

UBS ETF *Market Matters*

A tale of two exposures: cyclical and defensive sectors in Eurozone

- This study discusses the features of the MSCI Cyclical and Defensive Sector Indices covering the Eurozone exposure.
- A key focus are capped indices with equal allocation to sectors - within cyclical or defensive exposure – ruling out over-concentration in any sector and has shown superior performance to the broad market over studied period.
- Historical performance indicates mean-reversion feature of the 'spread' between cyclical and defensive sectors which provides investors with an option to rotate between exposures.

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Cyclical vs. Defensive Sector

A cyclical stock refers to a company whose profitability increases during a booming economy, based on increased client (or consumer) activity. During economic downturns, cyclical stocks (or companies) experience drops in their profitability as consumers cut spending in view of deteriorating economic circumstances. In contrast, defensive stocks (or companies) generate stable profits during all economic cycles as they provide goods (or services) demanded regardless of economic standing. For example, furniture producers will feature more cyclical in their profitability than utility (water, gas, electricity etc.) providers. The concept of cyclical and defensiveness can be aggregated up to the sector level, applying measures of sector sensitivity (e.g. long-run correlations) with respect to the economic cycles.

MSCI has introduced the family of MSCI Cyclical and Defensive Sector Indices where sector classification is based on long-run (approx. 40 years of data) correlations to the business cycle measured by the OECD's Composite Leading Indicators (CLI). Classification assumes cyclical (resp. defensive) sectors' relative performance to the market to be positively (resp. negatively) correlated with the rate of change of the CLI. In **Figure 1**, the upper panel lists 5 sectors (based on the top-level layer of the Global Industry Classification Standard, or GICS) categorized as cyclical, whilst the bottom panel displays 5 defensive sectors¹. This classification is valid for all regions, even though Figure 1 displays the EMU developed markets case². A tale of two exposures - cyclical and defensive sectors – naturally emerges from this sector taxonomy.

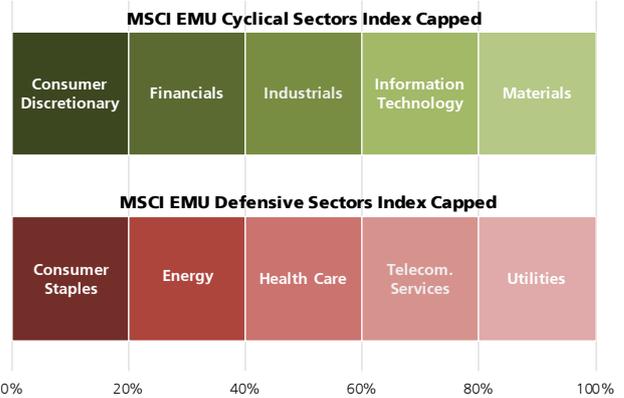
(Equal) Allocation to Sectors

In standard regional exposures (i.e. EMU), sector weights reflect mark-to-market valuations of the sector-underlying companies. **Figure 2** shows the MSCI EMU historical sector breakdown. Firstly, the dominance of the *Financials* sector is evident, with allocation reaching approx. 35% prior to financial crisis in 2008. Secondly, irregular, expensive valuations of certain sectors may lead to (undesired) asymmetries (e.g. *IT* and *Telecom* during the 'dotcom' bubble). Thirdly, applying the MSCI sector classification as in Figure 1, the defensive sectors experience an overall lighter allocation than cyclical counterparts. Fourthly, given an asymmetric allocation, the sources of returns and of risks vary dynamically,

¹ Source: *Sector Performance Across Business Cycles*, MSCI, November 2009; *Index Performance in Changing Economic Environments*, MSCI, April 2014; *MSCI Cyclical and Defensive Sectors Indexes Methodology*, June 2014.

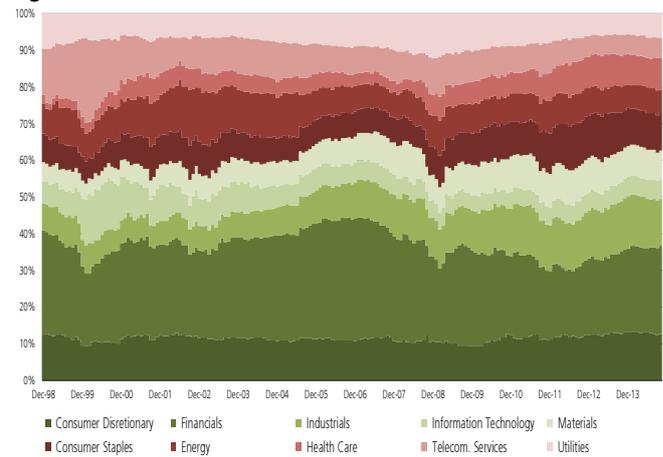
² MSCI Developed Markets in the European Economic and Monetary Union (EMU) include: Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain.

Figure 1: MSCI EMU Cyclical and Defensive Sector Indices



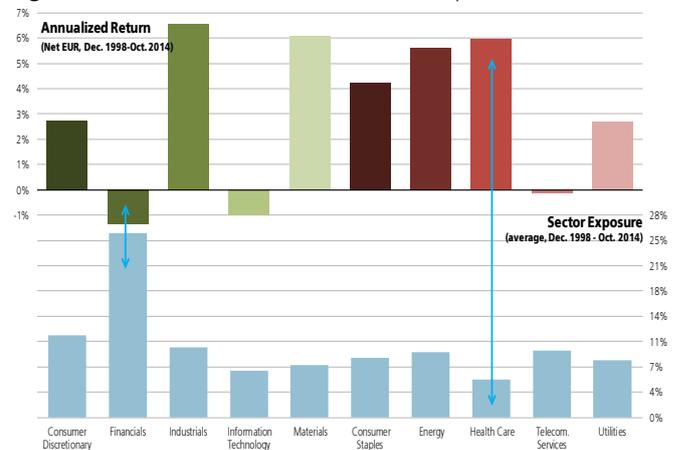
Source: MSCI.

Figure 2: MSCI EMU Sector Breakdown



Source: MSCI, UBS Global Asset Management, as of October 2014

Figure 3: MSCI EMU Sector Performance and Exposure



Source: MSCI, UBS Global Asset Management, as of October 2014

For all charts/tables: Past performance is not a reliable indicator for the future.

hence return attribution requires more advanced decomposition. To avoid potential sector concentration - within cyclical and defensive indices - the capped indices assign the equal weight of 20% to each sector as shown in Figure 1. Between quarterly rebalancing, however, sector weights may deviate from 20% target based on their relative performance as determined by the constituents of each sector.

Return & Risk vs. Allocation

In **Figure 3**, the upper panel shows the annualized return by sector, while the bottom panel shows the average allocation by sector, based on the EMU exposure. On the one hand, the MSCI EMU Financial sector - which dominates the MSCI EMU standard index - delivered the lowest annualized return over the period studied. On the other hand, the MSCI EMU Health Care sector - with the lowest exposure on average in the standard MSCI EMU index - delivered annually nearly 6% in net terms. An index construction outweighting EMU Health Care - at the cost of EMU Financials - would apparently benefit from such re-allocation over this period.

Figure 4 reports realised volatilities (entries on the diagonal) and realised correlations (entries on the lower-triangular). Three findings can be highlighted. Firstly, cyclical sectors tend to have above-the-market average volatility (i.e. higher than 19% of the broad market as highlighted by light blue boxes). Secondly, the cyclical sectors tend to have higher-than-average correlation³ to the market and amongst themselves (as highlighted by dark blue boxes). Thirdly, defensive sectors tend to have lower-than-average correlation to the market and amongst themselves. Given the changes in business cycles, correlations (also volatilities) dynamically evolve over time, which provide investors with an option to rotate between cyclical and defensive sector exposure in the Eurozone.

Rotating Cyclical vs. Defensive Sectors

In **Figure 5**, the upper panel shows the historical performance of the standard MSCI EMU exposure, along with the MSCI EMU Cyclical and MSCI EMU Defensive (capped) exposures. The sector indices actually both outperform (in EUR net terms) the standard index whose weaker performance can be attributed largely to the relatively weak (but heavy weighted) performance of *Financials* (recall Figure 3). Importantly, this chart illustrates the mean-reversion feature of the 'spread' between cyclical and defensive exposures (until the financial crisis 2008), which can be explained by different economic regimes (e.g. over-performance of cyclicals during 'dotcom' and prior to the financial crisis). The defensive sectors indicate a more robust (positive 'spread' over cyclicals) behaviour from the middle of 2008, and it can be observed that in stress periods (financial crisis 2008-2009, EMU sovereign crisis 2011-2012) the 'spread' over cyclicals reacts and gets widened. This mean-reversion pattern provides an option to tactically rotate between cyclical and defensive sector exposure. For example, the UBS Chief Investment Office WM is currently neutral on Eurozone equities, however, a drill-down to the sector level indicates preference toward cyclical (in particular: consumer discretionary, financials and industrials) over defensive sectors (UBS CIO Monthly Extended, December 2014). Current valuations for the two exposures (and the broad market) are displayed in **Table 1**, whereas **Table 2** lists ETFs tracking the benchmark MSCI EMU Cyclical and Defensive Sectors Indices.

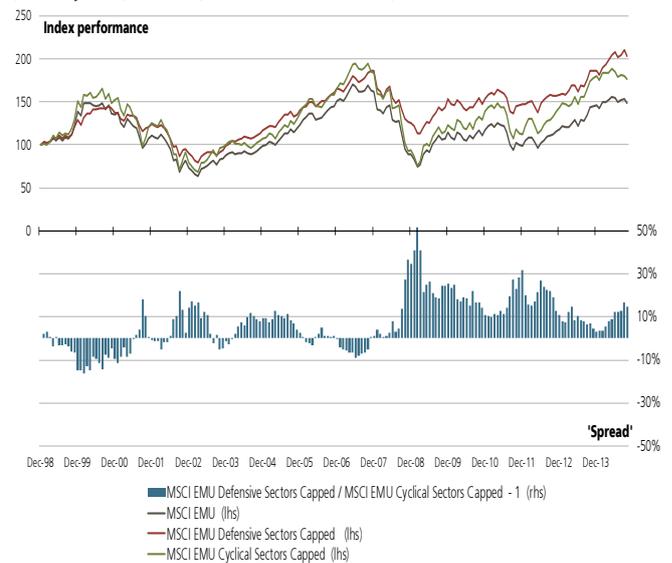
³ Average of all sector pair-wise correlations which approx. equals 70% based on monthly Net EUR data over the period from Dec.1998 to Oct. 2014.

Figure 4: MSCI EMU: realised volatilities and correlations (monthly data, Net EUR, Dec. 1998 – Oct. 2014)

	Market	Discretionary	Financials	Industrials	IT	Materials	Staples	Energy	Health C.	Telecom.	Utilities
Market	19%										
Discretionary	88%	23%									
Financials	92%	76%	27%								
Industrials	93%	85%	83%	22%							
IT	81%	73%	65%	76%	31%						
Materials	85%	77%	78%	84%	59%	22%					
Staples	69%	61%	64%	62%	45%	64%	13%				
Energy	67%	54%	60%	60%	44%	67%	53%	18%			
Health C.	55%	45%	52%	44%	38%	46%	62%	40%	16%		
Telecom.	66%	53%	47%	57%	67%	37%	24%	25%	23%	24%	
Utilities	78%	57%	76%	68%	50%	64%	55%	57%	49%	47%	18%

Source: MSCI, UBS Global Asset Management, as of October 2014

Figure 5: Relative performance of cyclical and defensive sectors (monthly data, Net EUR, Dec. 1998 – Oct. 2014)



Source: MSCI, UBS Global Asset Management, as of October 2014

Table 1: Index fundamentals

Index	Div Yld (%)	P/E	P/E Fwd	P/BV
MSCI EMU	3.2	18.8	13.1	1.5
MSCI EMU Cyclical Sectors Capped	2.7	19.7	13.1	1.7
MSCI EMU Defensive Sectors Capped	3.8	17.5	14.5	1.7

Source: MSCI, UBS Global Asset Management, as of October 2014

For all charts/tables: Past performance is not a reliable indicator for the future.

Table 2: UBS ETFs: MSCI EMU Cyclical and Defensive Sectors

Fund name (Benchmark)	TER	AuM in EUR m	NAV Repli- Cyc cation	Distri- bution	Launch Date	Listings / Key exchanges				
						SIX	XETRA	Borsa	ISIN	
UBS (Irl) ETF plc – MSCI EMU Cyclical UCITS ETF (EUR) A-dis (MSCI EMU Cyclical Sectors Capped Total Return Net)	0.25%	6	EUR	Physical	Yes	04.09.2014	CHF	EUR	EUR	IE00BMP3HJ57
UBS (Irl) ETF plc – MSCI EMU Defensive UCITS ETF (EUR) A-dis (MSCI EMU Defensive Sectors Capped Total Return Net)	0.25%	6	EUR	Physical	Yes	04.09.2014	CHF	EUR	EUR	IE00BMP3HL79

Note: AuM as of 27 November 2014.

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