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THE VOLATILITY SELLER'S PREMIUM: WHEN IT'S AVAILABLE AND WHEN IT'S NOT

In their search for returns, an increasing number of investors are focusing on an unexpected source of yield—the futures tracking the CBOE Volatility Index® (VIX®). Retail and institutional investors, who usually hold net long positions, have traditionally hedged against large drops in stock prices using VIX-based instruments, such as futures, options, exchange traded notes (ETNs), and exchange traded funds (ETFs). Maintaining this hedge and insuring a portfolio, however, has been costly—so costly, in fact, that certain investors have begun migrating to the other side of the trade. Rather than simply hedging, these investors are now selling volatility, with the aim of collecting the insurer's premium during periods of calm.



REID STEADMAN
Managing Director
S&P Dow Jones Indices

Investment companies are placing a spotlight on this opportunity. Of note, BlackRock published a paper in 2013 titled, “VIX Your Portfolio: Selling Volatility to Improve Performance.” This widely cited study explained how investors might enhance their returns and access a differentiated yield—one that’s not directly tied to dividends or interest rates—by selling various VIX-based products (for the full paper, visit www.blackrock.com).

But this strategy, which is new to most investors, also raises questions. Among them: How often has the premium been available? Under what market conditions has this premium disappeared? These important questions are well worth exploring.

The High Cost of Rolling a VIX Futures Position



BERLINDA LIU
Director, Index Research
and Design
S&P Dow Jones Indices

VIX measures the 30-day implied volatility communicated in the prices of S&P 500® options. Due to the complex construction of VIX, the index is not directly investable (the VIX methodology can be found at www.cboe.com). As a result, most investors access exposure to VIX through futures and options. In recent years, investors have also been able to access futures through ETNs and ETFs that track futures-based indices.

Buying VIX futures or ETFs and ETNs tracking futures-based indices is not equivalent to holding a position in VIX itself. Investing in VIX futures involves three types of exposure:

1. Exposure to the fluctuating market price of the futures;
2. Exposure to the cost incurred or yield realized through continually rolling into longer dated contracts, and
3. Less consequentially, the interest earned on collateral.

The costs accumulated by holding a rolling VIX futures position can be enormous. Exhibit 1 demonstrates this effect. The S&P 500® Short-Term VIX Futures Index simulates a portfolio that gradually rolls from the near-term contract to the next-term contract (the full methodology can be found at us.spindices.com). Since the near-term contract is typically priced lower, an investor replicating the performance of this index would lose value as they sell out of this one and buy the more expensive next-term contract.

EXHIBIT 1: CBOE VOLATILITY INDEX® (VIX®) VERSUS S&P 500® SHORT-TERM VIX FUTURES INDEX



Source: S&P Dow Jones Indices, CBOE. Data from December 2005 – December 2013. The S&P 500 VIX Short-Term Index was launched on December 23, 2008. The back-test calculations are based on the same methodology that was in effect on the launch date. Complete index methodology details are available at www.spdji.com. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

Spot VIX has gone up and down over the years, but has maintained a floor around 10. The S&P 500 Short-Term VIX Futures Index, however, has declined dramatically. The index, which started in December 2005 with a value of 100,000, ended the first quarter of 2014 at 1,103, nearly 1/100th of its starting value. This index's long-term downward trend is the outcome of the high cost of rolling a VIX futures position.

Taking the Other Side of the Trade

The loss in value that investors incur for holding a long position in VIX futures represents an opportunity for those willing to take short positions and act as insurers. The return of the S&P 500 Short-Term VIX Futures Inverse Daily Index makes this apparent [see Exhibit 2].

EXHIBIT 2: S&P 500 VIX SHORT-TERM FUTURES INVERSE DAILY INDEX



Source: S&P Dow Jones Indices, CBOE. Data from December 2005 – December 2013. The S&P 500 VIX Short-Term Index was launched on December 23, 2008. The back-test calculations are based on the same methodology that was in effect on the launch date. Complete index methodology details are available at www.spdji.com. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

Though this index experienced some large reversals, it has also experienced long periods of relatively steady increases, particularly from the end of 2011 to the beginning of 2014.

Contango: Benefiting the Volatility Seller

Certain volatility sellers are betting on near-term downward price movements, but other investors are taking a longer view, positioning themselves to profit from extended periods of contango. Contango is the condition in which a futures contract price is above that of the spot price or an earlier dated futures contract. Implicit in contango is the transfer of a premium from the buyer of the higher priced futures contract to the seller, who is willing to assume the risk associated with the higher price.

The blue shaded areas in Exhibit 3 show how often the VIX futures term structure has been in contango and when the volatility seller has been able to collect this premium. In the case of this chart, contango is measured by comparing the prices of the near-term and next-term futures contracts.

EXHIBIT 3: FREQUENCY OF CONTANGO



Source: CBOE. Data from March 2004 – March 2014. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

For the majority of the time—83% of the days that VIX futures have traded—the first two futures contracts were in a state of contango. The longest continuous period of contango occurred between April 14, 2004, and April 14, 2005, a total of 232 trading days.

The volatility premium has persisted over decently long stretches, as Exhibit 4 shows. In contrast, periods of backwardation—the opposite of contango, when the volatility buyer collects a premium—have been shorter and less frequent.

EXHIBIT 4: LONGEST PERIODS OF CONTANGO AND BACKWARDATION

LONGEST PERIODS OF CONTANGO			LONGEST PERIODS OF BACKWARDATION		
START	END	TRADING DAYS*	START	END	TRADING DAYS*
8/1/11	11/15/11	76	8/1/11	11/15/11	76
9/12/08	12/10/08	63	9/12/08	12/10/08	63
1/14/09	3/11/09	39	1/14/09	3/11/09	39
8/9/07	9/17/07	27	8/9/07	9/17/07	27
1/17/08	2/15/08	21	1/17/08	2/15/08	21

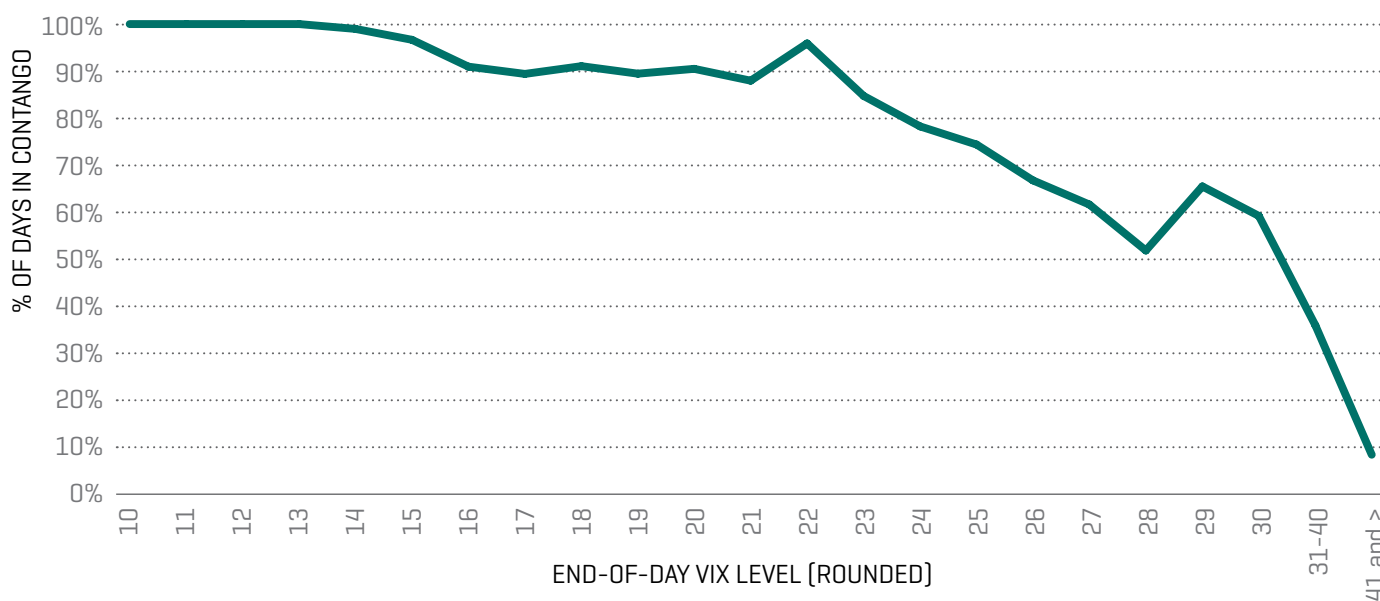
* When VIX futures began trading, on certain days, only the front month traded. In counting consecutive trading days, only those days with a settlement values in the near- and next-term contracts were considered.

Source: CBOE. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

When the Seller's Premium has Disappeared

Exhibit 3 seems to indicate that when VIX spikes, contango often disappears. But has the relationship between contango and VIX been more strongly related to the absolute level of VIX or to its rate of change?

EXHIBIT 5: PERCENTAGE OF DAYS IN CONTANGO

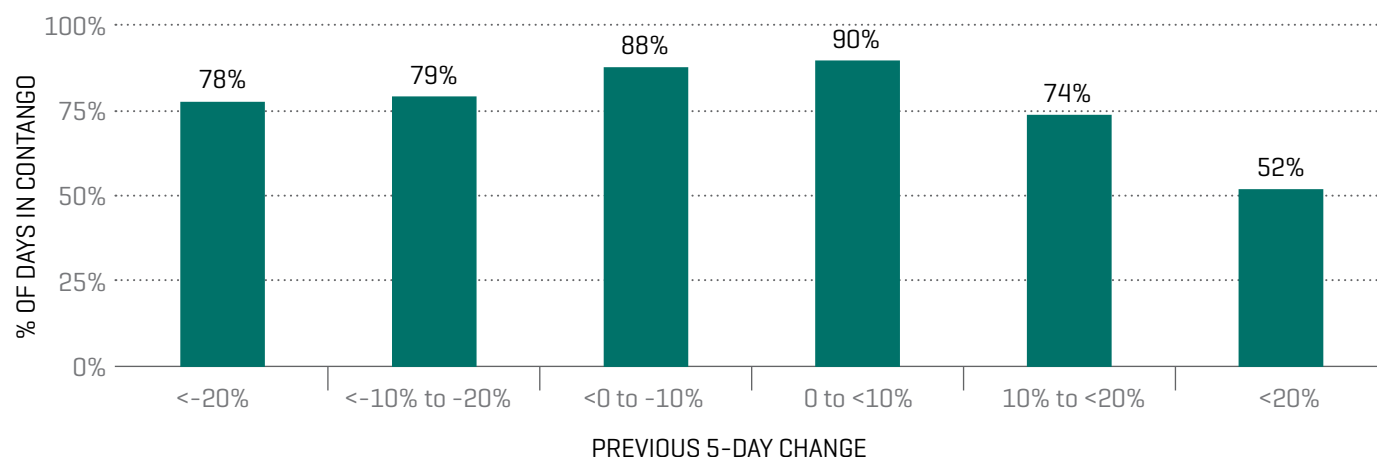


Source: CBOE. Data from March 2004 - March 20014. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

Two interesting observations can be drawn from Exhibit 5. First, when VIX has been historically at a level of 15 or below, the near- and next-term futures have almost always been in contango. At 13 and below, contango has persisted 100% of the related trading days; when VIX was at 14 and 15, the futures were in contango 99% and 97% of the time. The second observation is that once VIX goes past 22, the frequency of contango has declined quickly.

Finally, it is worth considering whether contango is driven not by the absolute level of market expectations for volatility but by the rate of change in expectations. Exhibit 6 compares change in the VIX level over rolling 5-day intervals with the frequency of contango on the 5th day. As the exhibit shows, large upticks in VIX were associated with contango in the first two futures contracts, as were, to a lesser degree, larger downward movements.

EXHIBIT 6: PERCENTAGE OF DAYS IN CONTANGO COMPARED TO PREVIOUS FIVE-DAY CHANGE IN VIX LEVELS



Source: CBOE. Data from March 2004 – March 2014. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

In Summary

Investors who are interested in shorting volatility should take time to study the frequency of contango. Though the price of VIX futures fluctuates, the shape of the futures curve has been, for the most part, consistently upward sloping, indicating a volatility seller's premium is available to collect. Historically, this premium has frequently persisted when VIX is at low and moderate levels, below and around VIX's long-term average of 20. However, this premium has frequently disappeared when VIX has shot to higher levels.

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DOES BENCHMARK SELECTION MATTER?

WHAT SIGNS FROM THE U.S. EQUITY MARKETS REVEAL



AYE M. SOE, CFA, DIRECTOR, GLOBAL INDEX RESEARCH & DESIGN

Aye Soe analyzes the impact of benchmark selection using the major equity indices from S&P Dow Jones Indices (S&P DJI) and Russell—two of the most widely used barometers of domestic U.S. equities.

Both index providers differ in their security selection process and rebalancing procedures. For example, constituent selection for the Russell indices is solely determined on a market capitalization basis, while S&P DJI uses criteria established by the Index Committee. The Russell equity indices are rebalanced annually, while index changes are implemented on an as-needed basis at S&P DJI. As expected, the results show that due to varying returns, an active manager's chance of outperforming his/her respective benchmark changes depends on market cap segment and style.

Why Look at a Benchmark?

Benchmarks play a multifaceted role in portfolio management. Benchmarks have three key functions and the choice of benchmark is a critical component of the process.¹ For passive investors, benchmarks provide exposure to an investment strategy in a given investment universe or a market segment. For active investors, benchmarks are part of the investment performance measurement and evaluation process. They are used to compare the returns generated by an actively managed portfolio against a benchmark that represents the investment universe or style of the active portfolio. Benchmarks also serve as proxies for asset class returns when formulating policy portfolios. Regardless of usage, a benchmark in a particular asset class or subclass serves not only as a point of comparison, but also as a determining factor in assessing the value of active management.

Major index providers have a number of investable indices on their platforms representing various market cap segments. However, due to varying methods used in the benchmark construction process, two indices representing the same market segment may have different realized returns. This poses a challenge when searching for an

appropriate benchmark. It can also create serious investment ramifications for investors who now have a range of actionable index-linked investment vehicles available to them, or for those tasked with evaluating managers. Does benchmarking against a particular index improve a manager's odds of outperforming? Philips [2011] demonstrated that within the same universe of active managers, using a different benchmark can mean the difference between an outperforming manager and an underperforming one.

Brief Note About the Data and Methodology

The returns comparisons used were computed using the University of Chicago's Center for Research Security Prices (CRSP) Survivorship-Bias Free U.S. Mutual Fund database. Keeping consistent with the widely cited S&P Indices Versus Active Funds (SPIVA®) Scorecard methodology, we removed index funds, leveraged and inverse funds, and other index-linked products from the universe. In addition, when a given fund included multiple share classes, the returns of the share class with the greatest assets (in order) were taken into consideration to avoid double counting. In order to make apples-to-apples comparisons, a fund's returns were measured against the returns of a benchmark appropriate for that particular investment category. In other words, a large-cap value fund was compared against the S&P 500® Value and the Russell 1000® Value Index.

It is important to keep in mind that market conditions and cyclicity can introduce year-over-year fluctuations in outperformance figures. The general rule of thumb is to look at five- or ten-year performance figures, which are more likely to incorporate a full market cycle. Keeping in line with the SPIVA reporting frequency, our analysis in this article is based on the five-year performance data as of December 31, 2013.

The period coincided with the rebound from one of the worst financial crashes in history and the subsequent bull market rally, accompanied by relatively low market volatility.

The Proof is in the Pudding: Size and Style Matter

Exhibit 1 highlights return differentials between Russell's indices and their S&P DJI counterparts across the nine style boxes. The returns are based on five-year annualized data. Exhibit 2 extends the analysis and illustrates the impact of benchmark selection in evaluating managers. The data shows that depending on the benchmark used in a particular market cap segment and investment style, the hurdle rate that active managers must overcome differs.

Over the past five years ended December 31, 2013, the differences in performance between most indices from Russell and S&P DJI in the large- and mid-cap segments are not significantly meaningful, with large-cap growth being an exception. The performance differential between the two small-cap indices shown stands at 1.29%, its highest level on a five-year annualized basis. That's much higher than the differentials witnessed among the large- and mid-cap indices. In previous research [Soe, 2009], the substantial performance divergence between the two small-cap indices since the launch of the S&P SmallCap 600® in 1994 was also noted.²

Contrary to what has been witnessed among the large- and mid-cap indices, where the Russell indices are more difficult to outperform, the S&P SmallCap 600® indices present a bigger hurdle for small-cap active managers to overcome than the Russell 2000® indices. The analysis shows that higher percentages of small-cap funds across all three style boxes underperformed when measured against the S&P SmallCap 600 indices compared with the Russell 2000 indices. The wide disparity between the percentages of small-cap value managers outperforming the Russell 2000 Value Index versus the S&P SmallCap 600 Value [29.63% difference] is a reminder that one can draw drastically different conclusions as to whether indexing works or not depending on the benchmark being selected. Blitzer and Dash [2003]³ also showed that substituting the S&P SmallCap 600 for the Russell 2000 paints a less favorable picture for active management in small caps.

The analysis so far is a light examination of the methodology differences applied by these two index providers in the index construction process. It is possible that in the large- and mid-cap segments, methodology differences may not play a big factor. With the market capitalization weighting schemes,

any differences in returns, regardless of the magnitude, could be driven primarily by stock- or company-specific effects, and less so by index construction differences. This is due to the concentration of the few, largest companies dominating the weight distribution and having the most impact on the returns.

However, in the smaller market cap segment, methodology differences may be the major drivers of index returns since the weights are distributed more evenly than in their larger counterparts. As noted earlier, Russell's indices use the market capitalization of a security to determine its index eligibility. The S&P SmallCap 600 uses a profitability screen and requires constituents to have four consecutive quarters of positive earnings. The result is that the S&P SmallCap 600 returns have exhibited a higher value tilt than those of the Russell 2000 and the corresponding excess return over the Russell 2000 may be due to the profitability screens.⁴

Summing It All Up

The primary objective of a benchmark is not to deliver superior performance or to time the market, but rather to serve the three key functions outlined earlier. Therefore, it is not possible to predict whether or when one benchmark would outperform the other. Investors should be aware that index construction differences can have enormous impact on the returns of those indices representing a particular market segment, which poses practical considerations for both passive and active investors who employ index returns as key criteria in the investment decision process. For those who are tasked with evaluating managers, varying returns can lead to contradictory conclusions about the ability of a manager to add value, depending upon which benchmark is used.

A longer time series analysis of the performance of the active funds versus their various respective benchmarks is beyond the scope of this article. However, even when using a five-year performance snapshot, the case study does highlight the difficulty investors have in measuring the precise value offered by active management.

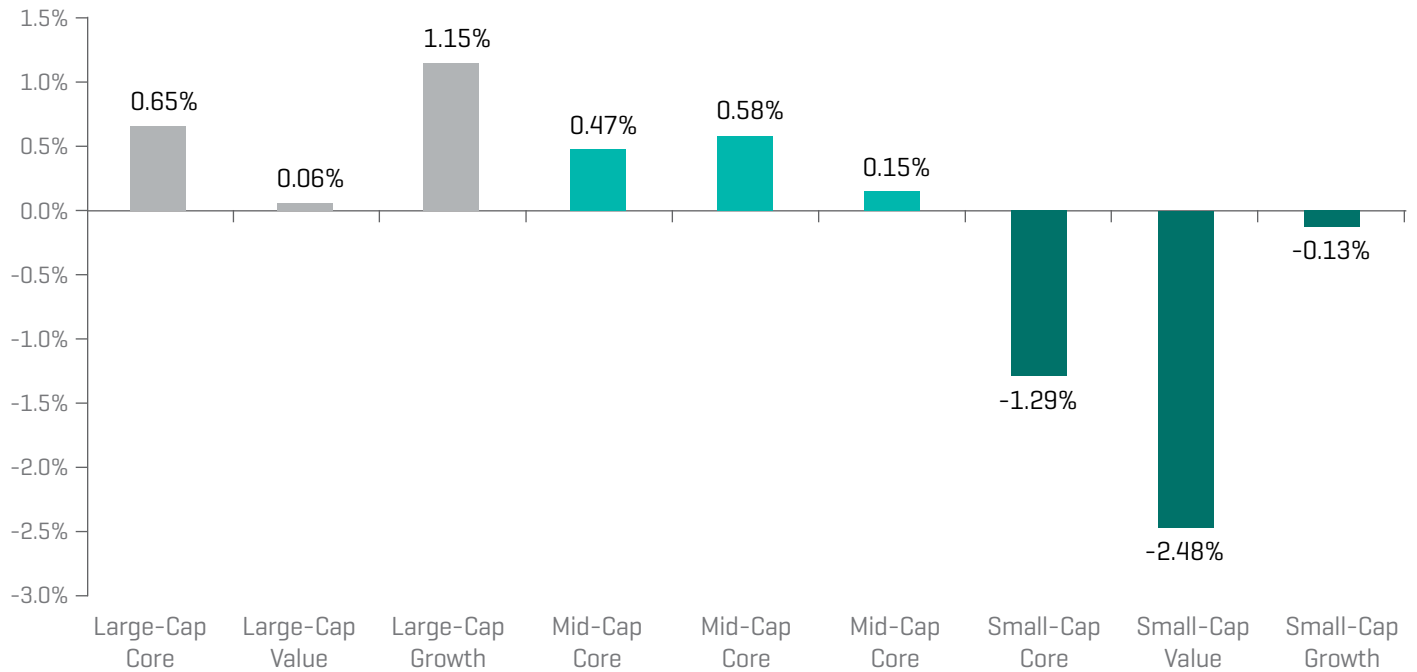
If different benchmarks measuring the same asset class can have different returns, how can one differentiate a winning manager from a losing one? The answer could lie in conducting due diligence to understand the different index construction techniques that underlie the benchmarks and then, begin by selecting the most appropriate benchmark.

² Aye M. Soe, *A Tale of Two Benchmarks, S&P Dow Jones Indices, 2009.*

³ David M. Blitzer and Srikant Dash, *Does Active Management Work for Small-Cap Stocks, Institutional Investors, Spring 2003.*

⁴ Aye M. Soe, *A Tale of Two Benchmarks, S&P Dow Jones Indices, 2009.*

EXHIBIT 1: PERFORMANCE DIFFERENTIALS BETWEEN RUSSELL AND S&P DOW JONES INDICES



Source: S&P Dow Jones Indices, Russell Indices. Data as of 12/31/2013 based on five-year annualized returns. Charts and graphs are provided for illustrated purposes only. Past performance is no guarantee of future results.

EXHIBIT 2: PERCENTAGE OF FUNDS UNDERPERFORMING THE BENCHMARK

	<div><div></div>RUSSELL INDICES</div>	<div><div></div>S&P DOW JONES INDICES</div>	
	VALUE	CORE	GROWTH
LARGE	70.85%	88.02%	79.35%
	70.26%	79.39%	66.67%
MID	74.29%	86.13%	87.03%
	67.14%	83.94%	86.19%
SMALL	31.11%	59.21%	68.80%
	60.74%	74.73%	69.60%

Data based on five years ending 12/31/2013.

THE U.S. INFRASTRUCTURE EFFECT

INTERVIEW BY CAROL CAMERON

Every four years, the American Society of Civil Engineers (ASCE) examines the condition and performance of public infrastructure in the U.S. and reports its findings. In its highly anticipated 2013 Report Card, the ASCE estimated that by 2020, USD 3.6 trillion in investments will be needed to improve the country's infrastructure. As government bodies and banks remain constrained in the current fiscal and regulatory environments—and the infrastructure funding gap increases—focus shifts to alternate sources for investment. The solution to improving America's infrastructure could come from non-bank institutions [i.e. pension funds, insurance companies and other non-bank lenders] that are willing to bridge the gap if they can reap potential benefits like higher yields for asset-liability matching, diversification and lower default rates.

InSIGHTS speaks to Vinit Srivastava, Senior Director of Strategy Indices, at S&P Dow Jones Indices. Vinit takes a look at the institutional appeal of this investment category and the approaches used to access this exposure.



VINIT SRIVASTAVA
Senior Director,
Strategy Indices

InSIGHTS: In your opinion, why are investors, particularly large institutions, interested in adding infrastructure to their portfolio?

Vinit: Infrastructure is appealing to institutional investors for a number of reasons. For one, they are able to invest in these types of assets over the long-term, which makes their potential returns more attractive. Its relatively steady cash flows, strong yields and portfolio diversification benefits are also appealing, as the assets typically have lower correlations to equity markets. In addition, given today's market environment, investors are also drawn to the predictable and stable cash flows with links to inflation.

InSIGHTS: Can you talk about some of the different approaches used to create exposure to infrastructure?

Vinit: Exposure to infrastructure can be achieved either directly or indirectly. Direct exposure is gained through private markets where investors own the companies that build or operate the infrastructure assets like toll roads, airports, etc. Exposure via these markets has its benefits and drawbacks. The most important benefit is that investors get the direct exposure they're looking for and all the benefits that come along with owning the infrastructure itself. One of the downsides is that these assets are illiquid, so there's no price transparency on an ongoing basis. Investors would typically have to invest in the asset class for the long-term, as there are no liquid secondary markets where their investments can be quickly traded.

For indirect exposure, listed markets are an option since many infrastructure assets are also publicly listed companies.

InSIGHTS: Speaking of publicly listed markets, what role do they play in terms of accessing exposure, and why look at them?

Vinit: Publicly listed markets aren't only viewed as an alternative approach to access exposure, but as an additional channel to fund infrastructure investments. For example, if you look at the universe of companies that are maintained in the Dow Jones Brookfield Global Infrastructure Composite Index, the total market capitalization of companies that are classified as "pure-play" companies—i.e., companies which derive more than 70% of their revenue from owning and

operating infrastructure—stands at approximately USD 2.4 trillion. That total significantly outshines what’s available in private markets. In addition, once the asset is listed on public markets, it’s the primary way investors access them.

Exposure to infrastructure through publicly listed markets does lead to higher correlations with equity markets as opposed to investing directly. However, there are also some unique benefits. The size of the listed market is much larger and it provides access to unique assets that might only be available in the listed space. Publicly listed markets also provide daily price transparency, which might be important to some who need to mark-to-market. The ability to move in and out of investments in liquid public markets is another attractive characteristic.

InSIGHTS: S&P DJI maintains a number of indices that measure infrastructure. Tell us about those indices and how their approaches differ?

Vinit: In the publicly listed space, S&P DJI has been a leader in benchmarking the infrastructure market. We have two distinct approaches for benchmarking these investments—a “pure-play” approach using the Dow Jones Brookfield Infrastructure indices and a broad-based approach using the S&P Infrastructure family of indices.

The “pure-play” approach selects companies that obtain a majority [70% or higher] of their cash flows from owning and operating infrastructure assets. On the flip side, the broad S&P index approach uses Global Industry Classification Standards [GICS] to pick companies from the infrastructure-related

sector, industries, and sub-industries. GICS relies on revenue to create the classification, so this approach selects a broader set of companies.

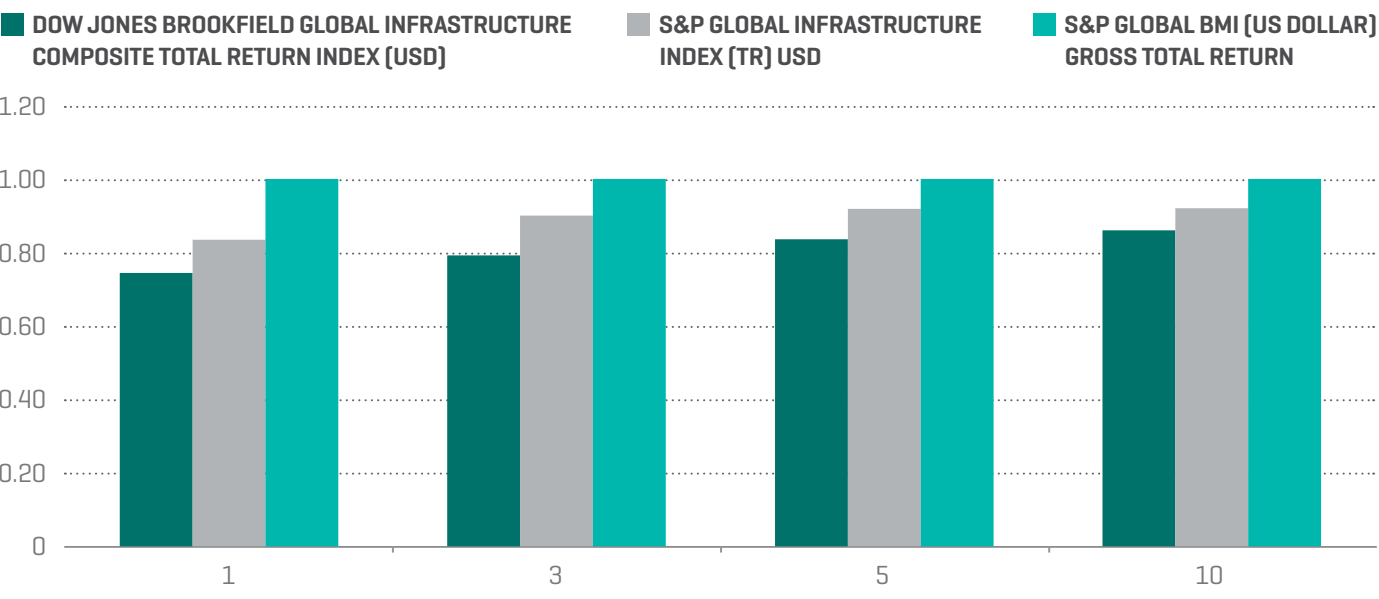
To give you a sense on the adoption of these indices, there are USD 15 billion in assets benchmarked to the Dow Jones Brookfield Infrastructure indices and USD 1.3 billion in ETF assets tracking the S&P Infrastructure family of indices.

InSIGHTS: What are some of the key characteristics of these indices, and how and why do their return patterns differ?

Vinit: Broad-based benchmarks like S&P Infrastructure indices tend to have higher correlations to the equity markets than the DJ pure-play approach. However, both approaches experience lower volatility than the equity markets, and the pure approach tends to have lower volatility than the broad-based approach. These characteristics and differences are not unexpected as pure-play companies tend to exhibit characteristics similar to the underlying asset, which is much less correlated to listed equity market.

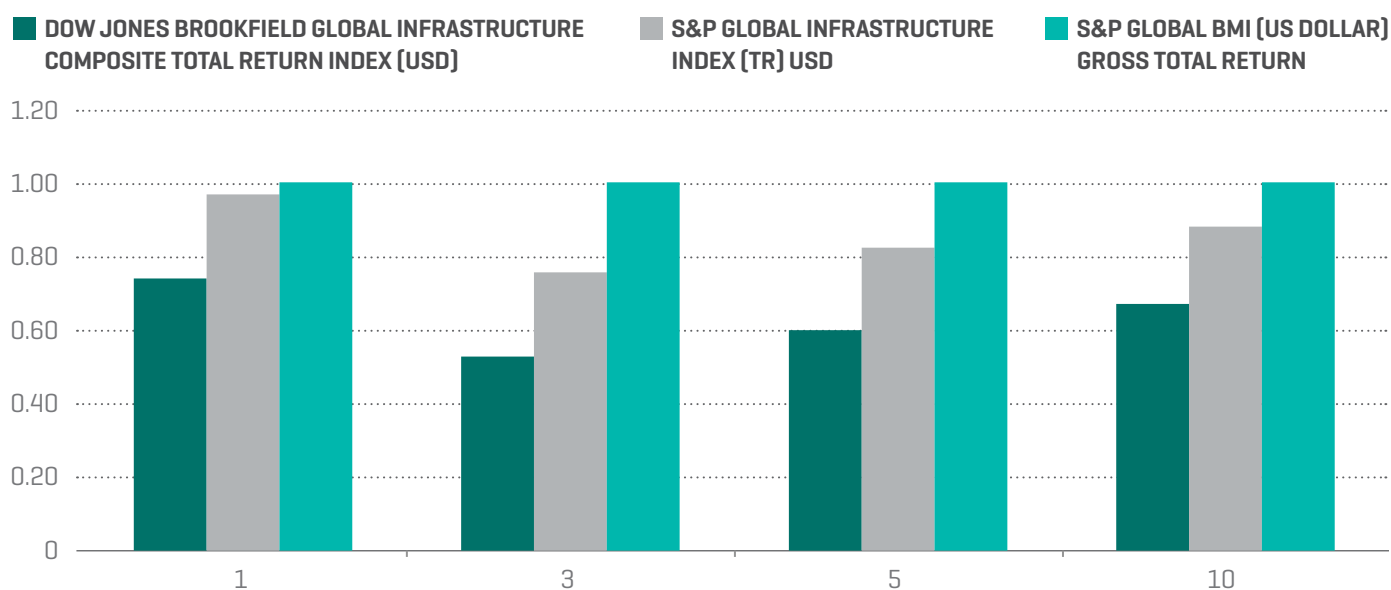
Looking at Exhibit I, what stands out is performance for the pure-play index is much higher when compared to the broad-based version. This again speaks to index construction. The broad-based S&P Global Infrastructure Index, for example, has a much stricter criteria process for stock capitalization, sectors and countries. That has muted the performance generated by U.S. infrastructure companies, which have contributed a large portion of investment returns in recent years.

EXHIBIT 1: CORRELATION OF THE BROAD (S&P GLOBAL INFRASTRUCTURE INDEX) TO THE PURE-PLAY (DOW JONES GLOBAL INFRASTRUCTURE INDEX) TO THE BROAD MARKET (S&P GLOBAL BMI)



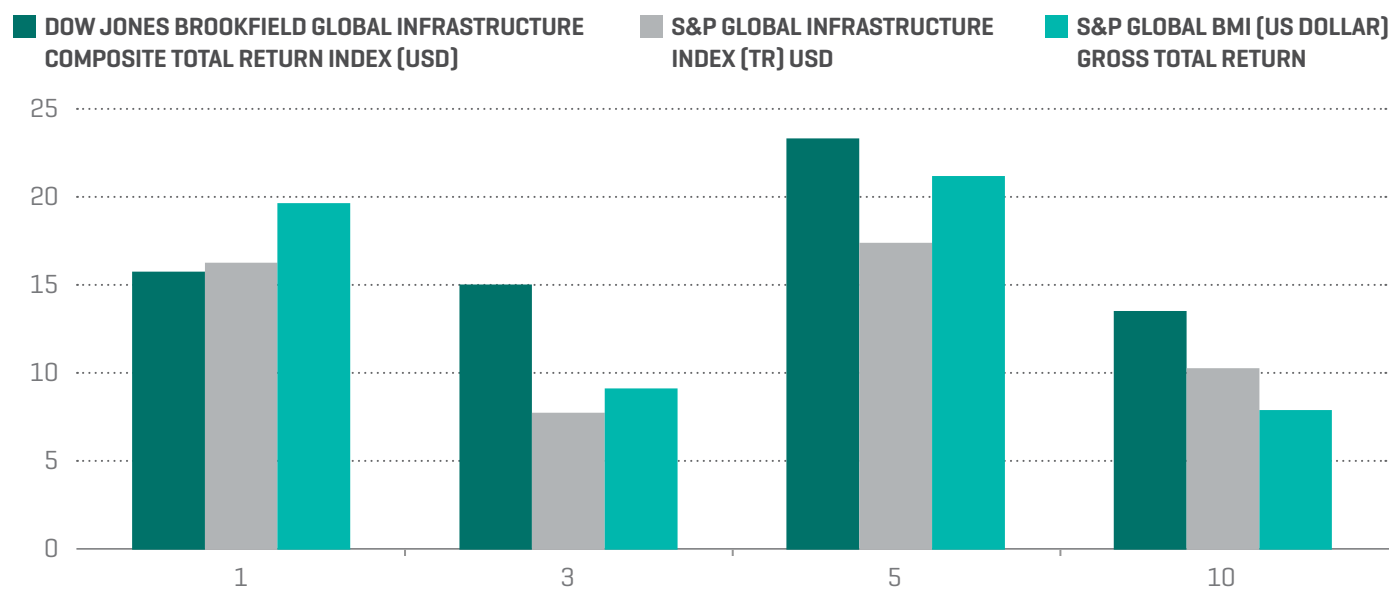
Source: CBOE. Data from March 2004 – March 2014. Charts are provided for illustrative purposes only. Past performance is no guarantee of future results.

EXHIBIT 2: BETA OF THE BROAD (S&P GLOBAL INFRASTRUCTURE INDEX) TO THE PURE-PLAY (DOW JONES GLOBAL INFRASTRUCTURE INDEX) TO THE BROAD MARKET (S&P GLOBAL BMI)



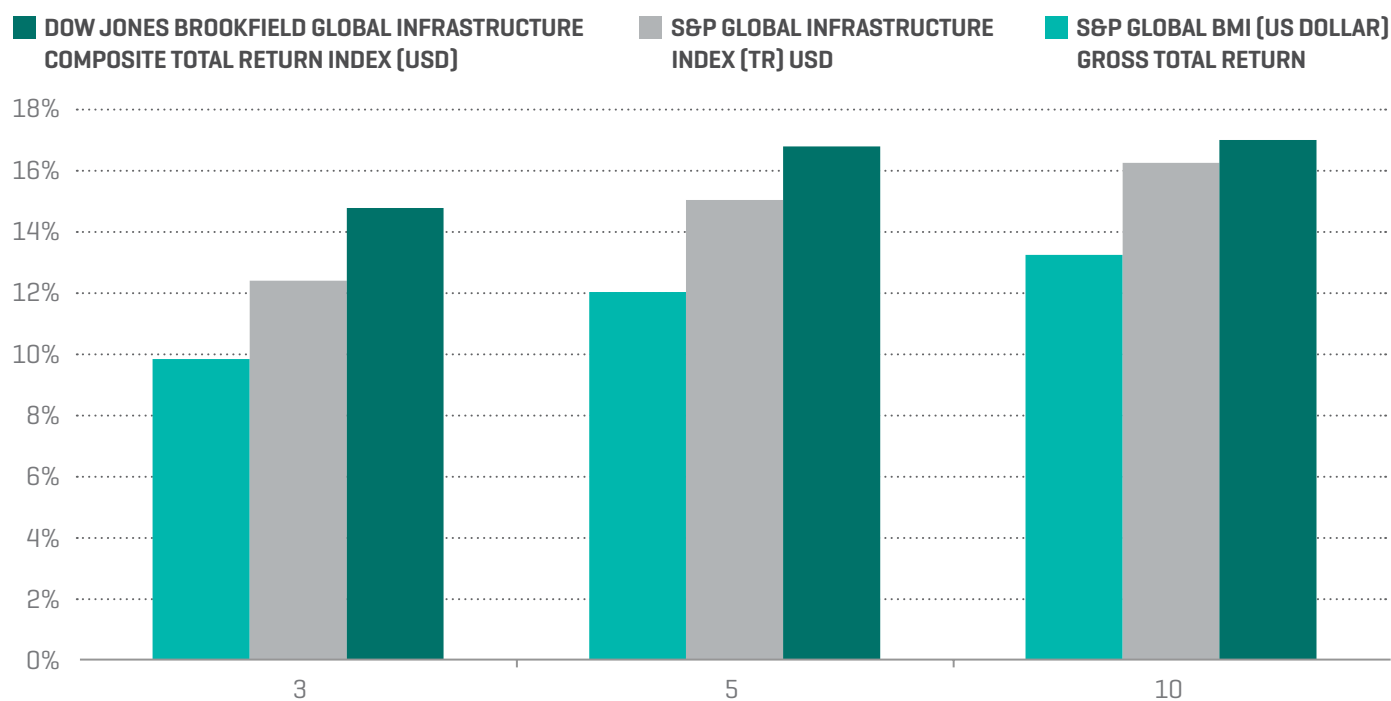
Source: S&P Dow Jones Indices. Data as of February 28, 2014. Charts are provided for illustrative purposes only. These charts may reflect hypothetical historical performance. The S&P Global Infrastructure Index was launched on February 21, 2007. The Dow Jones Global Infrastructure Index was launched on July 14, 2008. The back-test calculations are based on the same methodology that was in effect on the launch date. Complete index methodology details are available at www.spdji.com. Past performance is no guarantee of future results.

EXHIBIT 3: ANNUALIZED RETURN COMPARISON OF THE PURE-PLAY VERSUS THE BROAD-BASED APPROACH



Source: S&P Dow Jones Indices. Data as of February 28, 2014. Charts are provided for illustrative purposes only. These charts may reflect hypothetical historical performance. The S&P Global Infrastructure Index was launched on February 21, 2007. The Dow Jones Global Infrastructure Index was launched on July 14, 2008. The back-test calculations are based on the same methodology that was in effect on the launch date. Complete index methodology details are available at www.spdji.com. Past performance is no guarantee of future results.

EXHIBIT 4: ANNUALIZED RISK COMPARISON BETWEEN THE PURE-PLAY AND BROAD-BASED APPROACH



Source: S&P Dow Jones Indices. Data as of February 28, 2014. Charts are provided for illustrative purposes only. These charts may reflect hypothetical historical performance. The S&P Global Infrastructure Index was launched on February 21, 2007. The Dow Jones Global Infrastructure Index was launched on July 14, 2008. The back-test calculations are based on the same methodology that was in effect on the launch date. Complete index methodology details are available at www.spdji.com. Past performance is no guarantee of future results.

InSIGHTS: How do the indices you mentioned differ from competing indices available in the market?

Vinit: Most competitor indices in the space rely on broad-based approaches, which we offer as well through our S&P Global Infrastructure Index. These approaches rely on GICS or a similar classification, which is based on revenues of the firms. In the broad-based space, our index stands out by being the most diversified among its counterparts, and since it was the first one in this space, the S&P Global Infrastructure Index offers the most amount of live, historical data.

Utilizing the pure-play approach, our DJ Brookfield Infrastructure index family is different from all other competitors. Here, we conduct an analysis of the cash flows and if a company has more than 70% of its cash flows derived from owning and operating infrastructure assets, it is included in the universe of eligible companies. Besides the benefits of more closely matching the risk/returns of the underlying asset class, this index has a much lower correlation and beta when compared to its competitors, as shown in the accompanying exhibits.

InSIGHTS: The benchmarks you mentioned all seem to be focused on publicly listed markets. Are there benchmarks on S&P DJI's platform that cover private markets as well?

Vinit: We've explored looking into benchmarking unlisted private investments in infrastructure, but for now, there's nothing on the horizon. While there is a need for this type of index, we believe that this type of benchmark would not be investable, therefore less attractive from an investment standpoint. In addition, not enough quality and reliable data exists for us to be comfortable enough to bring such an index to the market at this time.

DOW JONES COMMODITY INDEX WINS INDEPENDENCE

A Q&A WITH JODIE GUNZBERG



JODIE GUNZBERG, CFA, GLOBAL HEAD OF COMMODITY INDICES

Just a few days before the July 4th holiday (and two weeks before Bastille Day), S&P Dow Jones Indices [S&P DJI] introduced the Dow Jones Commodity Index [DJCI], an alternative to the former DJ-UBS Commodity Index [DJ-UBS]. While the two indices do share some common ground, there are some distinguishing characteristics that can make a big difference [see Exhibit 1]. The DJCI is not only fully free from conflicts of interest, but also includes diversification and liquidity as intrinsic characteristics.

EXHIBIT 1: KEY DIFFERENCES BETWEEN THE DJCI AND THE FORMER DJ-UBS

	DJCI	Former DJ-UBS
Commodity Selection	Commodities selected using S&P GSCI rules. Governed by the S&P DJI Commodity Index Committee.	Selected by Governance Committee including 1 S&P DJI member and 4 UBS members.
Commodities	23 commodities* 4 are not part of DJ-UBS: Cocoa Copper – Grade A [LME] Feeder Cattle Lead	22 commodities 3 are not part of DJCI: Soybean Meal Soybean Oil Copper High Grade [CME]
Weighting Scheme	Equally Weighted Sectors 1/3 Agriculture & Livestock, 1/3 Energy and 1/3 Metals Liquidity-Weighted Commodities 5-year average total dollar value traded [TDVT] calculated annually Quarterly Capping	2:1 Ratio of Liquidity: World Production Weight Limits No commodity can be greater than 15% No commodities derived from each other can be greater than 25% [crude oil, heating oil, and unleaded gasoline] No group can be more than 33%
Rebalance	Quarterly	Annually
Roll	Spot 5-9th business day monthly ER 6-10th business day monthly TR 6-10th business day monthly	No Spot ER 6-10th business day monthly TR 6-10th business day monthly
Contracts	Follows S&P GSCI contract schedule using next nearby most liquid contract	Modified roll for energy and industrial metals

*Ex-gasoil from ICE uncertainty at construction time. Gasoil may be considered in the 2015 rebalance.

Charts and graphs are provided for illustrative purposes only.

INSIGHTS: What is the biggest difference between the two indices?

Their commodity selection processes. When it comes to commodity indexing, nothing is more important than including the right commodities in the index. S&P DJI benefits from nearly two decades of proven commodity indexing experience built on transparent decision making, strong governance and critical quality controls. This experience is poured into the DJCI, and is manifested in its rules-based commodity selection process based on the time-tested rules of the S&P GSCI methodology.

INSIGHTS: How is independence ensured?

The DJCI is governed by S&P DJI's Commodity Index Committee, which is composed of professionals with several years of experience in financial markets, who are appointed by the Index Management and Production Group (IMPG) at S&P DJI. IMPG personnel are prohibited from trading any securities or constituents that are, or may be, included in any index for which they have oversight or management responsibilities. Further, IMPG personnel are not permitted to have any commercial responsibilities that might result in the appearance of a conflict of interest.

As an independent index provider, S&P DJI ensures a strict separation between commercial operations and the index or benchmark calculation function [see Exhibit 2]. The potential for conflict naturally arises when an organization is involved both in publishing indices and in pricing component securities and/or issuing investment products.

EXHIBIT 2: HOW S&P DJI MAINTAINS INDEPENDENCE



Charts and graphs are provided for illustrative purposes only.

S&P DJI focuses on index publication services and does not engage in any investment banking, equity listing, investment management or trading activities. Therefore, S&P DJI is not prone to the inherent conflicts of interest that confront other index publishers engaged

in such side-by-side activities. Similarly, S&P DJI does not take part in pricing index components or issuing investment products; S&P DJI sources component prices from third parties, such as exchanges, and licenses indices to third-party product issuers.

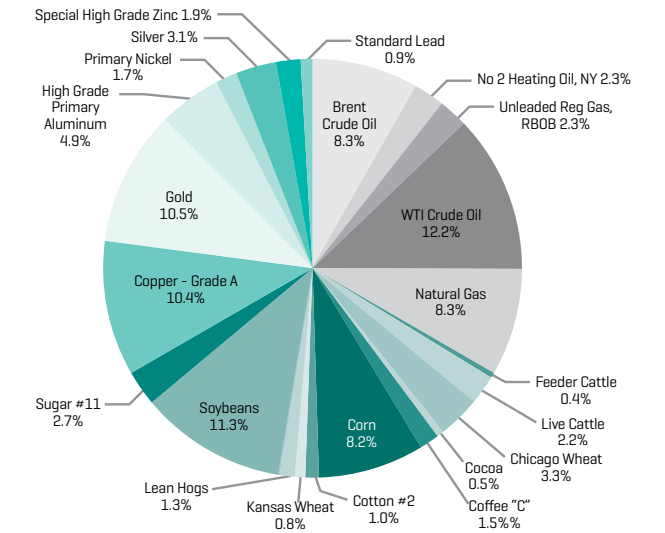
As the leading index provider and a founding member of the Index Industry Association, S&P DJI adheres to the best practices for maintaining independence. This ingredient, along with the commodity indexing experience that is unique to S&P DJI, made it possible to design a commodity index that was both technically savvy and bias-free.

INSIGHTS: What kind of weighting scheme does the index use?

The DJCI also diverges from the DJ-UBS by not using world production weighting. When it originally launched, DJ-UBS was a version of the Goldman Sachs Commodity Index, and therefore used world production in its weighting scheme. DJ-UBS did lessen the importance of world production by counting liquidity twice as much as world production. It then capped commodities, groups of derivative commodities and groups that yielded a well-diversified index. In other words, things got complicated. But today, we know if the goal of the index is to be well-diversified, we can simply equal-weight it, and then adjust for liquidity—given that there is a liquidity tradeoff when reducing energy. The resulting commodities and weightings in the DJCI reflect this simple approach, which includes equally weighted sectors and liquidity-weighted commodities [see Exhibit 3].

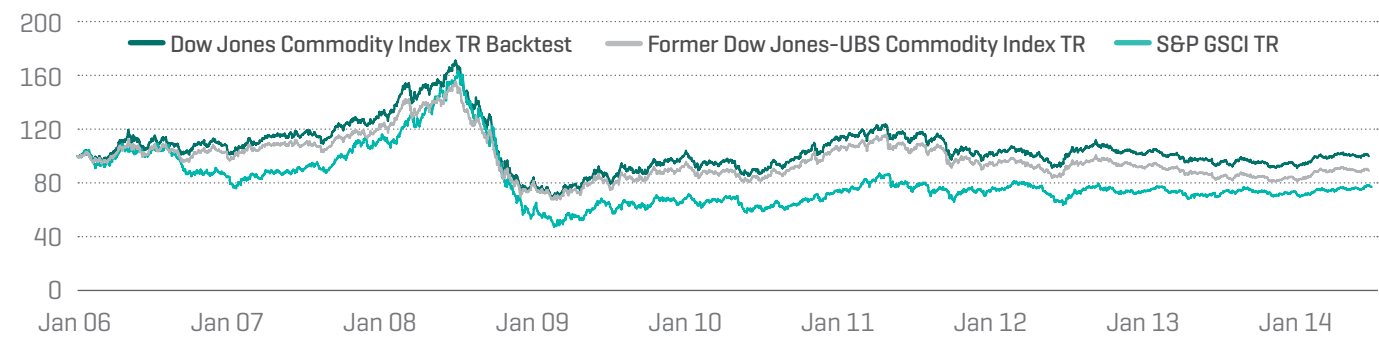
And the proof is in the hypothetical past performance pudding [see Exhibit 4].

EXHIBIT 3: COMMODITY WEIGHTS IN THE DJCI



Source: S&P Dow Jones Indices. Data as of July 1, 2014. Charts and graphs are provided for illustrative purposes only.

EXHIBIT 4: HISTORICAL BACKTESTED INDEX LEVELS (JAN. 2006-JUNE 2014)



Source: S&P Dow Jones Indices. Data as of July 1, 2014. Charts and graphs are provided for illustrative purposes only. Past performance is not an indication of future results. This graph may reflect hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

For more information on the DJCI, including performance, the methodology and videos, please visit www.spindices.com/indices/commodities/dow-jones-commodity-index

PUTTING HIGH BUYBACK EXPENDITURES IN PERSPECTIVE



HOWARD SILVERBLATT, SENIOR INDUSTRY ANALYST, INDEX INVESTMENT STRATEGY, S&P DOW JONES INDICES

S&P 500® issues spent USD 159.3 billion on buybacks in the first quarter of 2014, increasing their expenditure USD 30 billion from the fourth quarter (USD 129.4 billion) and beating out the USD 157.8 billion spent in Q2 2007 as the second highest amount on record (Q3 2007 holds the record, at USD 172.0 billion).

The additional expenditures resulted in share count reduction (SCR) of at least 1% for 119 issues during the quarter. For the Q1 2014 EPS period, 95 issues added an EPS increase of at least 4% via a reduction of at least 4% in their average diluted share count, which is used for EPS calculation. Now, the key question is: was this a one-shot deal to help companies live through a difficult (in terms of weather) Q1 period or the start of more SCR impacting earnings (as seen in 2006 and 2007)? Given the existing data, going into the Q2 2014 reporting season, 73 issues have a tailwind of at least 4% based on their Q1 2014 shares compared to their Q2 2013 shares—which (obviously) excludes any Q2 2014 share change. Issues are increasingly engaging in share count reduction—this becomes evident if you peruse earnings press releases, where you might see (as a hypothetical example) a 5% net income increase (in millions of dollars), with a 10% earnings-per-share gain.

On an issue level, Apple (APPL) is leading the pack, as it spent USD 18 billion in first-quarter buybacks, beating the prior S&P 500 issue record for the most spent in any quarter—which it also held—of USD 16 billion in Q2 2013. The expenditure permitted Apple to reduce their Q1 2014 diluted shares by 2.4%, and their year-over-year shares by 7.5%, so their 7.1% net income increase calculated out to a 15.2% earnings-per-share increase because of the lower share count. Some companies have a long history of buybacks and shares, with Exxon Mobil (XOM) being the poster child, spending USD 88

billion over the past five years. Over this period, other large players have included International Business Machines (IBM; spending USD 70 billion), Apple (AAPL; USD 46 billion), Microsoft (MSFT; USD 39 billion) and Wal-Mart Stores (WMT; USD 32 billion). Over the past five years, S&P 500 issues have spent USD 1.84 trillion on buybacks, as compared to USD 1.26 trillion on dividends.

Buybacks are a legitimate use of cash by management, and historically have been used to negate options issued to employees. SCR is less frequent due to the high cost of buying back the shares. To illustrate, with options you might buy a share at USD 50, and exchange it for an option which requires a USD 40 payment, costing the company USD 10. Using SCR, the company would foot the entire USD 50 cost, but see a reduction in its share count, with the corresponding EPS increase.

While more and more issues are reducing share count, the S&P 500 adjusts for share counts, therefore limiting the impact of buybacks on index-level EPS. Also, of a small, but growing concern on my side are estimates that are not adjusted for share counts—therefore underestimating the EPS (net income/larger share count), and making the initial EPS release appear as a beat. Analysts appear much more conscious of this than they were in 2006–2007, but it is still an open issue.

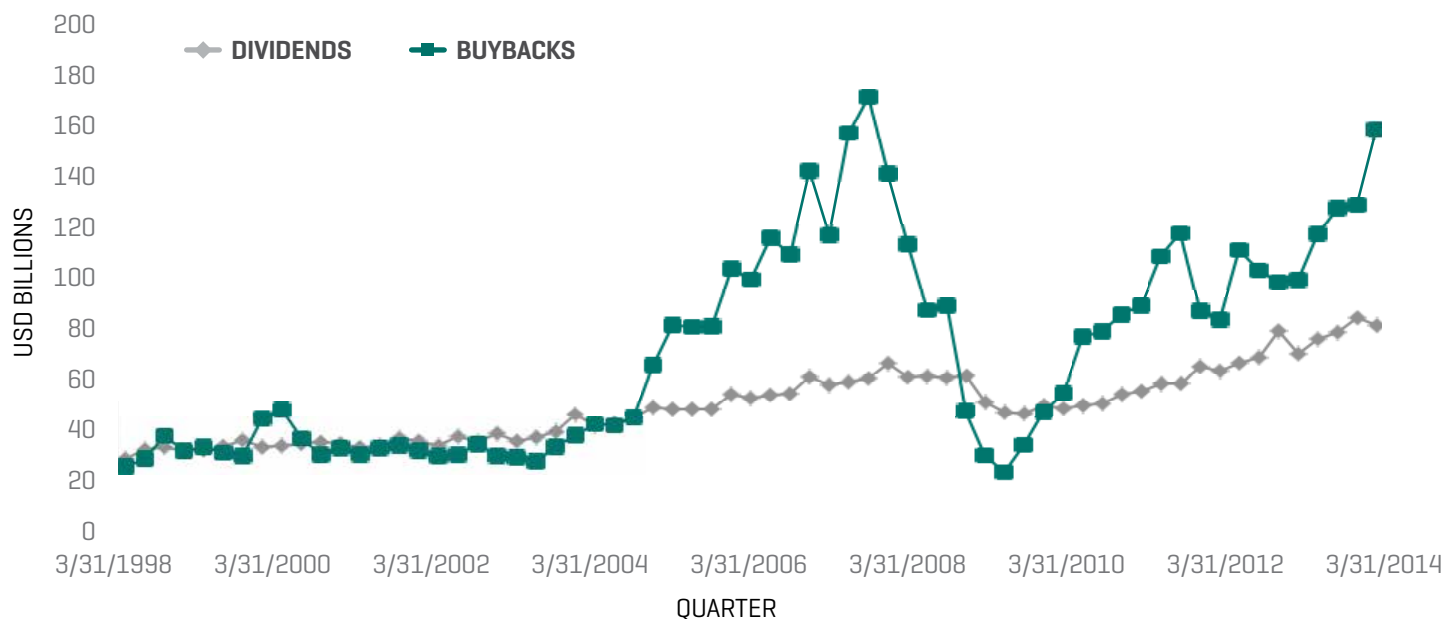
EXHIBIT 1: S&P 500 BUYBACK ATTRIBUTES

PERIOD	MARKET VALUE USD BILLIONS	OPERATING EARNINGS USD BILLIONS	AS REPORTED EARNINGS USD BILLIONS	DIVIDENDS USD BILLIONS	BUYBACKS USD BILLIONS	DIVIDEND YIELD	BUYBACK YIELD	DIVIDEND & BUYBACK YIELD	DIVIDEND & BUYBACKS USD BILLIONS
3/31/2014 Prelim.	16,700	243.76	221.64	81.96	159.28	1.93%	3.20%	5.14%	241.24
12/31/13	16,495	252.10	236.31	84.98	129.41	1.89%	2.88%	4.77%	214.40
9/30/13	14,960	239.50	219.13	79.26	128.16	2.05%	2.98%	5.03%	207.42
6/30/13	14,310	234.84	221.56	76.67	118.05	2.07%	2.94%	5.02%	194.72
3/31/13	13,979	229.57	215.76	70.86	99.97	2.06%	2.97%	5.02%	170.82
12/31/12	12,742	206.84	184.50	79.83	99.15	2.20%	3.13%	5.33%	178.98
9/30/12	12,881	214.58	189.64	69.48	103.72	2.07%	3.01%	5.08%	173.20
6/30/12	12,303	229.69	195.27	67.31	111.75	2.08%	3.27%	5.35%	179.05
3/31/12	12,730	219.09	208.15	64.07	84.29	1.95%	3.14%	5.09%	148.37
12/31/11	11,385	214.83	186.85	65.89	87.59	2.11%	3.56%	5.67%	153.47
09/30/11	10,303	230.30	206.08	59.20	118.41	2.22%	3.92%	6.14%	177.61
6/30/11	12,021	226.29	202.44	59.03	109.24	1.84%	3.04%	4.88%	168.27
3/31/11	12,068	205.34	195.15	56.08	89.84	1.76%	2.76%	4.52%	145.91
12/31/10	11,430	199.40	187.67	54.85	86.36	1.80%	2.61%	4.42%	141.21
09/30/10	10,336	195.28	176.80	51.26	79.56	1.94%	2.52%	4.45%	130.81
06/30/10	9,323	189.04	178.00	50.44	77.64	2.10%	2.31%	4.41%	128.08
03/31/10	10,560	175.00	157.85	49.28	55.26	1.83%	1.54%	3.36%	104.54
12/31/09	9,928	152.77	135.14	49.04	47.82	1.97%	1.39%	3.36%	96.86
09/30/09	9,337	139.37	130.37	47.21	34.85	2.24%	1.48%	3.71%	82.06
06/30/09	8,045	120.85	118.22	47.63	24.20	2.77%	2.40%	5.17%	71.83
03/31/09	6,928	87.78	65.29	51.73	30.78	3.43%	3.70%	7.13%	82.51
12/31/08	7,852	-0.78	-202.11	62.19	48.12	3.15%	4.33%	7.48%	110.31
09/30/08	10,181	142.90	86.16	61.44	89.71	2.48%	4.26%	6.73%	151.15
06/30/08	11,163	148.43	112.15	61.94	87.91	2.26%	4.62%	6.88%	149.86
03/30/08	11,511	144.63	135.24	61.72	113.90	2.17%	5.08%	7.25%	175.62

Preliminary values in bold

Source: S&P Dow Jones Indices. Data as of March 31, 2014. Charts and graphs are provided for illustrative purposes.

EXHIBIT 2: S&P 500 DIVIDENDS VERSUS BUYBACKS



Source: S&P Dow Jones Indices. Data as of March 31, 2014. Charts and graphs are provided for illustrative purposes. Past performance is not a guarantee of future results.

EXHIBIT 3: TOP 20 S&P 500 ISSUES WITH LARGEST Q1 BUYBACKS (USD MILLIONS)

COMPANY	TICKER	SECTOR	Q1,'14 BUYBACKS	12-MO MAR,'14 BUYBACKS	5-YEAR BUYBACKS
Apple	AAPL	Information Technology	17,971	43,910	45,860
International Business Machines	IBM	Information Technology	8,166	19,432	70,105
Exxon Mobil	XOM	Energy	3,860	14,237	87,925
FedEx	FDX	Industrials	2,765	3,984	4,427
Boeing	BA	Industrials	2,500	4,301	4,301
Cisco Systems	CSCO	Information Technology	2,321	9,610	31,737
Abbott Laboratories	ABT	Healthcare	2,192	2,872	6,374
Oracle	ORCL	Information Technology	2,040	10,658	27,138
CBS	CBS	Consumer Discretionary	2,032	2,928	6,255
Corning	GLW	Information Technology	1,901	3,468	4,968
Microsoft	MSFT	Information Technology	1,845	7,188	39,381
eBay	EBAY	Information Technology	1,811	2,678	5,827
Caterpillar	CAT	Industrials	1,738	3,738	3,738
Goldman Sachs Group	GS	Financials	1,719	6,369	22,765
3M	MMM	Industrials	1,708	6,115	12,696
Mosaic	MOS	Materials	1,678	1,678	2,840
MasterCard	MA	Information Technology	1,669	3,346	7,008
Celgene	CELG	Healthcare	1,569	3,289	8,958
Walt Disney	DIS	Consumer Discretionary	1,536	5,447	18,052
Procter & Gamble	PG	Consumer Staples	1,501	6,506	28,045
Top 20			62,521	161,754	438,400
S&P 500			159,277	534,897	1,844,533
Top 20 % of S&P 500			39.25%	30.24%	23.77%

Source: S&P Dow Jones Indices. Data as of March 31, 2014. Charts and graphs are provided for illustrative purposes. Past performance is not a guarantee of future results.

GLOBAL INDEX NEWS FEED

GLOBAL

2013 Annual SPIVA® Award Winners Announced: Richard Ferri [Portfolio Solutions® LLC] and Alex Benke [Betterment] took first place honors in the third annual SPIVA awards. Rick and Alex's award-winning paper, "A Case of Index Fund Portfolios," demonstrates that portfolios using an all-index fund strategy are favorable over portfolios of actively managed funds.

Martijn Cremers [University of Notre Dame], Miguel Ferreira [Nova School of Business and Economics], Pedro Matos [University of Virginia—Darden School of Business] and Laura Starks [University of Texas] took honorable mentions for their research paper, "The Mutual Fund Industry Worldwide: Explicitly and Closet Indexing, Fee, and Performance." The paper examines the relationship between indexing and active management in the global mutual fund industry.

The SPIVA Awards were created to recognize research excellence in index innovation and applications that enhance the use of indices within financial markets. For more information, visit www.spindices.com/resource-center/thought-leadership/spiva/

AMERICAS

The S&P/TSX 60 ESG Index was launched by S&P DJI, RobecoSAM and the Toronto Stock Exchange. The index is designed to track the performance of constituent companies in the S&P/TSX 60, Canada's leading equity benchmark, while taking into account each company's sustainability performance relative to the corresponding industry-specific standards.

The S&P Colombia Select Index was licensed to Horizons ETFs Management [LATAM] LLC to serve as the basis for a new ETF. The underlying index is designed to provide investors with the means to measure the largest and most-liquid stocks domiciled in Colombia.

ASIA PACIFIC

The S&P BSE India Infrastructure Index was launched by S&P DJI and BSE Ltd. The index is designed to measure the performance of the country's leading 30 companies from five distinct infrastructure sectors—energy, transportation, NBFIs, telecommunications and utilities—and draws from the S&P BSE 500 index.

MIDDLE EAST & AFRICA

S&P DJI Named Best Islamic Index Provider in The Asset Triple A Islamic Finance Awards 2014: This award recognizes the firm's continuous efforts in bringing transparency and accountability to the Islamic finance market for global investors.

The S&P All Africa, a comprehensive benchmark for the African continent, headlines a new suite of 14 indices S&P DJI launched. The index combines the constituents of the S&P Pan Africa, S&P South Africa Composite, S&P Zimbabwe BMI and developed market-listed companies that operate purely in or obtain a majority of their revenues from the African continent. It serves as the basis for numerous subindices, including regional benchmark and tradable indices covering different segments of the continental equity market.

Complimentary Events Hosted by S&P DJI

Here's a list of some of our upcoming global events. For up-to-date information or to register, visit our events page at www.spdji.com.

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Recorded: May 29, 2014

Actively managed and index-based approaches are typically used to limit risk, protecting capital on the downside while attempting to maximize upside potential. How do they compare?

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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 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).

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency on their products. 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 Web site 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.