

MSCI WORLD COMMUNICATION SERVICES INDEX (USD)

The MSCI World Communication Services Index is designed to capture the large and mid cap segments across 23 Developed Markets (DM) countries*. All securities in the index are classified in the Communication Services sector as per the Global Industry Classification Standard (GICS®).

CUMULATIVE INDEX PERFORMANCE - NET RETURNS (USD) (DEC 2004 – DEC 2019)



ANNUAL PERFORMANCE (%)

Year	MSCI World Communication Services	MSCI World	MSCI ACWI
2019	27.39	27.67	26.60
2018	-10.02	-8.71	-9.41
2017	5.82	22.40	23.97
2016	5.66	7.51	7.86
2015	2.53	-0.87	-2.36
2014	-1.91	4.94	4.16
2013	31.24	26.68	22.80
2012	6.38	15.83	16.13
2011	0.78	-5.54	-7.35
2010	10.19	11.76	12.67
2009	13.67	29.99	34.63
2008	-32.98	-40.71	-42.19
2007	21.45	9.04	11.66
2006	31.88	20.07	20.95

INDEX PERFORMANCE — NET RETURNS (%) (DEC 31, 2019)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since Dec 29, 2000
MSCI World Communication Services	1.96	7.90	27.39	27.39	6.65	5.61	7.17	2.85
MSCI World	3.00	8.56	27.67	27.67	12.57	8.74	9.47	5.52
MSCI ACWI	3.52	8.95	26.60	26.60	12.44	8.41	8.79	5.61

FUNDAMENTALS (DEC 31, 2019)

Div Yld (%)	P/E	P/E Fwd	P/BV
1.72	22.13	18.17	2.94
2.32	20.03	17.00	2.57
2.36	19.25	16.34	2.42

INDEX RISK AND RETURN CHARACTERISTICS (DEC 31, 2019)

	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2, 3}			Since Dec 29, 2000	MAXIMUM DRAWDOWN (%)	Period YYYY-MM-DD
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr			
MSCI World Communication Services	1.67	11.77	12.02	12.67	0.46	0.42	0.55	0.24	76.97	2000-03-31—2002-09-30
MSCI World	2.56	11.29	11.68	13.00	0.95	0.68	0.71	0.38	57.82	2007-10-31—2009-03-09
MSCI ACWI	3.48	11.38	11.78	13.19	0.93	0.64	0.65	0.32	58.38	2007-10-31—2009-03-09

¹ Last 12 months

² Based on monthly net returns data

³ Based on ICE LIBOR 1M

* DM countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US.

The MSCI World Communication Services Index was launched on Sep 15, 1999. Data prior to the launch date is back-tested data (i.e. calculations of how the index might have performed over that time period had the index existed). There are frequently material differences between back-tested performance and actual results. Past performance -- whether actual or back-tested -- is no indication or guarantee of future performance.

INDEX CHARACTERISTICS

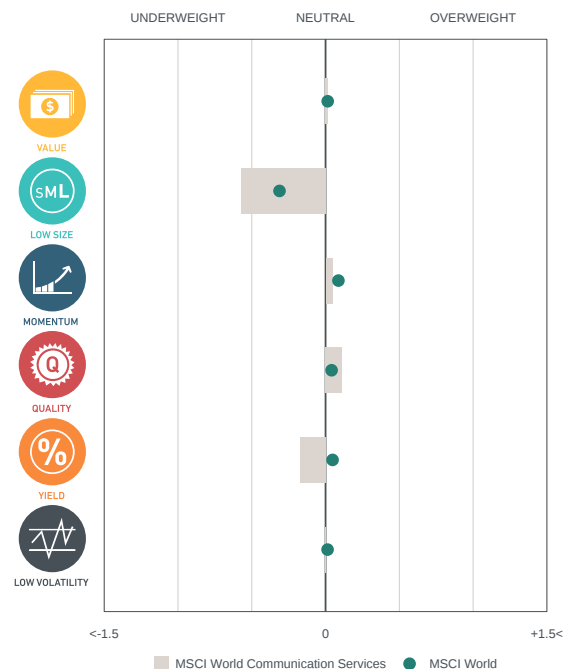
MSCI World Communication Services	
Number of Constituents	104
Mkt Cap (USD Millions)	
Index	3,751,189.09
Largest	493,774.67
Smallest	1,750.52
Average	36,069.13
Median	9,041.32

TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)
FACEBOOK A	US	493.77	13.16
ALPHABET C	US	417.97	11.14
ALPHABET A	US	401.19	10.70
AT&T	US	285.56	7.61
DISNEY (WALT)	US	260.53	6.95
VERIZON COMMUNICATIONS	US	253.95	6.77
COMCAST CORP A (NEW)	US	203.96	5.44
NETFLIX	US	141.67	3.78
CHARTER COMM A (NEW)	US	75.20	2.00
SOFTBANK GROUP CORP	JP	68.59	1.83
Total		2,602.40	69.38

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



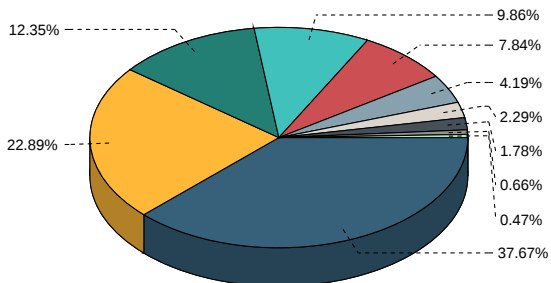
MSCI FaCS

- **VALUE**
Relatively Inexpensive Stocks
- **LOW SIZE**
Smaller Companies
- **MOMENTUM**
Rising Stocks
- **QUALITY**
Sound Balance Sheet Stocks
- **YIELD**
Cash Flow Paid Out
- **LOW VOLATILITY**
Lower Risk Stocks

MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

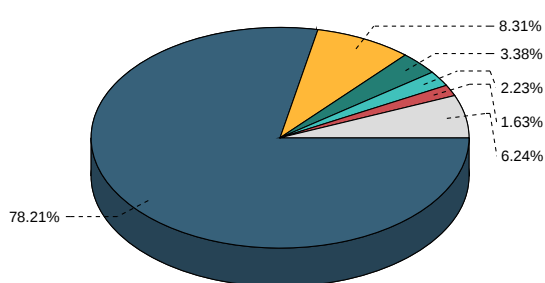
Neutral factor exposure (FaCS = 0) represents MSCI ACWI IMI.

SUB-INDUSTRY WEIGHTS



- Interactive Media & Services 37.67%
- Integrated Telecommunication Services 22.89%
- Movies & Entertainment 12.35%
- Cable & Satellite 9.86%
- Wireless Telecommunication Services 7.84%
- Interactive Home Entertainment 4.19%
- Advertising 2.29%
- Broadcasting 1.78%
- Alternative Carriers 0.66%
- Publishing 0.47%

COUNTRY WEIGHTS



- United States 78.21%
- Japan 8.31%
- United Kingdom 3.38%
- France 2.23%
- Germany 1.63%
- Other 6.24%

INDEX METHODOLOGY

The index is based on the [MSCI Global Investable Market Indexes \(GIMI\) Methodology](#) —a comprehensive and consistent approach to index construction that allows for meaningful global views and cross regional comparisons across all market capitalization size, sector and style segments and combinations. This methodology aims to provide exhaustive coverage of the relevant investment opportunity set with a strong emphasis on index liquidity, investability and replicability. The index is reviewed quarterly—in February, May, August and November—with the objective of reflecting change in the underlying equity markets in a timely manner, while limiting undue index turnover. During the May and November semi-annual index reviews, the index is rebalanced and the large and mid capitalization cutoff points are recalculated.

FACTOR BOX AND FaCS METHODOLOGY

MSCI FaCS is a standard method ([MSCI FaCS Methodology](#)) for evaluating and reporting the Factor characteristics of equity portfolios. MSCI FaCS consists of Factor Groups (e.g. Value, Size, Momentum, Quality, Yield, and Volatility) that have been extensively documented in academic literature and validated by MSCI Research as key drivers of risk and return in equity portfolios. These Factor Groups are constructed by aggregating 16 factors (e.g. Book-to-Price, Earnings/Dividend Yields, LT Reversal, Leverage, Earnings Variability/Quality, Beta) from the latest Barra global equity factor risk model, GEMLT, designed to make fund comparisons transparent and intuitive for use. The MSCI Factor Box, which is powered by MSCI FaCS, provides a visualization designed to easily compare absolute exposures of funds/indexes and their benchmarks along 6 Factor Groups that have historically demonstrated excess market returns over the long run.

ABOUT MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit www.msci.com.

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