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The S&P Global Natural Resources Index is designed to provide investors a balanced, equity-based approach to natural resources investments.

Looking at Natural Resources Through an Equity Lens

Natural resources as an asset class have appealed to investors for various reasons, the predominant of which are portfolio diversification and inflation protection. Investors seem to be paying more attention to these vehicles, as global populations continue to grow and fast-emerging economies, such as China and India require more resources to fuel their expansion. It is likely that only a small percentage of natural resources are economically recoverable at current commodity prices and with today's technologies. This could further drive demand from the government, potentially motivating a buying up of natural resources in an attempt to ensure a consistent supply of important raw materials.

Exposure to natural resources can be obtained in multiple ways, via owning the underlying resource directly, accessing it through futures and options (derivative contracts) or purchasing an interest in the asset class via equities. Other than small investments in precious metals, direct ownership requires large capital for storage and logistics, which may be out of reach for most investors. The contract-based approach to trading resources allows investors to leverage their dollars on a shorter time frame than required for storing a physical resource for months. These could be great investments for experienced traders, but may not be as universally practical. Since many natural resources are listed on public markets, another way to obtain exposure to this asset class is to invest in the equity markets.

The [S&P Global Natural Resources Index](#) is designed to provide investors with an equity-based approach to natural resources investments. The index follows a balanced construction methodology that seeks to provide exposure that is diversified across various resources and regions—developed and emerging markets.

CONSTRUCTING THE INDEX

The S&P Global Natural Resources Index includes 90 of the largest publicly traded companies involved in natural resources and related commodities and businesses. The index seeks to provide exposure to a diversified spectrum of commodities through its three commodity-related sectors: agribusiness, energy, and metals and mining. It is designed to use a modified market-cap weighting scheme in which each stock has a maximum weight of 5% and each subcategory carries a weight of 33.33%,

providing a balanced, yet reflective, view of the global natural resources market.

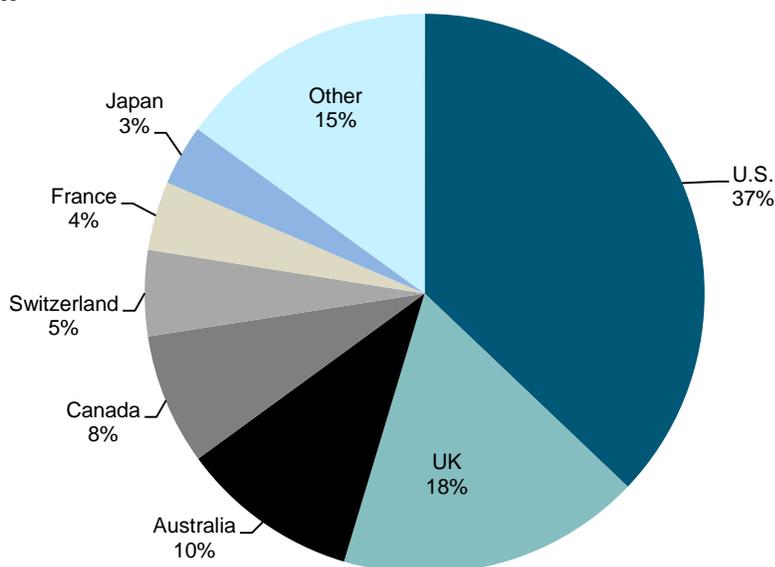
In order to be considered for the index, stocks must be traded on a developed market exchange; they also must have a minimum three-month average daily value traded of USD 5 million and a float-adjusted market capitalization of USD 1 billion after each rebalancing. Constituents are drawn from one of three categories that are defined using GICS: agriculture (30), energy (30), and metals and mining (30). Annual index reconstitutions occur after the close on the last business day of August. In addition, quarterly rebalancing occurs after close on the last business day of February, May and November, and the weight of each subcategory is set back to 33.33% at this time.

Exhibit 1: Coverage of the S&P Global Natural Resources Index

GLOBAL NATURAL RESOURCES				
AGRICULTURE	ENERGY		METALS AND MINING	
Agricultural Products, Fertilizer and Chemicals, Timber REITs, Forest Products, Paper Packaging, Paper Products	Oil and Gas: Entire Value Chain (Drilling, Refining and Distribution)	Coal	Industrial Metals	Precious Metals: Gold, Silver, and Other Precious Metals and Minerals

Source: S&P Dow Jones Indices LLC. Data as of Dec 30, 2016. Table is provided for illustrative purposes.

Exhibit 2: Listing Country Weights in the S&P Global Natural Resources Index



Source: S&P Dow Jones Indices LLC. Data as of Dec 30, 2016. Chart is provided for illustrative purposes.

STAT SUMMARY

Looking at a long-term risk/return profile, the [S&P Global Natural Resources Index](#) has historically behaved similar to a high-beta version of

the [S&P Global BMI](#). The two indices are almost on the same line in the risk/return spectrum. Nevertheless, the [S&P Global Natural Resources Index](#) has demonstrated some of the following desirable characteristics in its return distribution:

- Exhibited better drawdown characteristics when compared with the S&P Global BMI
- Showed a balance between the upside profits and downside losses from volatility (evident from the skewness ratio) when compared with S&P Global BMI, which has a return distribution that is more skewed to the left

METRIC	S&P GLOBAL NATURAL RESOURCES INDEX	S&P GLOBAL BMI
Annual Return (%)	8.72	9.09
Maximum Drawdown (%)	-48.92	-55.13
Annual Volatility (%)	20.73	15.60
Annual Skewness	-0.09	-0.25
Annualized Excess Kurtosis	-0.19	0.00
Months With Positive Returns (%)	58.93	61.90
Average Positive Monthly Return (%)	4.74	3.42
Average Negative Monthly Return (%)	-4.67	-3.38
Monthly Alpha Against the S&P Global BMI (%)	-0.02	-
Beta to the S&P Global BMI	1.08	-
Correlation with the S&P Global BMI	0.82	-

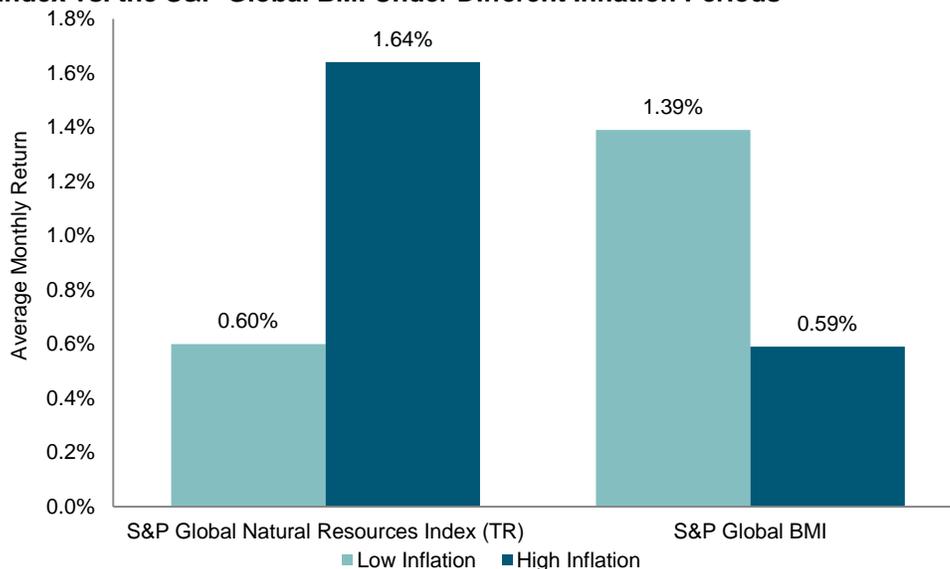
Source: S&P Dow Jones Indices LLC. Data from Jan. 31, 2003, to Dec. 30, 2016. Index performance based on total return. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

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RELATION WITH CONSUMER PRICE INFLATION

One of the main reasons that some may choose to allocate to natural resources investments is to attempt to diminish the downside risk of the portfolio during periods of high inflation. Although our sample period is short and lacks the period of double-digit inflation in the early 1980s, over the past 14 years (January 2003-November 2016), the S&P Global Natural Resources Index has outperformed the S&P Global BMI by a monthly average of 106 bps in high-inflation months. The index has underperformed the S&P Global BMI by 96 bps in low-inflation months. In Exhibit 4, short-term inflation was measured by year-on-year changes in the United States Consumer Price Index. The median of short-term inflation was calculated from January 2003 to November 2016. Months when short-term inflation was greater than the median inflation were considered to be high inflation, and vice versa. This analysis was performed from the hypothetical point of view of investors based in the U.S. or having exposure to U.S. inflation in their portfolio.

Exhibit 4: Average Monthly Return of the S&P Global Natural Resources Index vs. the S&P Global BMI Under Different Inflation Periods



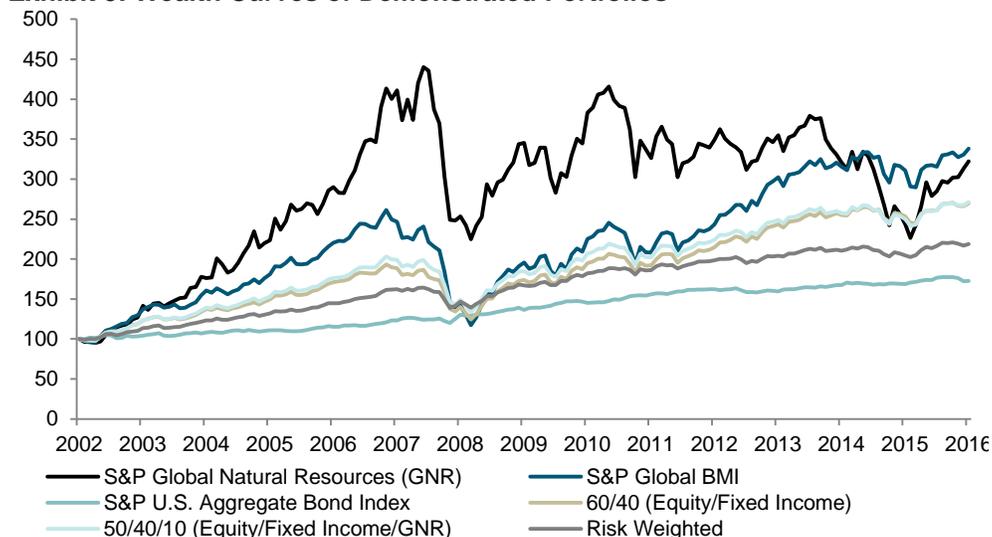
Source: S&P Dow Jones Indices LLC, Eurostat. Data from Jan. 30, 2003, to Nov. 30, 2016. Index performance based on total return. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

STRATEGIC ALLOCATION

It is beneficial to study how the characteristics of a conventional 60% equity/40% fixed income portfolio is affected by the addition of the S&P Global Natural Resources Index.

It is beneficial to study how the characteristics of a conventional 60% equity/40% fixed income portfolio is affected by the addition of the S&P Global Natural Resources Index due to some of its desirable characteristics. Starting from the traditional 60% equity/40% fixed income combination, we moved 10% of the weight to the [S&P Global Natural Resources Index](#) from equity, as measured by the [S&P Global BMI](#), and kept the 40% fixed income allocation, measured by the [S&P U.S. Aggregate Bond Index](#). We also examined a risk-weighted combination, where the weight of each index was proportional to the inverse of the index volatility (resulting in a portfolio consisting of 12.4% equity, 71.3% fixed income, 16.4% S&P Global Natural Resources Index). The risk-weighted combination does not take correlation into consideration. Exhibits 5 and 6 demonstrate the performance of these hypothetical portfolios and their underlying indices. The S&P Global Natural Resources Index did decline at the start of 2015, but has been steadily increasing since January 2016.

Exhibit 5: Wealth Curves of Demonstrated Portfolios



Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 2002, to Dec 30, 2016. Index performance based on total return. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

The S&P Global Natural Resources Index did decline at the start of 2015, but has been steadily increasing since January 2016.

Exhibit 6: Statistical Summary of Demonstrated Portfolios

METRIC	S&P GLOBAL NATURAL RESOURCES INDEX (GNR)	S&P GLOBAL BMI (EQUITY)	S&P U.S. AGGREGATE BOND INDEX (FIXED INCOME)	60% EQUITY/ 40 % FIXED INCOME	50% EQUITY/ 40% FIXED INCOME/ 10% GNR	RISK-WEIGHTED COMBO
Annual Return (%)	8.72	9.09	3.97	7.34	7.39	5.75
Maximum Drawdown (%)	-48.92	-55.13	-4.84	-35.64	-34.31	-15.42
Annual Volatility (%)	20.73	15.60	3.59	9.52	9.72	5.57
Annual Skewness	-0.09	-0.25	-0.03	-0.28	-0.26	-0.28
Annualized Excess Kurtosis	-0.19	0.00	-0.02	0.07	0.02	0.03
Months With Positive Returns (%)	58.93	61.90	64.88	65.48	63.10	67.86
Average Positive Monthly Return (%)	4.74	3.42	0.88	2.07	2.21	1.31
Average Negative Monthly Return (%)	-4.67	-3.38	-0.68	-2.10	-2.05	-1.27
Monthly Alpha Against S&P Global BMI (%)	-0.02		0.32	0.13	0.13	0.23
Beta to the S&P Global BMI	1.08		0.01	0.60	0.61	0.30
Correlation With the S&P Global BMI	0.82		0.04	0.99	0.98	0.85

Source: S&P Dow Jones Indices LLC. Data from Jan. 31, 2003, to Dec 30, 2016. Index performance based on total return. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

KEY TAKEAWAYS

The [S&P Global Natural Resources Index](#) is designed to provide a liquid, diversified exposure to global natural resources companies. The index has historically behaved similarly to a high-beta version of the [S&P Global BMI](#), but it has demonstrated some more desirable characteristics, particularly with respect to its drawdown. We also found that, historically, the index has provided an inflation hedge. Finally, we also saw that an allocation to the S&P Global Natural Resources Index from a traditional 60% equity/40% fixed income combination improved the historical risk/return profile.

PERFORMANCE DISCLOSURE

The S&P Global Natural Resources Index was launched on May 27, 2008. The S&P U.S. Aggregate Bond Index was launched on July 15, 2014. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. Complete index methodology details are available at www.spdji.com.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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