

MSCI USA SECTOR INDEXES

WHY SECTORS ARE IMPORTANT

Institutional investors have traditionally constructed global equity portfolios using geographically based asset-allocation strategies, but as the global economy becomes more integrated, the differences between countries and regions have become less prominent.

At the same time, many sectors have exhibited unique returns regardless of their geographic location, making sector-based strategies attractive for their potential to help institutional investors' diversification efforts.

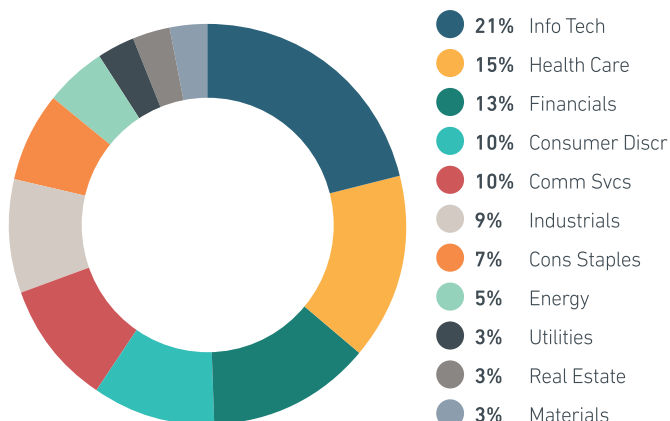
VIEWING MARKETS THROUGH THE LENS OF SECTOR INDEXING

Sector indexes provide precise tools to aid clients looking to segment a market, diversify a portfolio or manage risk. Sectors have historically demonstrated dynamic characteristics, yielding different returns in certain stages of the economic cycle. **The 11 MSCI USA Sector Indexes**, for example, historically demonstrated highly differentiated patterns of performance and volatility under various macroeconomic conditions and phases of the business cycle. Information regarding these divergences may prove valuable to investors seeking to track the movements of sector indexes for potential risk and return opportunities.

The MSCI USA Sector Indexes are derived from the broad MSCI USA Index, which as of December 2018 includes over 600 large and mid cap U.S. stocks and represents market capitalization of about \$22 trillion.

Each security in the MSCI USA equity universe is classified into one of 11 sectors, as defined by the Global Industry Classification Standard (GICS®), which

MSCI USA SECTOR WEIGHTS (DECEMBER 2018)



was developed in 1999 by MSCI and S&P Global. The pie chart illustrates the approximate weights of each sector within the U.S. economy as of December 2018.

MSCI USA IMI SECTOR INDEXES: DIVERSE HISTORICAL PERFORMANCE CHARACTERISTICS

The MSCI USA Sector Indexes displayed widely varied performance over the 2000-18 period, due in part to bursting of the dotcom bubble in 2000-01 and the global financial crisis of 2008. For example, the Information Technology sector produced total returns ranging from -42.7% in 2008 to 62.1% in 2009. In contrast, the Consumer Staples sector showed returns ranging from -15.8% in 2008 to 14.9% in 2009. The range of returns across the MSCI USA Sector Indexes within any given year during this period also demonstrated sizeable variation. The greatest breadth of total returns across all sectors occurred in 2000, when the top-performing Utilities sector returned 57.6%, while the lowest performer, Information Technology and Materials, returned -44.26%.

MSCI USA SECTOR INDEXES: ANNUAL TOTAL RETURNS AND ANNUALIZED VOLATILITY (2000-2018) (%)

	Energy	Materials	Industrials	Consumer Disc	Consumer Staples	Health Care	Financials	Information Tech	Comm Svcs	Utilities	Real Estate	USA
2000	15.05	-16.57	4.79	-24.99	12.45	34.00	25.92	-44.01	-39.26	57.57		-12.54
2001	-9.52	2.52	-8.45	-2.59	-6.87	-12.19	-8.76	-21.85	-14.50	-31.61		-12.03
2002	-11.45	-7.71	-24.78	-26.41	-4.61	-18.95	-14.34	-37.80	-34.86	-28.30		-22.71
2003	23.93	37.10	32.57	36.86	13.21	16.34	31.30	47.82	6.00	24.66		29.11
2004	31.34	12.50	18.25	12.46	8.36	2.67	11.36	1.46	15.08	24.09		10.71
2005	32.42	3.55	2.79	-6.12	4.42	7.73	6.66	3.62	-5.10	16.87		5.72
2006	21.80	16.58	13.50	17.56	14.24	6.81	19.39	8.21	37.58	20.31		15.32
2007	36.45	28.62	13.49	-11.31	14.23	6.53	-18.49	16.92	11.31	19.15		6.03
2008	-35.98	-47.85	-41.33	-36.38	-15.82	-22.27	-52.34	-42.73	-32.32	-30.51		-37.14
2009	17.01	48.32	22.32	42.41	14.90	20.52	14.55	62.13	12.07	10.56		27.14
2010	19.54	22.67	27.29	29.67	13.86	3.43	13.35	10.21	18.37	5.65		15.45
2011	3.87	-9.39	-0.79	4.80	13.71	12.52	-16.26	2.50	4.64	20.18		1.99
2012	3.90	15.35	16.00	24.74	10.95	18.45	28.08	14.83	18.87	1.69		16.13
2013	25.40	24.64	40.71	42.92	26.47	42.01	34.01	29.78	14.18	13.62		32.61
2014	-7.49	7.78	7.76	9.84	16.04	25.74	14.57	19.70	2.19	27.99		13.36
2015	-21.75	-7.56	-2.00	8.98	6.02	7.10	-0.73	5.27	3.54	-5.84		1.32
2016	25.86	16.23	18.87	6.22	5.65	-2.86	22.69	13.31	23.87	16.30	-5.89	11.61
2017	-0.60	24.48	21.76	23.37	12.97	21.73	22.05	38.69	-0.93	11.11	10.95	21.90
2018	-17.92	-15.82	-13.29	1.42	-8.48	6.29	-13.57	-0.16	-6.11	4.45	-2.69	-4.50
19-Yr Ann Volatility	19.94	21.04	17.82	18.19	11.82	13.69	20.70	24.17	19.77	15.70	11.26	14.62

¹ Real Estate was added as a new sector effective September 1, 2016, elevating its position from the Industry Group within the Financial Sector. For more information visit msci.com/gics

The distribution of risk among the MSCI USA Sector Indexes from 2000-18 was also quite variable. Sectors typically considered defensive, such as Consumer Staples and Health Care, showed an annualized volatility of 15% or less. The more volatile sectors -- such as Financials, Information Technology and Materials -- showed volatility exceeding 20%

MSCI USA SECTOR INDEX CORRELATION MATRIX

	USA	Energy	Materials	Industrials	Consumer Disc	Consumer Staples	Health Care	Financials	Information Tech	Comm Svcs	Utilities	Real Estate*
USA	1.00											
Energy	0.63	1.00										
Materials	0.82	0.65	1.00									
Industrials	0.90	0.61	0.82	1.00								
Consumer Disc	0.91	0.49	0.76	0.84	1.00							
Consumer Staples	0.55	0.35	0.48	0.54	0.48	1.00						
Health Care	0.67	0.38	0.51	0.61	0.55	0.63	1.00					
Financials	0.82	0.49	0.70	0.81	0.77	0.51	0.57	1.00				
Information Tech	0.84	0.39	0.60	0.66	0.77	0.23	0.38	0.54	1.00			
Communication Svcs	0.63	0.37	0.43	0.50	0.56	0.38	0.40	0.42	0.53	1.00		
Utilities	0.40	0.43	0.30	0.38	0.28	0.46	0.39	0.34	0.19	0.30	1.00	
Real Estate*	0.52	0.27	0.36	0.35	0.39	0.68	0.61	0.26	0.29	0.52	0.66	1.00

Correlation matrix data based on monthly returns from January 2000 to December 2018
 MSCI USA Real Estate* data based on monthly returns from September 2016 to December 2018

GICS®: THE INDUSTRY STANDARD

The force behind the MSCI USA Sector Indexes is the Global Industry Classification Standard (GICS®).

GICS is a common global classification standard used by thousands of market participants across asset managers, brokers (institutional and retail), custodians, consultants, research teams and stock exchanges. It consists of 11 sectors, 24 industry groups, 69 industries and 158 sub-industries.

GICS SECTOR DEFINITIONS

Energy Sector: Exploration and production, refining and marketing, and storage and transportation of oil, gas, coal and consumable fuels, equipment and services.

Materials Sector: Companies that manufacture chemicals, construction materials, glass, paper, forest products and related packaging products, and metals, minerals and mining companies, including steel producers.

Industrials Sector: Manufacturers and distributors of capital goods such as aerospace and defense, building products, electrical equipment and machinery; construction and engineering services; commercial and professional services, including printing, environmental and facilities services, office services and supplies, security and alarm services, human resource and employment services, research and consulting services; transportation services.

Consumer Discretionary Sector: Businesses that tend to be the most sensitive to economic cycles. Its manufacturing segment includes automotive, household durable goods, leisure equipment and textiles and apparel. The services segment includes hotels, restaurants and other leisure facilities, media production and services, and consumer retailing and services.

Consumer Staples Sector: Companies whose businesses are less sensitive to economic cycles: manufacturers and distributors of food, beverages and tobacco; producers of non-durable household goods and personal products; food and drug retailing, including hypermarkets and consumer super centers.

Health Care Sector: Providers and services, manufacturing and distribution of health care

equipment and supplies, and health care technology; research, development, production and marketing of pharmaceuticals and biotechnology products.

Financial Sector: Banking, thrifts and mortgage finance, specialized finance, consumer finance, asset management and custody banks; investment banking, brokerage and insurance; financial exchanges, data and mortgage real estate investment trusts (REITs).

Information Technology Sector: Software and information-technology services; manufacturers and distributors of technology hardware and equipment such as communications equipment, cellular phones, computers and peripherals; electronic equipment and related instruments; semiconductors.

Communication Services: The Communication Services Sector includes companies that facilitate communication and offer related content and information through various mediums. It includes telecom and media & entertainment companies including producers of interactive gaming products and companies engaged in content and information creation or distribution through proprietary platforms

Utilities Sector: Providers of electricity, gas and water; independent power producers and energy traders; generation and distribution of electricity as in renewable sources.

Real Estate Sector: Real estate development and operation, related services and equity REITs.

ABOUT MSCI

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