Sector Primer Series: Materials

Contributors

Sherifa Issifu
Analyst
Index Investment Strategy
sherifa.issifu@spglobal.com

Hamish Preston
Associate Director
Product Management
U.S. Equities
hamish.preston@spglobal.com

INTRODUCTION

The Global Industry Classification Standard® (GICS®) assigns a company to a single business classification according to its principal business activity. This assignment uses quantitative and qualitative factors, including revenues, earnings, and market perception. The sector is the first level of the four-tiered, hierarchical industry classification system that includes 11 sectors, 24 industry groups, 69 industries, and 158 sub-industries (see Exhibit 1).

Within the GICS framework, and as outlined in Exhibit 2, Materials companies include those that are primarily engaged in:

- Producing and manufacturing chemical products, including industrial chemical products;
- Manufacturing construction materials, containers, and packaging;
- Mining metals and the production of related products; and
- Manufacturing paper and forest products.

Exhibit 1: Number of Components in Each GICS Level by Sector

GICS CODE	SECTOR NAME	SECTOR	INDUSTRY GROUP	INDUSTRY	SUB-INDUSTRY
10	Energy	1	1	2	7
15	**Materials**	**1**	**1**	**5**	**17**
20	Industrials	1	3	14	25
25	Consumer Discretionary	1	4	11	29
30	Consumer Staples	1	3	6	12
35	Health Care	1	2	6	10
40	Financials	1	3	7	17
45	Information Technology	1	3	6	13
50	Communication Services	1	2	5	10
55	Utilities	1	1	5	6
60	Real Estate	1	1	2	12
Total		**11**	**24**	**69**	**158**

Source: S&P Dow Jones Indices LLC, MSCI. Data as of May 29, 2020. Table is provided for illustrative purposes.

Exhibit 2: GICS of the Materials Sector

SECTOR	INDUSTRY GROUP	INDUSTRY	SUB-INDUSTRY
Materials (15)	**Materials** (1510)	**Chemicals** (151010)	**Commodity Chemicals** (15101010)
			Diversified Chemicals (15101020)
			Fertilizers & Agricultural Chemicals (15101030)
			Industrial Gases (15101040)
			Specialty Chemicals (15101050)
		Construction Materials Code (151020)	**Construction Materials** (15102010)
		Containers & Packaging (151030)	**Metal & Glass Containers** (15103010)
			Paper Packaging (15103020)
		Metals & Mining (151040)	**Aluminum** (15104010)
			Diversified Metals & Mining (15104020)
			Copper (15104025)
			Gold (15104030)
			Precious Metals & Minerals (15104040)
			Silver (15104045)
			Steel (15104050)
		Paper & Forest Products (151050)	**Forest Products** (15105010)
			Paper Products (15105020)

Source: S&P Dow Jones Indices LLC, MSCI. Data as of May 29, 2020. Table is provided for illustrative purposes.

COMPOSITION

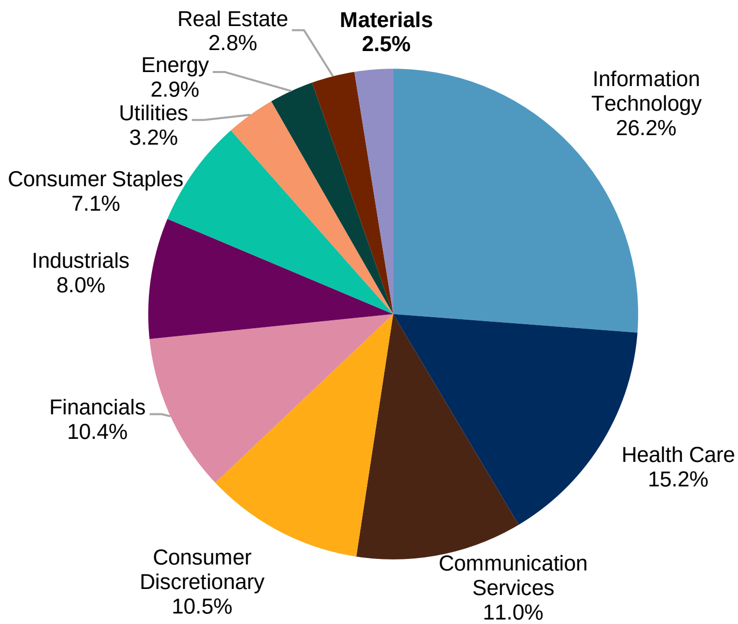
The S&P 500® Materials comprises all companies in the S&P 500 that are assigned to the Materials sector by GICS. Created in 1957, the S&P 500 was the first broad U.S. market-cap-weighted stock market index. Today, it is the basis of many listed and over-the-counter investment instruments.

The Materials sector is the smallest by capitalization of the 11 sectors in the S&P 500, representing 2.53% of the index as of May 29, 2020 (see Exhibit 3). This compares to 6.04% and 4.95% for the S&P MidCap 400® and S&P SmallCap 600®, respectively. Overall, the Materials sector accounts for 2.72% of (and 146 securities within) the S&P Total Market Index; only the Energy sector (2.70%) accounts for less, by index weight.

Materials is the smallest sector in the S&P 500…

…representing 2.5% of the index at May 2020.

Exhibit 3: S&P 500 Sector Weights



Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Chart is provided for illustrative purposes.

The two largest companies in the Materials sector were Linde plc and Ecolab Inc.

There were no Materials companies in the top 10 of the S&P 500.

With a total float-adjusted market capitalization of USD 641.43 billion, the S&P 500 Materials sector comprised 28 companies as of May 29, 2020. The two largest companies in the sector were Linde plc (LIN) and Ecolab Inc (ECL), with float-adjusted market caps of USD 108.69 billion and USD 53.31 billion, respectively. There were no Materials companies in the top 10 of the S&P 500—Linde plc ranked as the 53rd largest stock, representing 0.43% of the index. The mean market cap of S&P 500 Materials stocks was USD 22.91 billion, the median market cap was USD 13.79 billion, and the lowest market cap was USD 4.23 billion.

Exhibit 4: Snapshot of the Top 10 Holdings in the S&P 500 Materials

CONSTITUENT NAME	TICKER	S&P 500 WEIGHT (%)	S&P 500 MATERIALS WEIGHT (%)
Linde plc	LIN	0.43	16.95
Ecolab Inc	ECL	0.21	8.31
Air Products & Chemicals Inc	APD	0.21	8.30
Sherwin-Williams Co	SHW	0.19	7.61
Newmont Corp	NEM	0.19	7.47
DuPont de Nemours Inc.	DD	0.15	5.86
Dow Inc	DOW	0.11	4.46
PPG Industries Inc	PPG	0.10	3.75
Ball Corp	BLL	0.09	3.63
Corteva Inc.	CTVA	0.08	3.19
Total		**1.76**	**69.53**

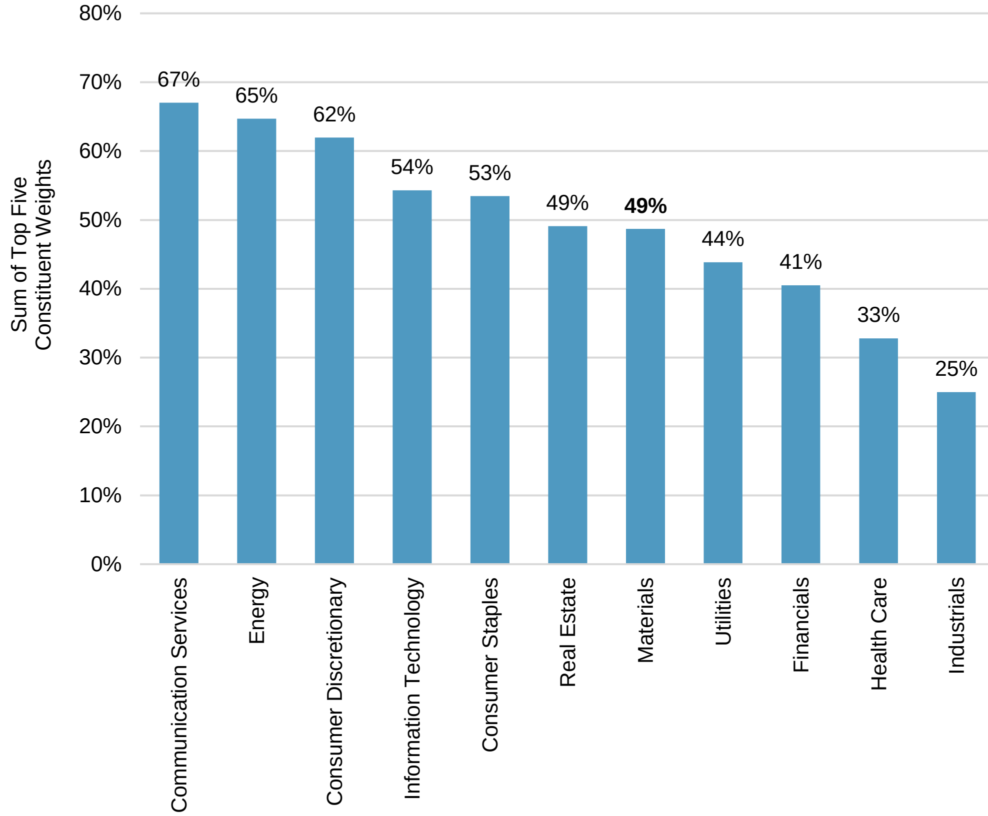
Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Table is provided for illustrative purposes.

The largest five constituents accounted for 48.64% of the weight of the Materials sector, placing it seventh in the S&P 500 in terms of concentration.

Materials was the seventh-heaviest sector, with the top five constituents adding up to 48.6% of the sector.

Chemicals was by far the heaviest of the industries.

Exhibit 5: Sum of Top Five Constituent Weights



Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Chart is provided for illustrative purposes. Please see the Equal Weight Sector Dashboard for the most recent monthly update to these figures.

On the sub-industry level, the heaviest weight was Specialty Chemicals at 30.70%...

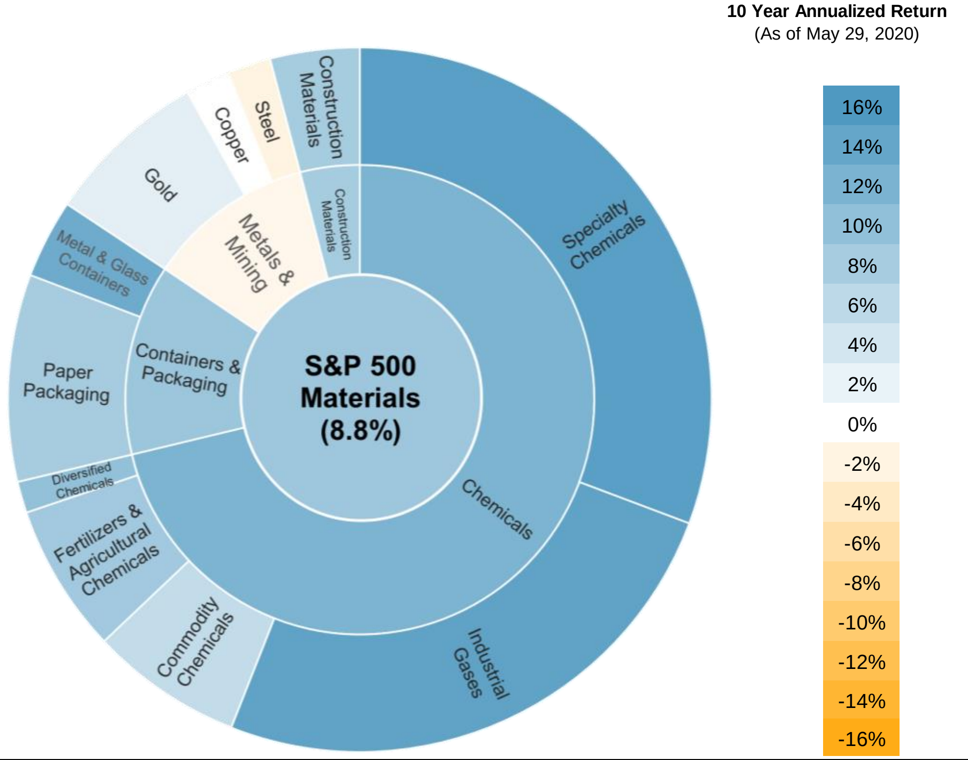
…and the second and third were Industrial Gases and Paper Packaging

Within the S&P 500 Materials, Chemicals was by far the largest industry, accounting for 71.24% of the sector as of May 29, 2020. The remaining sector weight was distributed across the Containers and Packaging (13.13%), Metals and Mining (11.52%), and Construction Materials (4.11%) industries. There were no companies in the Paper and Forest Products industry as of May 29, 2020. The three largest sub-industries were Specialty Chemicals (30.70%), Industrial Gases (25.25%), and Paper Packaging (9.50%)—the first two belong to the Chemicals industry.

The main change to the structure of the Materials sector is the disappearance of Papers & Forest Products.

Construction Materials has quadrupled in weight since 1999, from 1% to 4%.

Exhibit 6: Industry Group, Industry, and Sub-Industry Weights in the S&P 500 Materials



GICS CODE	NAME	INDEX WEIGHT (%)	10-YEAR ANNUALIZED RETURN (%)	MARKET CAP (USD BILLIONS)
15	S&P 500 Materials	100	8.84	641.43
151010	**Chemicals**	**71.24**	**11.91**	**456.94**
15101010	Commodity Chemicals	7.01	5.58	44.99
15101020	Diversified Chemicals	1.44	9.80	9.26
15101030	Fertilizers & Agricultural Chemicals	6.83	8.48	43.81
15101040	Industrial Gases	25.25	14.50	161.96
15101050	Specialty Chemicals	30.70	15.09	196.92
151020	**Construction Materials**	**4.11**	**8.12**	**26.34**
15102010	Construction Materials	4.11	8.12	26.34
151030	**Containers & Packaging**	**13.13**	**9.05**	**84.24**
15103010	Metal & Glass Containers	3.63	13.26	23.31
15103020	Paper Packaging	9.50	8.01	60.93
151040	**Metals & Mining**	**11.52**	**-1.36**	**73.91**
15104025	Copper	2.05	NA	13.16
15104030	Gold	7.47	2.59	47.94
15104050	Steel	2.00	-2.05	12.81

Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Chart and table are provided for illustrative purposes.

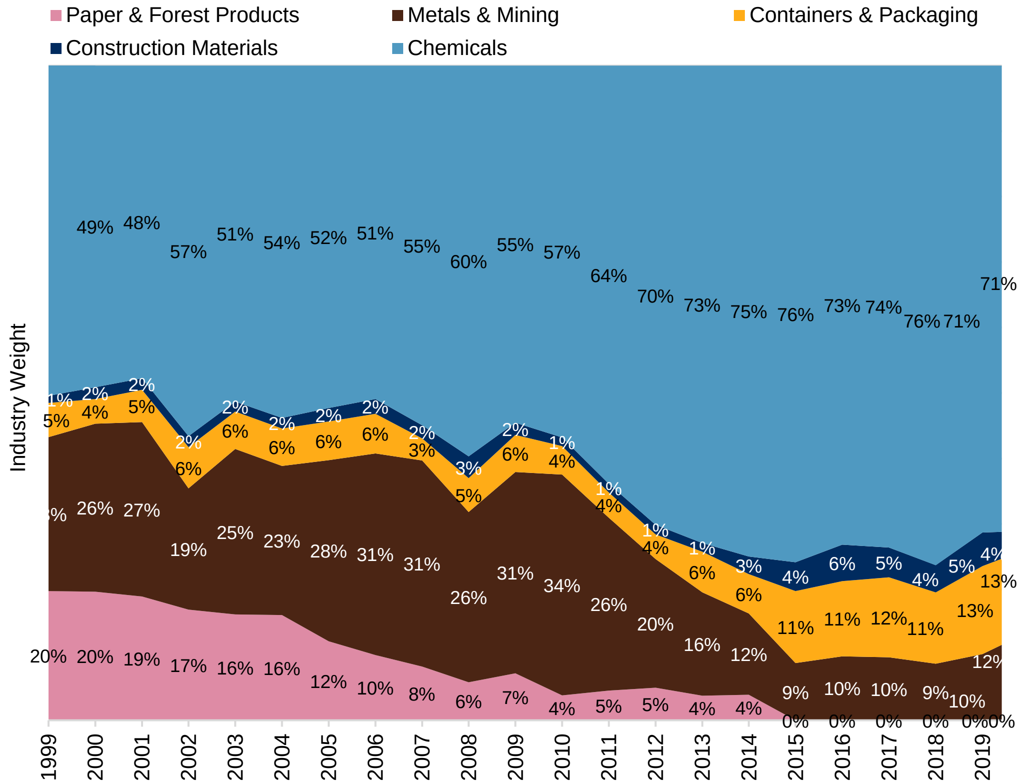
The GICS structure is intended to reflect the current state of the equity investment universe

A key feature of GICS is that it can evolve: its structure is intended to reflect the current state of the equity investment universe. S&P Dow Jones Indices and MSCI conduct annual reviews to ensure that the structure remains fully representative of the current global market. Although there have been few significant changes to the Materials sector—Chemicals has always been the largest industry, for example—the Paper & Forest Products industry weight in the S&P 500 declined since 1999, from 20% to 0%.

Chemicals has always been the largest industry.

The Paper & Forest Products industry weight declined since 1999, from 20% to 0%.

Exhibit 7: Industry Weights of the S&P 500 Materials



Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 1999, through May 29, 2020. Chart is provided for illustrative purposes.

FUNDAMENTALS

In mid- and small-cap segments, the Materials sector had a higher price-to-book-value ratio (P/BV) than the overall S&P MidCap 400 and a lower one-year forward price-to-earnings (P/E) ratio than the S&P SmallCap 600. Materials had lower price-to-sales ratios than the broader market across all three size segments. However, the 12-month trailing P/E ratio and indicated dividend yield were mixed. All five metrics tended to be below average relative to the other 10 sectors, and Materials ranked no better than third in the five metrics across all three size segments (see Exhibit 8).

Exhibit 8: Fundamental Data Comparison

INDEX	12-MONTH TRAILING P/E	ONE-YEAR FORWARD P/E	P/BV	PRICE-TO-SALES	INDICATED DIVIDEND YIELD (%)
S&P 500	23.17	19.94	3.60	2.28	1.86
S&P 500 Materials	34.18	20.63	2.55	1.93	1.97
S&P MidCap 400	28.54	19.99	2.28	1.31	1.69
S&P MidCap 400 Materials	30.33	17.70	2.44	0.96	2.02
S&P SmallCap 600	129.96	21.43	1.86	0.95	1.58
S&P SmallCap 600 Materials	36.77	20.21	2.06	0.72	1.57

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

The Materials sector had a higher P/BV and a lower one-year forward P/E than the broader market.

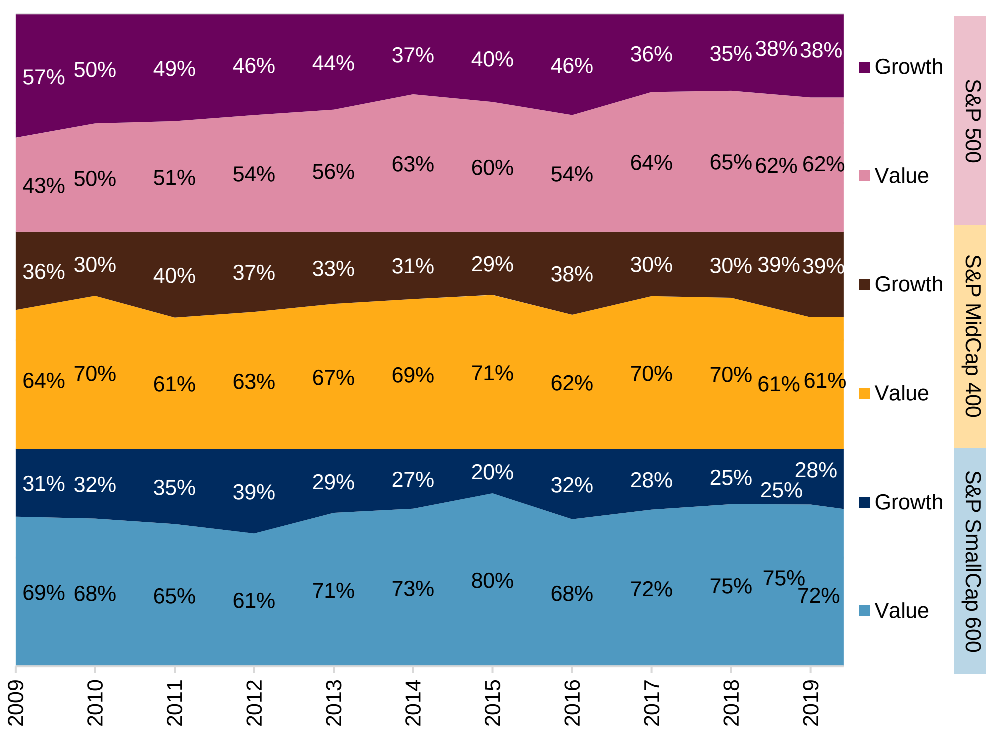
Companies from the Materials sector have typically had a value tilt, especially in mid and small caps. For example, Exhibit 9 shows the growth and value tilts of the Materials sector across large, mid, and small caps, based on year-end data between 2009 and 2019, as well as the YTD figure as of May 29, 2020.

Materials sector companies tend to be historically tilted toward value, especially in mid and small caps.

On average, 57% of the total market capitalization of S&P 500 Materials companies was found in the S&P 500 Value, versus the 43% allocated to the S&P 500 Growth. This value tilt increased in mid and small caps, where 66% and 71% of the respective Materials sector market capitalization was allocated to the corresponding value index.

S&P 500 Materials companies averaged about 57% value and 43% growth over the last 10 years.

Exhibit 9: Growth and Value Factor Tilts of the Large-, Mid-, and Small-Cap Materials Indices

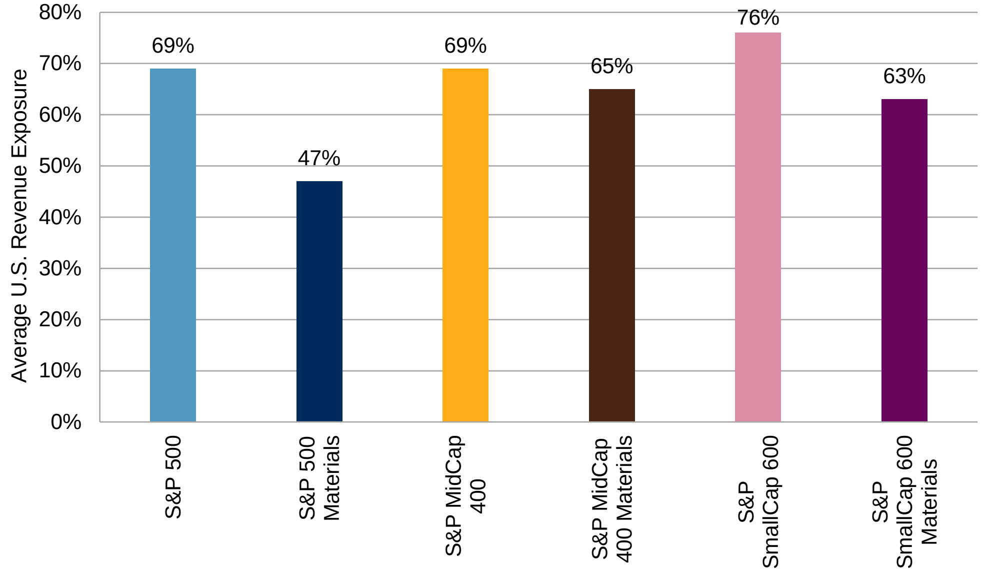


Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 2009, through May 29, 2020. Chart is provided for illustrative purposes.

In terms of revenue exposure, Materials companies typically source a relatively high proportion of their revenues from outside the U.S. Indeed, the sales-weighted average U.S. revenues for Materials companies were lower than their respective underlying indices across the market capitalization spectrum (see Exhibit 10). Hence, Materials companies are more likely to be affected by foreign policies and trade than other sectors.

In terms of revenue exposure, Materials companies are less insulated from regions outside the U.S.

Exhibit 10: Average U.S. Revenue Exposure



Source: S&P Dow Jones Indices LLC, FactSet GeoRev database. Data as of Dec. 31, 2019. Chart is provided for illustrative purposes.

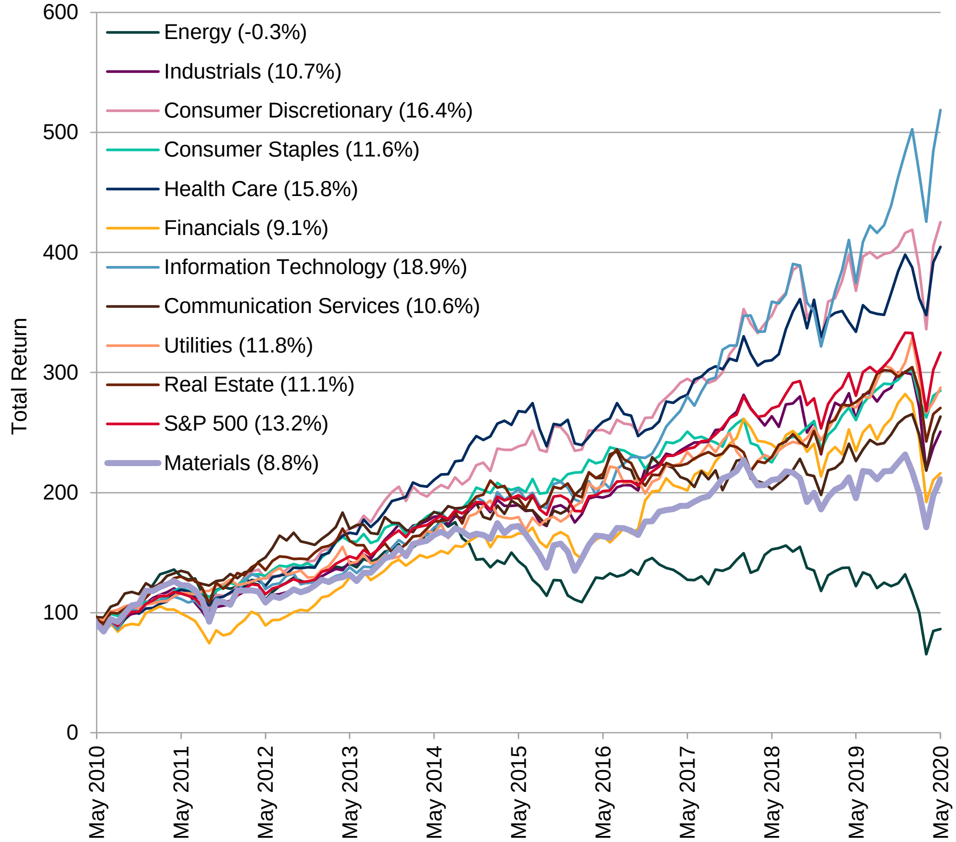
PERFORMANCE

S&P 500 Materials companies had an average U.S. revenue exposure of 47%.

Over the 12-month period ending May 29, 2020, Materials posted an 8.14% total return, which ranked sixth among S&P 500 sectors. Over a longer horizon, Materials underperformed the S&P 500 over the last decade (see Exhibit 11), while posting the second-highest annualized standard deviation of monthly returns. This resulted in a 10-year risk-adjusted return of 0.47—second lowest among the sectors (see Exhibit 12).

Over the 10-year period ending on May 29, 2020, Materials had an 8.8% annualized return.

Exhibit 11: S&P 500 Sector Indices 10-Year Total Return Comparison



Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Indices rebased to 100 on May 28, 2010. Index performance based on total return in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

In terms of risk, Materials was the fourth-highest sector.

Exhibit 12: Annualized Returns of S&P 500 Sector Indices

INDEX NAME	1-YEAR	3-YEAR	5-YEAR	10-YEAR
ANNUALIZED RETURN (%)				
S&P 500	12.84	10.23	9.86	13.15
S&P 500 Materials	8.14	3.80	4.15	8.84
S&P 500 Communication Services	16.42	7.70	6.79	10.61
S&P 500 Consumer Discretionary	15.58	12.98	12.25	16.42
S&P 500 Consumer Staples	9.39	4.36	6.90	11.56
S&P 500 Energy	-29.25	-12.13	-9.57	-0.25
S&P 500 Financials	-7.83	2.32	5.42	9.06
S&P 500 Health Care	21.15	12.88	8.60	15.81
S&P 500 Industrials	-3.81	1.70	5.77	10.74
S&P 500 Information Technology	38.42	22.82	20.65	18.90
S&P 500 Real Estate	-1.73	6.48	6.77	11.05
S&P 500 Utilities	6.09	7.14	9.86	11.78

Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Risk is defined as standard deviation calculated based on total returns using monthly values. Index performance based on total return in USD. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

The S&P 500 Materials offered a 10-year annualized risk-adjusted return of 0.47.

Materials was most correlated with Industrials, at 0.88.

Exhibit 12: Annualized Returns of S&P 500 Sector Indices (cont.)				
INDEX NAME	**1-YEAR**	**3-YEAR**	**5-YEAR**	**10-YEAR**
RISK				
S&P 500	22.75	16.94	14.81	13.57
S&P 500 Materials	28.66	19.87	19.28	18.63
S&P 500 Communication Services	22.13	18.76	17.26	15.31
S&P 500 Consumer Discretionary	28.14	21.30	18.11	16.37
S&P 500 Consumer Staples	14.12	13.30	12.20	11.15
S&P 500 Energy	53.42	35.12	29.50	24.71
S&P 500 Financials	29.89	21.92	19.91	18.40
S&P 500 Health Care	18.46	15.44	14.83	12.96
S&P 500 Industrials	26.85	21.32	18.34	16.97
S&P 500 Information Technology	22.00	19.20	17.69	16.27
S&P 500 Real Estate	20.75	15.86	15.26	15.36
S&P 500 Utilities	19.22	13.71	13.67	12.63
ANNUALIZED RISK-ADJUSTED RETURNS				
S&P 500	0.56	0.60	0.67	0.97
S&P 500 Materials	0.28	0.19	0.22	0.47
S&P 500 Communication Services	0.74	0.41	0.39	0.69
S&P 500 Consumer Discretionary	0.55	0.61	0.68	1.00
S&P 500 Consumer Staples	0.67	0.33	0.57	1.04
S&P 500 Energy	-0.55	-0.35	-0.32	-0.01
S&P 500 Financials	-0.26	0.11	0.27	0.49
S&P 500 Health Care	1.15	0.83	0.58	1.22
S&P 500 Industrials	-0.14	0.08	0.31	0.63
S&P 500 Information Technology	1.75	1.19	1.17	1.16
S&P 500 Real Estate	-0.08	0.41	0.44	0.72
S&P 500 Utilities	0.32	0.52	0.72	0.93

Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Risk is defined as standard deviation calculated based on total returns using monthly values. Index performance based on total return in USD. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Exhibit 13 shows the correlation in monthly returns, in USD, between the Materials sector and a variety of other indices over the last decade. Materials was most correlated with Industrials, the S&P Global Ex-U.S. BMI (0.86), and the S&P Canada BMI (0.85). It was least correlated with the S&P Japan BMI (0.61) and with Utilities.

Exhibit 13 also shows that there was a reasonably high correlation between the Materials sector returns and the performance of commodities. This was particularly the case with the S&P GSCI Industrial Metals, which includes Aluminum, Copper, Lead, Nickel, and Zinc. Given that many commodities came under pressure over the last 10 years—the S&P GSCI posted an annualized total return of -8.9% over the 10-year horizon ending May 29, 2020—this may help to explain why the Materials sector underperformed other market segments over the same horizon.

The Materials sector was least correlated with Utilities, at 0.20.

Regionally, Materials was most correlated with the S&P Global Ex-U.S. BMI and S&P Canada.

It was least correlated with the S&P Japan BMI.

Exhibit 13: Correlations of the S&P 500 Materials

S&P 500 SECTOR	CORRELATION	INDEX	CORRELATION
Industrials	0.88	S&P Global BMI	0.90
Consumer Discretionary	0.83	S&P Developed BMI	0.90
Financials	0.81	S&P Global Ex-U.S. BMI	0.86
Energy	0.80	S&P Developed Ex-U.S. BMI	0.85
Information Technology	0.76	S&P United States BMI	0.89
Health Care	0.70	S&P Canada BMI	0.85
Real Estate	0.59	S&P United Kingdom BMI	0.81
Consumer Staples	0.53	S&P Emerging BMI	0.80
Communication Services	0.48	S&P Germany BMI	0.80
Utilities	0.20	S&P Australia BMI	0.78
COMMODITIES	**CORRELATION**	S&P France BMI	0.77
S&P GSCI Copper	0.66	S&P China BMI	0.70
S&P GSCI Industrial Metals	0.62	S&P Korea BMI	0.70
S&P GSCI All Metals	0.60	S&P Switzerland BMI	0.68
S&P GSCI	0.56	S&P Japan BMI	0.61
		S&P 500	0.89
		S&P MidCap 400	0.87
		S&P SmallCap 600	0.83

Source: S&P Dow Jones Indices LLC. Correlations based on monthly total return data from May 2010 to May 2020. 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.

Exhibit 14 shows that the performance of Materials sector companies can vary, especially when comparing the more granular company groupings. Indeed, there is a wider range of returns between sub-industries compared to industries.

Performance of industry groups, industries, and sub-industries within the Materials sector has varied.

Exhibit 14: Annualized Returns of the S&P 500 Materials GICS Sub-Indices

INDEX	ANNUALIZED RETURN (%)			
	1-YEAR	3-YEAR	5-YEAR	10-YEAR
S&P 500 Materials	8.14	3.80	4.15	8.84
INDUSTRY GROUP				
S&P 500 Materials	8.14	3.80	4.15	8.84
INDUSTRY				
S&P 500 Chemicals	7.14	4.31	4.56	11.91
S&P 500 Commodity Chemicals	-10.38	-3.86	5.31	8.12
S&P 500 Diversified Chemicals	2.11	0.83	2.91	9.05
S&P 500 Fertilizers & Agricultural Chemicals	-2.55	-5.10	-0.62	8.01
SUB-INDUSTRY				
S&P 500 Industrial Gases	34.95	8.15	3.47	-1.36
S&P 500 Specialty Chemicals	-10.76	-3.48	-5.16	5.58
S&P 500 Construction Materials	9.07	-5.67	0.64	9.80
S&P 500 Construction Materials	1.80	2.12	-1.02	8.48
S&P 500 Containers & Packaging	16.06	18.06	14.40	14.50
S&P 500 Metal & Glass Containers	6.28	5.25	6.01	15.09
S&P 500 Paper Packaging	-10.38	-3.86	5.31	8.12
S&P 500 Metals & Mining	17.05	21.43	14.15	13.26
S&P 500 Copper	-5.32	-6.62	NA	NA
S&P 500 Gold	79.19	22.23	18.24	2.59
S&P 500 Steel	-8.91	-7.45	0.65	-2.05

Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

The Materials sector saw above-average constituent dispersions, and slightly below-average correlations.

Another way to show the variation of Materials companies' returns is to look at dispersion, which measures the index-weighted average standard deviation of constituent returns. In other words, it tells us the difference between the outperformers and laggards in a particular market or market segment.[1]

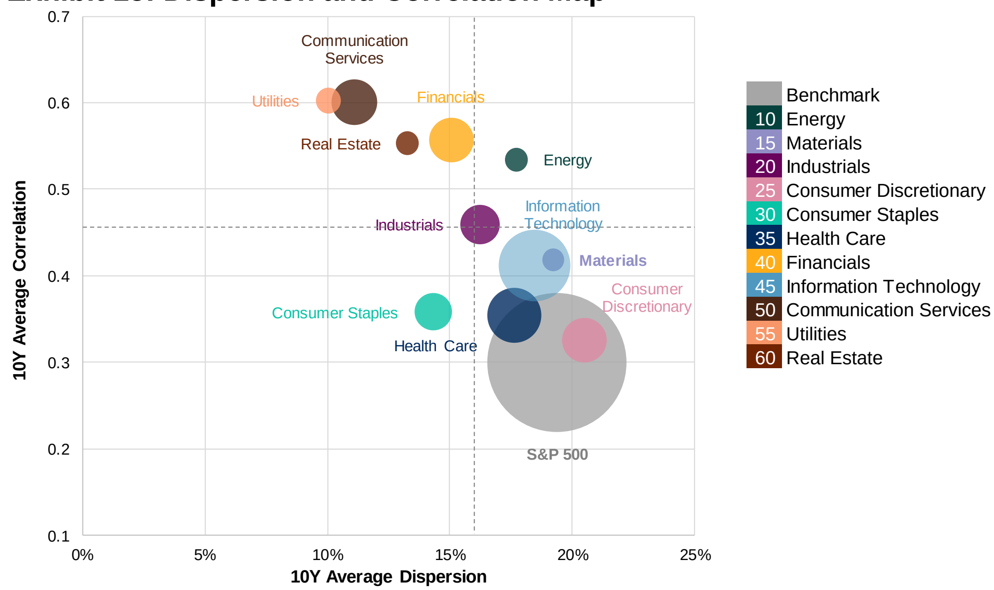
Exhibit 15 compares the average monthly correlation and dispersion figures for each S&P 500 sector over the 10-year period ending May 29, 2020. The Materials sector saw above-average constituent dispersions, and slightly below-average correlations. The sector's constituents showed a lower propensity to co-movement, and an above-average spread among constituent returns.[2]

[1] For an introduction to dispersion and some stylized facts regarding its applications and relationships to other risk measures, see Edwards, Tim and Craig J. Lazzara, "Dispersion: Measuring Market Opportunity," December 2013 and "The Landscape of Risk," December 2014

[2] For monthly updates on sector dispersion and correlation, please see our U.S. Sector Dashboard, which includes a S&P 500 Select Sector™ dispersion and correlation map. Sign up for other dashboard and scorecard emails here.

The sector's constituents showed a lower propensity to co-movement, and an above-average spread among constituent returns.

Exhibit 15: Dispersion and Correlation Map



Source: S&P Dow Jones Indices LLC. Data from May 31, 2010 through May 31, 2020. Index performance based on total return in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes. Please see the U.S. Sector Dashboard for more sector dispersion and correlation analysis.

CONCLUSION

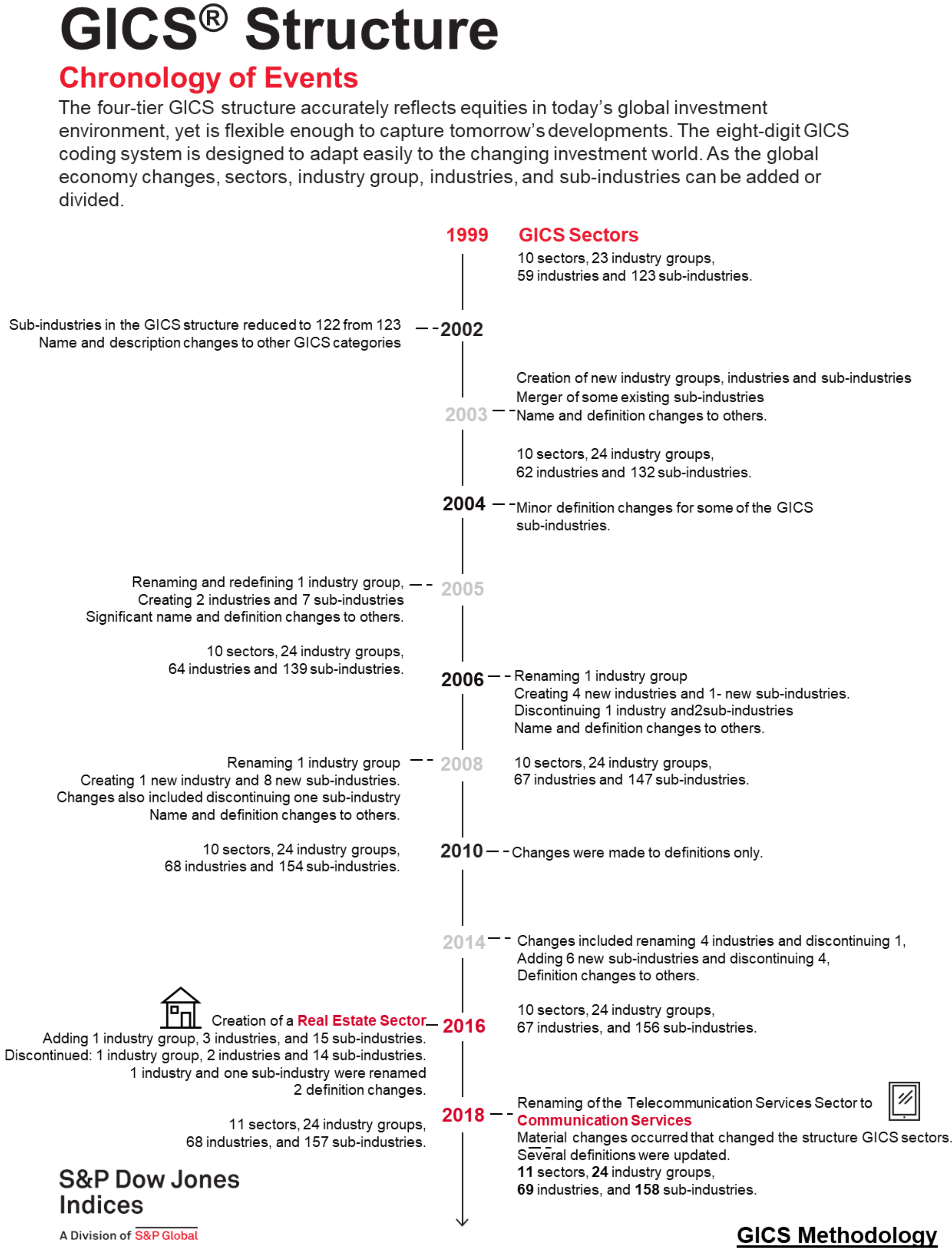
Materials companies tend to have higher foreign revenue exposure than the broader market benchmarks.

The S&P 500 Materials sector represents one of the 11 GICS sectors, and it accounted for 2.53% of the U.S. equity benchmark as of May 29, 2020. Within the sector, Chemicals and Specialty Chemicals have been the largest industry and sub-industry historically.

Companies from the Materials sector were typically titled toward value rather than growth, and historically they tend to have higher foreign revenue exposure than the broader market benchmarks across the market capitalization spectrum. The returns of the sector have been highly correlated to the Industrials sector and have exhibited reasonably high correlations with the S&P GSCI Industrial Metals.

APPENDIX A

Exhibit 16: A Chronology of GICS



Source: S&P Dow Jones Indices LLC. Data as of December 2019. Chart is provided for illustrative purposes.

APPENDIX B

Exhibit 17: Exchange-Traded Products Based on the GICS Materials Classification

EQUITY	PRODUCT NAME	PRODUCT TYPE	EXCHANGE	TICKER
MATERIALS				
Materials Select	S&P Materials Select Sector Index (SIXB)	Option	CHICAGO BOARD OPTIONS EXCHANGE	SIXB
Materials Select	E-mini S&P Materials Sector	Future	CHICAGO MERCANTILE EXCHANGE	XAB
S&P 500 Capped 35/20 Materials Sector	iShares S&P 500 Matrls Sect ETF USD Acc	ETF	LONDON STOCK EXCHANGE	IUMS
S&P Global 1200 Materials	iShares Global Materials ETF	ETF	NYSE ARCA	MXI
S&P Global 1200 Materials	iShares Global Materials ETF	ETF Option	NYSE ARCA	MXI
S&P SmallCap 600 Capped Materials	Invesco S&P SmallCap Materials ETF	ETF	NASDAQ	PSCM
S&P Materials Select Daily Capped 25/20	SPDR® S&P US Materials Select Sect ETF	ETF	LONDON STOCK EXCHANGE	SXLB
Materials Select	Materials Select Sector SPDR® ETF	ETF	NYSE ARCA	XLB
Materials Select	Materials Select Sector SPDR® ETF	ETF Option	NYSE ARCA	XLB
S&P Select Sector Capped 20% Materials	Invesco Materials S&P US Select Sec ETF	ETF	LONDON STOCK EXCHANGE	XLBS
S&P/TSX Capped Materials (CAD)	iShares S&P/TSX Capped Materials ETF	ETF	TORONTO STOCK EXCHANGE	XMA
S&P/TSX Capped Materials (CAD)	iShares S&P/TSX Capped Materials ETF	ETF Option	TORONTO STOCK EXCHANGE	XMA
S&P Metals & Mining Select Industry	SPDR® S&P Metals and Mining ETF	ETF	NYSE ARCA	XME

Source: S&P Dow Jones Indices LLC. Data as of May 29, 2020. Table is provided for illustrative purposes. This list includes investable products traded on certain exchanges currently linked to this selection of indices. While we have tried to include all such products, we do not guarantee the completeness or accuracy of such lists. For more information about S&P Dow Jones Indices' linked products, please visit our website.

FURTHER RESOURCES

GICS Methodology

Investment Theme: Sectors

Sector Primers

GICS Code	Sector Name
10	Energy
20	Industrials
25	Consumer Discretionary
30	Consumer Staples
35	Health Care
40	Financials
45	Information Technology

GICS Map Book

PERFORMANCE DISCLOSURE

The S&P 500 Real Estate was launched September 19, 2016. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at www.spdji.com. Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown.

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

The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

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

The Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices LLC maintains the Index and calculates the Index levels and performance shown or discussed, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US $100,000 investment for a 12-month period (or US $10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US $1,650), the net return would be 8.35% (or US $8,350) for the year. Over a three year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US $5,375, and a cumulative net return of 27.2% (or US $27,200).

GENERAL DISCLAIMER

 This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, S&P, Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other investment product or vehicle. S&P Dow Jones Indices LLC is not a tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice. Closing prices for S&P Dow Jones Indices' US benchmark indices are calculated by S&P Dow Jones Indices based on the closing price of the individual constituents of the index as set by their primary exchange. Closing prices are received by S&P Dow Jones Indices from one of its third party vendors and verified by comparing them with prices from an alternative vendor. The vendors receive the closing price from the primary exchanges. Real-time intraday prices are calculated similarly without a second verification.]

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.

The Global Industry Classification Standard (GICS®) was developed by and is the exclusive property and a trademark of S&P and MSCI. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.