&P Dow Jones Indices. Back-tested data is from Dec. 31, 2002 through Dec. 31, 2012. In SPINT700EW_MCAP Index, equal weighted regional indices are market cap weighted. In SPINT700EW_PPPGDP Index, equal weighted regional indices are weighted by the aggregated country PPPGDPs in the region. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Exhibit 23: Historical Performance of the S&P International 700 EWI
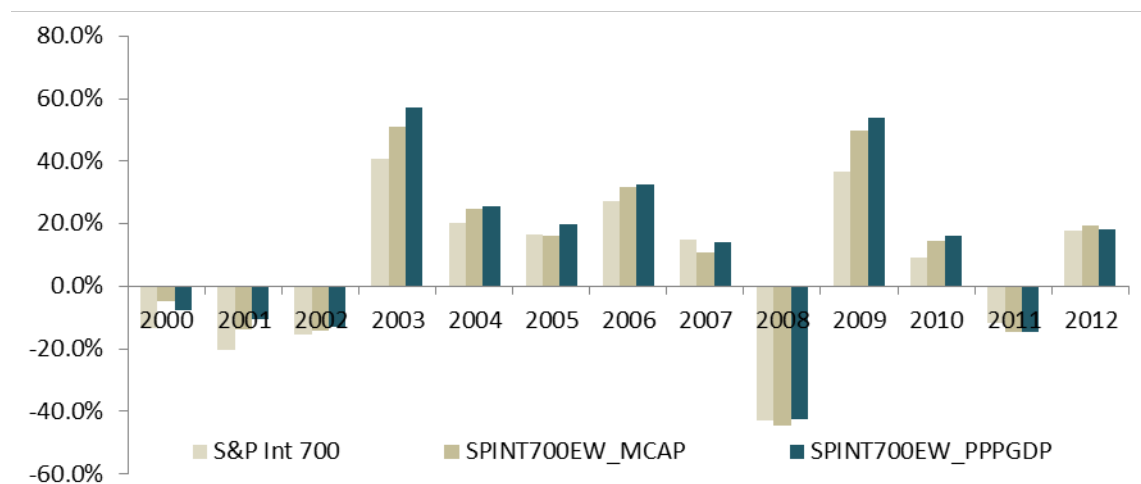
Source: S&P Dow Jones Indices. Back-tested data from Dec. 31, 1999 to December 31, 2012. In SPINT700EW_MCAP Index, equal weighted regional indices are market cap weighted. In SPINT700EW_PPPGDP Index, equal weighted regional indices are weighted by the aggregated country PPPGDPs in the region. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Exhibit 24 shows the style map for the S&P International 700 EWI relative to the S&P International 700 Index using MSCI AC World Style Indices. Here too, one notices that international equal weighted strategy has a different set of style and size exposures compared to its market cap weighted equivalent.

Exhibit 24: Style Map of the S&P International 700 EWI
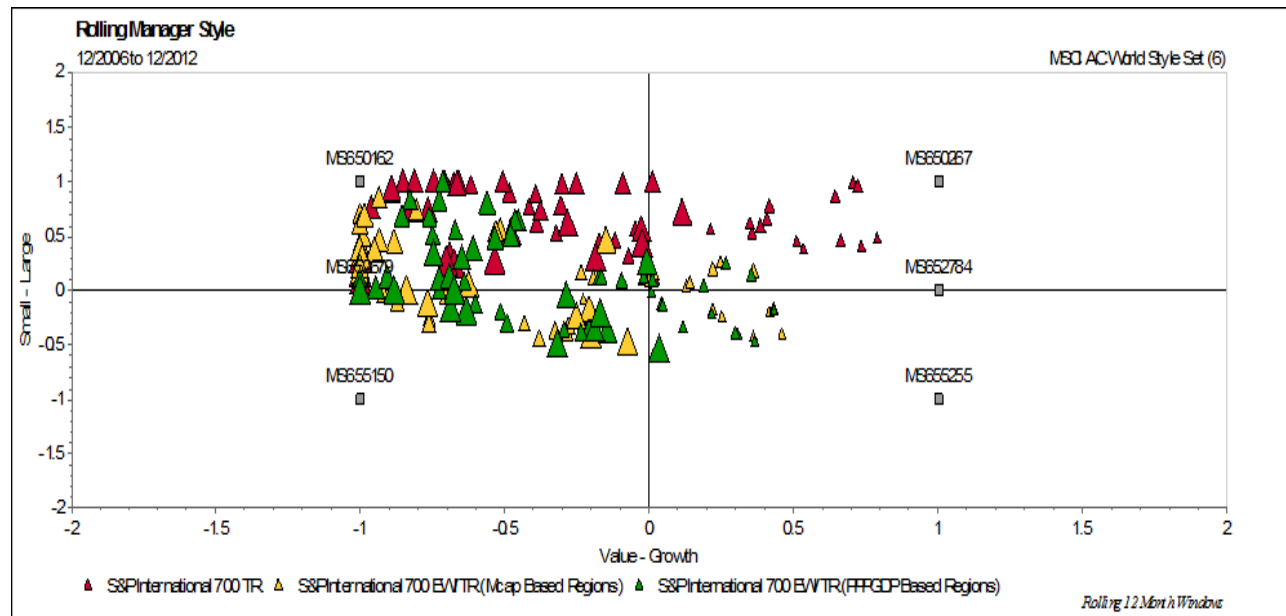
Source: S&P Dow Jones Indices, Factset. Data calculated from December 31, 2006 through December 31, 2012 on Factset SP2 platform. Larger triangles show more recent time periods. Charts and graphs are provided for illustrative purposes only. . This graph reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no indication of future results.

Exhibit 25: Volatility and Correlation between the S&P International 700 EWIs vs. S&P International 700
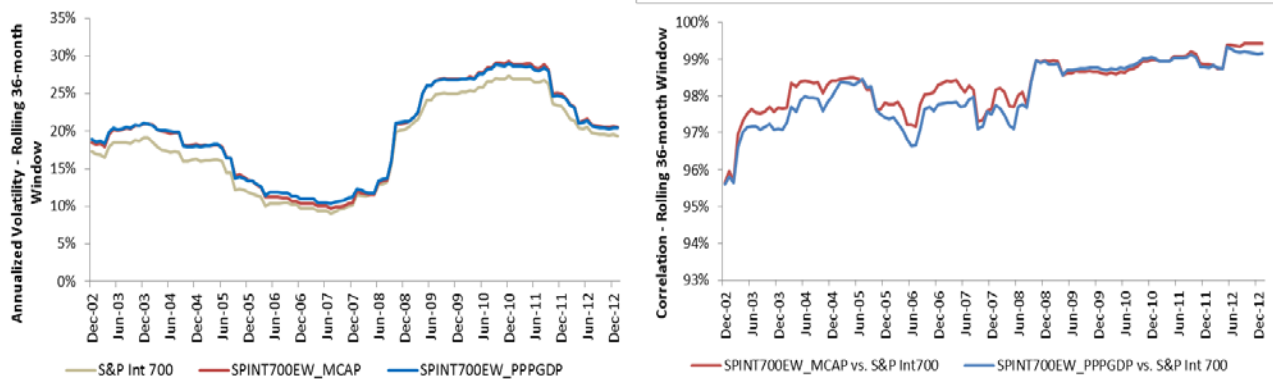
Source: S&P Dow Jones Indices. Back-tested data from Dec. 31, 2002 to December 31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no indication of future results.

Exhibit 25 tracks the historical volatility of the S&P International 700 EWI and the S&P International 700, and the correlation between the two indices. The volatility of the S&P International 700 EWI, as measured by rolling three-year annualized standard deviations, has been consistently higher than that of the S&P International 700 since 2002.

The correlation between the market cap and equal weighted versions of the international index has grown in recent times, consistent with the correlation between the S&P 500 and S&P 500 EWI. Since June 2003, it has been in the 0.96-0.99 range.

Exhibit 26: Risk & Return Profile of S&P International 700 EWI Sub-Indices

| As of Dec. 31, 2012	Annualized Return (p.a.)				Annualized Volatility (p.a.)				Risk Adjusted Return			
S&P INT 700 Sub-Indices	1 Yr	3 Yrs	5 Yrs	10 Yrs	1 Yr	3 Yrs	5 Yrs	10 Yrs	1 Yr	3 Yrs	5 Yrs	10 Yrs
S&P Europe 350	20.0%	3.6%	-3.8%	8.9%	17.6%	22.3%	25.7%	20.2%	1.13	0.16	-0.15	0.44
S&P Europe 350 EW	25.0%	4.5%	-2.3%	11.3%	20.2%	24.5%	28.8%	22.8%	1.24	0.18	-0.08	0.49
S&P/TOPIX 150	10.6%	1.8%	-4.3%	4.7%	16.8%	15.8%	19.1%	17.0%	0.63	0.11	-0.23	0.28
S&P/TOPIX 150 EW	6.7%	3.8%	-0.8%	8.1%	16.1%	15.0%	18.9%	17.2%	0.42	0.25	-0.04	0.47
S&P/TSX 60	10.5%	5.6%	0.1%	14.4%	14.8%	18.5%	26.3%	21.5%	0.71	0.30	0.01	0.67
S&P/TSX 60 EW	11.8%	8.1%	2.5%	15.6%	16.0%	18.6%	25.9%	21.3%	0.74	0.44	0.10	0.73
S&P LAC40	6.4%	0.5%	0.2%	22.8%	19.3%	24.1%	31.1%	27.0%	0.33	0.02	0.01	0.84
S&P LAC40 EW	9.9%	6.2%	8.6%	26.1%	20.1%	22.6%	28.1%	24.7%	0.50	0.28	0.30	1.06

Source: S&P Dow Jones Indices. Data is from December 31, 2002 through December 31, 2012. Charts and graphs are provided for illustrative purposes only. . This graph may 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. Past correlations and performance are no indication of future results.

Equal weighted versions of the major sub-indices of the S&P International 700 outperformed their corresponding headline indices over longer time periods as shown in Exhibit 26.

9. ADDRESSING THE CRITICISMS OF EQUAL WEIGHTED INDICES

9.1 Turnover

Since the launch of the S&P 500 EWI, investors have expressed two main concerns on the investment product based on the index: turnover and capacity constraints. These concerns are turnover and capacity constraints.

Admittedly, equal weighted indices have higher market cap turnover than their parent indices due to the rebalancing of the indices on a quarterly basis to equal weights. During the period of the 10 years ended in 2012, the average annual turnovers for the S&P 500 EWI (24.7%) and the S&P 100 EWI (22.9%) had been around three to four times that of the S&P 500 (6.3%) and the S&P 100 (7.6%). The S&P 400 EWI and S&P 600 EWI had turnover less than two times that of the S&P MidCap 400 and S&P SmallCap 600 (19.0% and 20.9%, respectively), but all remain in line with other alternatively weighted indices, which generally have turnover in the 15%-70% range. Thus, while turnovers for the S&P Equal Weighted Indices are somewhat larger than their headline indices, they are within a reasonable range for alternatively weighted indices and are certainly much lower than turnover for most actively managed portfolios, which tend to be in the 50%-100% range.

Exhibit 27: Average Index Turnover of the S&P Equal Weighted Indices
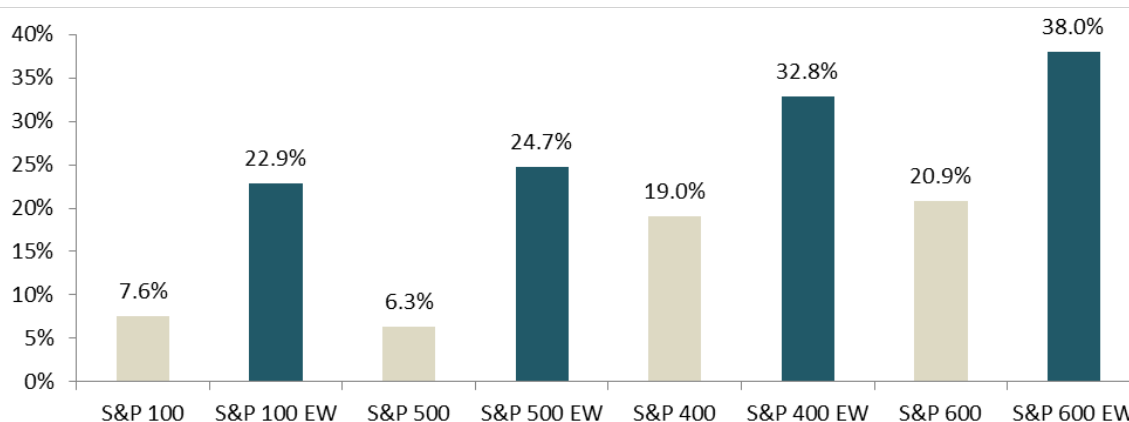
Source: S&P Dow Jones Indices. One-way turnover data from 2003 through 2012. Charts and graphs are provided for illustrative purposes only. This graph may reflect hypothetical historical data. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested data. Past data is no indication of future results.

9.2 Capacity and Liquidity Constraints

Another concern regarding equal weighted indices is capacity constraints. Since all constituents are held at equal weights regardless of their market cap, an investment product tied to the index will have relatively large holdings in the smallest stocks in the index. This aspect could produce liquidity pressures at rebalancing. However, deeper investigation shows that this concern is true only in theory for equal weighted indices in large-cap space.

Again, we will take the S&P 500 as an example. At the end of 2012, there were approximately USD 1.47 trillion in assets linked to the S&P 500, while the index had a total market cap of USD 13.5 trillion at the end of 2012. Let's assume for each stock in the S&P 500 roughly 10% of its shares were held in products linked to the index. The capacity of the S&P 500 EWI is constrained by the smallest stock in the index. As of year-end 2012, the smallest stock had a market cap of USD 1.65 billion. After applying the 10% ratio to this, it can be estimated that at least USD 165 million can be linked to the smallest stock in the S&P 500 EWI without resulting in capacity issues. Since each stock in the index represents 0.2% of the index, USD 82.4 billion should be linked to the index without any optimization. If stocks below USD 2 billion in market cap are optimized, the capacity reaches USD 100 billion. However, there were less than USD 10 billion in assets linked to the S&P 500 EWI as of year-end 2012. This suggests that assets can increase by more than eightfold before reaching the level of index effect seen in the S&P 500 index changes.

Similarly, the capacity for products linked to the S&P 100 EWI should be at least USD 176 billion. By assuming 5% of stock shares were held in products linked to the index, the estimated capacity for products linked to the S&P 400 EWI and S&P 600 EWI are USD 8.1 billion and USD 1.8 billion, respectively. All are above the current size of products linked to those equal weighted indices.

Exhibit 28: Product Capacities Supported by S&P Equal Weighted Indices

Index Capacity (In Billion USD)	S&P 100	S&P 500	S&P 400	S&P 600
Estimated Indexed Assets at YE2012 (USD, Billion)	9.8	1465.0	80.6	23.6
Total Market Cap of the Index at YE 2012 (USD, Billion)	8562	13481	1252	557
Assume % of stock shares were held in products linked to the index	10%	10%	5%	5%
Total Market Cap of the Smallest Stock in the Index (YE12, USDmm)	17598.6	1647.7	403.7	61.1
Size of Indexed EWI Assets Supported (USD, Billion)	176.0	82.4	8.1	1.8
Estimated Assets Linked to the EWI (USD, Billion)	< 100 Mns	< 10 Bns	< 100 Mns	< 100 Mns

Source: S&P Dow Jones Indices. Data as of Dec.31, 2012. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

Since the index turnover caused by fund net cash flows can impose liquidity pressure as well, we tested the number of days needed to turn over USD 1 billion fund at stocks' liquidity levels measured as three-month average daily value traded (3M ADVT). The maximum size of daily index turnover allowed is calculated as the minimum value of the capacities supported by individual constituents in the index.

Exhibit 29: Tradability of S&P Equal Weighted Indices

# days Needed to Turn Over $1 Billion Fund	S&P 100	S&P 100 EW	S&P 500	S&P 500 EW	S&P 400	S&P 400 EW	S&P 600	S&P 600 EW
Min	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01
Max	0.05	0.10	0.03	0.16	0.35	0.80	1.13	9.28
Average	0.02	0.03	0.01	0.02	0.11	0.15	0.35	0.68
Median	0.02	0.03	0.01	0.02	0.10	0.11	0.31	0.35
Level of Daily Turnover Supported (Billion)	18.5	9.9	29.1	6.1	2.9	1.2	0.9	0.1

Source: S&P Dow Jones Indices.   Data as of Dec.21, 2012. Assume trading at the level of 3M ADVT each day will not have negative impact on stock liquidity. Charts and graphs are provided for illustrative purposes only. This graph may 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. Past performance is no indication of future results.

As shown in Exhibit 29, the maximum daily turnovers supported by the S&P 100 EWI and S&P 500 EWI are 9.9 billion and 6.1 billion, respectively. In comparison, the maximum daily turnover supported by the S&P 400 EWI and S&P 600 EWI are much lower at 1.2 billion and 0.1 billion, respectively.

Conclusion

Often the most powerful investment ideas are simple. The S&P 500 EWI 10 years ago pioneered the simple concept of equal weighted indexing. It has now expanded in the U.S. into the S&P 100, a MegaCap index, S&P MidCap 400® and S&P SmallCap 600®. The equal weighting idea has also been applied to international equities, as well as in other asset classes such as fixed income indices and commodity indices. It has become one of the most popular alternatively-weighted ideas.   While the headline cause of asset flows has been outperformance over market-cap indices, sophisticated investors have realized that equal weighting creates a different set of risk factor exposures than market cap weighting that seem to have worked over the long-term as noted in the paper. Furthermore, the concept randomizes factor mispricings in the market.

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PERFORMANCE DISCLOSURE

The S&P 500 Equal Weight Index and S&P 500 were launched on January 8 2003 and in 1957 respectively. The S&P 100 Equal Weight Index and S&P 100 were launched on August 21, 2009 and June 15, 1983 respectively. The S&P Midcap 400 Equal Weight Index was launched in 2009. The S&P Smallcap 600 Equal Weight Index was launched in 2009. The S&P International 700 Index was launched on June 18, 2002. The S&P/TSX 60 Equal Weight Index was launched on June 7, 2010. . The S&P International 700 EWIs, S&P Europe 350 EWI, S&P/TOPIX 150 EWI and S&P LAC 40 EWI are all based on hypothetical back-tested data. The S&P 500 Dividend Aristocrats Index and S&P High Yield Dividend Aristocrats Index were launched on May 2, 2005 and November 9, 2005 respectively. The S&P 500 Low Volatility Index and S&P low Volatility High Dividend Index were launched on April 20, 2011 and October 15, 2012 respectively. The S&P GIVI US was launched on March 19, 2012. . The S&P MidCap 400® was launched on June 19, 1991. The S&P MidCap 400® Equal Weight Index was launched on August 23, 2010. The S&P SmallCap 600® was launched on Oct. 28, 2004. The S&P SmallCap 600® Equal Weight Index was launched on August 23, 2010. All information presented prior to the launch dates noted above are back-tested. The back-test calculations are generally based on the same methodology that was in effect when the index was officially launched. The data for the S&P/TOPIX 150 EWI, S&P Europe 350 EWI and S&P LAC 40 EWI have been calculated for purposes of this analysis and relied on a similar methodology that was used for S&P 500 EWI. Complete index methodology details are available at www.indices.standardandpoors.com.

Past performance 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 or www.spindices.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. It is not possible to invest directly in an Index.

Another limitation of back-tested hypothetical information is that generally the back-tested calculation is prepared with the benefit of hindsight. Back-tested data reflect 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 (or 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 investor assets. Standard & Poor's maintains the indices 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 would pay to purchase the securities they represent. The imposition of these fees and charges would cause actual and back-tested performance to be lower than the performance shown. In 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% were 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 3 years, 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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