

UBS ETF *Market Matters*

Equity Benchmarks: Half-Year Review

- This study looks into the half-year performance of global equity benchmarks. It covers developed as well as emerging markets, and particular attention is placed on Eurozone equities.
- The year-to-date performance is related to long-term return, which allows one to spot some outliers and inliers. Similarly, the study looks into basic valuation ratios. Overall, developed equities have performed better than emerging equities (with some exceptions like China or Russia).
- Within Eurozone equities, we look into several indices covering style investing, sector exposure and small-caps.

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During 1H-2015, global equity markets experienced mixed performance due to a variety of factors. Local markets responded differently to monetary policies and economic growth prospects. This review looks into the equity benchmarks as of 30 June 2015 (excluding the China turmoil of the few last days). The focus is on one family of indices. The analysis is carried out for one currency, the US dollar, and covers developed as well as emerging markets. In addition, particular attention is placed on Eurozone equities.

Outliers vs. Inliers

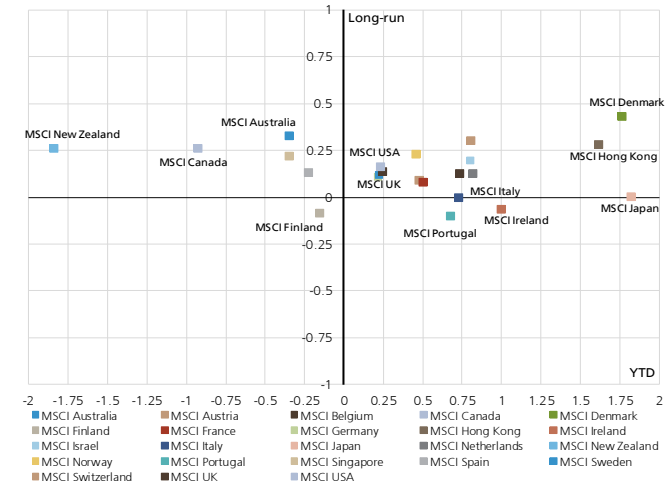
Figure 1 shows the scatter-plot of year-to-date (YTD) vs. long-term performance (calculated back to January 2000) for developed equities (individual countries of the MSCI World Index). The performance is measured in total return terms and is risk-adjusted, with risk being measured by standard deviation of daily net returns. Key highlights:

1. Eurozone countries (incl. Italy, Ireland and Portugal) were bright spots so far, as compared to a zero (or negative) average return since 2000. This is mostly driven by the monetary easing of the European Central Bank and the expected Eurozone recovery in the coming years.
2. The Japanese market moved substantially away from the long-run zero-return (as it did in 2013) by delivering solid gains (*Abenomics*).
3. Denmark and Hong-Kong have outstanding return YTD. The Hong Kong market benefited from a China equity rally earlier this year. The Denmark equity benchmark is heavily driven (nearly 50% of the index weight) by the performance of Novo Nordisk, whose capitalisation increased by approx. 30% YTD.
4. The USA and UK markets grew YTD at their approximate long-term average rates.
5. Commodity-driven markets (New Zealand, Canada and Australia) have a negative return YTD, which is in sharp contrast to the long-run performance of these markets, but in line with the weak performance of commodities.

Figure 2 shows the similar relation for the emerging equities, i.e. countries of the MSCI Emerging Markets Index. Key highlights:

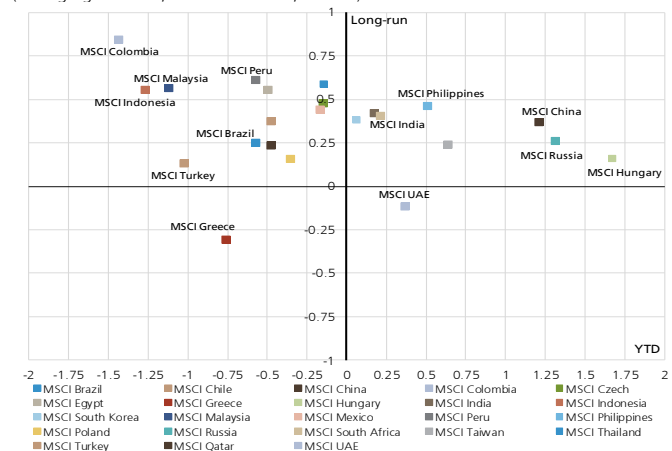
6. Most of the emerging markets have been negative YTD (in particular in the USD terms), with a few exceptions.
7. Chinese equities performed well YTD, despite substantial volatility (the turmoil accelerated with the beginning of July).
8. Hungarian equities have featured outstanding performance. It appears that investors factored in the expected decrease in the bank tax, which could help credit.
9. Russian equities have been recovering from the heavy sell-off resulting from the Russia/Ukraine crisis that escalated in 2014.
10. Several emerging markets (Colombia, Indonesia or Malaysia) have been hit badly, mostly due to local currency devaluations.

Figure 1: Volatility-Adjusted Performance: YTD vs. Long-Run (developed markets, total return net, in USD)



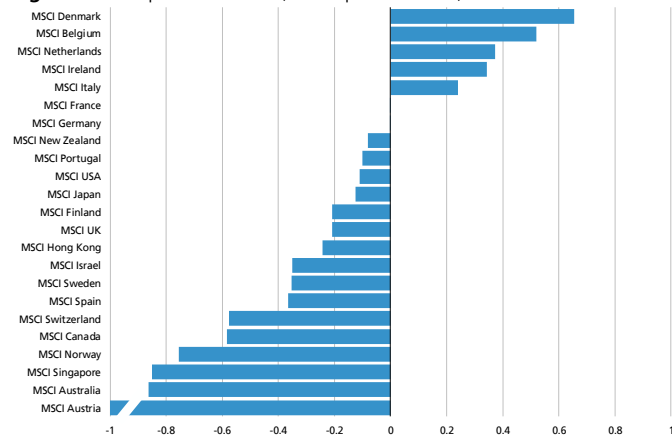
Source: MSCI, Bloomberg, UBS Global AM, as of 30 June 2015

Figure 2: Volatility-Adjusted Performance: YTD vs. Long-Run (emerging markets, total return net, in USD)



Source: MSCI, Bloomberg, UBS Global AM, as of 30 June 2015

Figure 3: Composite Z-score (developed markets)



Source: MSCI, UBS Global AM, as of 30 June 2015

Overall, developed equities have performed so far better than emerging equities (with some exceptions; China or Russia). The world economies have substantially diverse expected economic growth rates, which clearly has meaningful impact on equity performance. As a result, a number of *outliers* emerged (too good performance to be true?) as well as *inliers* (sale occasion at some point?). For the remainder of 2015, there is therefore a number of *goings-on* that investors should keep on their radar screen: Grexit, China Equity Market Turmoil, Fed Monetary Policy or Brexit, to mention just a few.

Equity Valuations

In addition to performance, one can analyse the current landscape of standard valuation multiples, on a country basis. We look at the simple composite *ratio Z-score*¹ defined by average of price-to-earnings ratio, price-to-book value ratio and price-to-dividend ratio. The Z-score is simply an indicative measure increasing (decreasing) when the current ratios are too high (too low), compared to their long-term averages, on a country basis. The zero score would imply that all ratios are at their long-term averages, whilst a negative (positive) score that it is a value (growth) universe. **Figure 4** and **Figure 5** show scores for the developed and emerging markets, respectively. The major equity markets (EMU, USA or Japan) appear to trade near proximity of their long-term scores. In some cases a higher multiple is compensated through higher dividend yield (note value means higher-than-average dividend yield), e.g. Swiss dividend-paying equities appear attractive, yielding significantly more than Swiss franc bonds. MSCI Australia, MSCI Hong Kong and MSCI Singapore trade at relatively low multiples (MSCI Austria has very narrow and concentrated exposure). As for emerging markets, the case of MSCI Korea appears counterintuitive. This universe is dominated by Samsung Electronics Co., which currently trades at lower ratios.

Zoom into Eurozone Equities

Despite the Greek-related risks, UBS Chief Investment Office maintains its overweight position for Eurozone equities (Source: UBS House View, Chief Investment Office WM, July 2015). The ECB will most likely continue with the EUR 60bn worth of asset purchases a month until September 2016, which is expected to support economic acceleration. Within Eurozone equities, one can analyse several equity benchmarks:

- MSCI EMU (standard market-cap large and mid-caps)
- MSCI EMU Value and Growth (style investing)
- MSCI EMU Cyclical and Defensive Sectors (sector exposure)
- MSCI EMU Small Cap (size premium)

Figure 5 shows the performance of these equity indices over the last ten years. The small-caps have delivered the best performance YTD, whilst growth stocks in risk-adjusted terms over the long period (measured by Sharpe ratio), see **Table 1**. In contrast, value stocks significantly underperformed the broad market and other exposures as well. The MSCI EMU Value has a current slight bias towards more cyclical sectors, and UBS CIO believes that these stocks (with more cyclical drive) should catch up in the coming months (Source: UBS Chief Investment Office WM, *Eurozone value: Investing in style*, June 2015).

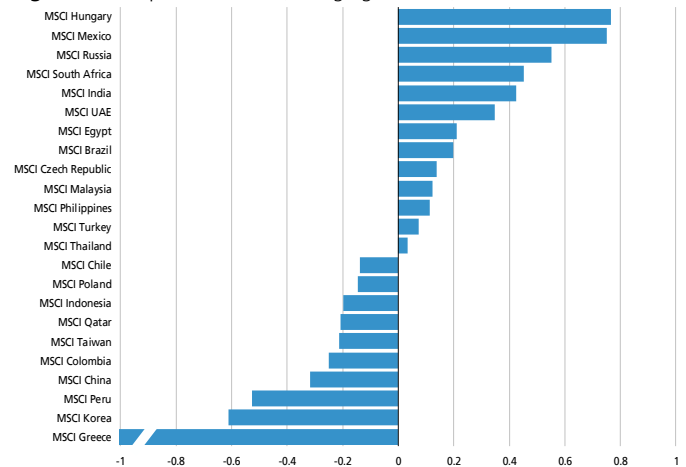
UBS Global Asset Management offers a wide range of regional building block ETFs, incl. currency hedged share classes, see **Table 2**. In addition, UBS Global Asset Management offers a wide range of ETFs for the Eurozone exposures, see Table 2.

¹ The composite *ratio Z-score* is defined by:

$$Z = \frac{1}{3} \frac{P/E_t - \mu_{P/E}}{\sigma_{P/E}} + \frac{1}{3} \frac{P/BV_t - \mu_{P/BV}}{\sigma_{P/BV}} + \frac{1}{3} \frac{P/D_t - \mu_{P/D}}{\sigma_{P/D}}$$

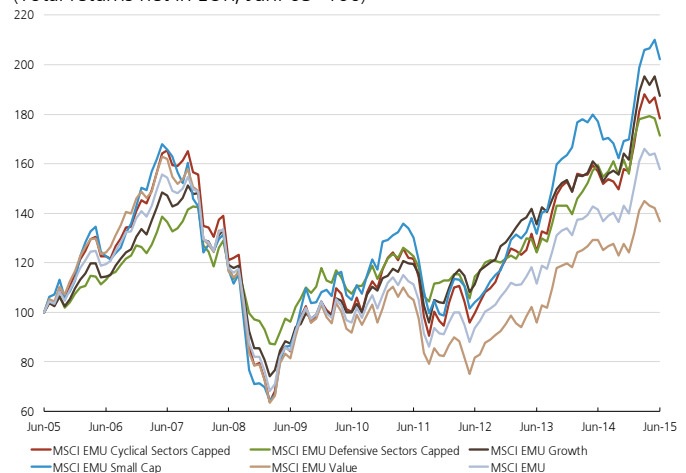
where P/E_t is the current price-to-earnings ratio, P/BV_t is the current price-to-book value ratio, and P/D_t is the current price-to-dividend ratio (reciprocal of dividend yield). The ratios are measured at the index level of the underlying stocks. The mean (denoted by μ) and standard deviation of the ratio (σ) are measured over a time period, back to 2000.

Figure 4: Composite Z-score (emerging markets)



Source: MSCI, UBS Global AM, as of 30 June 2015

Figure 5: Performance of the EMU equities (Total returns net in EUR; Jun.'05=100)



Source: UBS Global AM, as of 30 June 2015

Table 1: Performance of the EMU equities (Sharpe ratio based on BBA LIBOR 1M)

Stat	MSCI EMU	MSCI EMU Value	MSCI EMU Growth	MSCI EMU Cyclical Sectors Capped	MSCI EMU Defensive Sectors Capped	MSCI EMU Small Cap
Net YTD	12.8	10.1	16.0	13.7	10.0	19.2
10Y Sharpe Ratio	0.26	0.18	0.39	0.31	0.36	0.38

Source: UBS Global AM, as of 30 June 2015

Past performance is not a reliable indicator for the future.

Table 2: Equity Building Blocks with UBS ETFs

Fund name	TER (ex ante)	AUM (in EUR, mn)	Base currency	Replication	Distribution	Domicile	Launch	ISIN	WKN
Building blocks									
UBS ETF (LU) MSCI World UCITS ETF (USD) A-dis	0.30%	1'046	USD	Optimized sampling	Distributing	Luxembourg	25.06.2008	LU0340285161	AONCFR
UBS ETF (LU) MSCI Emerging Markets UCITS ETF (USD) A-dis	0.45%	329	USD	Optimized sampling	Distributing	Luxembourg	12.11.2010	LU0480132876	UB42AA
UBS ETF (IE) MSCI USA UCITS ETF (USD) A-dis	0.20%	26	USD	Full replication	Distributing	Ireland	11.04.2012	IE00B77D4428	A1JV86
UBS ETF (IE) MSCI USA hedged EUR UCITS ETF (EUR) A-acc	0.30%	332	EUR	Full replication	Accumulating	Ireland	30.09.2013	IE00BD4TYG73	A1W5DE
UBS ETF (LU) MSCI UK UCITS ETF (GBP) A-dis	0.20%	684	GBP	Full replication	Distributing	Luxembourg	21.10.2013	LU0937836467	A1W2HH
UBS ETF (LU) MSCI UK hedged EUR UCITS ETF (EUR) A-acc	0.30%	203	EUR	Full replication	Accumulating	Luxembourg	30.08.2013	LU0950671239	A1W3AF
UBS ETF (LU) MSCI EMU UCITS ETF (EUR) A-dis	0.23%	2'363	EUR	Full replication	Distributing	Luxembourg	19.09.2002	LU0147308422	633 611
UBS ETF (LU) MSCI Japan UCITS ETF (JPY) A-dis	0.35%	835	JPY	Full replication	Distributing	Luxembourg	30.10.2001	LU0136240974	794 361
UBS ETF (LU) MSCI Japan hedged EUR UCITS ETF (EUR) A-acc	0.45%	160	EUR	Full replication	Accumulating	Luxembourg	30.09.2013	LU0950672476	A1W3B7
UBS ETF (LU) MSCI Switzerland UCITS ETF (CHF) A-dis	0.20%	350	CHF	Full replication	Distributing	Luxembourg	28.11.2013	LU0979892907	A1W6NY
UBS ETF (LU) MSCI Switzerland hedged EUR UCITS ETF (EUR) A-acc	0.30%	127	EUR	Full replication	Accumulating	Luxembourg	31.10.2013	LU0977260941	A1W6C8
UBS ETF (LU) MSCI Canada UCITS ETF (CAD) A-dis	0.33%	192	CAD	Full replication	Distributing	Luxembourg	30.09.2009	LU0446734872	A0X97V
UBS ETF (LU) MSCI Canada UCITS ETF (hedged to EUR) A-acc	0.43%	192	CAD	Full replication	Accumulating	Luxembourg	27.02.2015	LU1130155606	A12D6D
UBS ETF (IE) MSCI Australia UCITS ETF (AUD) A-acc	0.40%	32	AUD	Full replication	Accumulating	Ireland	30.09.2013	IE00BD4TY451	A1W5DD
UBS ETF (IE) MSCI Australia hedged EUR UCITS ETF (EUR) A-acc	0.50%	4	EUR	Full replication	Accumulating	Ireland	30.09.2013	IE00BD4TY899	A1W5DC
UBS ETF (LU) MSCI Hong Kong UCITS ETF (HKD) A-dis	0.45%	35	HKD	Full replication	Distributing	Luxembourg	04.06.2015	LU1169827224	A14MGG
UBS ETF (LU) MSCI Singapore UCITS ETF (SGD) A-dis	0.45%	20	SGD	Full replication	Distributing	Luxembourg	04.06.2015	LU1169825954	A14MF5
Eurozone segments									
UBS ETF (LU) MSCI EMU UCITS ETF (EUR) A-dis	0.23%	2'363	EUR	Full replication	Distributing	Luxembourg	19.09.2002	LU0147308422	633 611
UBS ETF (LU) MSCI EMU Small Cap UCITS ETF (EUR) A-dis	0.33%	38	EUR	Full replication	Distributing	Luxembourg	17.10.2011	LU0671493277	A1JHNE
UBS ETF (LU) MSCI EMU Value UCITS ETF (EUR) A-dis	0.25%	18	EUR	Full replication	Distributing	Luxembourg	02.10.2009	LU0446734369	A0X97R
UBS ETF (IE) MSCI EMU Growth SF UCITS ETF (EUR) A-acc	0.23%	8	EUR	Full replication	Accumulating	Ireland	06.10.2011	IE00B4MFJH03	A1JKRC
UBS ETF (IE) MSCI EMU Cyclical UCITS ETF (EUR) A-dis	0.25%	14	EUR	Full replication	Distributing	Ireland	04.09.2014	IE00BMP3HJ57	A11473
UBS ETF (IE) MSCI EMU Defensive UCITS ETF (EUR) A-dis	0.25%	9	EUR	Full replication	Distributing	Ireland	04.09.2014	IE00BMP3HL79	A11475

Source: UBS Global Asset Management. As of 30 June 2015.

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