

Indexing 360°: MSCI EMU vs EURO STOXX 50

UBS ETF **Market Matters**



- Investors often choose between broad market and blue chip indices for core portfolios. For Eurozone equities, popular benchmarks include the broad MSCI EMU and blue-chip EURO STOXX 50.
- The MSCI EMU index has on average outperformed the EURO STOXX 50 by 80 bps annually since 1999. MSCI EMU includes mid-cap stocks which are increasingly relevant and may provide excess returns associated with the size factor.
- Index construction methodologies have implications for country and sector allocations which may affect performance.
- MSCI country indices fare well in comparison to blue-chip stocks for most European markets.

Passive investing has developed as a convenient, liquid, and cost-efficient way to invest in flagship indices covering broad markets (e.g., S&P500) and blue chip stocks (e.g., Dow Jones 30). They constitute the core of passive portfolios and provide investors with the equity risk premium for bearing (undiversifiable) market risk. Investors have ample access to these exposures via ETFs, index funds, mandates, and other passive vehicles.

Broad market versus blue chips

Investors may consider differentiating features when deciding on the right benchmark. In the case of Eurozone equities, a popular choice is either the MSCI EMU or the EURO STOXX 50. MSCI EMU is a broad market index that selects companies which account for about 85% of the total market capitalization on a free-float adjusted basis. In contrast, the EURO STOXX 50 is a bluechip index that includes the 50 largest companies in the Eurozone (also free-float adjusted).

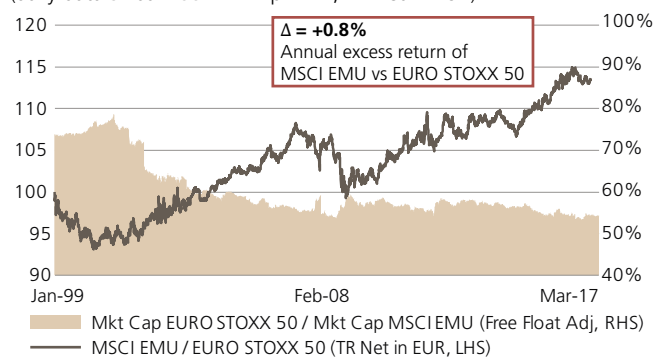
The MSCI EMU includes mid-cap stocks and has on average outperformed the EURO STOXX 50 by 80 bps per annum since Jan '99 (Figure 1). It is consistent with the premise that smaller companies tend to provide higher returns (i.e., the size factor premium). Indeed, the smallest company in MSCI EMU is worth EUR 2.7, while in EURO STOXX 50 it stands at EUR 15.9 bn (as of April 2017).

Market coverage

The MSCI EMU Index maintains a coverage of 85% of the total market capitalization and thus has provided good market representation and diversification through the years. In contrast, the EURO STOXX 50 market coverage has declined: in 1999 it represented 73% of MSCI EMU, but that has now decreased to 54% in 2017 (Figure 1).

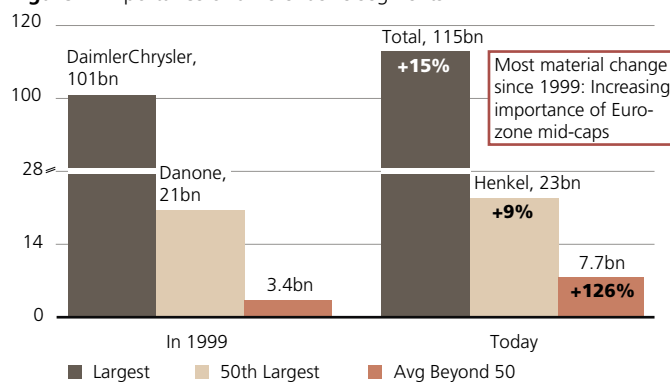
The EURO STOXX 50 has become less representative due to the growing relevance of mid-cap stocks. For example, in 1999 a company outside the top 50 rank by market cap in the MSCI EMU was worth on average EUR 3.4bn, but that has increased by as much as 126% to EUR 7.7bn by 2017 (Figure 2). Over the same period, the single largest company saw its market capitalization grow by a modest 14%, while the 50th largest company by only 9%. Moreover, it's reasonable to expect the relevance of the top 50 stocks to decrease over time as this fixed number will be an increasingly smaller fraction of the total number of listed companies.

Figure 1: Relative performance of MSCI EMU vs Euro Stoxx 50 (daily data 31 Jan '99 – 14 April '17, TR Net in EUR)



Source: Bloomberg, UBS Asset Management, data as of 13 April, 2017.

Figure 2: Importance of different size segments



Source: UBS Asset Management, data as of 28 February 2017.



Index construction methodologies

MSCI EMU

MSCI standard indices aim to cover 85% of the investible market capitalization on a free-float adjusted basis¹. MSCI EMU is constructed using a bottom up approach which sums up MSCI indices for individual Eurozone countries, each of which also covers 85% of a single country market. This ensures that MSCI EMU exhibits good country diversification. The indices are rebalanced quarterly and semi-annually to ensure timely updates reflecting market changes.

EURO STOXX 50

EURO STOXX 50 selects the 50 largest companies in the Eurozone subject to certain industry constraints. Specifically, a selection list of companies is first created to include stocks covering 60% of the free-float adjusted market capitalization within each of 19 EURO STOXX Supersector indices. Subsequently, 40 of the largest stocks are selected from this universe and additional top 10 stocks are taken from a buffer group of existing index constituents ranked between 41 and 60 by market capitalization.² The minimum liquidity requirements of the parent EURO STOXX index are applied. The index is fully reviewed annually, while the components are capped at 10% every quarter.

¹ For further details on index methodology see "MSCI Global Investable Market Indexes Methodology Summary", May 2014 or the official index methodology document. For example, MSCI considers a company to be investible if it meets the minimum market caps, free-float and liquidity requirements.

² For detail on index methodology see "STOXX® Index Methodology Guide (Portfolio Based Indices)", March 2017.

Sector and country allocations

MSCI EMU and EURO STOXX 50 have different country allocations. For example, MSCI EMU has an underweight of about 4% to Germany and France relative to the EURO STOXX 50 (Figure 3). That is likely because these two countries have the biggest domestic markets and thus some of the largest companies. The MSCI EMU methodology (i.e., bottom up country-by-country aggregation) ensures that country allocation are in close proportion to the respective stock market caps, while EURO STOXX 50 selects companies irrespective of domicile countries.

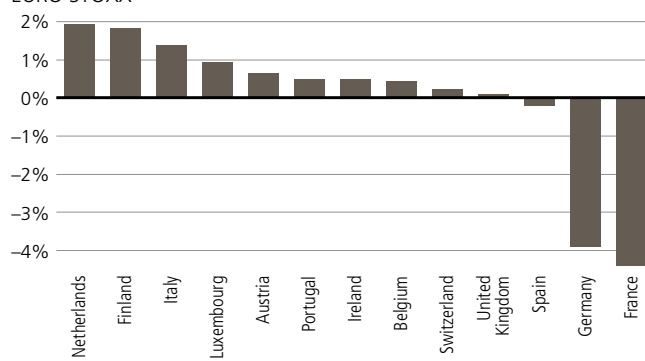
Similarly, the index construction methodologies have implications for sector allocations with MSCI EMU having for example a 2.5% overweight in Consumer Discretionary and about a 2% underweight in Materials and Financials (Figure 4). MSCI EMU is sector agnostic, while EURO STOXX 50 has industry constraints such that it can include no more than 60% of the free-float market capitalization of any of the EURO STOXX Supersector indices.

Country indices

Another relevant question is whether to choose broad market or blue chip indices for individual countries. Comparing annualized return differentials across five major European markets reveals that broad market MSCI indices in most cases outperformed regional blue-chips (data from Jan '99 to March '17). The largest differential is for Switzerland of 20 bps per annum, followed by Spain with 18 bps (Figure 5).

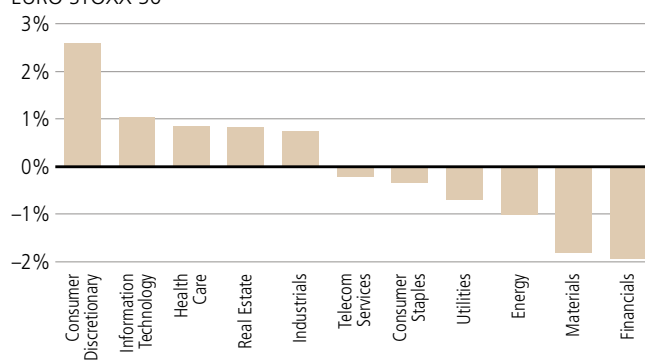
The country blue-chip indices select a different number of stocks: the Swiss SMI index picks the largest 20, Spanish Ibex takes 35, German DAX chooses 30, British FTSE picks 100, and French CAC40 selects top 40. It is clear that the EURO STOXX 50 has a much higher threshold in terms of size than these regional blue chip indices, but they still have a bias towards large stocks relative to corresponding MSCI country indices. Hence the size factor is also relevant, although its impact is considerably smaller than in the case of MSCI EMU vs. EURO STOXX.

Figure 3: MSCI EMU country overweights and underweights vs EURO STOXX



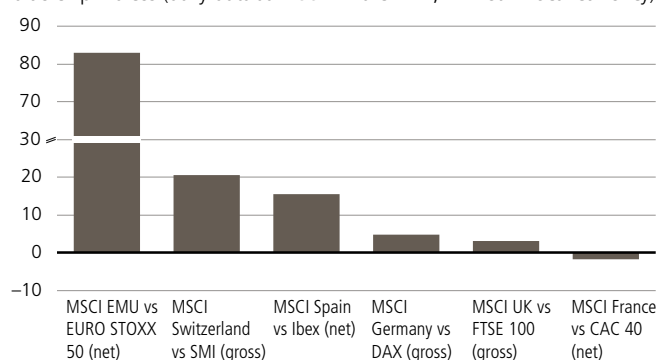
Source: Bloomberg, UBS Asset Management, data as of 26 April 2017.

Figure 4: MSCI EMU sector overweights and underweights vs EURO STOXX 50



Source: Bloomberg, UBS Asset Management, data as of 26 April 2017.

Figure 5: Average annualized differential between MSCI indices and blue chip indices (daily data Jan '99 – March '17, TR Net in local currency)



Source: Bloomberg, UBS Asset Management, data as of 31st March, 2017.

Past performance is not indicative of possible future returns.

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Fund Name	Fee	AuM (CHFm)	NAV ccy	Replication	Distribution	ISIN	Bloomberg
UBS ETF (LU) EURO STOXX 50 UCITS ETF	0.15%	727	EUR	Physical	Yes	LU0136234068	E50EUA SW
UBS ETF (LU) MSCI EMU UCITS ETF	0.18%		EUR	Physical	Yes	LU0147308422	EMUEUA SW
UBS ETF (LU) MSCI EMU UCITS ETF	0.18%	3'268	EUR	Physical	No	LU0950668870	EMUAA SW
UBS ETF (LU) MSCI EMU hedged SGD UCITS ETF	0.28%		SGD	Physical	No	LU1169820641	EMUP SW
UBS ETF (LU) MSCI EMU hedged CHF UCITS ETF	0.28%	481	CHF	Physical	No	LU0950669175	EUCHBH SW
UBS ETF (LU) MSCI EMU hedged GBP UCITS ETF	0.28%		GBP	Physical	Yes	LU0937835733	EUGBAH SW
UBS ETF (LU) MSCI EMU hedged GBP UCITS ETF	0.28%	104	GBP	Physical	No	LU0950669688	EUGBBH SW
UBS ETF (LU) MSCI EMU hedged USD UCITS ETF	0.28%		USD	Physical	Yes	LU0937835576	EUUSAH SW
UBS ETF (LU) MSCI EMU hedged USD UCITS ETF	0.28%	1'064	USD	Physical	No	LU0950669415	EUUSBH SW
UBS ETF (LU) FTSE 100 UCITS ETF	0.20%	139	GBP	Physical	Yes	LU0136242590	100GBA SW
UBS ETF (IE) FTSE 100 SF UCITS ETF	0.22%	15	GBP	Synthetic	No	IE00B3X0KQ36	F1GBAS SW
UBS ETF (LU) MSCI United Kingdom UCITS ETF	0.20%		GBP	Physical	Yes	LU0937836467	UKGBPA SW
UBS ETF (LU) MSCI United Kingdom UCITS ETF	0.20%	913	GBP	Physical	No	LU0950670850	UKGBPB SW
UBS ETF (LU) MSCI United Kingdom hedged SGD UCITS ETF	0.30%		SGD	Physical	No	LU1169821615	UKSGD SW
UBS ETF (LU) MSCI United Kingdom hedged CHF UCITS ETF	0.30%	677	CHF	Physical	No	LU0950671072	UKCHBH SW
UBS ETF (LU) MSCI United Kingdom hedged EUR UCITS ETF	0.30%		EUR	Physical	Yes	LU0937836970	UKEUAH SW
UBS ETF (LU) MSCI United Kingdom hedged EUR UCITS ETF	0.30%	469	EUR	Physical	No	LU0950671239	UKEUBH SW
UBS ETF (LU) MSCI United Kingdom hedged USD UCITS ETF	0.30%		USD	Physical	Yes	LU0937837275	UKUSAH SW
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UBS ETF (CH) SMI®	0.20%	1'488	CHF	Physical	Yes	CH0017142719	SMICHA SW
UBS ETF (CH) MSCI Switzerland	0.20%	341	CHF	Physical	Yes	CH0226274246	SWICHA SW
UBS ETF (CH) MSCI Switzerland hedged EUR	0.30%	79	EUR	Physical	Yes	CH0226274204	SWEUAH SW
UBS ETF (CH) MSCI Switzerland hedged USD	0.30%	276	USD	Physical	Yes	CH0226274212	SWUSAH SW
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UBS ETF (LU) MSCI Switzerland hedged USD UCITS ETF	0.30%	151	USD	Physical	No	LU0977261089	S2USBH SW

Source: UBS Asset Management, data as of 28 April 2017

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