

MSCI EUROPE BUYBACK YIELD INDEX (USD)

The MSCI Europe Buyback Yield Index is based on the MSCI Europe Index, its parent index, and includes large and mid-cap stocks across 15 Developed Markets (DM) countries*. The index is designed to reflect the performance of companies that return capital to shareholders through share buybacks. The index seeks to avoid companies whose buybacks are structured to offset other sources of issuance (ESOPs etc.) by capturing buyback yield adjusted for issuance. The index includes all the securities in the Parent Index with Buyback Yield greater than 10bps and are weighted by the product of their market capitalization weight and the buyback yield score.

CUMULATIVE INDEX PERFORMANCE - NET RETURNS (USD) (DEC 2003 – DEC 2018)



ANNUAL PERFORMANCE (%)

Year	MSCI Europe Buyback Yield	MSCI Europe
2018	-11.98	-14.86
2017	23.69	25.51
2016	3.18	-0.40
2015	-0.16	-2.84
2014	-1.83	-6.18
2013	22.92	25.23
2012	15.17	19.12
2011	-5.28	-11.06
2010	7.33	3.88
2009	34.73	35.83
2008	-41.26	-46.42
2007	23.55	13.86
2006	31.75	33.72
2005	8.78	9.42

INDEX PERFORMANCE — NET RETURNS (%) (DEC 31, 2018)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since May 31, 1999
MSCI Europe Buyback Yield	-2.77	-7.81	-11.98	-11.98	3.95	1.94	7.88	7.62
MSCI Europe	-4.62	-12.72	-14.86	-14.86	2.10	-0.61	6.15	3.50

FUNDAMENTALS (DEC 31, 2018)

Div Yld (%)	P/E	P/E Fwd	P/BV
3.84	15.48	12.98	1.92
4.02	14.08	11.84	1.61

INDEX RISK AND RETURN CHARACTERISTICS (MAY 31, 1999 – DEC 31, 2018)

	Beta	Tracking Error (%)	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2,3}			Since May 31, 1999 (%)	MAXIMUM DRAWDOWN	
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		Period YYYY-MM-DD	
MSCI Europe Buyback Yield	0.85	5.93	57.74	11.39	12.44	16.48	0.29	0.15	0.51	0.41	57.43	2007-12-10—2009-03-09
MSCI Europe	1.00	0.00	1.58	12.23	12.71	18.11	0.13	-0.05	0.39	0.17	62.99	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 in Europe include: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK.

The MSCI Europe Buyback Yield Index was launched on Jun 04, 2015. 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

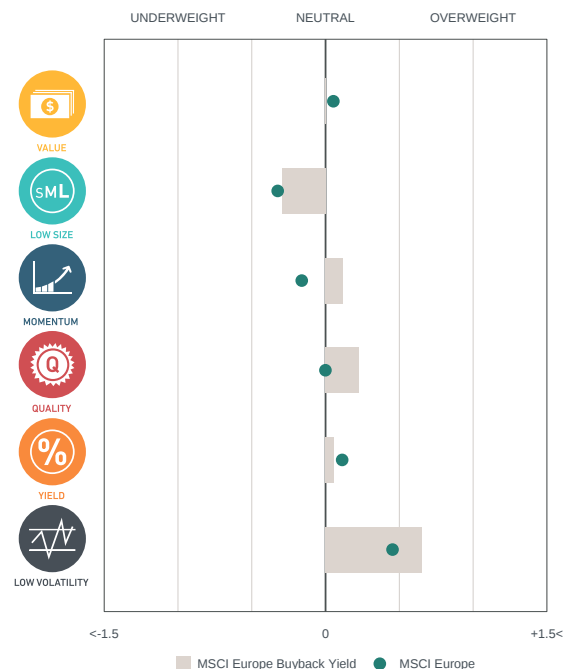
	MSCI Europe Buyback Yield	MSCI Europe
Number of Constituents	66	439
	Weight (%)	
Largest	6.27	3.18
Smallest	0.06	0.02
Average	1.52	0.23
Median	0.82	0.11

TOP 10 CONSTITUENTS

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
SANOFI	FR	6.27	1.25	Health Care
IBERDROLA	ES	6.05	0.63	Utilities
UNILEVER PLC (GB)	GB	5.26	0.76	Cons Staples
DIAGEO	GB	5.18	1.12	Cons Staples
ALLIANZ	DE	5.01	1.10	Financials
NOVARTIS	CH	4.81	2.37	Health Care
RIO TINTO PLC (GB)	GB	4.54	0.72	Materials
MUENCHENER RUECKVERSICH	DE	4.26	0.42	Financials
NOVO NORDISK B	DK	4.01	1.06	Health Care
NOKIA CORP	FI	3.73	0.42	Info Tech
Total		49.13	9.84	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



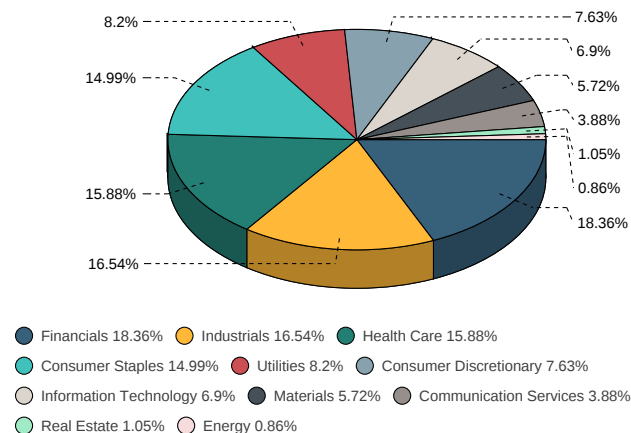
MSCI FaCS

- 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

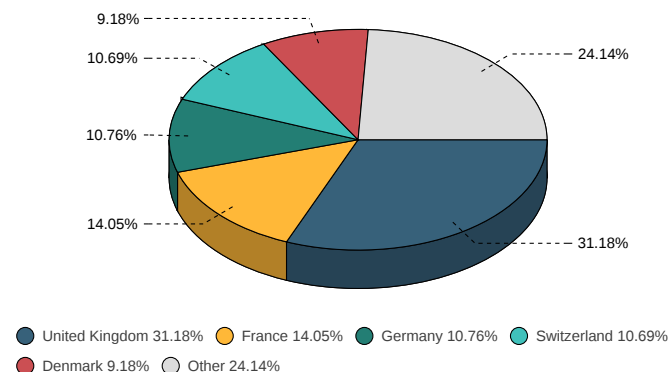
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

SECTOR WEIGHTS



COUNTRY WEIGHTS



INDEX METHODOLOGY

Buyback yield is calculated at issuer level as the ratio of trailing 12 month number of common shares outstanding adjusted for relevant corporate events and the current common number of shares outstanding. Preferred stocks and other share types such as units, warrants etc. are excluded from the buyback yield calculation. Securities from the Parent Index that have a buyback yield value greater than 10 bps are included to form the eligible universe. All the securities in the eligible universe are weighted by the product of their market capitalization weight in the parent index and their buyback yield score. Issuer weights are capped at 5%. The buyback yield indexes are rebalanced annually, as of the close of the last business day of May.

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

For more than 40 years, MSCI' research-based indexes and analytics have helped the world' leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research. Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research. MSCI serves 99 of the top 100 largest money managers, according to the most recent P&I ranking. For more information, visit us at www.msci.com.

The information contained herein (the "Information") may not be reproduced or disseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information or any MSCI index is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "MSCI PARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not be by applicable law be excluded or limited.

© 2019 MSCI Inc. All rights reserved.