

INSIGHTS

A QUARTERLY NEWSLETTER DEDICATED TO INDEX INNOVATIONS

FALL 2013

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A LOOK INSIDE EDITOR'S NOTE

“The more things change, the more they remain the same.”
– Jean-Baptiste Alphonse Karr

The third quarter is behind us now but the memories of anxiety over several trending topics still linger. It was an interesting time, to say the least, as buzz surrounding the Federal Reserve's next move for its bond-buying program, debt ceiling talks and the thought of a possible U.S. military strike on Syria rose to a crescendo.

In the world of indexing, the Securities and Exchange Commission loosened some of the requirements for “self-indexing” or “affiliated index”—the ability of an ETF provider to create its own underlying index. Will this raise additional concerns over conflicts of interest and transparency? At S&P Dow Jones Indices [S&P DJI], we pride ourselves on our ability to create transparent indices and to separate commercial operations from the calculation of our investable and benchmark indices, thereby avoiding any potential conflicts of interest. We are also strong proponents of industry best practices, demonstrating our commitment to creating and maintaining transparent indices for our clients.

Speaking of best practices, we had an interesting conversation recently with **Rick Redding**, CEO of Index Industry Association (IIA) on this subject. Launched in March 2012, IIA was founded by MSCI, S&P Dow Jones Indices and FTSE. In the article, ***IIA Making Great Strides as the First Ever Index Industry Trade Association***, Rick talks about the now publicly available IIA Best Practices, what they mean for indexing and how IIA plans to catalyze change across the industry globally. As Rick put it, “IIA has a clear mission, which is to represent the global index industry by working with market participants, regulators and other representative bodies to promote sound practices in the index industry, to strengthen markets and serve investors’ needs.”

In our next featured article, ***Making Sense of Index Calculation in an Evolving Market Structure***, **Jamie Farmer**, Managing Director of Index Investment Strategy and Data Services at S&P DJI, goes behind the curtain to help our readers deepen their understanding of the various sources of index data. He explains how indices are compiled and distributed at S&P DJI, and how we effectively deal with market disruptions, particularly in an evolving market where technology can command the stage.

We shine a spotlight on multi-asset solutions in an interview with two members of S&P DJI's research team, **Xiaowei Kang, CFA**, Senior Director and **Aye Soe, CFA**, Director. ***Do Multi-Asset Solutions Have a Place in Indexing?*** takes a look at multi-asset solutions beyond active management as the lines between active and passive management further blur.

Also in this issue, we chat with **Guido Giese, PhD**, Head of Indices at RobecoSAM and **Julia Kochetygova**, Senior Director of Business Development from our Moscow office. RobecoSAM was the first asset manager to focus exclusively on sustainability investing [SAM was acquired by Robeco Group in 2007]. The company is also well-known for its Corporate Sustainability Assessment [CSA], their annual analysis benchmarking the sustainability performance of over 2,000 companies. In May 2013, RobecoSAM and S&P DJI launched the DJSI Diversified Family, which Guido and Julia discuss in ***Index Monitor: The Dow Jones Sustainability Diversified Indices Family***. They also explain their research approach to sustainability, and share their views on its importance and the methodology behind the new index series.

Reflecting on Q3 one last time, although the Federal Reserve squashed speculation about tapering its bond-buying program—basically announcing that it's business as usual for now—change is a constant. So, to round out this quarter's list of feature articles, **Kevin Horan**, Director, Fixed Income Indices at S&P DJI suggests that there's “more to consider than just reducing exposure to fixed income.” In ***TalkingPoints: Managing Fixed Income in a Rising Rate Environment***, he goes on to share three risk factors that should be considered in a rising rate environment.

As we continue to look for new ways to continue to make *INSIGHTS* a valuable resource, we'd love to get your feedback. Please send an e-mail with your comments, suggestions or story ideas for an upcoming edition. I can be reached at carol.brereton@spdji.com.

I look forward to hearing from you, and we hope you enjoy this edition.

Regards,

Carol Cameron [Brereton]
Editor-in-Chief

IIA MAKING GREAT STRIDES AS THE FIRST EVER INDEX INDUSTRY TRADE ASSOCIATION

Credibility, stability and integrity are three powerful words that personify IIA [Index Industry Association] and capture the essence of what the organization aims to achieve as a representative body for the global index industry. Launched in March 2012 by its three founding members—MSCI, S&P Dow Jones Indices, FTSE]—IIA is an independent, non-profit organization and the first trade association dedicated to the index industry. The organization has positioned itself as a strong advocate serving the interests of index users and providers across the globe, and is a full supporter of intellectual property rights.

Since its launch, IIA's membership roster has expanded and now includes a bevy of highly regarded and reputable index providers: Barclays, Center for Research in Security Prices [CRSP], Markit, NASDAQ OMX, Research Affiliates, Russell Index Group and STOXX. [To learn more on becoming an IIA member, visit: www.indexindustry.org.]

The organization uses an independent membership structure to carry out its mission and has developed a clear set of key objectives that includes:

1. **EDUCATION:** Educating investors on the attributes and role of indices within the investment process
2. **ADVOCACY:** Advocating the interests of index users and providers worldwide
3. **BEST PRACTICES:** Pushing for industry standards on best practices, independence and transparency

Since its launch, IIA has been hard at work creating a global set of standards that define best practices for index providers. The IIA Best Practices, released in July 2013, was designed to ensure the highest quality and integrity of indices administered, maintained or calculated by index providers. IIA members will adhere to the Best Practices while non-members can adopt them by becoming a

signatory and confirming their compliance with the guidelines.

As IIA continues to make headway establishing its position across the industry, *INSIGHTS* reached out to Rick Redding, CEO of IIA to discuss his views on the organization, his role and to talk about its Best Practices. Rick joined IIA in August 2012 to help the organization achieve its goals set forth by its Board of Directors and members. Rick has spent most of his career in senior leadership roles with The CME Group ["CME"], a leading provider of benchmark futures and options products, and an innovator in futures trading. Rick held the post of Managing Director, Products and Services at CME. In this role he led global sales, product development and strategic global growth initiatives. He played an integral part in the transition of CME's ownership stake in Dow Jones Indexes to the S&P Dow Jones Indices joint venture. He also held senior positions in CME's index products division.

[As a side note, IIA's leadership team includes Mark Makepeace, Chairman, Chief Executive and founder of FTSE Group; Alex Matturri, Jr., CFA, Chief Executive Officer, S&P Dow Jones Indices; Baer Pettit, Managing Director and Head of Index Business Unit, MSCI; Waqas Samad, Managing Director, Global Head of Index, Portfolio and Risk Solutions, Barclays; and John L. Jacobs, EVP of Global Information Services for NASDAQ OMX Group, Inc.]



RICK REDDING
Chief Executive Officer
Index Industry Association

INSIGHTS: As IIA approaches year two, can you sum up some of the progress made as the first ever trade association for the index industry?

Rick: IIA has a clear mission, which is to represent the global index industry by working with market participants, regulators and other representative bodies to promote sound practices in the index industry, to strengthen markets and serve investors' needs.

I am pleased to say that since its launch, IIA has grown dramatically in both its membership base and influence within the industry. We can now count 10 of the largest and leading index providers as members of the organization. The release of IIA's Best Practices was another major accomplishment for the organization. We

now have a global, comprehensive set of standards that cover critical components of index development such as governance, the quality and transparency of index methodologies, data collection, index calculation and validation. Best Practices also cover standards for dealing with conflicts of interest, business continuity, confidentiality, recordkeeping, handling complaints as well as internal controls and reviews in IIA's Best Practices.

Over the past 18 months, we've regularly monitored and issued responses to many proposed industry guidelines and regulatory issues relating to indices and benchmarks—for example, the Wheatley Commission, ESMA, the European Commission and the IOSCO. We're actively engaged in working constructively with regulators to highlight the benefits of indices and educate the industry on how index providers operate.

INSIGHTS: As IIA's CEO, what do you hope to accomplish?

Rick: My goal is to work with each of our members and be a voice for advocating best practices throughout the industry. The indexing world has been able to bring more investment options to the marketplace by offering unprecedented choices and reduced fees. I hope to bring a unified voice to a highly competitive industry and contribute to index education and bringing awareness to the fact that intellectual property protection is a vital aspect of innovation. I would like to see the index industry continue to find ways to improve operations by always striving to achieve what's best for the investment community as they are the reason why providers create indices in the first place.

INSIGHTS: How do you plan to promote IIA's agenda?

Rick: I believe education will play a vital role in delivering our values and key messages around the world. Indexing has become so successful and innovative over the years that market participants and representative bodies may not have taken the time to really understand the rigorous process behind creating, maintaining and delivering indices to the marketplace. Once we've made advances in educating the investment community, I believe the benefits of the Best Practices will be easier to demonstrate in the marketplace. Since education is one of the main pillars of IIA, we will achieve even more success as we continue to enhance our efforts in that area and as the organization matures.

INSIGHTS: Now that IIA's Best Practices is publicly available, tell us a bit more about it. Does it fill a need in the industry?

Rick: I believe IIA's Best Practices is one of the greatest achievements for IIA to-date. The standards are a living, breathing process of continually putting investors' and the industry's best interests first. After the financial crisis, many lost confidence in financial institutions and governments across numerous parts of the financial landscape. Some had never thought about the role of benchmarks and indices until the issues surrounding LIBOR, for

example, surfaced. Others even thought that changes in benchmark governance were needed.

As I mentioned earlier, one of the fundamental reasons why IIA exists is to provide education on the safeguards put in place by reputable index providers to help protect investors. Therefore, I think IIA's Best Practices codify many of the practices our members already have in place and have practiced for many years. I encourage everyone to read through the standards which are available at www.indexindustry.org. In light of the LIBOR situation, I would suggest paying special attention to the areas covering transparency, conflicts of interest, governance and operational issues.

INSIGHTS: Will these new standards impact and/or help shape the future of the industry?

Rick: The new standards reinforce how serious our members are about creating and maintaining indices. I think that knowledge will elevate everyone's game to continually think about maintaining and adopting the highest standards in the industry. These standards were made public so every index provider, regardless of whether or not they're a member of IIA, can have a roadmap on how to conduct its operations. Also, I believe it will give clients a chance to develop deeper dialogue with their index providers on how they've adopted the Best Practices.

INSIGHTS: As an advocate for improvements in transparency, governance and accountability in the industry, what is IIA's official position on some of the issues that have become front page news around the world, such as LIBOR, which you mentioned earlier?

Rick: I believe that over time it will sink in that reputable index providers were not intertwined with what happened during the LIBOR situation. Typically, index providers do not trade for themselves and, are therefore, free from any related conflicts of interest. Many market participants and regulators have looked through the lens of LIBOR and have not considered the differences among various types of indices and benchmarks, and the rigorous processes surrounding them.

Survey and estimate-based indices are more susceptible to problems than indices based on transactions and observable market data. Equity indices that date as far back as the 1890s, for example, the Dow [widely known today as the Dow Jones Industrial Average™], have not had issues like those surrounding LIBOR. The integrity of the process and the operational redundancies are important to any index provider that adheres to the IIA's Best Practices. Indices and index investing are among the most transparent forms of investing available. Investors can easily refer to publically available websites to understand the rules and methodologies around indices. On the flip side, active management with objectives like capital appreciation, for instance, may not provide investors with sufficient insight into a fund's investments.

INSIGHTS: Before we wrap up, is there anything else you'd like to share about IIA?

Rick: IIA's members are committed to making sure that the methodologies behind their indices are transparent so investors can readily ascertain how the indices are calculated. IIA's members are equally committed to ensuring that their intellectual property is not misused as they bring new index options to market. It's worth noting that IIA will uphold members' rights to their intellectual property so they continue to have the incentive to invest in innovative index ideas.

Index innovation and the products behind them have allowed investors access to every asset class at a lower cost. Investors have never had more index product options to choose from than today. For years, only sophisticated, institutional investors had access to certain asset classes like commodities and foreign exchange. That's no longer the case today.

INSIGHTS: Where do you see the organization five years from now?

Rick: Obviously, IIA will continue to grow its membership base, but more importantly, I believe its influence will grow as dialogue deepens between index providers and clients, bringing an industry closer together. In the near-term, we plan on expanding membership into the Asia/Pacific region.

I also believe IIA will be working with many more financial services trade associations in promoting issues that make markets stronger. In our relatively young life, we are already working effectively with a number of trade associations across the globe and will continue to expand those relationships.

As I've mentioned, education is vital in improving how everyone across the industry works with one another. I would hope that IIA will be viewed as a true partner not only to its members, but throughout the financial services industry as a whole.



MAKING SENSE OF INDEX CALCULATIONS IN AN EVOLVING MARKET STRUCTURE



JAMIE FARMER, MANAGING DIRECTOR, S&P DOW JONES INDICES

Expansion within the financial universe is accelerating. Growth in the ETF market, ease of access to foreign markets and alternative asset classes as well as the variety of sophisticated strategies wrapped up in simple packages are all clear indications of an industry gathering momentum and evolving at the forefront of the financial markets.

One of the most profound changes in the financial landscape, however, has occurred behind the scenes: the inexorable infusion of technology into the trading and investing processes. Regrettably, some of these technology platforms only step into the spotlight during the occasional lapse in an otherwise smooth operation. Uptime is generally the rule, but downtime is consequential and newsworthy. The ill effects of such disruptions—financial and reputational—have been felt by a cross-section of entities, including exchanges, trading firms and investors.

In light of an evolving market structure, seeking answers to a few fundamental questions could prove helpful:

- *How are indices compiled and distributed?*
- *What happens when there are disruptions in the markets those indices seek to reflect?*

As passive investing continues to gain favor among investors of all stripes, users can be well served if they deepen their understanding of the source of index data.

INDEX COMPILATION AND DISTRIBUTION

By distilling multiple variables into a single value, indices can be used as a valid reference point for the performance of that wider universe. At S&P Dow Jones Indices (“S&P DJI”), we calculate over 830,000 indices which are used to explain market performance, that form the basis of financial products and are also used to improve editorial and research processes. Our indices cover the widest array of markets, asset classes, investment themes and strategies that is, perhaps, unsurpassed by other index providers.

In order to calculate indices, we rely on hundreds of external sources to supply raw materials such as the prices of component securities, futures, bonds, etc. It is important to understand that we do not create the underlying component prices. Instead, we import them from exchanges, trading platforms, data aggregators, etc. That functional separation—set apart from component trading—is a critical

construct, and a lesson made clear by the conflict of interest scandals surrounding other industry benchmarks (e.g. LIBOR).

Consider that we calculate two of the world’s most well-known and highly regarded indices: the Dow Jones Industrial Average™ (“DJIA”) and the S&P 500®. Each index seeks to measure the performance of the U.S. equity markets, albeit through different approaches: the DJIA via a mega-cap, price-weighted methodology, and the S&P 500 via a broader large-cap, market cap-weighted methodology. Both include NYSE and NASDAQ-listed securities (Figure 1) and are calculated in real-time during U.S. trading hours. The calculation frequency of our indices varies from real-time to once per month depending on the index family in question.

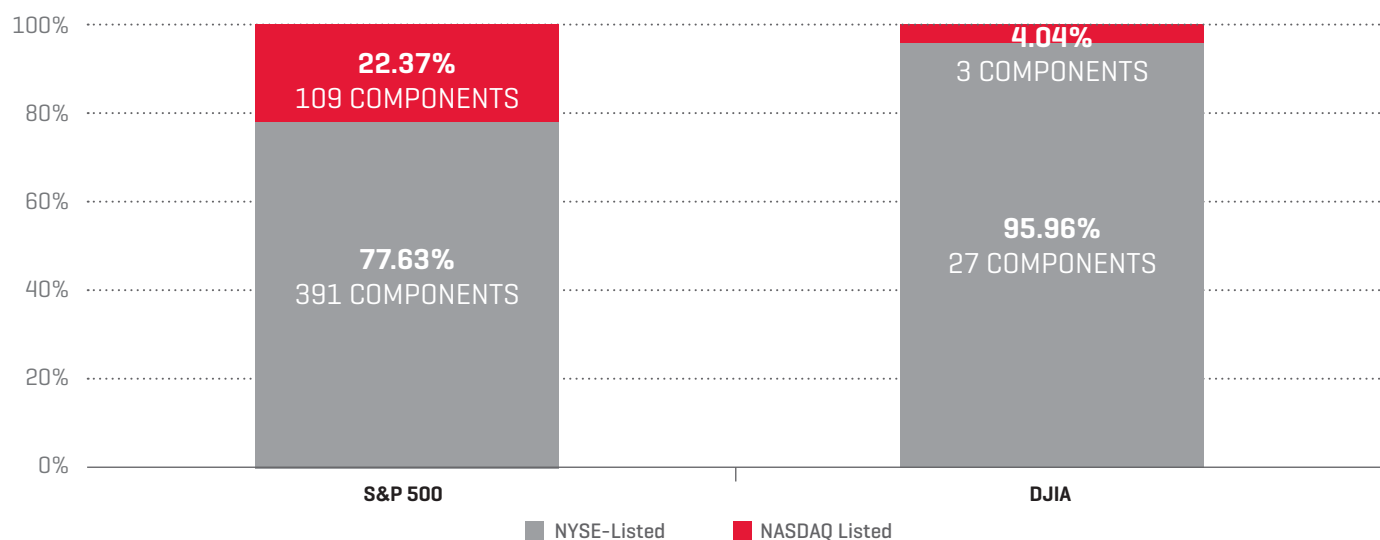
Under normal operating conditions, we rely on primary market pricing for index calculation. In other words, as trades occur in a component security on the exchange where the security is listed (for example, the NYSE for IBM, NASDAQ for MSFT, etc.), those trade prices are used as the basis for refreshing the index value. By implication, it should be understood that certain securities can be traded on exchanges other than the primary market. For example, the NYSE hosts transactions in NASDAQ-listed securities and vice versa.

In recent years, technology advances and regulatory changes have driven a substantial amount of trading volume away from primary markets and towards alternate, competing venues. Regardless of which exchange hosts the transaction, all trades are reported to the Consolidated Tape System or Securities Information Processor (SIP), which aggregate and disseminate last sale information from over a dozen U.S. equity exchanges.

EFFECTIVELY DEALING WITH MARKET DISRUPTIONS

From time to time, disruptions occur with regard to the availability of primary market pricing—perhaps an exchange has halted trading or experienced a technical issue that interrupted the flow of last sale data. These disruptions are typically minor, are resolved quickly and are transparent to the broader market. When pricing for one or more

FIGURE 1: INDEX WEIGHTS, # OF COMPONENTS



As of August 22, 2013

securities is momentarily interrupted, those component prices are held static in the ongoing calculation of an index while the tradable component prices continue to update and thus refresh the index value.

However, on rare occasions primary market pricing can be suspended or interrupted for greater periods of time. In such instances, S&P DJI has the ability to calculate U.S. indices using composite pricing from the Consolidated Tape System, which includes the activity on alternate venues in addition to the primary market. The decision to switch is rendered by our U.S. Index Committee, senior technology and index managers and can be affected in a matter of minutes. Quick decisions ensure continuity in index calculation and dissemination. As noted, more and more volume is taking place away from the primary exchanges, leading to increasingly fragmented markets. As a result, the ability to rely on and revert to alternate pricing sources is a necessary protection and a cornerstone of index reliability.

It should be noted, however, that not all of the components used in our broad suite of indices trade on more than one market. In fact, the majority of components used in indices, such as foreign securities or commodity futures, trade on just one exchange. When price availability is interrupted for these components, the index continues to calculate using the last price for the component in question. If the interruption is protracted, the Index Committee, often in consultation with the market, will determine how best to manage the ongoing index calculation. If primary markets are not open and trading, it follows that the indices cannot be calculated. For example, neither the S&P 500 nor the Dow Jones Industrial Average will be calculated if both the NYSE and NASDAQ cease trading, as was the case during Super Storm Sandy in October 2012.

While we rely on others for a consistent stream of raw market data, we are responsible for ensuring that our own systems are as “fault tolerant” as possible. Accordingly, our operations and support personnel are geographically dispersed with locations in New York, New Jersey, London, Beijing, Mumbai, Toronto and Sydney. We maintain primary and secondary calculation engines in North America and Europe as a hedge against disruptions impacting entire regions. Key market data is imported from multiple, redundant sources and are actively monitored and validated. Distribution of our U.S. headline indices is doubly redundant and is sent to the world via the Chicago Mercantile Exchange and Chicago Board Options Exchange, which receive our index data via duplicate communication lines.

In closing, markets will continue to evolve in dramatic ways so it is probably inevitable that those changes will bring both welcome advances and frustrating lapses. Through it all, we will actively engage with the marketplace to accommodate changes in market structure while remaining at the forefront of index design and delivery.

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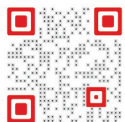
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DO MULTI-ASSET SOLUTIONS HAVE A PLACE IN INDEXING?

Several key trends that developed over the past decade are shaping the future direction of growth for the index investment industry. As the once distinct line between active and passive management become more blurry, one direction for potential growth has raised its head—the indexation of multi-asset solutions.



XIAOWEI KANG
CFA, Senior Director,
Index Research and Design,
S&P Dow Jones Indices

INSIGHTS: The lines between active and passive management are less clear cut than ever before. How does this impact the future growth of the indexing industry as a whole?

Xiaowei: The trends we’re seeing certainly indicate that the traditional divide between alpha and beta has become blurred. Nowadays, investment products and mandates may be differentiated more granularly by whether they provide access to asset class betas, systematic risk premia, outcome-oriented solutions or true manager alpha, all of which require different levels of active management skills [see Exhibit 1]. When you look at it from that perspective, indexing is no longer just about providing access to asset class beta.

One fast growing area is the so-called “alternative beta” or “smart beta” strategy indices that aim to capture well-known systematic risk premia. The other potential area for growth may be multi-asset strategy indices that can serve as the basis for multi-asset investment solutions.

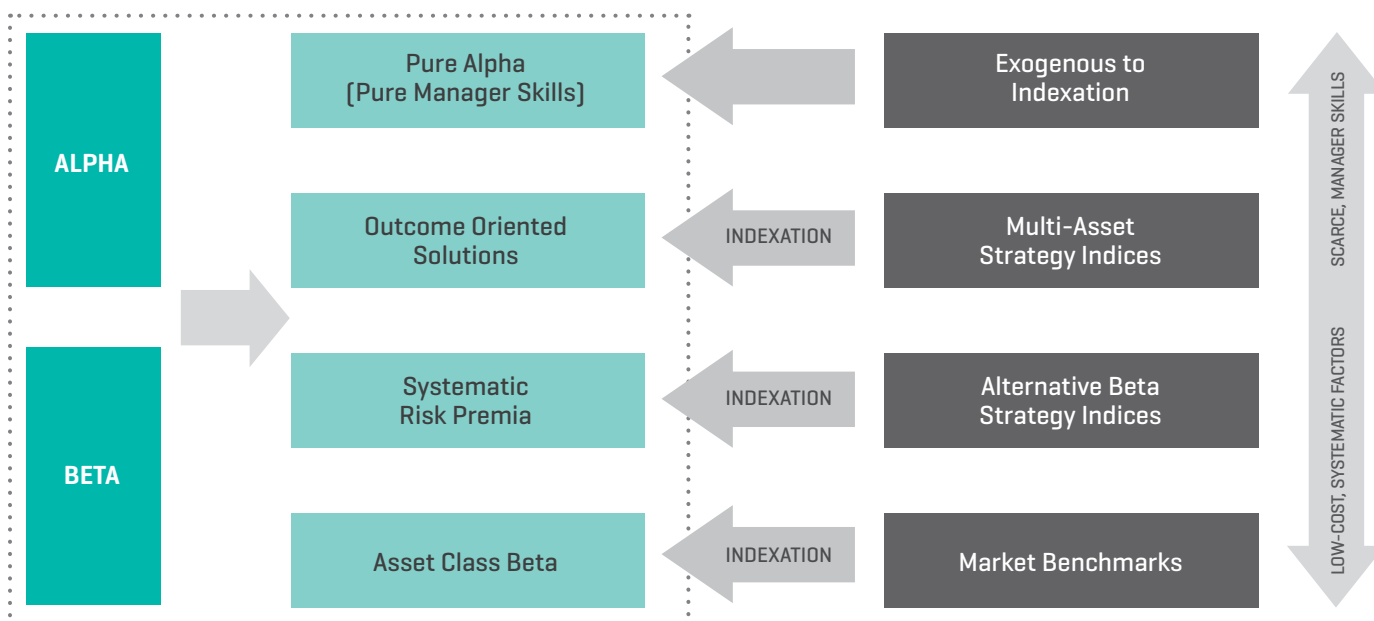


AYE SOE
CFA, Director,
Index Research and Design,
S&P Dow Jones Indices

INSIGHTS: Your research paper describes some key points for multi-asset solutions. Tell us about your findings.

Aye: We’ve found that in recent years the focus has shifted from individual investment products to investment solutions. Institutional investors increasingly demand solutions that address their specific needs like matching liabilities, reducing funding ratio volatility and achieving absolute return targets. On the retail front, retirees have been seeking outcome-oriented solutions such as target date, income generation and inflation protection—a trend driven by the demographic shift and macroeconomic environment.

EXHIBIT 1: EVOLUTION IN THE ASSET MANAGEMENT INDUSTRY



Source: S&P Dow Jones Indices. Charts are provided for illustrative purposes.

In our research paper we study several examples of indexing multi-asset solutions and their potential applications. We believe that multi-asset index solutions can potentially push the boundaries of index investing beyond the well-established asset class beta and smart beta/risk premia in several ways.

First of all, they offer diversified asset class exposure while meeting the specific investment outcome. Secondly, our research has shown that they can potentially provide reduced volatility, superior risk-adjusted returns and lower drawdowns. And last but not least, through indexing, these investment solutions are now constructed in a transparent, rules-based manner.

INSIGHTS: If multi-asset solutions, for example, are no longer exclusive to active management, what role can multi-asset strategy indices play in indexing?

Xiaowei: We believe that multi-asset strategy indices can serve as the underlying vehicle for pre-packaged investment products. In fact, there are many examples of multi-asset index-based investment vehicles such as ETFs and structured products. Theoretically, multi-asset indices have the potential to reduce the cost associated with constructing multi-asset solutions [e.g., management fees, advisor fees]. However, it remains one of the more significant challenges facing investors as they need to get comfortable delegating the asset allocation responsibilities—

traditionally handled by asset allocators and financial advisors alike—to index-based multi-asset vehicles.

INSIGHTS: Can you share some examples of multi-asset solutions that can be indexed, based on indices developed by S&P DJI?

Aye: In Exhibit 2, we listed several examples of multi-asset solutions that can be indexed and designed as pre-packaged investment products as opposed to institutional solutions that need to be customized to fit specific investors. S&P DJI currently offers a number of multi-asset indices such as target date and target volatility. In our research paper, we discuss three case studies in more detail: risk parity, income generation and inflation protection. We suggest reading a few other publications for case studies of indexing target date, target volatility and absolute return solutions such as:

Banerjee, Alka and Vinit Srivastava. 2012. "Limiting Risk Exposure with S&P Risk Control Indices." S&P Dow Jones Indices

Murphy, Phil and Peter Tsui. 2011. "Target Date Benchmarking: The Value of a Consensus Glide Path." S&P Dow Jones Indices

Rennison, Graham, Arne D. Staal, Kartik Ghia, Anthony Lazanas. "Barclays Capital Risk Premia Family." Barclays Capital Systematic Strategies

EXHIBIT 2: EXAMPLES OF MULTI-ASSET SOLUTIONS AND INDEXING CONCEPTS

MULTI-ASSET SOLUTIONS	EXAMPLE OF INDEXING CONCEPTS
Target Date	Dow Jones Target Date Indices and S&P Target Date Indices adjust their asset allocations over time to reflect reductions in potential risk as an investor's target date approaches
Target Volatility	S&P Risk Control Indices seek to maintain an established volatility target by dynamically allocating between a risky asset (eg, equities or commodities) and cash. See Banerjee and Srivastava [2012]
Risk Parity	A multi-asset risk parity index aims to build a more diversified and balanced portfolio than traditional portfolios that are dominated by equity risk
Income Generation	A multi-asset income index may leverage income opportunities across asset classes, leading to more stable income generation and more balanced risk and return characteristics
Inflation Protection	Blending inflation sensitive assets can improve the inflation protection properties, and enhance risk adjusted performance
Tactical Asset Allocation	Systematic tactical asset allocation strategies such as those based on value and momentum can be potentially indexed
Absolute Return	Combining lowly correlated risk premia across asset classes can form the basis of an absolute return portfolio. See Rennison et al [2011]

Source: S&P Dow Jones Indices Global Stock Markets Factbook. Data as of Dec. 31, 2012.

INSIGHTS: Explain how risk parity, income generation and inflation protection fit into the equation?

Xiaowei: A risk parity strategy aims to address the over-concentration of portfolio risks in equities by balancing the risk contributions from individual asset classes or risk factors. Since all asset classes have varying degrees of exposure to key macro risk factors, such as economic growth and inflation, one of the core principles of risk parity is to achieve consistent performance across different economic environments. This is accomplished by balancing the portfolio's exposure to future shocks in economic growth and inflation. In our paper, we simulate a stylized example of an unlevered asset class-based risk parity strategy. The multi-asset risk parity portfolio is constructed based on six asset classes: U.S. equities, emerging markets equities, REITs, commodities, long-term treasuries and high-yield bonds. These asset classes are chosen to capture the exposures to key risk factors including equity risk, emerging markets risk, real estate risk, commodity risk, interest rate risk, inflation risk and credit risk.

As for traditional income investments, those may consist of fixed income securities and dividend-paying stocks. Attractive yields

offered by non-traditional income asset classes, such as master limited partnerships (MLPs), bank loans, preferred stocks, emerging market debts and real estate investment trusts (REITs) have all made it possible for investors to supplement and enhance their income streams. Since different income generating asset classes may have dramatically different yield and risk/return profiles and react differently to market cycles, a multi-asset income strategy may potentially deliver more stable income streams and a more balanced risk/return profile across different economic environments.

Speaking of inflation, inflation risk is one of the most significant risk factors that can erode investment returns over the long-term. As core equities and conventional bonds tend to deliver below-average returns in rising inflation environments, investors are increasingly using inflation sensitive assets, such as commodities, inflation linked bonds, REITs, natural resources stocks and gold, to protect their portfolios from inflation shocks. By combining multiple inflation sensitive assets via risk parity asset allocation, or tactical allocation based on a widely followed economic indicator such as the Economic Cycle Research Institute (ECRI) Leading Economic Indicator Index, better balance between inflation beta and the consistency of beating inflation historically can be achieved.

EXHIBIT 3: PERFORMANCE

PERFORMANCE OF A STYLIZED EXAMPLE OF RISK PARITY STRATEGY					
	Traditional 60/40	Equal Weight	Volatility Weighted	Risk Parity	Minimum Variance
20-YEAR					
Annual Return [%]	8.0	9.1	9.3	9.3	8.4
Annual Risk [%]	9.2	11.1	8.9	7.8	7.2
Sharpe Ratio	0.54	0.56	0.71	0.8	0.75
Max Drawdown [%]	-32.0	-40.7	-28.7	-17.8	-12.4

HISTORICAL PERFORMANCE OF MULTI-ASSET INCOME STRATEGIES					
	Traditional 60/40	Equal Weight	Volatility Weighted	Equal Risk Contribution	Minimum Variance
12-YEAR					
Annual Return [%]	5.2	10.7	9.8	9.8	8.3
Annual Risk [%]	9.1	12.9	11.7	11.7	9.6
Sharpe Ratio	0.39	0.70	0.70	0.70	0.69

RISK AND RETURN CHARACTERISTICS OF INDIVIDUAL ASSETS AND MULTI-ASSET PORTFOLIOS								
INDIVIDUAL ASSETS						MULTI-ASSET PORTFOLIOS		
	Commodities	Natural Resource Stocks	REITs	Gold	TIPS	Static Allocation	Risk Parity Allocation	Tactical Allocation
Annual Return [%]	7	8.2	9.8	9.7	6.7	9.1	9.2	11.0
Annual Risk [%]	21.8	23.9	23.3	17.7	6.2	12.1	10.4	11.2
Sharpe Ratio	0.21	0.25	0.32	0.42	0.71	0.56	0.67	0.78

Source: S&P Dow Jones Indices. Data as of June 30, 2013. Past performance is not a guarantee of future results. This table reflects hypothetical historical performance. All information presented prior to the Launch Date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. See Performance Disclosures at the end of this issue. Complete index methodology details are available at www.spdji.com.

INSIGHTS: How have risk parity strategies performed?

Aye: The historical performance of the risk parity strategy versus other asset allocation strategies, including equal weight, volatility weighted and minimum variance shows that the risk parity portfolio consistently achieved much lower volatility and smaller drawdown than the equal weight and volatility weighted portfolios. This has been demonstrated over the last five, 10 and 20 years which confirms that, even by using a simple methodology solely based on historical returns to estimate volatilities and correlations, the risk parity portfolio was able to improve portfolio diversification.

Xiaowei: As you'll see in Exhibit 3, all the multi-asset income strategies delivered a much higher yield that more than doubled the yield of the 60/40 portfolio. In terms of absolute risk-adjusted performance, the results showed that over the longer-term 12 years, the traditional 60/40 portfolio had the lowest Sharpe ratio, with a naive diversification framework such as an equal weighted

strategy achieving a higher Sharpe. The unconstrained minimum variance strategy had the highest Sharpe ratio in all the periods studied. However, the instability of asset class weights and significant sector concentration of unconstrained mean variance optimization makes the strategy less viable in practice, despite having the highest Sharpe ratio historically.

Our studies also show that over the period examined (June 1998 to June 2013), the multi-asset portfolios also delivered more balanced risk and return characteristics, confirming the diversification benefits of blending multiple inflation sensitive assets. The risk parity allocation achieved significantly lower volatility than the static allocation, which indicates that overlaying simple risk-based asset allocation strategies on top of the multi-asset inflation protection portfolio may improve the risk characteristics without distracting from its inflation protection abilities. Similarly, we observed that the tactical allocation improved returns over the static allocation.

Performance Disclosure

In the Risk Parity case study, the traditional 60/40 portfolio is represented by 60% S&P 500 Index / 40% Barclays US Aggregate Bond Index. U.S. Equities are represented by the S&P 500 Index; Emerging Markets Equities are represented by the MSCI Emerging Markets Index; Long-term Treasuries are represented by the Barclays US Long Treasury Index; High Yield Bonds are represented by the Barclays US Corporate High Yield Index; Commodities are represented by the S&P GSCI, and REITs are represented by the Dow Jones US Select REITs Index.

In the Income Solutions case study, Global Treasuries are represented by the Barclays Global Treasury Index; Global Corporate Bonds are represented by the Barclays Global Corporate Bonds Index; Global High-Yield Bonds are represented by the Barclays Global High Yield Bond Index; US Dividend Equities are represented by the S&P High Yield Dividend Aristocrats Index; Global Dividend Equities are represented by the Dow Jones Global Select Dividend Index; Emerging Market Dividend Equities are represented by the S&P Emerging Market Dividend Opportunities Index; Preferred Stocks are represented by the S&P US Preferred Stock Index; US Senior Loans are represented by the S&P/LSTA U.S. Leveraged Loan 100 Index; Emerging Market Bonds are represented by the JPMorgan EMBI Index; MLPs are represented by the S&P MLP Index; Global REITs are represented by the S&P Global REITs Index; US High Yield Corporates are represented by the Barclays US High Yield Corporate Bond Index.

In the Inflation Protection case study, Commodities, Natural Resources Stocks, REITs, Gold, and TIPS are respectively represented by the S&P GSCI, S&P North America Natural Resources Sector Index, Dow Jones US Select REITs Index, gold bullion price, and Barclays US TIPS Index.

The S&P GSCI was launched on May 1, 1991. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

The S&P High Yield Dividend Aristocrats Index was launched on November 9, 2005. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

The S&P Emerging Market Dividend Opportunities Index was launched on December 2, 2009. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

The S&P US Preferred Stock Index was launched on September 15, 2006. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

The S&P/LSTA U.S. Leveraged Loan 100 Index was launched on October 20, 2008. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

The S&P MLP Index was launched on September 6, 2007. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

Dow Jones US Select REITs was launched on Dec. 31, 1998. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

The Dow Jones Global Select Dividend Index was launched on Oct. 17, 2007. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

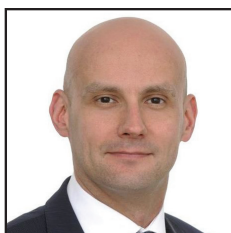
The S&P Global REITs Index was launched on Jan. 1, 2007. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested calculations are based on the same methodology that was in effect on the Launch Date. Complete index methodology details are available at www.spdji.com.

The S&P North America Natural Resources Sector Index was launched on Feb. 1, 2007. All information provided prior to the Launch Date are back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-tested 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.

THE DOW JONES SUSTAINABILITY DIVERSIFIED INDICES FAMILY

Earlier this year, RobecoSAM, the investment specialist focused exclusively on sustainability investing, and S&P Dow Jones Indices, the world's largest provider of financial market indices, launched the Dow Jones Sustainability Diversified Indices Family [DJSI Diversified Family]. At the time of the launch, Guido Giese, PhD, Head of Indices at RobecoSAM was quoted as saying, "We launched the Diversified Family in response to the increasing demand we have seen in the market for a sustainability index that gives investors the opportunity to gain exposure to sustainability without taking on too much risk relative to their standard benchmark. It is an optimal solution for passive investors looking to integrate sustainability into their portfolios while remaining close to the benchmark in terms of asset allocation."

In this Q&A Guido Giese and Julia Kochetygova, Senior Director of Business Development at S&P Dow Jones Indices [S&P DJI] in Moscow, paired up to share their thoughts on sustainability as it relates to indices, the new index and the methodology driving the DJSI Diversified family.

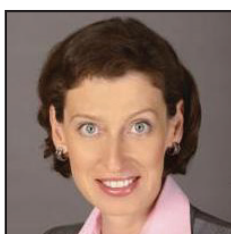


GUIDO GIESE, PHD
Head of Indices,
RobecoSAM

INSIGHTS: To kick things off, can you give us some background on your respective roles?

Julia: As a member of the Product Management team at S&P Dow Jones Indices in Moscow, I oversee the sustainability indices which include the ones we already have in place and those in the development or planning stages. I spend most of my time developing methodologies for new indices and helping our Channel Management and Client Coverage teams raise market awareness about our index offerings.

Guido: I am the Head of Indices at RobecoSAM, and my role includes developing new sustainability indices and marketing them to asset managers globally.



JULIA KOCHETYGOVA
Senior Director,
Business Development
S&P Dow Jones Indices

INSIGHTS: RobecoSAM has focused exclusively on sustainability investing since it was founded in 1995. In your opinion, how do the firm's principles on sustainability investing complement S&P DJI, the largest provider of financial market indices?

Guido: Since 1999, RobecoSAM's Corporate Sustainability Assessments [CSA] has been used as the key source for the scores underlying the Dow Jones Sustainability Index [DJSI]. We have been continuously developing and updating our analytical methodology based on market feedback. This is to ensure that we capture new sustainability issues that are expected to have an impact on the companies' competitive landscape. With the expansion of the DJSI family, the universe of companies assessed by RobecoSAM has been growing as well.

INSIGHTS: Why do you think sustainability is important to the marketplace and what changes, if any, have occurred in the sustainability landscape over the years?

Julia: Over the last several decades, we have observed continuous growth of investors' interest towards sustainable and socially responsible investments [SRI]. This interest has been prompted by the United Nations Principles of Responsible Investments [UN PRI] initiative and is supported by various academic studies showing advantageous risk and return parameters for SRI as compared with more conventional forms of investing. According to the latest studies on portfolio performance, during the credit crises between 2007 and 2013, the SRI approach has even provided a level of downside protection. Additionally, during the sharpest phase of financial crisis, from 2007 to 2010, the overall universe of professionally managed assets has remained roughly flat while SRI assets grew by 13% [as shown by US SIF—The Sustainable Investment Forum].

Guido: Also, the array of sustainable investing strategies has become quite wide in the recent years. It has varied from ethical values-based exclusions to a more value-based approach as it's seen as simply "good business," over the long-term, to be concerned about sustainability.

INSIGHTS: Can you explain how indexing fits into sustainability?

Julia: Sure. Another recent market trend is the growth of passive investments backed by the mounting evidence of their strong performance characteristics [see <http://eu.spindices.com/resource-center/thought-leadership/spiva/>]. The synergy created by this tendency and the growth of sustainably investments supports the growing interest in, and the development of sustainability indices. We have designed several types of sustainability indices focusing on various investor' needs.

INSIGHTS: Regarding your research approach to sustainability, how does it differ from other index providers?

Guido: Each year, RobecoSAM invites 2,500 of the world's largest publicly-traded companies to participate in CSA. The CSA is a comprehensive questionnaire that invited companies complete online. Companies must also provide extensive documentation to support their answers. We've seen a steady rise in the response rate over the years. This year, RobecoSAM received responses from approximately 800 of the invited companies, representing about 48% of the total market cap of all invitees. This increases the reliability of the information received and as a result, allows for more in-depth analysis of the sustainability profile of the responding companies. Additionally, from among the invited companies that do not respond to the questionnaire, RobecoSAM selects the companies that have a float-adjusted market cap above USD 1 billion for analysis and scoring. As such, that portion of the analysis is based of publically-available information.

INSIGHTS: Let's talk about the DJSI Diversified Family. Why launch a new series of sustainability indices?

Julia: The DJSI series were launched in 1999 and was the first global sustainability index ever created. It's considered best-in-class, based on selecting 10% of the world's most sustainable companies within each sector. We also offer regional versions of the DJSI and various custom versions—for instance, indices excluding companies engaged in "sin" activities, such as tobacco, alcohol, weapons etc.

Guido: It is important to note that these indices are constructed without regard to the market cap size and country exposures of the resulting portfolio and may produce biases from time-to-time that result in a high degree of tracking error vis-à-vis the standard benchmarks.

Understanding this, we decided to design a diversified version of the DJSI, which was launched on May 30, 2013. The specific objective of the DJSI World Diversified is to offer a risk and performance profile similar to the S&P Global LargeMidCap Index, but with a

significantly higher exposure to sustainability. You may view it as the "second generation" sustainability indices, attempting to achieve an improved ESG profile—as measured by the relevant scoring and ranking system—but with low tracking error vis-à-vis the standard benchmarks.

INSIGHTS: Can you explain the methodology behind the DJSI Diversified index series and the constituent selection process?

Guido: RobecoSAM's process for selecting and weighting stocks for the DJSI Diversified proceeds begins with an assessed universe of about 2,600 developed and emerging market Global BMI companies to which we have assigned scores, pursuant to the annual CSA. Next, we adjust the CSA scores to create relative scores that neutralize the effects of systematic scoring differences that may arise among companies in different industries or in different market cap size categories. We also remove companies that do not meet the minimum score and liquidity criteria. We then apply a filter which ranks the companies by their relative score, breaking "ties" by performing a subranking by market cap and removing the bottom 50%. This leaves a total of roughly 1,300 companies in the universe.

For each GICS sector within each country, we then select companies in decreasing order of CSA score until 33% of the market cap of the S&P Global MidCap Index for the same country and GICS sector have been captured; [e.g., 33% of the market cap of the French energy sector; or 33% of the U.S. consumer durables sector]. The resulting "finalists" are included in the DJSI Diversified on the basis of market-cap weighting.

INSIGHTS: How is the index universe different from the benchmark in terms of the sustainability characteristics?

Julia: It's different because the DJSI Diversified index universe includes the top one-third of the market cap of the benchmark selected by the level of companies' sustainability score. The sustainability profile of this index is substantially higher than the underlying benchmark. In fact, the improvement in the level of sustainability can be shown for each of the key criteria. For instance, for Climate Strategy it is approximately 60% compared to the benchmark, for Human Capital Development it is 90%, for Operational Eco-Efficiency it is 75%.

Guido: Of course, you may also ask whether we are watering down the sustainability profile of DJSI Diversified by taking a wider selection of companies [33% market cap by sector and country instead of 10% best companies in the DJSI]. The level of 33% was selected after testing various selection thresholds and analyzing back-tests for a substantial period of time. We chose it as a nice balance allowing for maximum diversification while giving up minimum sustainability performance. As a result, the dilution of the sustainability profile in DJSI Diversified is only 25% on all the key criteria compared to the DJSI "Classic."

INSIGHTS: Sustainability scoring seems to play an integral role in selecting constituents. How does the scoring system work and how do you ensure accuracy?

Guido: The assessment is performed by analysts at RobecoSAM who specialize in specific industries and look at both financial as well as non-financial characteristics of companies. At least 50% of the questions in each industry questionnaire are specific to the industry in question, with the exact percentage varying from industry to industry. Each CSA questionnaire includes approximately 80 – 120 questions (depending on the industry) on financially relevant ESG factors. Questions are grouped into criteria and then sub-divided into three dimensions—economic, social and environmental. RobecoSAM applies a scoring and weighting scheme to the individual questions in order to arrive at an overall Total Sustainability Score for each company, up to 100 points. The score is then used to rank and select companies for the indices.

Julia: It is also important to mention a special section in the analysis for each criterion called Media and Stakeholder Analysis [MSA]. For MSA, RobecoSAM receives information from a third-party analytical company, RepRisk. On a daily basis, RepRisk monitors media reports and commentaries from stakeholders on a vast number of companies globally. This monitoring covers a range of controversial issues, including economic crime or corruption, fraud, human rights issues, workplace safety, catastrophic accidents or environmental disasters. If a company is involved in such a case, its CSA score will be discounted, respectively, and will also depend on how well the company has addressed the issue. This is one of the elements that ensures objectivity and reliability of the scores.

Overview of DJSI Diversified index family

[EFFECTIVE AS PER 30 MAY 2013]:

Dow Jones Sustainability World Diversified Index

Dow Jones Sustainability World Developed Diversified Index

Dow Jones Sustainability Emerging Markets Diversified Index

Dow Jones Sustainability Europe Diversified Index

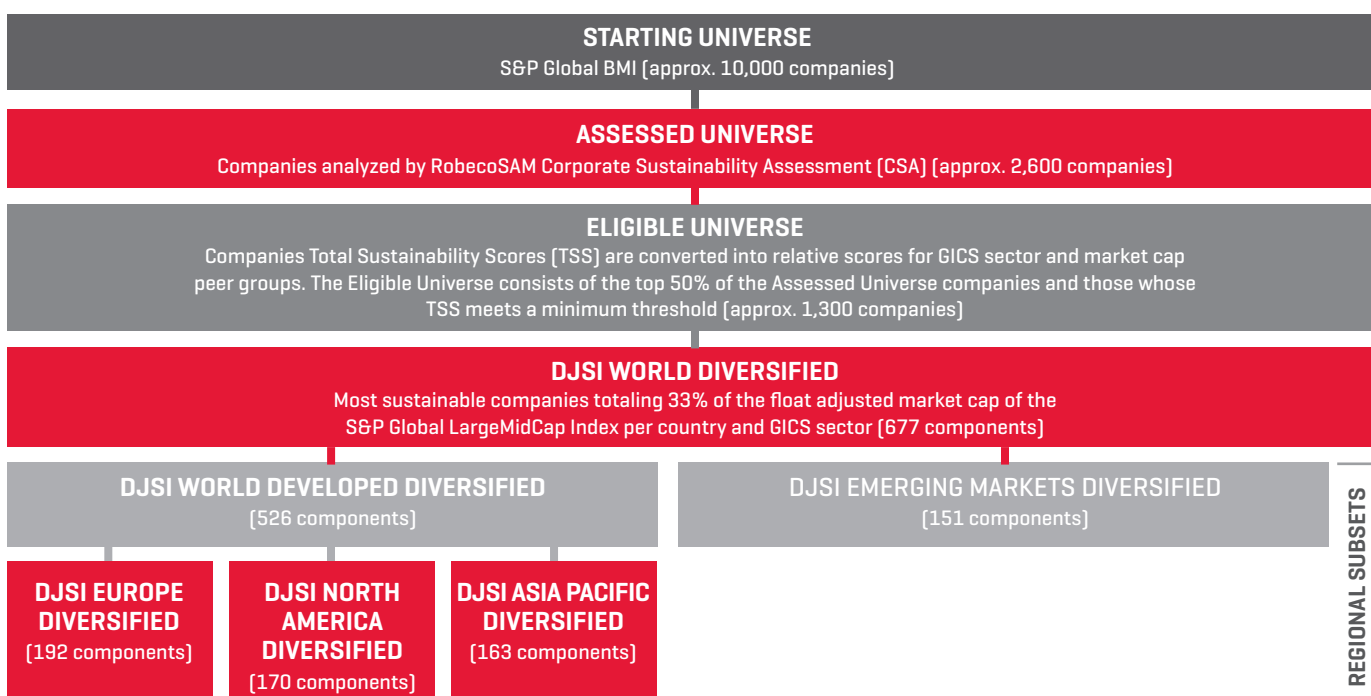
Dow Jones Sustainability North America Diversified Index

Dow Jones Sustainability Aia Pacific Diversified

Dow Jones Sustainability Emerging Markets Plus Diversified Index

Dow Jones Sustainability World Developed ex Korea Diversified Index

FIGURE 1: STRUCTURE OF DJSI WORLD DIVERSIFIED FAMILY



Source: RobecoSAM

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INDEXOLOGY

MANAGING FIXED INCOME IN A RISING RATE ENVIRONMENT



KEVIN HORAN, DIRECTOR, FIXED INCOME INDICES, S&P DOW JONES INDICES

In an environment of rising interest rates, there's much more to consider than just reducing exposure to fixed income. Reallocation could potentially compromise income revenue streams and disrupt a portfolio's overall asset allocation.

Staying the Course with Fixed Income: 3 Risk Factors to Consider in a Rising Rate Environment

1 MANAGING DURATION

Duration is one of the more significant factors to consider in a rising rate environment. Why? Because it measures a security's sensitivity to a change in interest rates. It's expressed in years and is a measure of the investments length of cash flows. The longer the stated maturity of a bond, the higher its duration and the more sensitive it is to changes in interest rates. A rise in rates will have a greater effect on a higher duration security moving the price downward.

2 CREDIT RISK

Credit risk refers to the risk that a borrower will default on any type of debt by failing to make payments which it is obligated to do. Though this risk is not in itself directly related to rising rates, the change in the rate environment does have its effects. Along with a rising rate environment, comes the higher cost of financing for businesses that require an injection of fund capital on a regular basis.

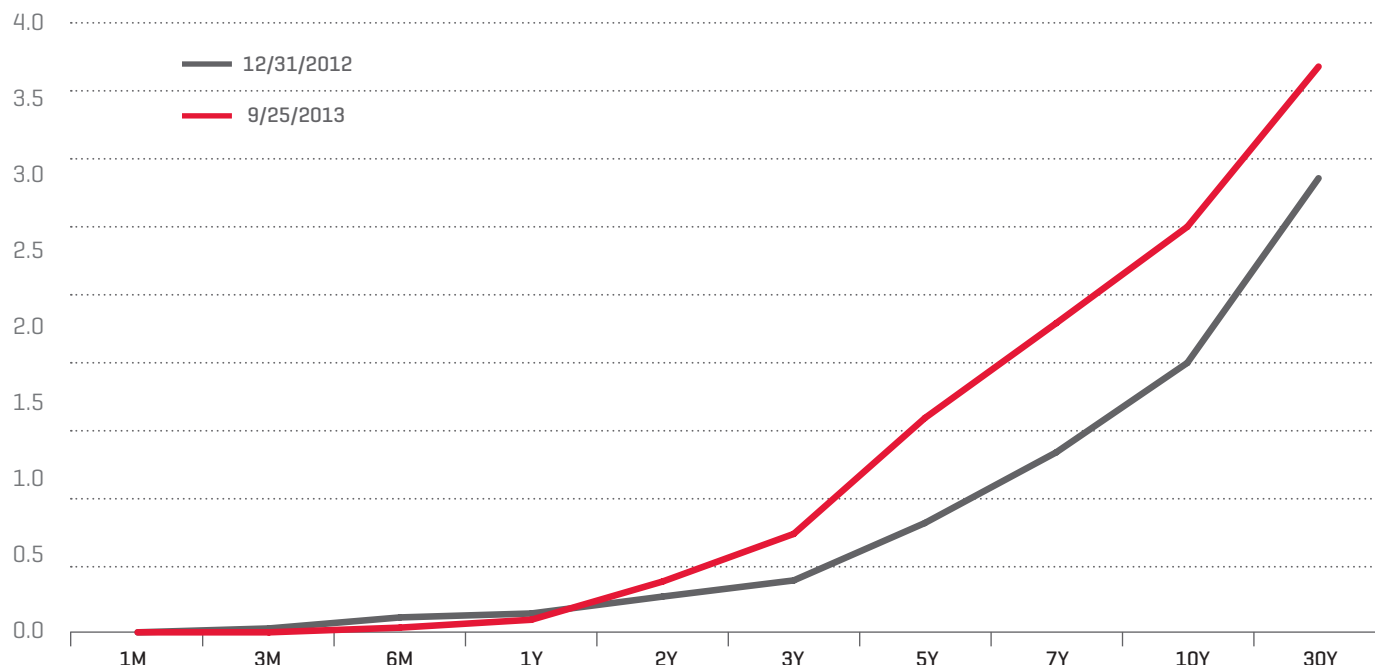
The yield spread or the amount of yield received over and above a risk free government bond generally contract in an improving economic environment. The contraction of spread, to a degree, can offset the rise in yield as interest rates increase. Spread changes due to ratings changes or business specific conditions within select ratings or industry segments can provide opportunistic valuations within investment grade and high yield corporate bonds during rising rates.

3 LIQUIDITY RISK

Liquidity risk is the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss. Changes in the bond markets since the financial crisis have led to less liquidity. The closing of proprietary trading desks, less arbitrage investors, and more governmental regulation imparted on commercial and investment banks has reduced the markets overall liquidity. The tradeoff between highly liquid products such as government bonds and illiquid products such as one- time issuance or real estate deals will be directly reflected in the level of yield received. Measuring the appropriate mix of holdings is dependent upon an investors risk profile and the impact of rising rate may have a great effect on the liquidity of the product.

In summary, in a rising rate environment, the fundamental needs of fixed income are still required but in a more rigorous manner. A rising rate environment can certainly be challenging for a bond portfolio. However, there are strategies that can be implemented to at least protect, if not enhance, returns. Lower duration, opportunistic product selection, strategy implementation, increased credit exposure, liquidity selection and tax advantages are all approaches that can be used in a rising rate environment. The choice of investment vehicles such as floating rates, strategies such as laddering and other techniques should be explored in order to meet long-term investment goals.

EXHIBIT 1: U.S. TREASURY YIELD CURVE



Source: Bloomberg

Past performance is not a guarantee of future results.

EXHIBIT 2: PERFORMANCE

PERFORMANCE	INDEX LEVEL	1 DAY	MTD	QTD	YTD
S&P/BGCantor US Treasury Bond Index	393.98	0.14%	0.54%	0.09%	-1.45%
<i>S&P/BGCantor 1-3 Year US Treasury Bond Index</i>	307.60	0.01%	0.20%	0.28%	0.29%
<i>S&P/BGCantor 3-5 Year US Treasury Bond Index</i>	415.79	0.08%	0.75%	0.50%	-0.75%
<i>S&P/BGCantor 5-7 Year US Treasury Bond Index</i>	480.74	0.22%	1.30%	0.21%	-2.54%
<i>S&P/BGCantor 7-10 Year US Treasury Bond Index</i>	520.90	0.39%	1.35%	-0.43%	-4.41%
<i>S&P/BGCantor 10-20 Year US Treasury Bond Index</i>	610.49	0.62%	1.18%	-0.71%	-6.08%
<i>S&P/BGCantor 20+ Year US Treasury Bond Index</i>	656.81	1.08%	0.81%	-1.91%	-10.72%
S&P US Treasury TIPS Index	204.96	0.07%	1.15%	1.12%	-6.27%
S&P U.S. Agency Index	100.58	0.09%	0.37%	0.20%	-1.01%
S&P National AMT-Free Municipal Bond Index	130.42	0.11%	2.15%	-0.68%	-3.55%
S&P U.S. Issued Investment Grade Corporate Bond Index	97.61	0.40%	0.64%	0.77%	-2.39%
S&P U.S. Issued High Yield Corporate Bond Index	103.44	0.01%	1.20%	2.25%	3.44%
S&P/LSTA U.S. Leveraged Loan 100 Index	1,810.42	-0.08%	0.48%	1.49%	3.48%
S&P U.S. Preferred Stock Index	1,600.76	0.05%	0.24%	-2.19%	-0.74%

Source: S&P Dow Jones Indices, 9/25/2013

Past performance is not a guarantee of future results.

LATEST PENSIONS AND OPEB REPORT SHOWS INCREASED PENSION UNDERFUNDING IN 2012



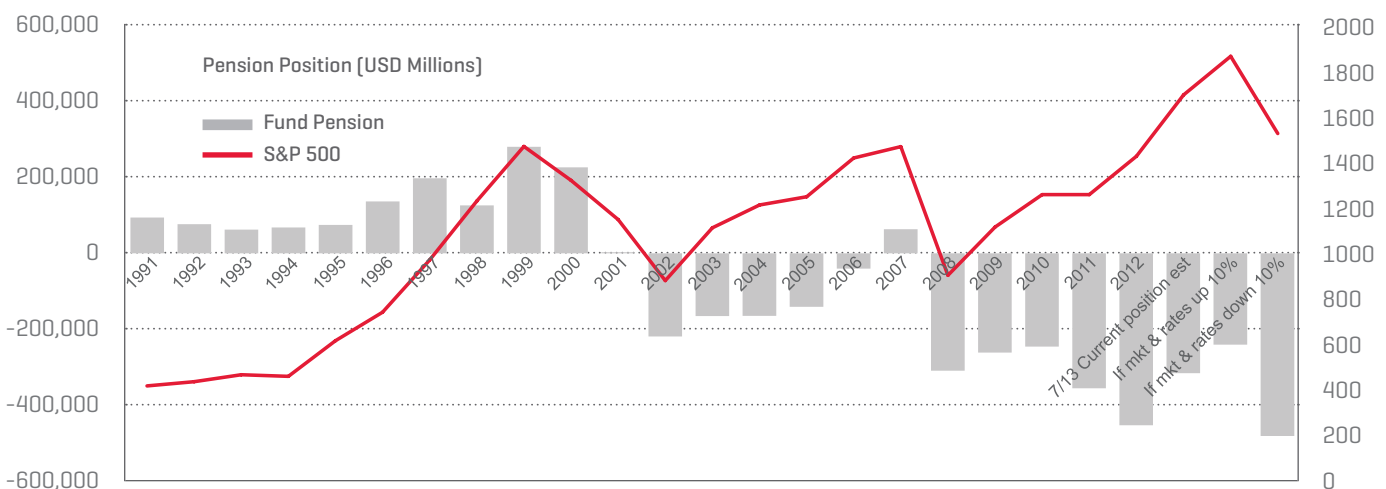
HOWARD SILVERBLATT, DIRECTOR, FIXED INCOME INDICES, S&P DOW JONES INDICES

We recently released our annual S&P 500 pension and other post employment benefits (OPEB) report, and the bottom line is that despite continued double-digit equity gains, artificially low interest rates have overpowered funds and led to record underfunding in fiscal 2012.

Highlights from the report include:

- Global equity markets posted double-digit gains in 2012, as the S&P 500 gained 13.41% and the S&P Global BMI (excluding the U.S.) posted a 15.86% gain. These gains, however, were insufficient to counter the increase in costs caused by artificially low interest rates, which increased the size of discounted liabilities. Year-over-year comparisons from 2011 to 2012 indicate:
 - Pension underfunding increased to USD 452 billion from USD 355 billion.
 - The pension funding rate decreased to 77.3% from 78.8%.
 - The discount rate declined to 3.93% from 4.71%.
 - The expected return rate declined to 7.31% from 7.60%.
- Funds maintained 2011 allocations in an attempt to manage forward risk from markets.
 - Equity allocations ticked up to 48.6% from 48.4%.
 - Fixed income allocations ticked down to 40.4% from 40.9%.
- Corporate pensions in aggregate remain a manageable expense, as they are currently within income and assets levels. If markets decline, however, corporate pensions could put a strain on companies.
 - OPEB underfunding increased to USD 235 billion from USD 223 billion.
 - The funding rate slightly increased to 22.3% from 21.8%.
 - OPEB remains a target for cuts.
 - Medical coverage is now a political as well as social issue.
- Companies have shifted a considerable amount of the risk associated with pensions to individuals. The result is a legacy program, which will mostly work its way out of the U.S. labor market over the next several decades.
 - For baby boomers, few options remain for securing a comfortable retirement. There are too few years left for boomers to significantly add to their retirement resources, outside of staying in the workforce.
 - Younger workers, who may be on their own, may want to begin planning and saving early on to allow their investments to compound.

EXHIBIT 1: S&P 500 PENSION AND MARKET LEVELS



Source: S&P Dow Jones Indices and S&P Capital IQ. Data and information obtained from individual company fiscal year-end reports. Past performance is not a guarantee of future results.

Given the increase in interest rates year-to-date, S&P Dow Jones Indices expects to see significantly lower discounted liabilities in S&P 500 accounts at the end of 2013, with liabilities declining further if interest rates continue to go up. If equity returns—currently at 15.85% for the S&P 500 and 4.79% for the S&P BMI ex-U.S.—hold up, and corporations have (as is the prevailing view) not invested in long-term fixed income instruments, assets should show solid

gains. The combination of the two would result in reduced pension underfunding. However, the improvement would still leave pensions deeply in the red. The full report, “S&P 500 2012 Pensions and Other Post Employment Benefits (OPEB): The Final Frontier,” can be found at www.spdji.com, and includes a full listing of S&P 500 issues along with their pension and OPEB data.

EXHIBIT 2: S&P 500 HISTORICAL PENSION DATA

YEAR	PENSION ASSETS [USD MILLIONS]	PENSION OBLIGATIONS [USD MILLIONS]	PENSION FUNDING STATUS [USD MILLIONS]	PENSION FUNDING STATUS RATIO	PENSION DISCOUNT RATE [%]	PENSION RETURN RATE [%]	S&P 500 TOTAL RETURN [%]
2012	1,534,448	1,986,156	-451,708	0.773	3.93	7.31	16.00
2011	1,321,962	1,676,615	-354,654	0.788	4.71	7.60	2.11
2010	1,273,321	1,518,314	-244,993	0.839	5.31	7.73	15.06
2009	1,160,202	1,420,912	-260,709	0.817	5.81	7.83	26.46
2008	1,100,149	1,408,580	-308,432	0.781	6.29	7.95	-37.00
2007	1,504,516	1,441,135	63,380	1.044	6.13	8.02	5.49
2006	1,470,964	1,511,301	-40,337	0.973	5.75	8.03	15.79
2005	1,318,010	1,458,439	-140,430	0.904	5.11	8.13	4.91
2004	1,265,338	1,429,667	-164,328	0.885	5.80	8.27	10.88
2003	1,113,478	1,278,265	-164,787	0.871	6.09	8.38	28.69
2002	950,963	1,169,472	-218,509	0.813	6.64	8.63	-22.10
2001	1,089,896	1,086,950	2,946	1.003	7.13	9.15	-11.89
2000	1,238,920	1,012,893	226,027	1.223	7.43	9.17	-9.10
1999	1,274,083	994,061	280,022	1.282	7.44	9.13	21.04

Source: S&P Dow Jones Indices and S&P Capital IQ. Data and information obtained from individual company fiscal year-end reports.

EXHIBIT 3: S&P 500 PENSION AND OPEB HISTORY

S&P 500 PENSION AND OPEB [USD BILLIONS]	2012	2011	2010	2009	2008	2007	2006	2005	2004
Combined Pension and OPEB Assets	1,601.9	1,384.2	1,337.8	1,221.3	1,165.8	1,599.8	1,563.4	1,409.2	1,347.7
Combined Pension and OPEB Obligations	2,288.5	1,962.3	1,792.8	1,696.6	1,731.5	1,805.6	1,898.0	1,870.5	1,798.9
Combined Pension and OPEB Status	-686.6	-578.0	-455.1	-475.3	-565.7	-205.8	-334.6	-461.3	-451.3
Combined Pension and OPEB Funding	70.0%	70.5%	74.6%	72.0%	67.3%	88.6%	82.4%	75.3%	74.9%
Pension Assets	1,534.4	1,322.0	1,273.3	1,160.2	1,100.1	1,504.5	1,471.0	1,318.0	1,265.3
Pension Obligations	1,986.2	1,676.6	1,518.3	1,420.9	1,408.6	1,441.1	1,511.3	1,458.4	1,429.7
Pension Funding Status	-451.7	-354.7	-245.0	-260.7	-308.4	63.4	-40.3	-140.4	-164.3
Pension Funding	77.3%	78.8%	83.9%	81.7%	78.1%	104.4%	97.3%	90.4%	88.5%
OPEB Assets	67.4	62.3	64.5	61.1	65.7	95.3	92.4	91.2	82.3
OPEB Obligations	302.3	285.6	274.5	275.7	322.9	364.4	386.7	412.1	369.3
OPEB Funding Status	-234.9	-223.4	-210.1	-214.6	-257.2	-269.1	-294.3	-320.9	-286.9
OPEB Funding	22.3%	21.8%	23.5%	22.2%	20.3%	26.1%	23.9%	22.1%	22.3%

Source: S&P Dow Jones Indices and S&P Capital IQ. Data and information obtained from individual company fiscal year-end reports. Past performance is not a guarantee of future results. All company-level data used throughout this report was derived from data filed with the Securities and Exchange Commission as compiled by S&P Capital IQ and S&P Dow Jones Indices.

DOES PAST PERFORMANCE REALLY MATTER?

One of the mantras surrounding mutual fund performance emphasizes that, “Past performance is not a guarantee of future results.” Despite singing this tune, past performance seems to be a consideration during fund selection. So the question remains, “Is there really something to past performance?”

In response to this never-ending question, S&P Dow Jones Indices publishes the S&P Persistence Scorecard, released biannually. The Scorecard tracks the consistency of top performers over consecutive annual periods and measures performance persistence through transition matrices.

4 Key Findings from the Mid-Year 2013 Scorecard

1. Very few funds can consistently stay at the top. Out of 703 funds that were in the top quartile as of March 2011, only 4.69% managed to stay in the top quartile over three consecutive 12-month periods at the end of March 2013. Further, 3.35% of the large-cap funds and 6.08% of the small-cap funds remain in the top quartile. It is worth noting that no mid-cap funds managed to remain in the top quartile.
2. For the three years ended March 2013, 16.57% of large-cap funds, 14.22% of mid-cap funds and 23.05% of small-cap funds maintained a top-half ranking over three consecutive 12-month periods. Random expectations would suggest a rate of 25%.
3. Looking at longer-term performance, only 2.41% of large-cap funds, 3.21% of mid-cap funds and 4.65% of small-cap funds maintained a top-half performance over five consecutive 12-month periods. Random expectations would suggest a repeat rate of 6.25%.
4. While top-quartile and top-half repeat rates have been at or below the levels one expects based on chance, there is consistency in the death rate of bottom-quartile funds. Across all market cap categories and all periods studied, fourth-quartile funds had a much higher rate of being merged and liquidated.

EXHIBIT 1: PERFORMANCE PERSISTENCE OVER THREE CONSECUTIVE 12-MONTH PERIODS

MUTUAL FUND CATEGORY	FUND COUNT AT START		PERCENTAGE REMAINING IN TOP QUARTILE	
	11-Mar	12-Mar	13-Mar	
TOP QUARTILE				
All Domestic Funds	703	30.73	4.69	
All Large-Cap Funds	269	30.11	3.35	
All Mid-Cap Funds	102	29.41	0	
All Small-Cap Funds	148	30.41	6.08	
All Multi-Cap Funds	184	32.61	8.15	
	11-Mar	12-Mar	13-Mar	
TOP HALF				
All Domestic Funds	1,405	49.75	18.36	
All Large-Cap Funds	537	51.96	16.57	
All Mid-Cap Funds	204	49.51	14.22	
All Small-Cap Funds	295	51.53	23.05	
All Multi-Cap Funds	369	45.26	19.51	

Source: S&P Dow Jones Indices. Data as of March 31, 2013. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

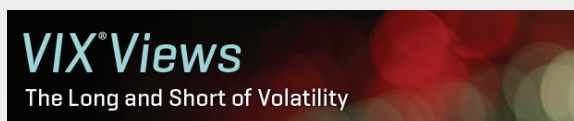
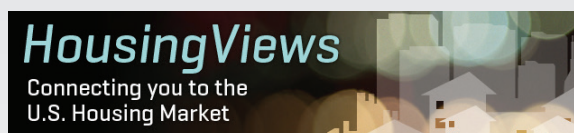
EXHIBIT 2: PERFORMANCE PERSISTENCE OVER FIVE CONSECUTIVE 12-MONTH PERIODS

MUTUAL FUND CATEGORY	FUND COUNT AT START		PERCENTAGE REMAINING IN TOP QUARTILE		
	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar
TOP QUARTILE					
All Domestic Funds	558	11.83	4.3	1.79	0.18
All Large-Cap Funds	187	8.02	5.35	1.6	0
All Mid-Cap Funds	94	11.7	2.13	2.13	0
All Small-Cap Funds	129	16.28	5.43	1.55	0.78
All Multi-Cap Funds	148	12.84	3.38	2.03	0
MUTUAL FUND CATEGORY	FUND COUNT AT START		PERCENTAGE REMAINING IN TOP HALF		
	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar
TOP HALF					
All Domestic Funds	1,115	32.02	15.61	9.87	3.59
All Large-Cap Funds	374	31.55	18.72	10.16	2.41
All Mid-Cap Funds	187	29.41	10.7	9.09	3.21
All Small-Cap Funds	258	35.27	15.89	8.53	4.65
All Multi-Cap Funds	296	31.42	14.53	11.15	4.39

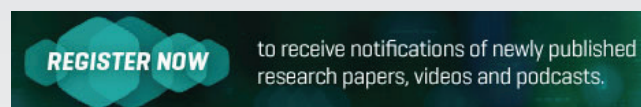
Source: S&P Dow Jones Indices. Data as of March 31, 2013. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

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**S&P GSCI® ALL METALS 3 MONTH FORWARD AND
S&P GSCI ALL METALS 3 MONTH FORWARD CAPPED COMPONENT**

Asset Class: Commodities

Launch Date: August 22, 2013

These indices are designed to measure the precious and industrial metal commodity markets while seeking to reduce negative roll yield in times of contango. The Indices use the First Nearby Contract Expirations of the S&P GSCI – moved three months forward from the present date – and weight the metals in proportion to the weightings derived from the S&P GSCI methodology. The capped component version applies capping according to the ESMA guidelines on UCITS issues.

The launch of the S&P GSCI All Metals 3 Month Forward and S&P GSCI All Metals 3 Month Forward Capped Component expand the S&P GSCI family. The S&P GSCI is the first major investible commodity index. It is one of the most widely recognized benchmarks that is broad-based and production weighted to represent the global commodity market beta.

S&P BRAZIL DIVIDEND INDICES

Asset Class: Strategy

Launch Date: August 1, 2013

The index aims to track the performance of dividend paying securities focused on the Brazilian market—considered one of the fastest-growing emerging markets in terms of gross domestic product. The Indices have been licensed to BB DTVM, Banco do Brasil Asset Management, for the creation of index-linked products.

The S&P Global BMI serves as the primary universe of the S&P Brazil Dividend Indices. The Index family consists of three indices:

- The S&P Dividend Aristocrats Brasil Index tracks the performance of the 30 S&P Brazil BMI constituents that have consistently increased or maintained stable dividends every year for at least three years.
- The S&P Brazil Dividend Opportunities Index measures the performance of 40 of the highest yielding constituents of the S&P Brazil BMI that meet size, liquidity and profitability criteria.
- The S&P Brazil Dividend Opportunities SmallMidCap Index is designed to measure the performance of 25 of the highest yielding small cap and mid cap constituents of the S&P Brazil BMI that meet size, liquidity and profitability criteria.

S&P/TSX HIGH INCOME ENERGY INDEX

Launch Date: Equity

Launch Date: July 25, 2013

The S&P/TSX High Income Energy Index is designed to measure income producing securities with specific exposure to the Energy sector. The Index includes the constituent stocks of the S&P/TSX Composite Index that are classified as Energy companies according to the Global Industry Classification Standard (GICS®), that also meet specific yield requirements.

The new index has been licensed by S&P Dow Jones Indices to Guggenheim Investments for an Exchange Traded Fund listed on the New York Stock Exchange.

S&P GSCI® DYNAMIC ROLL CAPPED COMPONENT 35/20

Asset Class: Commodities

Launch Date: July 18, 2013

The index reflects the total return available through an unleveraged investment in the specific commodities of the S&P GSCI Dynamic Roll while employing the S&P Capped Component 35/20 methodology. The Index contains the specific commodity futures contracts of the S&P GSCI Dynamic Roll and is calculated using the rules of the S&P GSCI Dynamic Roll, but modified to apply the Capped Component 35/20 rules for capping according to the ESMA guidelines on UCITS issues.

The Index combines dynamically rolling commodity futures with a capped component weighting scheme. The roll method is designed to meet the demands of investors seeking to alleviate the negative impacts of contango and turnover to potentially limit volatility exposure to the commodity market.

S&P GSCI® ROLL WEIGHT SELECT

Asset Class: Commodities

Launch Date: July 10, 2013

The index aims to reduce the negative impact of contango by modifying the weights of the commodities according to the relative change in the realized roll yield for each commodity in the index. The Index is designed to maintain maximum liquidity by including only the most liquid front month contracts and only the 14 most liquid commodities representing each sector, according to the rules of the S&P GSCI Equal Weight Select.

The change in realized roll yield is a new index measure that is used to weight the commodities in the S&P GSCI Roll Weight Select. For each commodity, the measure itself is the difference of monthly returns [between the excess return and price return] of the current month single commodity index subtracted from the difference of monthly returns [between the excess return and price return] of the one month forward for each single commodity index.

To take advantage of these new data and licensing opportunities, email us at: index_services@spdj.com

AWARD WINNER

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Structured Products Magazine

SEPTEMBER 02, 2013

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October 24, 2013

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Where are Municipal Bonds Creating Opportunities for You?*

**October 17, 2013
2:00 PM**

**W Hotel
541 Lexington Avenue
New York, NY**

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CFA®, CIMA®, CFP® Credits Available

Event replay available at www.spdji.com



Keynote speaker, **Jim Lebenthal**, co-founder of **Lebenthal Asset Management**, will examine the overall health of the market and explore current opportunities in U.S. infrastructure and municipal bonds.

Also hear investment professionals from other leading financial firms explore:

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- *What drives bond defaults*
- *How municipal bonds stack up to other income opportunities*
- *How RIAs use bond laddering to protect their portfolios*

Attendees will have the opportunity to submit questions during the broadcast.

Cocktail reception following the event

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Here's a roundup of some of our posts.

INDEXOLOGY®

The Shutdown and the Debt Ceiling

SEPTEMBER 30, 2013 | DAVID BLITZER, CHAIRMAN OF THE INDEX COMMITTEE AT S&P DJI

As of the market close on Monday, Congress is still pushing bills back and forth from one house to the other and a government shutdown looks like the odds-on bet. The S&P 500 rebounded part way from a sharp drop at the open but has done little since mid-morning. If the Credit Default Swap market is any indication, the shutdown could be followed by a debt ceiling impasse. The markets are saying the shutdowns matter and the debt ceiling matters even more.

Shutting the government down for a few days will cost. In 1996 the bill was about \$100 million per day due to delays, disruptions and time spent recovering from the shutdown. The larger damage is probably to how we feel our government and how it looks to others. Analysts and commentators criticize some European nations which can't seem to pass a budget, collect taxes or keep a government in office for more than a few months. If the US begins to look and act that way, can we expect investors – either foreign or domestic – to have confidence in our markets? The cost of a government shutdown is not \$100 million a day or delaying next Friday's employment report, it is the loss of confidence.

The debt ceiling is another matter. The damage would be severe as explained in comments today from the New York Times and the Financial Times. If the debt ceiling isn't raised the President will face a three-way choice: slash an estimated \$600 billion from spending immediately, default on maturing US treasury bills, notes and bonds or ignore the debt ceiling...

Read more at www.indexologyblog.com

HOUSINGVIEWS®

Bubble Trouble?

SEPTEMBER 29, 2013 | BY DAVID BLITZER, CHAIRMAN OF THE INDEX COMMITTEE AT S&P DJI

With the continued price gains seen in the S&P/Case-Shiller Home Price Indices, questions about a new housing bubble are bubbling up. The Sunday New York Times editorial page asks about housing and laments that the weak recovery and student loan debt are preventing potential home buyers in their 20's and 30's from helping the housing market. In the same issue Robert Shiller reports on a recent survey showing that expectations of rising home prices are common but bubble euphoria is not here.

The housing market is more complicated, and messier, than many people realize. There may not be a "normal" housing market. Rather the old comment about location location location does matter—not only will one city differ from another, but neighborhood to neighborhood matters. A glance at the latest S&P/Case-Shiller report or at the table in my previous post shows that the theme is not that all prices rise or fall together, it is the large variation across cities. Dallas and Denver set new highs—Boom? New York and Chicago are 20% to 25% down from their peaks—Bust?

Visit www.housingviews.com to read the rest of this post

VIX® VIEWS

Last Week in Gold and Oil Volatility—9/29/2013

SEPTEMBER 30, 2013 | RUSSELL RHOADS, SENIOR INSTRUCTOR AT THE OPTIONS INSTITUTE

Gold is range bound and the result is continued pressure on gold volatility. The SPDR Gold Trust ETF [GLD – 128.97] appears to be stuck in the high 120's with new resistance solidifying itself at 130.00. Last week, despite valiant efforts the 130.00 level did not get breached. However, what I found interesting was despite a narrow range GVZ moved higher by 0.30. The curve is flat which can be taken as the market being pretty indecisive of what is going to happen next. If GVZ continues to have a tough time getting over resistance...

Read the rest of the post at www.spvixviews.com

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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.