

Style Cycle

'Recovery' bulls

Style Cycle Macro up again. 'Recovery' strengthening

Composite Macro Indicator (CMI) rose for the 4th straight month suggesting risk-taking for EU stocks should increase further. Majority of the indicators rose, led by the leading economic indicators. The pro-risk stance is well supported by high Risk stocks trading at 50% discount to the market on Fwd PE, a discount only seen post-Lehman in 2008 (Chart 24). With majority of QE in H1 this year, EU stocks unlikely to see an end of the bull run with high Risk stocks this cheap. 'Recovery' favours high Risk over high Quality, Value and SMid caps in styles. Financials as the most overweight sector, Italy in countries and higher domestic-exposed companies. See Table 8 for the top stocks.

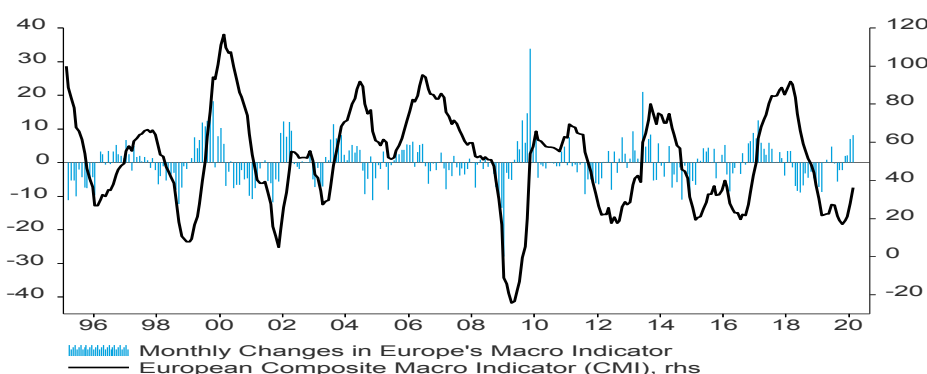
Breadth of indicators improving

Four of the six inputs improved this month, one flat and one down. Leading economic indicators and EPS revisions added the most, followed by German Mfg business confidence and PPI showing modest rise. GDP forecasts have stopped falling, while changes in Bond yields were only marginally lower despite fears of a growth shock.

'Recovery' +8% in Feb, dispersion suggests more to come

January equity performance masked the internal risk-off event with cyclical styles dragging 'Recovery' stocks to show -2.2% returns. However, MTD 'Recovery' has rallied +8%. Valuation dispersion is high and style allocation stays the most important call. Moreover despite EU-Equities at an all-time high, Equity vs Bond yield gap remains near record wide levels (Chart 32). We are cyclically bullish, but structurally somewhat troubled with central banks in a QE-trapped world

Exhibit 1: European Composite Macro Indicator (CMI) and its monthly changes



Source: BofA European Equity Quant Strategy. Disclaimer: The indicator identified as the BofA Composite Macro Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark

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Refer to important disclosures on page 37 to 39.

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The European 'Style Cycle' marries phases of the economic cycle with investment style returns.

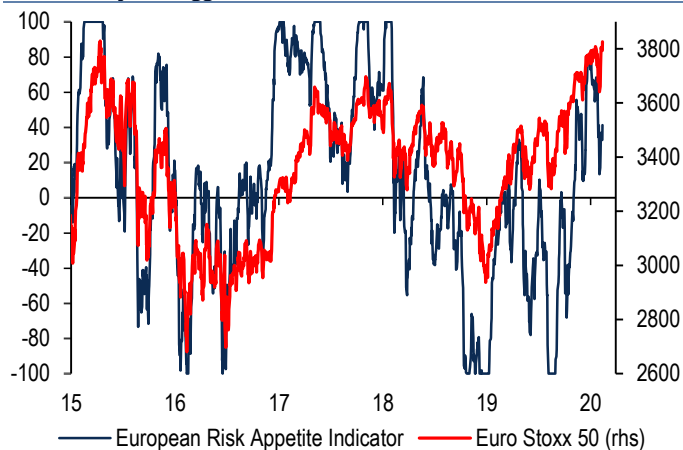
Table 1: Summary of Europe's macro signals

Inputs of EU Composite Macro Indicator	
Macro Indicator	Direction
OECD EU Leading Indicator	RISING
German IFO Indicator	RISING
12mth Change in Pan EU BY	FALLING
Producer Price Inflation	RISING
Pan Europe. Cons. GDP Forecasts	FLAT
Global EPS Revision Ratio	RISING

Source: BofA European Equity Quant Strategy

Charts of the month

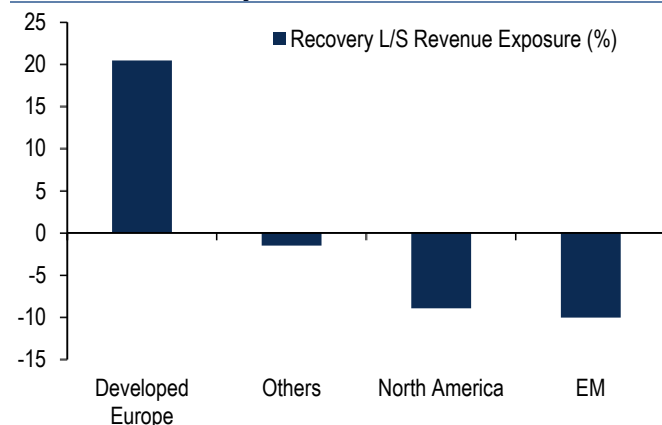
Chart 1: EU Risk Appetite Indicator has reversed the optimism seen at start of the year, suggests tactical risk is not stretched



Source: BofA European Equity Quant Strategy, Datastream

Disclaimer: The indicator identified as the Risk Appetite Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

Chart 2: 'Recovery' stocks are exposed to domestic EU economies, Financials in sectors, Italy in countries – See Table 8

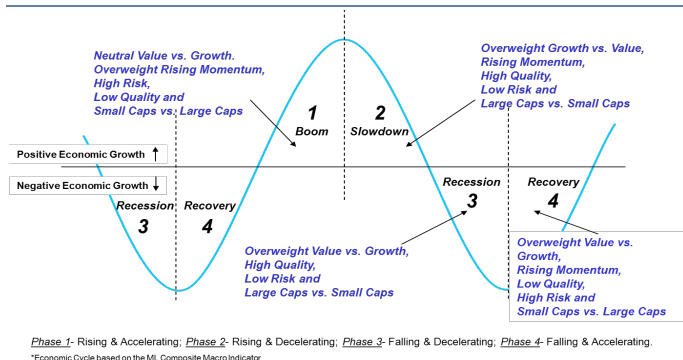


Source: BofA European Equity Quant Strategy



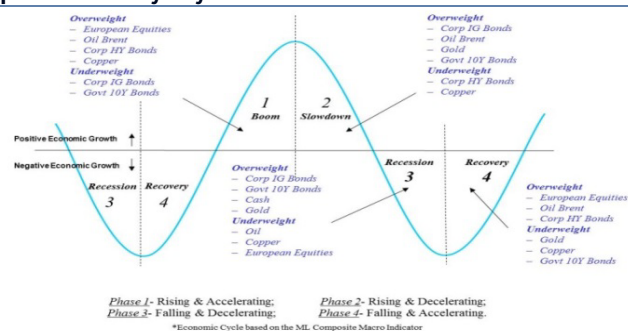
Summary – European Style Cycle

Chart 3: European 'Style Cycle' framework



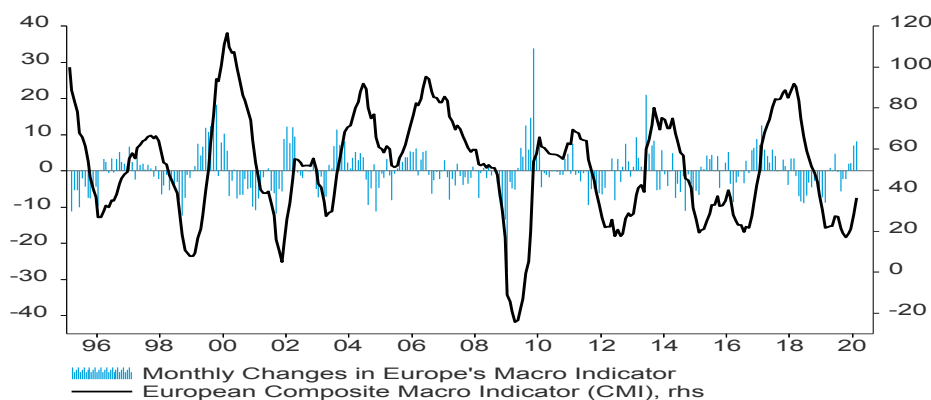
Source: BofA European Equity Quant Strategy

Chart 4: Suggested European cross-asset allocations in respective phases of the Style Cycle



Source: BofA European Equity Quant Strategy

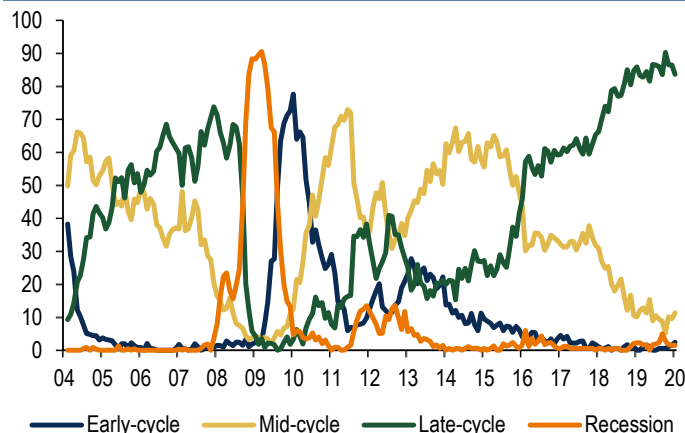
Chart 5: European Composite Macro Indicator (CMI) and its monthly changes



Source: BofA European Equity Quant Strategy – Based on BY, GDP Forecasts, OECD, IFO Survey, PPI & EPS Revs

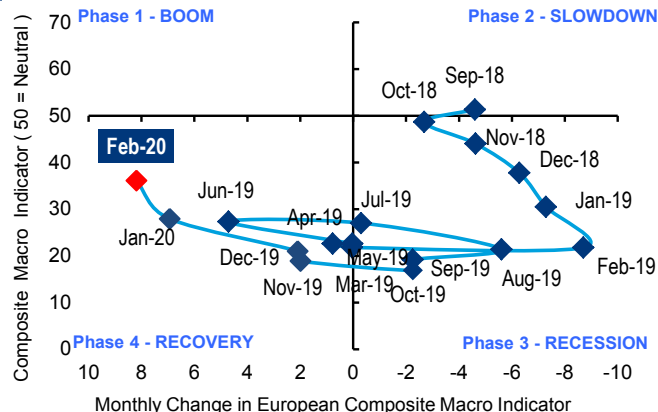
The sentiment indicator identified as European Composite Macro Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This sentiment indicator was not created to act as a benchmark.

Chart 6: Where are we in the economic cycle? Investors' perceptions based on FMS



Source: BofA Global Fund Manager Survey

Chart 7: Economic signals generated over the past 18m from EU Composite Macro Indicator



Source: BofA European Equity Quant Strategy – Based on BY, GDP Forecasts, OECD, IFO Survey, PPI & EPS Revs

Macro signals improve slightly on the month.

This month 4 indicators are rising and 1 is down and 1 is flat.

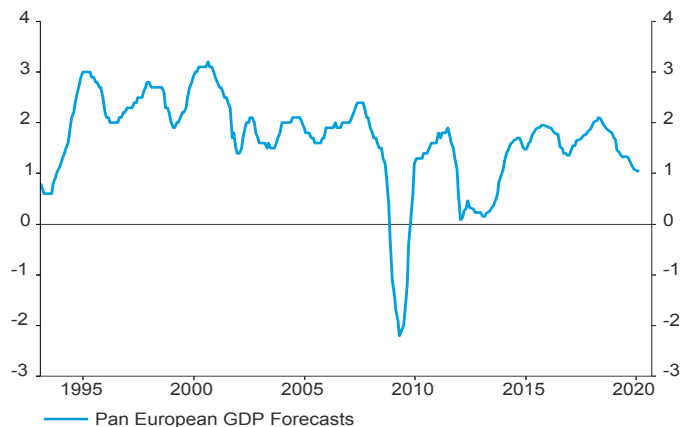
Our European Composite Macro Indicator (CMI) is a composite index based on 6 variables:

- 1) 12mth change in European bond yields,
- 2) 12mth forward consensus GDP forecasts,
- 3) 12mth change in OECD European LI
- 4) Germany's IFO Survey,
- 5) 12mth change in European PPI and
- 6) Global consensus EPS revision ratio

See Appendix IV for a complete list of the historical phases of the economic cycle according to the Composite Macro Indicator (CMI).

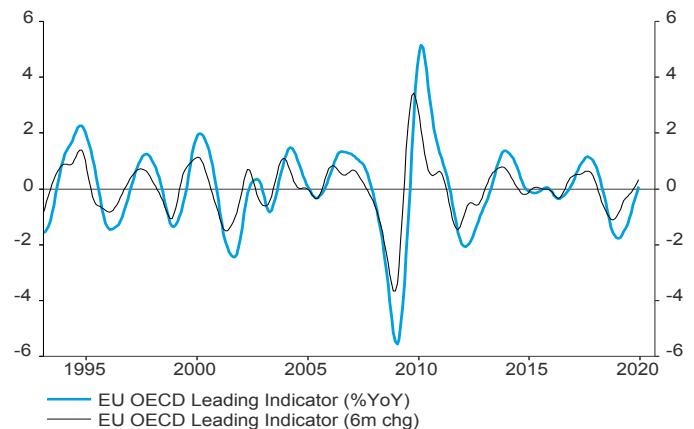
Inputs of Europe's Composite Macro Indicator (CMI) – **RISING**

Chart 8: Pan Europe – Economists' GDP forecasts - FLAT



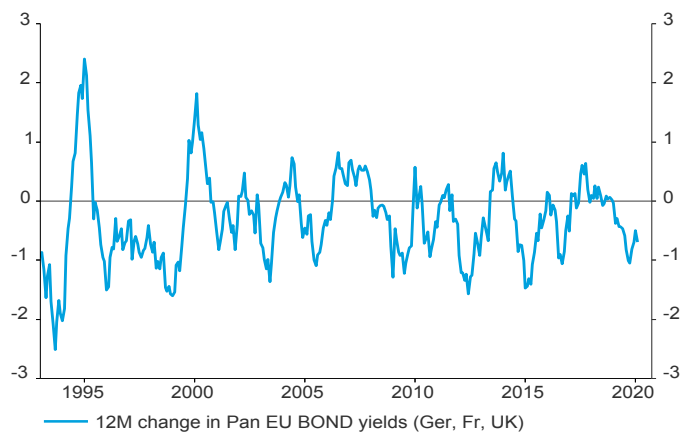
Source: BofA European Equity Quant Strategy, Consensus Economics

Chart 9: OECD Leading Indicator 12m change - **RISING**



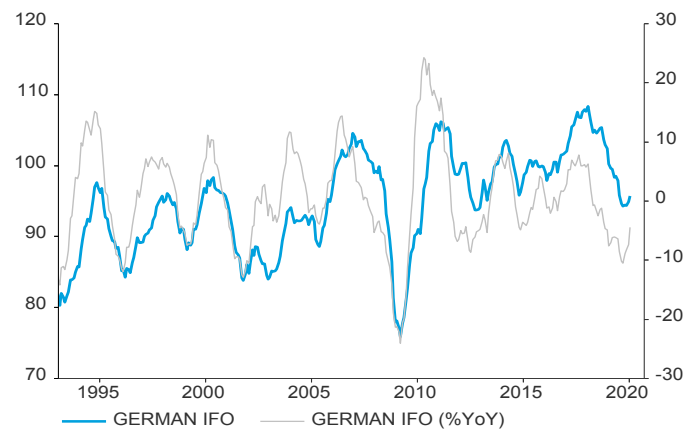
Source: BofA European Equity Quant Strategy, OECD.

Chart 10: 12m change in Pan EU Bond Yield (Ger, Fr, UK) - **FALLING**



Source: BofA European Equity Quant Strategy, DataStream

Chart 11: German IFO Indicator - **RISING**



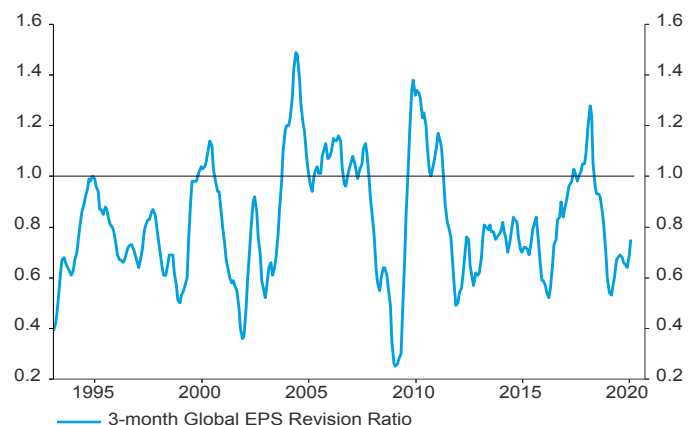
Source: BofA European Equity Quant Strategy, IFO Institute.

Chart 12: Pan European Inflation (PPI) 12m change - **RISING**



Source: BofA European Equity Quant Strategy, DataStream

Chart 13: Global EPS Revision Ratio (>1 = net EPS upgrades) - **RISING**



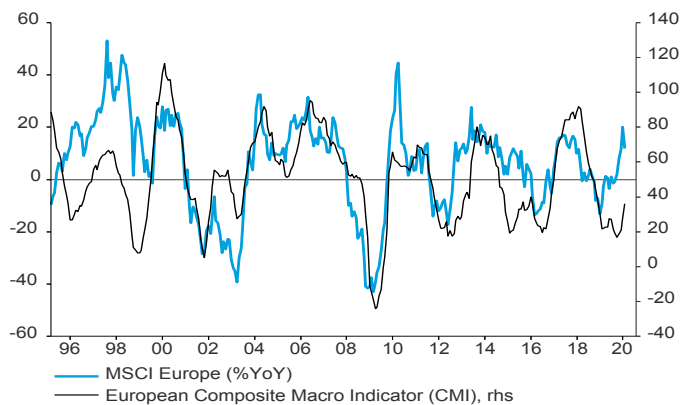
Source: BofA European Equity Quant Strategy, IBES, MSCI



6 Key Charts – macro & investment style relationships

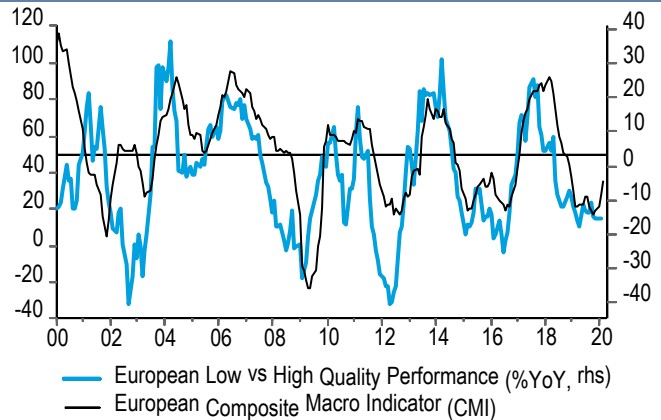
Style Cycle moves into 'Recovery' phase. High Risk, Low Quality, Value and Small caps are supported in the current phase.

Chart 14: EU Composite Macro Indicator & equity market performance



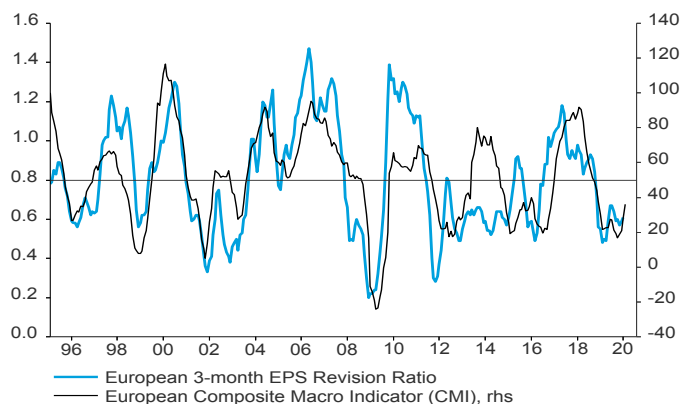
Source: BofA European Equity Quant Strategy

Chart 15: EU CMI & low vs high Quality performance (%YoY)



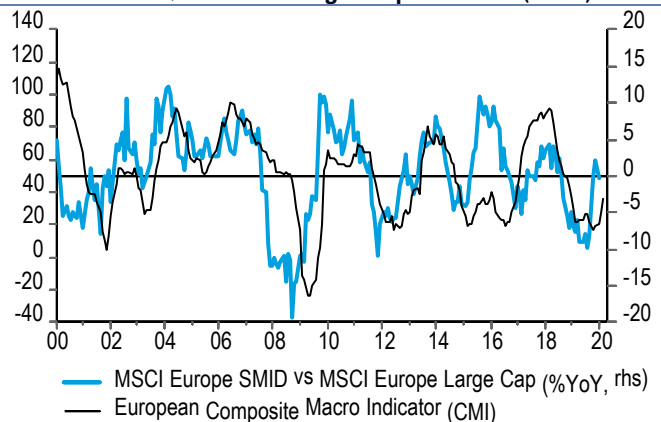
Source: BofA European Equity Quant Strategy

Chart 16: EU Composite Macro Indicator & 3m EPS Revision Ratio



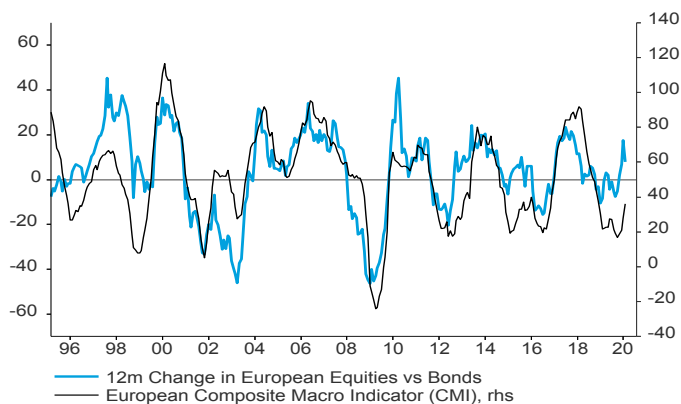
Source: BofA European Equity Quant Strategy

Chart 17: EU CMI & small mid vs large Size performance (%YoY)



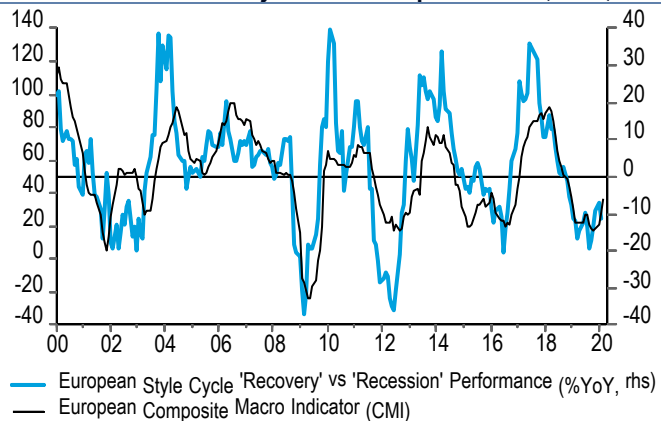
Source: BofA European Equity Quant Strategy

Chart 18: EU Composite Macro Indicator & Equities (TR) vs Bonds (TR)



Source: BofA European Equity Quant Strategy

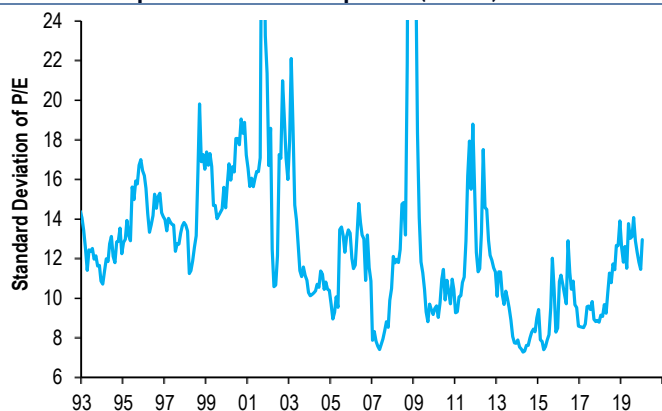
Chart 19: EU CMI & 'Recovery' vs 'Recession' performance (%YoY)



Source: BofA European Equity Quant Strategy

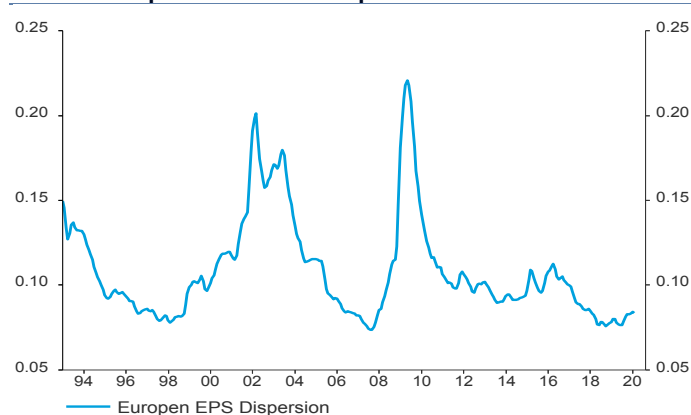
Valuation & Dispersion charts by market & investment style

Chart 20: European market – P/E Dispersion (I/B/E/S)



Source: BofA European Equity Quant Strategy, MSCI, I/B/E/S

Chart 21: European market – EPS Dispersion



Source: BofA European Equity Quant Strategy, DataStream

Chart 22: Top Value stocks P/E relative to market



Source: BofA European Equity Quant Strategy

Chart 23: Top Growth stocks P/E relative to market



Source: BofA European Equity Quant Strategy

Chart 24: High Risk P/E relative to market



Source: BofA European Equity Quant Strategy

Chart 25: High Quality stocks P/E relative to market

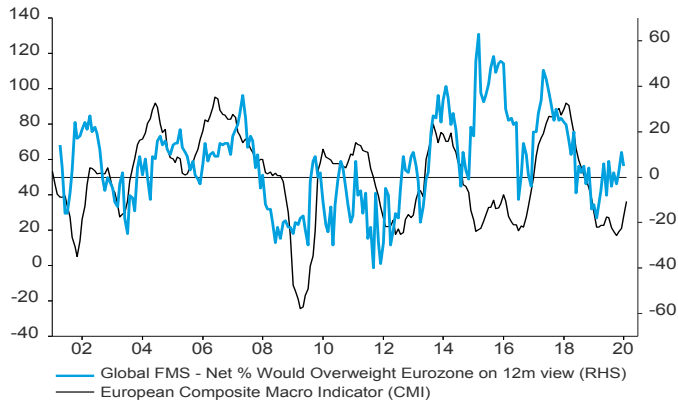


Source: BofA European Equity Quant Strategy



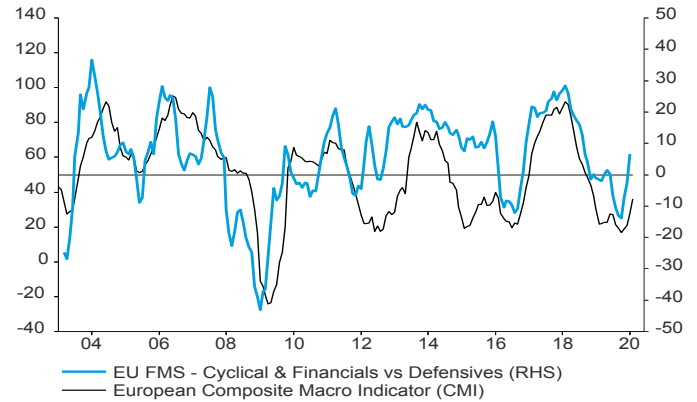
Macro and the Fund Manager Survey

Chart 26: EU CMI & Global investors intentions to own EU stocks



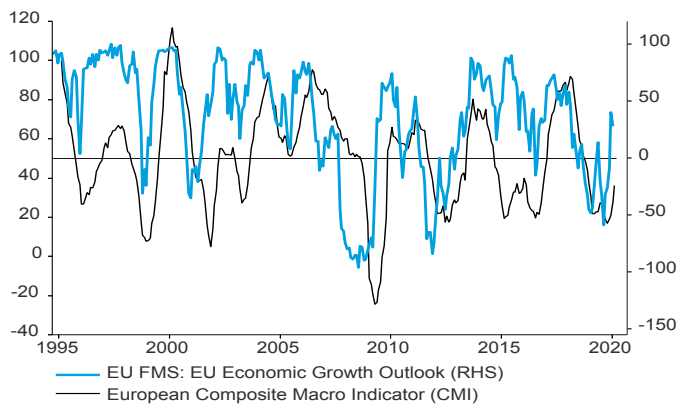
Source: BofA European Equity Quant Strategy, BofA Fund Manager Survey

Chart 27: EU CMI & European investors sector allocation



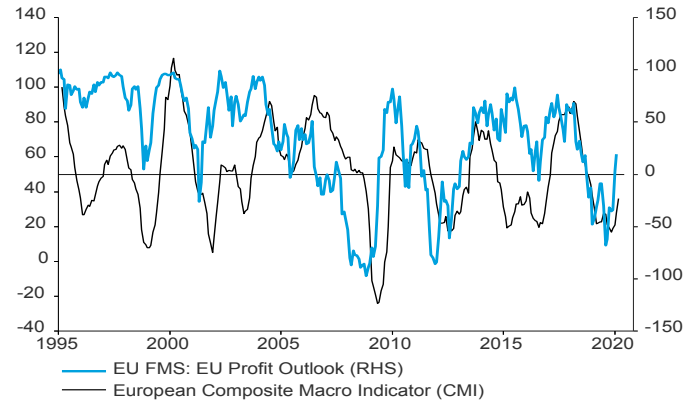
Source: BofA European Equity Quant Strategy, BofA Fund Manager Survey

Chart 28: EU CMI & European Investors outlook for growth



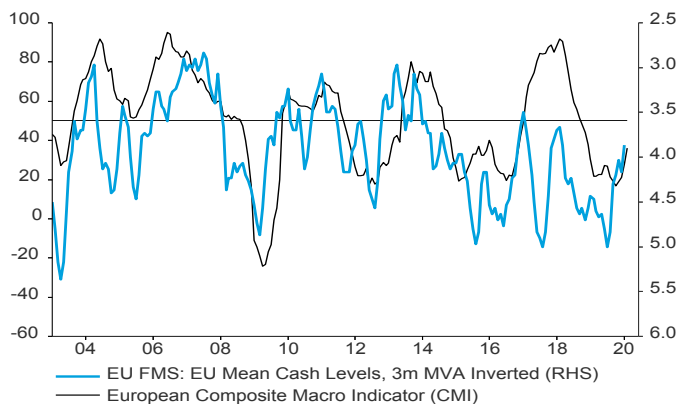
Source: BofA European Equity Quant Strategy, BofA Fund Manager Survey

Chart 29: EU CMI & European investors outlook for profits



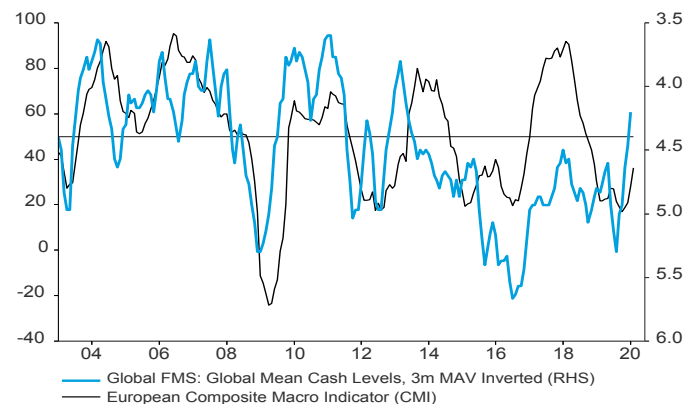
Source: BofA European Equity Quant Strategy, BofA Fund Manager Survey

Chart 30: EU CMI & European investors Cash balance



Source: BofA European Equity Quant Strategy, BofA Fund Manager Survey

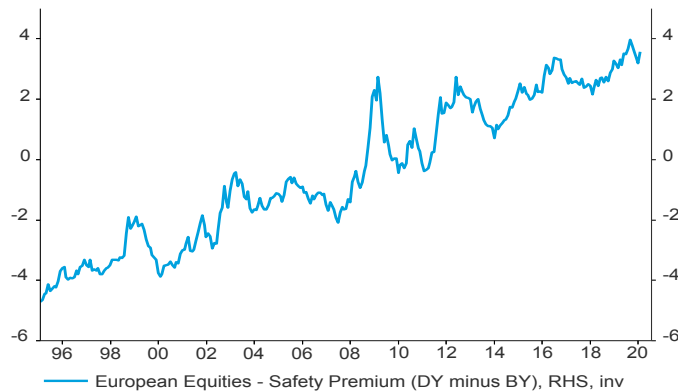
Chart 31: EU CMI & Global investors Cash balance



Source: BofA European Equity Quant Strategy, BofA Fund Manager Survey

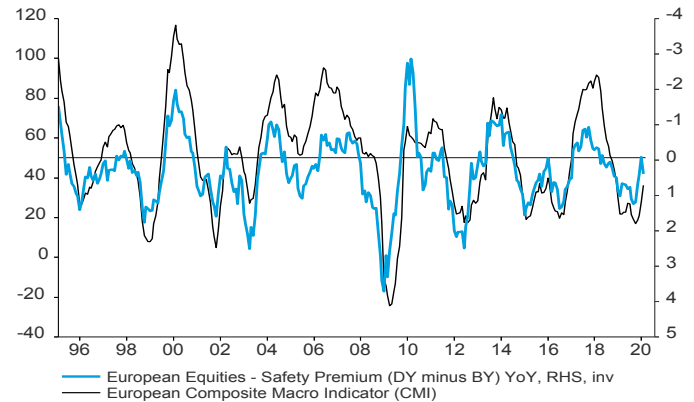
Macro and European Equities valuations

**Chart 32: European Equities “Safe” risk premium
(safe premium = Dividend Yield minus Bond Yield)**



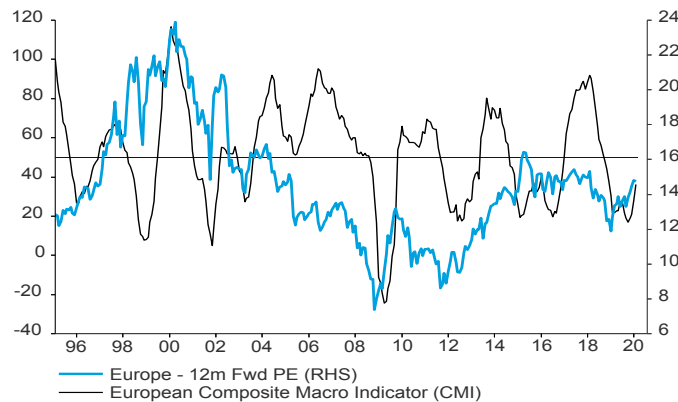
Source: BofA European Equity Quant Strategy, DataStream

Chart 33: EU CMI & European Equities “Safe” risk premium (YoY) (safe premium is inverted in this chart)



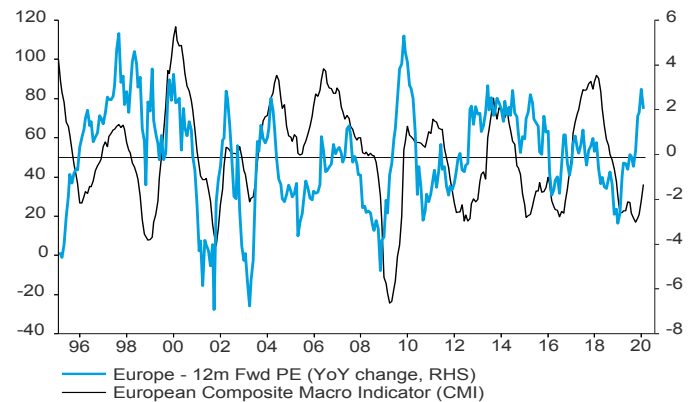
Source: BofA European Equity Quant Strategy, DataStream

Chart 34: EU CMI & European Equities 12m fwd PE



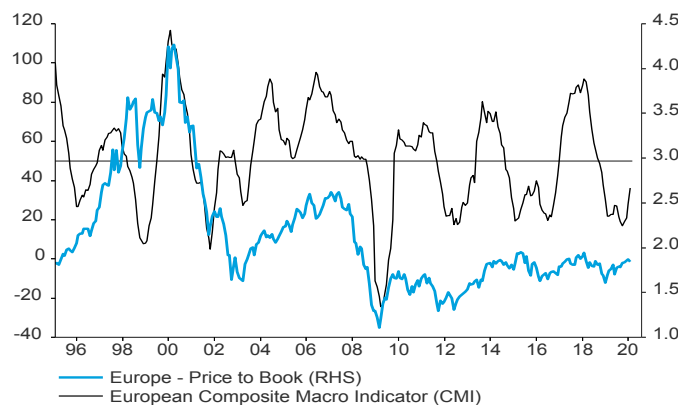
Source: BofA European Equity Quant Strategy, DataStream

Chart 35: EU CMI & European Equities 12m fwd PE (YoY)



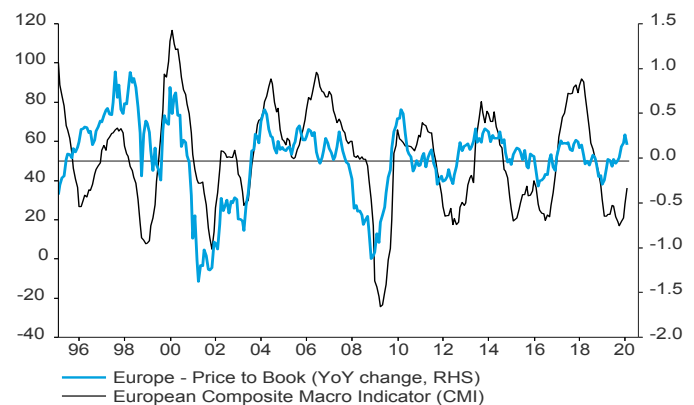
Source: BofA European Equity Quant Strategy, DataStream

Chart 36: EU CMI & European Equities Price to Book



Source: BofA European Equity Quant Strategy, DataStream

Chart 37: EU CMI & European Equities Price to Book (YoY)



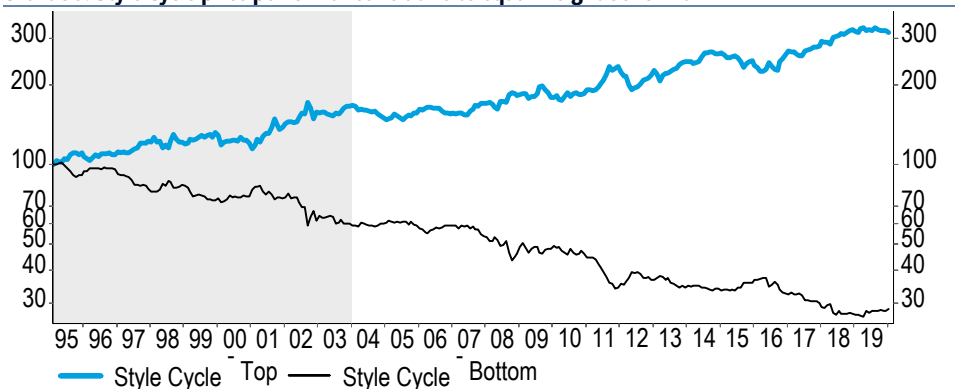
Source: BofA European Equity Quant Strategy, DataStream



European Style Cycle - performance

Style Cycle: The European 'Style Cycle' links phases of the economic cycle with performance of investment style. Stocks are screened based on their equal weighted rank of Value, Growth, Momentum, Quality, Risk and Size.

Chart 38: Style Cycle price performance relative to equal weight benchmark



Source: BofA European Equity Quant Strategy, FactSet. The shaded area on the chart above shows back-tested results during the period from Mar-95 to Dec-03. The un-shaded portion represents actual performance since Jan-04. The Style Cycle back-testing is a rolling monthly performance based on the changing phases of the Style Cycle. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein.

Table 2: Excess Price Returns (%)

	1M	3M	6M	12M	YTD	3 Yrs	5 Yrs	Since Incept.
Top Style Cycle	-1.6	-1.4	-1.7	-1.2	-1.6	17.3	19.4	99.1
Bottom Style Cycle	2.1	1.5	1.8	5.3	2.1	-11.7	-14.2	-53.4
Top vs Bottom Style Cycle	-3.6	-2.8	-3.4	-6.1	-3.6	32.8	39.2	327.2

Source: BofA European Equity Quant Strategy

Note: Month end data used for performance of stock screen. Performance based on equal weight portfolios, monthly rebalanced, no transaction costs are included, and performances based on price returns and not total returns (dividends are not included). Performance is shown not as a guide to any past recommendation, but as confirmation of each phase's characteristics

Investment Style performance

Price performance

Table 3: European Style Cycle – relative performance returns (%)

	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Phase 1 'Boom' – Relative to Market	-2.2	-4.9	-3.0	-4.5	-2.2	-7.7	-0.7	22.7
Phase 2 'Slow-down' – Relative to Market	0.5	-0.2	-1.1	8.9	0.5	23.6	23.4	97.0
Phase 3 'Recession' – Relative to Market	2.1	2.8	2.4	5.2	2.1	6.4	-0.8	-27.9
Phase 4 'Recovery' – Relative to Market	-1.6	-0.9	-1.9	-6.6	-1.6	-6.8	-0.2	17.8
European Market Absolute Returns	-0.6	4.1	7.4	14.2	-0.6	15.6	15.6	150.4

Source: BofA European Equity Quant Strategy, FactSet,* - Inception = January 2004

Note: Month end data used for performance of stock screen. Performance based on equal weight portfolios, monthly rebalanced, no transaction costs are included, and performances based on price returns and not total returns (dividends are not included). Performance is shown not as a guide to any past recommendation, but as confirmation of each phase's characteristics

In the 'Recovery' phase of the Style Cycle, our analysis suggests investors should be overweight Value vs Growth, High Risk, Low Quality, Rising Momentum and Small Size vs Large Size stocks.

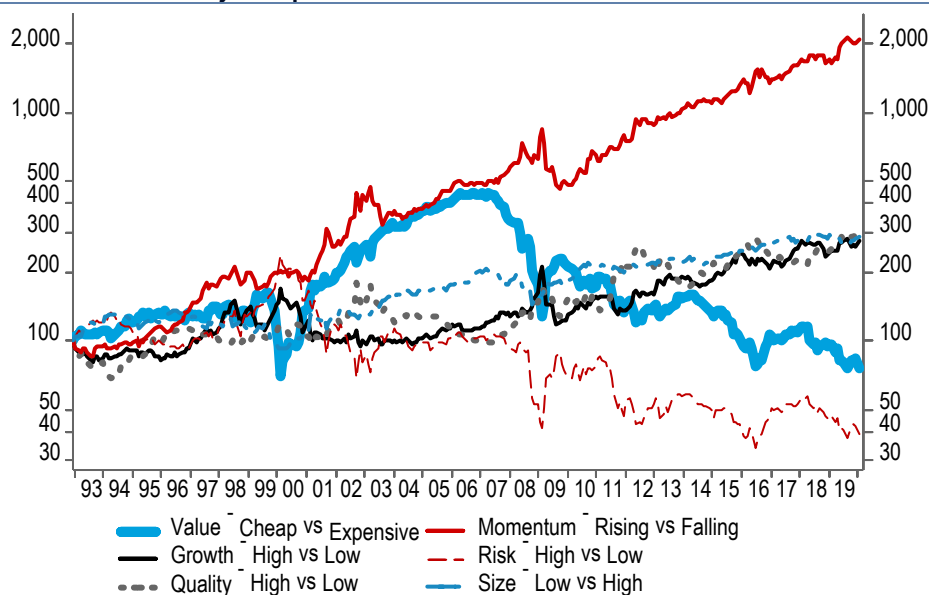
Bottom vs Top Value was the top-performing investment style pair last month and it has outperformed the strongest over the past 12 months.

Table 4: Investment Style – Top minus Bottom Performance (%)

	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Top vs Bottom Value	-9.4	-8.6	-5.4	-27.5	-9.4	-38.2	-57.8	-224.6
High vs Low Growth	5.3	4.6	-1.7	11.4	5.3	25.4	41.4	186.2
Value vs Growth	-8.2	-7.9	-1.9	-16.5	-8.2	-25.2	-44.9	-199.4
Rising vs Falling Momentum	5.6	3.2	2.9	23.5	5.6	42.8	65.9	291.8
Low vs High Quality	-0.5	-2.5	-3.7	-20.1	-0.5	-29.9	-34.0	-173.0
High vs Low Risk	-8.1	-7.4	-3.2	-20.8	-8.1	-28.9	-18.5	-193.4
Small vs Large Size	1.6	3.7	5.5	-2.5	1.6	5.7	24.4	161.6

Source: BofA European Quantitative Strategy, FactSet,* - Inception = January 2003

Chart 39: Investment Style – Top vs Bottom Performance

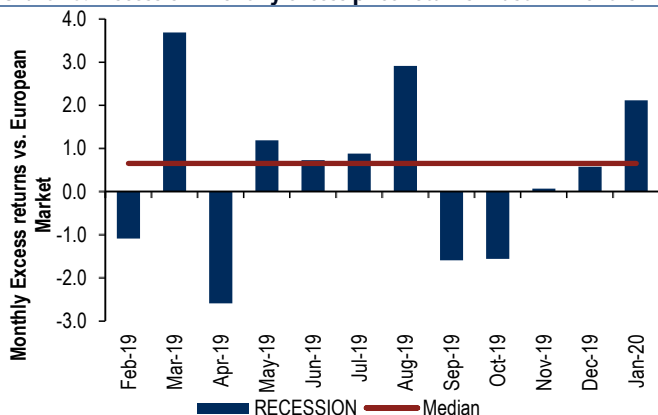


Source: BofA European Equity Quant Strategy, FactSet.



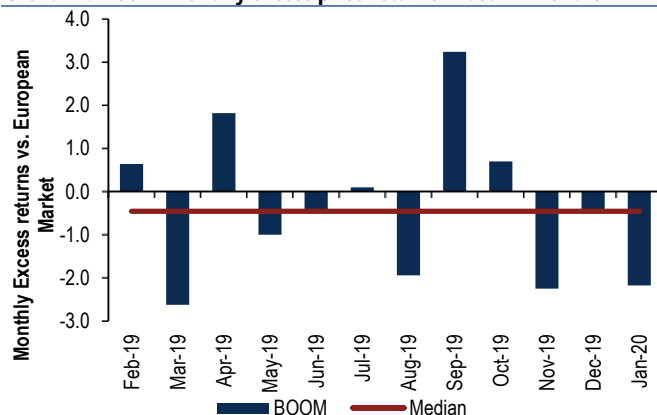
Style Cycle Phase performance & risk vs returns

Chart 40: 'Recession' monthly excess price returns – last 12 months



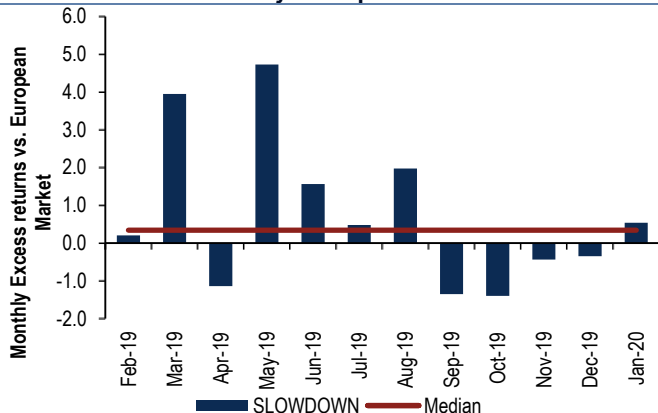
Source: BofA European Equity Quant Strategy

Chart 41: 'Boom' monthly excess price returns – last 12 months



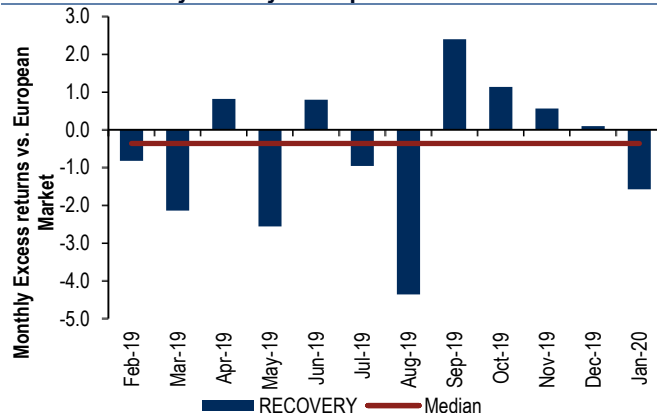
Source: BofA European Equity Quant Strategy

Chart 42: 'Slowdown' monthly excess price returns – last 12 months



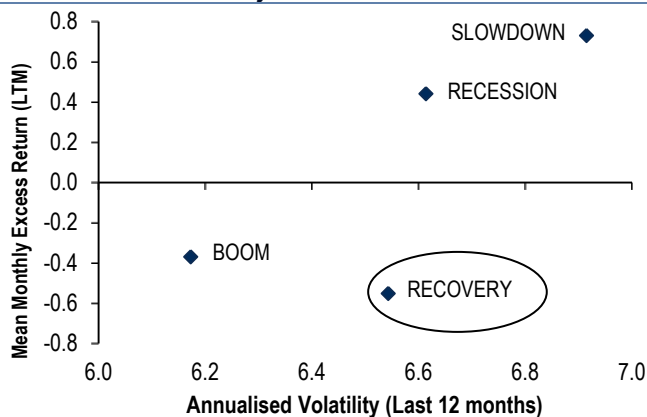
Source: BofA European Equity Quant Strategy

Chart 43: 'Recovery' monthly excess price returns – last 12 months



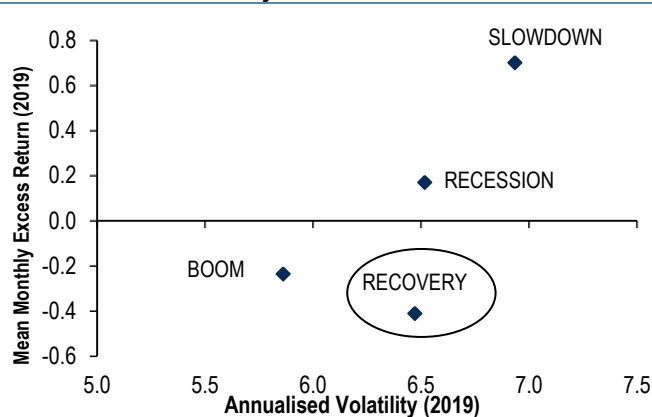
Source: BofA European Equity Quant Strategy

Chart 44: Risk vs Return analysis – last 12 months



Source: BofA European Equity Quant Strategy

Chart 45: Risk vs Return analysis – 2019

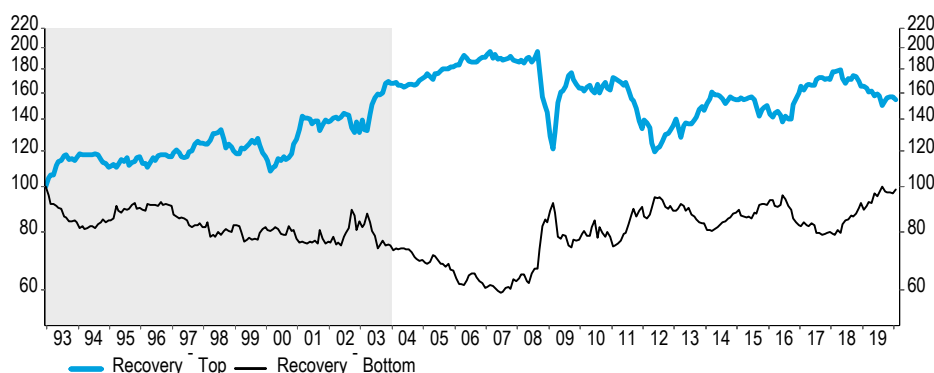


Source: BofA European Equity Quant Strategy.

Style Cycle - Recovery

Style Cycle - Recovery: The European 'Style Cycle' links phases of the economic cycle with performance of investment style. The stocks below are screened by the characteristics of the 'Recovery' phase. Stocks are screened on their equal weighted rank of Value, Growth, Momentum, Quality and Risk.

Chart 46: Top & Bottom Recovery Price Perf. Rel. to Equal Weight Benchmark



Source: BofA European Equity Quant Strategy, FactSet. Inception – January 2004. The shaded area shows back-tested results during the period from Dec-92 to Dec-03. The unshaded portion represents actual performance since Jan-04. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein.

Table 5: Excess Price Returns (%)

	1M	3M	6M	12M	YTD	3 Yrs	5 Yrs	Since Incept.
Top Recovery	-1.6	-0.9	-1.9	-6.6	-1.6	-6.8	-0.2	17.8
Bottom Recovery	2.1	1.8	1.8	10.7	2.1	20.3	11.1	17.2
Top vs Bottom Recovery	-3.6	-2.7	-3.6	-15.6	-3.6	-22.6	-10.2	0.5

Source: BofA European Quantitative Strategy, FactSet. * - Inception = January 2004

Table 6: Median Top Recovery

	Fwd P/E	DY	RoE	ERR	Size	Beta
Top	8.9	4.2	8.6	1.6	10.6	1.4
LT Avg	11.8	3.4	7.9	1.4	6.7	1.3
EU Market	16.4	2.8	13.4	0.6	19.8	1.0

Table 7: Median Bottom Recovery

	Fwd P/E	DY	RoE	ERR	Size	Beta
Bottom	22.5	2.0	26.0	0.5	39.3	0.7
LT Avg	18.6	2.2	25.7	0.6	30.8	0.6
EU Market	16.4	2.8	13.4	0.6	19.8	1.0

Table 8: Style Cycle - Recovery

Top Stocks (Good Value, High Risk, Low Quality & Small Size)								Bottom Stocks (Poor Value, Low Risk, High Quality & Large Size)							
BBG Ticker	Name	Recovery Rank	Val Rank	ERR	Beta	RoE	Price	BBG Ticker	Name	Recovery Rank	Val Rank	ERR	Beta	RoE	Price
CABK SM	CaixaBank	100	78	0.1	1.4	6.1	2.6	NESN SW	Nestle	1	27	-0.2	0.5	21.3	106.4
ACA FP	Credit Agricole	100	94	0.0	1.8	5.7	12.2	REL LN	RELX	1	25	-0.3	0.5	78.7	20.1
DHER GR	Delivery Hero SE	99	1	-0.2	1.2	-14.7	69.6	UNA NA	Unilever	1	35	-0.3	0.6	54.9	52.7
ISP IM	Intesa Sanpaolo	99	94	0.1	1.7	8.6	2.2	DGE LN	Diageo	2	23	-0.2	0.5	37.1	30.1
BMW GR	BMW	98	98	0.1	1.5	8.6	64.3	NOVOB DC	Novo Nordisk	2	15	-0.1	0.7	73.3	412.5
EBS AV	Erste Group Bank	98	89	0.2	1.4	12.3	33.2	ADS GR	adidas	3	22	0.0	0.9	26.3	285.8
SLA LN	Standard Life Aberdeen	98	62	0.0	1.4	6.0	3.0	CPG LN	Compass	3	34	-0.2	0.5	40.5	18.8
ACS SM	ACS	97	87	0.0	1.4	22.9	30.0	SGSN SW	SGS	3	12	-0.4	0.7	57.9	2791.0
STAN LN	Standard Chartered	97	88	0.1	1.7	4.4	6.3	COLOB DC	Coloplast	4	4	-0.2	0.7	56.5	851.0
AGS BB	ageas	96	86	0.1	1.0	9.5	49.8	ROG SW	Roche Holding	4	39	0.2	0.5	53.9	324.3
BARC LN	Barclays	96	95	0.1	1.2	2.0	1.7	EXP LN	Experian	5	7	0.0	0.7	30.6	26.4
FCA IM	Fiat Chrysler Automobiles	96	100	0.0	1.8	14.5	11.7	RI FP	Pernod Ricard	5	31	-0.1	0.6	9.7	156.5
BNP FP	BNP Paribas A	95	92	0.1	1.6	9.0	48.0	HO FP	Thales	5	54	-0.3	0.6	21.1	99.2
EN FP	Bouygues	95	87	0.0	0.9	14.1	35.7	AZN LN	AstraZeneca	6	31	0.0	0.7	38.1	74.2
CNHI US	CNH Industrial	94	77	-0.2	1.4	13.3	8.6	BN FP	Danone	6	47	-0.2	0.8	15.0	72.4
UU/ LN	United Utilities Group	94	49	0.1	0.6	12.5	10.1	RMS FP	Hermes International	7	1	0.3	0.7	26.0	676.6
LAND LN	Land Securities Group	93	53	0.0	1.3	4.6	9.4	ITRK LN	Intertek Group	7	12	-0.3	0.9	37.9	57.6
UCG IM	UniCredit	93	92	0.1	2.1	7.7	12.1	OR FP	L'Oreal	7	10	0.2	0.7	14.6	251.9
MT NA	ArcelorMittal	92	86	-0.4	2.5	0.5	13.4	BEI GR	Beiersdorf	8	11	-0.3	0.4	13.1	102.4
HEI GR	HeidelbergCement	92	89	-0.1	1.3	6.2	61.3	DB1 GR	Deutsche Boerse	8	19	-0.1	0.6	17.4	147.1
NN NA	NN Group	92	98	0.0	1.2	4.8	31.4	RB/ LN	Reckitt Benckiser	8	33	-0.5	0.7	16.7	62.8
SPSN SW	Swiss Prime Site	92	28	0.2	0.4	9.9	117.8	MC FP	LVMH	9	22	0.1	1.2	20.0	395.3
BBVA SM	BBVA	90	98	0.1	1.6	9.0	4.7	MTX GR	MTU Aero Engines	9	21	-0.1	0.9	22.2	274.4
BAER SW	Julius Baer Gruppe	90	63	0.0	1.5	10.5	48.3	ASSAB SS	ASSA ABLOY	10	35	0.0	0.8	18.0	229.3
RBS LN	RBS	90	85	-0.3	1.5	4.3	2.2	SN/ LN	Smith & Nephew	10	24	-0.1	0.4	18.4	18.3

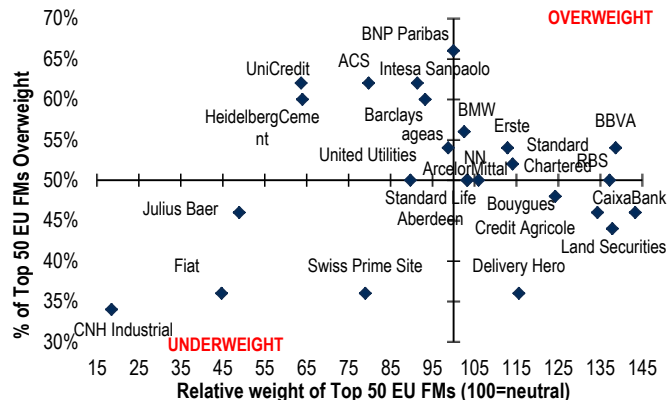
Source: BofA European Equity Quant Strategy, FactSet. Price in Local Currency. Companies listed represent the top and bottom 10% of the largest 250 European stocks. The screen identified as Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This screen was not created to act as a benchmark.



Recovery characteristics (1)

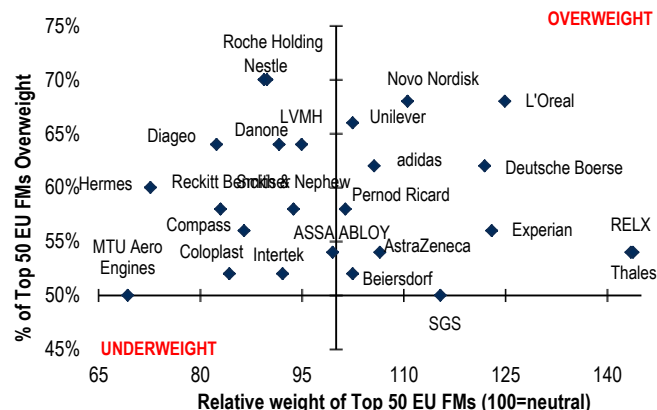
The top 'Recovery' screen is most overweight Financials, whilst the bottom screen is most overweight Staples and Healthcare.

Chart 47: Top Recovery ownership



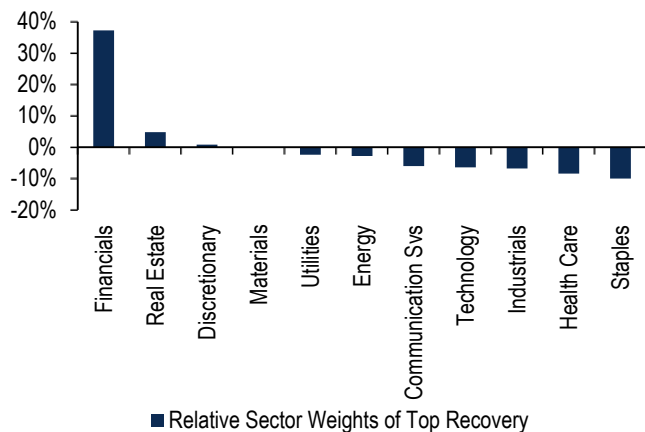
Source: BofA European Equity Quant Strategy

Chart 48: Bottom Recovery ownership



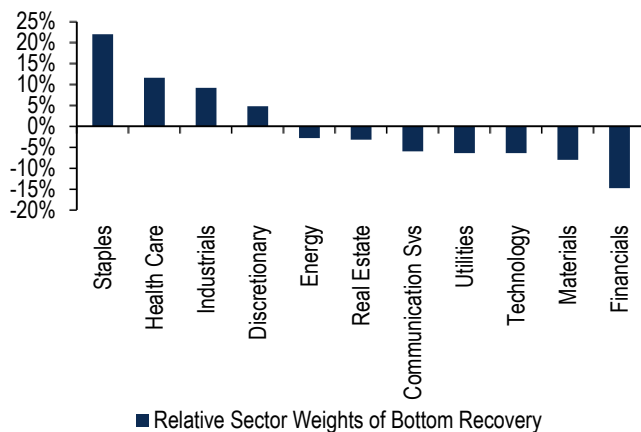
Source: BofA European Equity Quant Strategy

Chart 49: Top Recovery relative sector weights



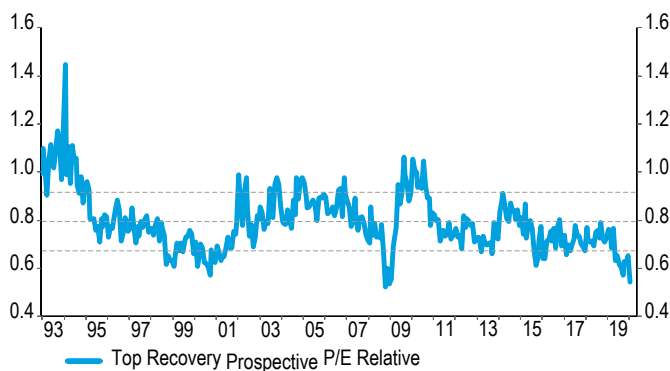
Source: BofA European Equity Quant Strategy

Chart 50: Bottom Recovery relative sector weights



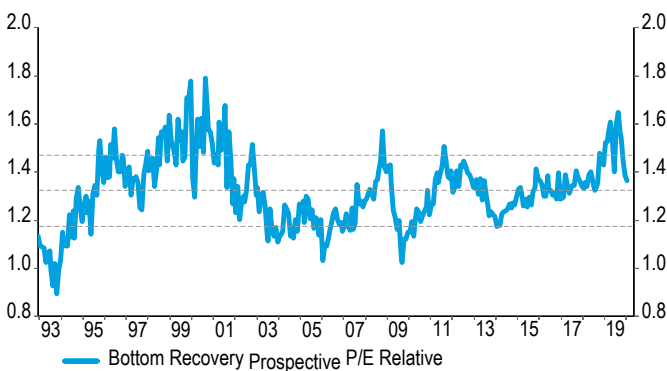
Source: BofA European Equity Quant Strategy

Chart 51: Top Recovery prospective P/E, relative



Source: BofA European Equity Quant Strategy

Chart 52: Bottom Recovery prospective P/E, relative

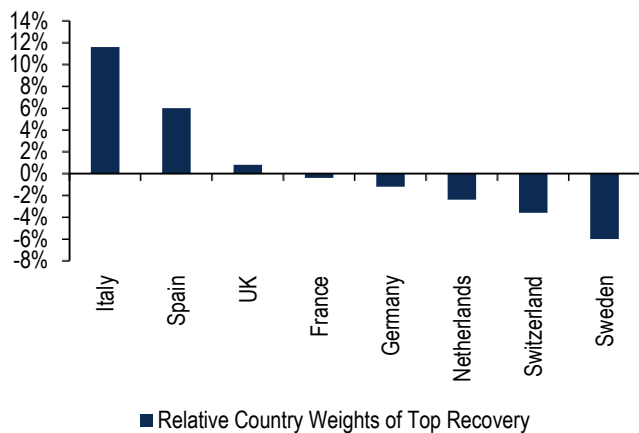


Source: BofA European Equity Quant Strategy

Recovery characteristics (2)

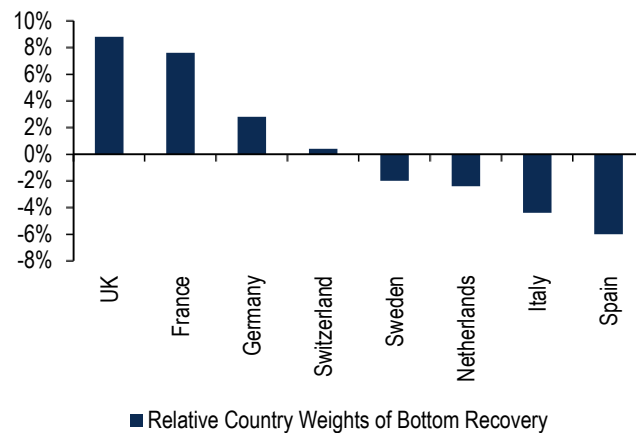
Top 'Recovery' screen is most overweight Italy and Spain, whilst the Bottom screen is most overweight UK and France.

Chart 53: Top Recovery relative country weights



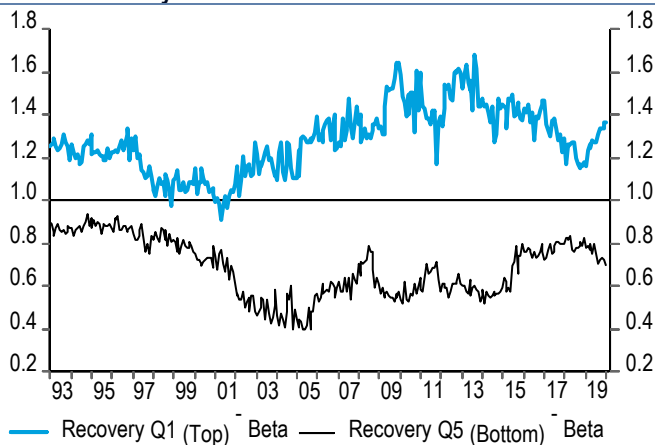
Source: BofA European Equity Quant Strategy

Chart 54: Bottom Recovery relative country weights



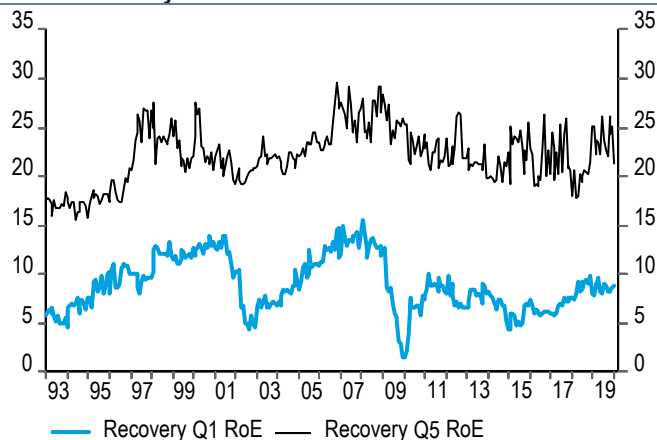
Source: BofA European Equity Quant Strategy

Chart 55: Recovery - Beta



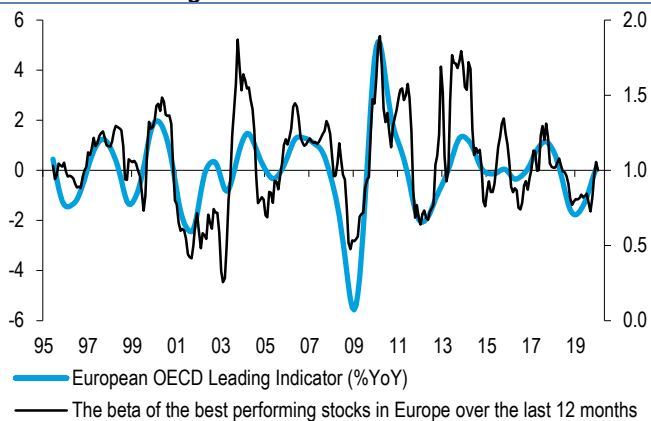
Source: BofA European Equity and Quant Strategy

Chart 56: Recovery - RoE



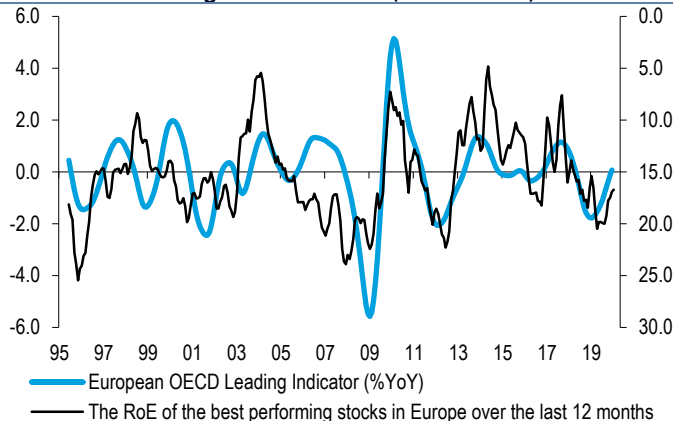
Source: BofA European Equity and Quant Strategy

Chart 57: OECD leading indicator and Beta



Source: BofA European Equity Quant Strategy

Chart 58: OECD leading indicator and RoE (inverted scale)



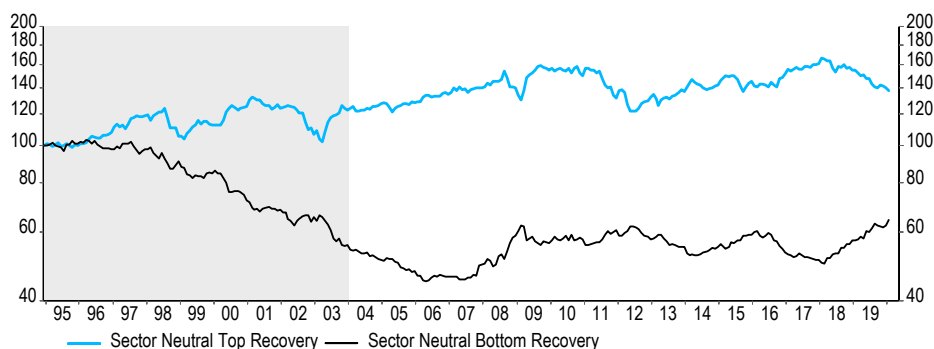
Source: BofA European Equity Quant Strategy



Sector Neutral Style Cycle - Recovery

Style Cycle - Recovery: The European 'Style Cycle' links phases of the economic cycle with performance of investment style. The stocks below are screened by the characteristics of the 'Recovery' phase. Stocks are screened on their equal weighted rank of Value, Growth, Momentum, Quality and Risk.

Chart 59: Sector Neutral Top & Bottom Recovery Price Perf. Rel. to Equal Weight Benchmark



Source: BofA European Quant Strategy, FactSet; Inception – January 2004; The shaded area on the chart opposite shows back-tested results during the period from Dec-94 to Dec-03. The unshaded portion represents actual performance since Jan-04. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein.

Table 9: Excess Price Returns (%)

	1M	3M	6M	12M	YTD	3 Yrs	5 Yrs	Since Incept.
Top Sector Neutral Recovery	-1.4	-3.2	-3.6	-11.2	-1.4	-11.9	-5.6	29.2
Bottom Sector Neutral Recovery	3.3	3.6	4.8	12.8	3.3	22.0	14.7	-1.8
Top vs Bottom Recovery - SN	-4.5	-6.6	-8.0	-21.2	-4.5	-27.8	-17.7	31.7

Source: BofA European Quantitative Strategy, FactSet. * - Inception = January 2004

Table 10: Median Top Sector Neutral Recovery

	Fwd P/E	DY	RoE	ERR	Size	Beta
Top	11.5	3.8	11.3	1.2	10.3	1.3
LT Avg	12.6	3.1	9.6	1.4	7.1	1.2
EU Market	16.4	2.8	13.4	0.6	19.8	1.0

Table 11: Median Bottom Sector Neutral Recovery

	Fwd P/E	DY	RoE	ERR	Size	Beta
Bottom	21.8	2.2	26.0	0.5	32.5	0.7
LT Avg	17.7	2.5	22.1	0.6	25.4	0.8
EU Market	16.4	2.8	13.4	0.6	19.8	1.0

Table 12: Sector Neutral Style Cycle - Recovery

Top Stocks (Good Value, High Risk, Low Quality & Small Size)									Bottom Stocks (Poor Value, Low Risk, High Quality & Large Size)							
Sector	BBG Ticker	Name	Recovery Rank	Val Rank	ERR	Beta	RoE	Price	BBG Ticker	Name	Recovery Rank	Val Rank	ERR	Beta	RoE	Price
Comm Svs	CLNX SM	Cellnex Telecom	85	2	-0.1	0.7	-0.5	44.9	TEL NO	Telenor	39	53	-0.2	0.6	15.4	167.0
Discretionary	DHER GR	Delivery Hero SE	99	1	-0.2	1.2	-14.7	69.6	ADS GR	adidas	3	22	0.0	0.9	26.3	285.8
Discretionary	BMW GR	BMW	98	98	0.1	1.5	8.6	64.3	CPG LN	Compass Group	3	34	-0.2	0.5	40.5	18.8
Discretionary	FCA IM	Fiat Chrysler	96	100	0.0	1.8	14.5	11.7	RMS FP	Hermes	7	1	0.3	0.7	26.0	676.6
Staples	CA FP	Carrefour	71	81	-0.1	1.1	4.8	15.3	NESN SW	Nestle	1	27	-0.2	0.5	21.3	106.4
Staples	HEIO NA	HEINEKEN	57	48	-0.2	0.7	12.8	88.9	UNA NA	Unilever	1	35	-0.3	0.6	54.9	52.7
Energy	REP SM	Repsol	80	99	-0.1	1.3	5.5	12.5	NESTE FH	Neste	13	33	-0.1	0.4	24.0	35.9
Financials	CABK SM	CaixaBank	100	78	0.1	1.4	6.1	2.6	DB1 GR	Deutsche Boerse	8	19	-0.1	0.6	17.4	147.1
Financials	ACA FP	Credit Agricole	100	94	0.0	1.8	5.7	12.2	ZURN SW	Zurich Insurance	14	64	-0.2	0.7	14.6	400.7
Financials	ISP IM	Intesa Sanpaolo	99	94	0.1	1.7	8.6	2.2	PGHN SW	Partners Group	16	14	0.1	1.1	40.2	884.8
Financials	EBS AV	Erste	98	89	0.2	1.4	12.3	33.2	LSE LN	London Stock Exch	25	6	0.2	1.0	18.8	78.4
Financials	SLA LN	SLA	98	62	0.0	1.4	6.0	3.0	ALV GR	Allianz	35	79	-0.1	1.1	10.8	215.9
Health Care	GLPG NA	Galapagos	90	3	0.0	1.7	15.0	202.1	NOVOB DC	Novo Nordisk B	2	15	-0.1	0.7	73.3	412.5
Health Care	FRE GR	Fresenius	74	65	-0.1	1.1	11.3	46.1	ROG SW	Roche Holding	4	39	0.2	0.5	53.9	324.3
Industrials	ACS SM	ACS	97	87	0.0	1.4	22.9	30.0	REL LN	RELX	1	25	-0.3	0.5	78.7	20.1
Industrials	EN FP	Bouygues	95	87	0.0	0.9	14.1	35.7	SGSN SW	SGS	3	12	-0.4	0.7	57.9	2791.0
Industrials	CNHI US	CNH Industrial	94	77	-0.2	1.4	13.3	8.6	EXPN LN	Experian	5	7	0.0	0.7	30.6	26.4
Industrials	FGR FP	Eiffage	84	70	0.1	1.0	14.6	104.8	HO FP	Thales	5	54	-0.3	0.6	21.1	99.2
Industrials	ADEN SW	Adecco Group	81	74	-0.2	1.1	17.9	56.7	ITRK LN	Intertek Group	7	12	-0.3	0.9	37.9	57.6
Technology	STM IM	STMicroelec	66	29	0.3	1.3	16.2	25.3	HLMA LN	Halma	17	4	0.1	0.8	20.0	21.1
Technology	NXPI US	NXP Semicondu	55	42	0.0	0.9	3.6	126.9	WDI GR	Wirecard	18	19	0.2	0.7	20.9	133.2
Materials	MT NA	ArcelorMittal	92	86	-0.4	2.5	0.5	13.4	NZYMB DC	Novozymes B	14	7	-0.1	0.8	28.0	351.9
Materials	HEI GR	HeidelbergCeme	92	89	-0.1	1.3	6.2	61.3	AI FP	Air Liquide	17	27	-0.1	1.0	12.1	130.8
Real Estate	LAND LN	Land Securities	93	53	0.0	1.3	4.6	9.4	AT1 GR	Aroundtown	43	51	0.1	0.5	15.7	8.5
Utilities	UU/ LN	United Utilities	94	49	0.1	0.6	12.5	10.1	ENEL IM	Enel	15	66	0.1	0.8	20.3	7.9

Source: BofA European Equity Quant Strategy, FactSet, Price in Local Currency. Companies listed represent the top and bottom 10% of the largest 250 European stocks. Note: Any blank spaces represent stocks restricted under UK Takeover Panel code. The screen identified as Sector Neutral Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.

Explaining the European Style Cycle

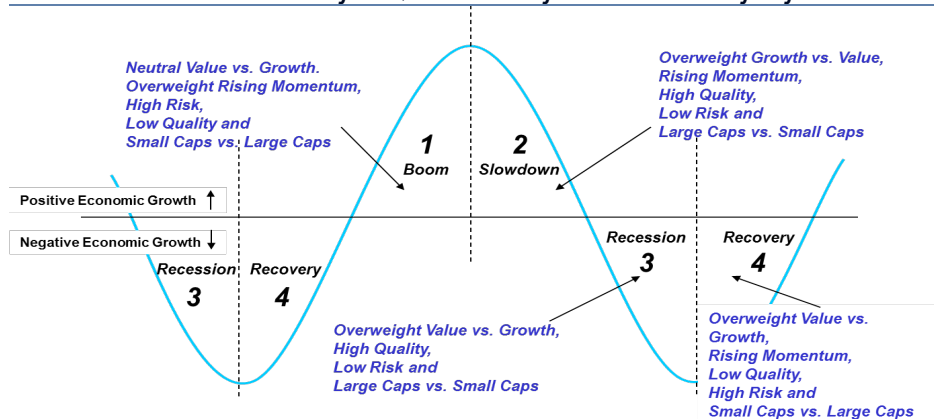
Style cycle: the relationship between the economic cycle and investment style

- We draw on the back-testing results first presented in February 2004, using data (since January 1992) on investment style price returns and the economic cycle to create the European 'Style Cycle'.
- The European 'Style Cycle' aims to offer what we believe are two vital components for investing across the cycle. These are 1) Timing and 2) Rotation.
- Investment styles with potential for success are based on favourable positioning within the cycle. Highlighted investment styles are expected to outperform the MSCI European equal-weight price index.
- We identify investment styles that we believe have the characteristics to underperform the MSCI European equal-weight price index, based on the unfavourable positioning within the cycle at a particular point in time. The screens resulting from the investment styles are not a recommended list, either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision.

We observe the year on year changes for signals of economic expansion or contraction, and analyse monthly changes in the index for indications of peaks and troughs in macro data. The combination helps investors navigate the economic cycle, acting as a timing indicator for style rotation.

We show the relationship between the European economic cycle and price performance of various investment styles in the chart below. The four phases of the economic cycle are dictated by changes in the European CMI. The style preferences in each phase are based on the back-testing results of average monthly price returns from following individual investment styles during the changing conditions in the economic cycle

Chart 60: Phases of the Economic Cycle* & Investment Style Preferences – 'Style Cycle'



Phase 1- Rising & Accelerating; Phase 2- Rising & Decelerating; Phase 3- Falling & Decelerating; Phase 4- Falling & Accelerating.

*Economic Cycle based on the ML Composite Macro Indicator

Source: BofA European Equity Quant Strategy

Back testing period from Dec 1992 to Dec 2003. Actual Performance Jan 2004.



Step 1: Defining the ‘cycle’

We define the cycle by using the change in our European Composite Macro Indicator (CMI). The CMI is an equal-weight composite indicator, measuring six key variables. We have selected these six indicators because we believe they represent a cross-section of views on the character of the economic/business/stock market cycle.

The inputs we use in the European CMI are as follows:

- Direction of long-end interest rate expectations,
- Direction of business survey data and economic optimism,
- Economists’ consensus GDP forecasts,
- Sell-side analysts’ global profit revisions,
- The OECD economic leading indicator, and
- Changes in European inflation expectations.

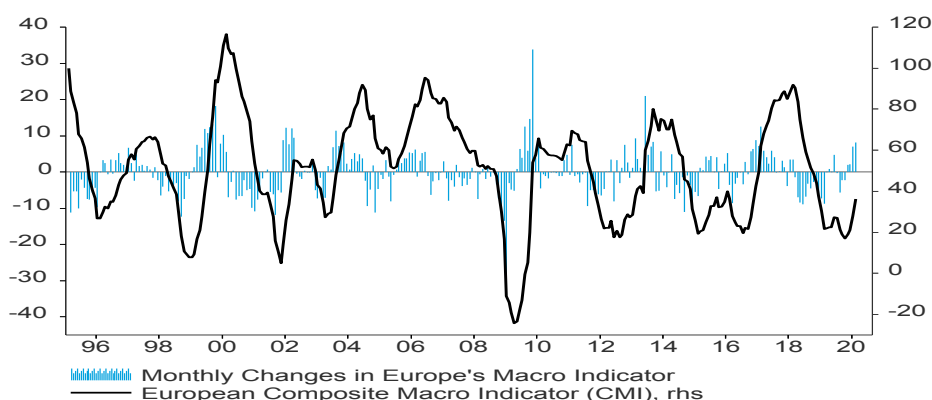
Of course, a cycle may be defined by using different inputs, and this may or may not generate similar results. However, our analysis shows that the six inputs of the CMI are sufficient to define a macro tool that shows linkages to the cycle, and ultimately expands our understanding of rotations within investment style price returns.

Specifically, we have selected these six inputs because they fulfil three key criteria, both in isolation but also as an equal weight-composite index:

1. show a high correlation to the change in cyclical vs defensive stock performance over the duration of our back testing period;
2. have a high correlation to the consensus 3-month EPS revisions ratio over the duration of our back testing period; and
3. show a high probability at predicting the direction of 6-month future price returns over the duration of our back testing period.

Simply put, we take each one of the six variables as they existed at month end and record the data, then using z-scores to normalise the data (some are percentages, some are levels and others are ratios). Using a percentile rank methodology of each variable can achieve the same outcome. We then aggregate the individual data series by using an equal-weight average. The sum of the individual data or aggregate macro series is referred to as the European Composite Macro Indicator (CMI).

Chart 61: European Composite Macro Indicator (CMI) and the monthly changes in CMI



Source: BofA European Equity Quant Strategy – Based on BY, GDP Forecasts, OECD, IFO Survey, PPI & EPS Revisions.

Phases 1 & 2

When the European Composite Macro Indicator is expanding (top half of chart 1), we can either be in Phase 1 – ‘Boom’ or Phase 2 – ‘Slowdown’. Phase 1 – ‘Boom’ depicts expansion in economic activity and where the data continues to accelerate. Phase 2 – ‘slow-down’ highlights rising expectations of economic growth, but where the data are decelerating. Although, this phase highlights positive growth, the data points would suggest that it is slowing. Some refer to this as a phase when the 2nd derivative is falling (the change in the change). In brief, the CMI shows we are either in a ‘Boom’ or ‘Slowdown’. The month on month change in the CMI determines the difference between a ‘Boom’ phase and a ‘slow-down’ phase.

Phases 3 & 4

When the European Composite Macro Indicator is contracting (bottom half of chart 1) then at that point in time we can either be in Phase 3 – ‘Recession’ or Phase 4 – ‘Recovery’. Phase 3 – ‘Recession’ shows contracting economic activity and where the data are decelerating. Phase 4 – ‘Recovery’ highlights a point in the cycle where economic growth is perceived to be negative but the data point is no longer deteriorating (2nd derivative rising). This phase is most similar to the period between late 2002 and 2003 or 2009. During this period, financial markets ‘bottomed’, sentiment started to rise from depressed levels and business confidence picked-up substantially. In brief the CMI shows we are either in a ‘Recession’ or ‘Recovery’. The month on month change in the CMI determines the difference between a ‘Recession’ phase and a ‘Recovery’ phase

Step 2: Defining ‘Investment Style’

We define the investment style by aggregating individual screens of stock with the MSCI European equal weight price index. We have taken the entire universe of stocks that existed at month end within the index and ranked stocks based on screen definitions highlighted in the table below.

Stock screens

We select the top and bottom 10% of stocks under each screen heading and characterise these basket of stocks as either the top or bottom screens based on each factor. Stock screens are produced using month end data and are rebalanced monthly. All baskets of stocks within the screen are based on equal weight average to aggregate stock to screen level. Price return data is then created for each screen on the same equal weight average basis.

For a more in-depth understanding of each screen definition please refer to [Pan European Quantitative Profiles, November 2015](#) which highlights each of these 22 screens, their performance and the current stock make-up.



Table 13: Investment screens

Name	+/-	ST Vol	LT Vol	Comment
Forecast Earnings Yield	-	10	14	Has been more volatile in recent yrs relative to history
Trailing Earnings Yield	+	10	13	Has been more volatile in recent yrs relative to history
Dividend Yield	+	9	11	One of the least volatile Value metrics
Cash/Price Yield	+	8	7	One of the least volatile Value metrics
Book/Price Yield	+	15	16	The most cyclical Value metric
Price/Sales	-	8	9	One of the least volatile Value metrics
Forecast PEG	-	9	9	One of the least volatile Value metrics
Forecast EPS Growth	-	7	9	The worst performing growth metric
Trailing EPS Growth	+	3	6	The best performing growth strategy in the long run
LT EPS Growth	-	7	8	Has not worked in recent years
3 month For. EPS change	-	6	8	One of the most favoured metrics by bottom up stock pickers
EPS Revision Ratio	-	4	9	One of the most favoured metrics by bottom up stock pickers
Sales Revision Ratio	-	6	8	One of the most favoured metrics by bottom up stock pickers
12m Price Momentum	-	7	10	Tends to perform poorly at cyclical turning points
Return on Assets	+	5	7	Low Quality metrics performed well in 2013
Return on Capital	+	6	7	Low Quality metrics performed well in 2013
Return on Equity	-	7	7	Low Quality metrics performed well in 2013
5yr Return on Equity	+	7	9	Low Quality metrics performed well in 2013
Leverage	-	5	7	Low Quality metrics performed well in 2013
EPS Estimate Dispersion.	-	11	13	A more fundamental metric of risk
Beta	-	11	15	The highest risk style metric
Small Size	-	4	5	Volatility is very low in mid caps

Source: BofA European Equity Quant Strategy. ST = Short term price volatility which is measured over the past 2 years. LT = Long term price volatility which is measured over the past 10 years.

How to Read the Table:

Denotes that the long and short screens moved in the right direction over the past month. (i.e. - longs are going up and shorts are going down).

- Denotes screens are moving in the opposite direction (i.e. - longs are going down and shorts are going up).

= Denotes a screen where only one of the long/short strategies is moving in the right direction. (i.e. either the long or short portfolio is going in the right direction whilst the other moves in the opposite direction to what is expected). Volatility - is the annualized standard deviation of the returns of the long minus the short screen. (A low number suggest low volatility and high number implies high volatility). The Long Term (LT) measure is based on all returns since inception of the screens (Generally – 10Years), the Short Term (ST) on the last 2 years of data.

Investment styles

Price returns; not total returns, dividends not re-invested. We use price data using month end data points for our stock selection inputs. We also include restricted stocks in our analysis.

Investment Style price returns are calculated as the simple average performance of the stocks within the screen. This way, we remove any size bias from the analysis, and thereby test whether the factors on which we are focused predict price performance.

We use the most commonly used investment style definitions which include Value, Growth, Momentum, Quality, Risk and Size. Investment Style price returns we use are aggregated on an equal weight basis for all screens that fulfil the investment style definition. For example, Value is defined as the 7 portfolios in the table above and including Forecast Earnings Yield and Forecast PEG. Growth is defined as the combination of LT EPS Growth, Forecast Earnings Growth and Trailing EPS Growth, and so on for the remainder of the investment style screens

Investment style returns and phases of the cycle

In step 1 – we defined the cycle. We have a monthly history of which phase of the cycle, the stock market was in, at each point in time. In step 2 – we defined the investment style price returns. We have time-series for price returns based on monthly stock screens. In brief, the ‘Style Cycle’ marries the phase of the cycle to good and bad price returns for different definitions of investment style.

Our back tested price returns highlight the combinations of investments styles that are perform best and worst for each phase of the ‘style cycle’. The European Composite Macro Indicator (CMI) informs investors of the timing of this rotation.



Using the 'Boom' phase as an example

Compiling a stock screen from our analysis is dependent upon which phase of the cycle we are currently recommending. For example if the CMI is highlighting a preference for the 'Boom' phase of the cycle, then past performance suggests the appropriate combination of investment styles to overweight/ underweight vs the MSCI European equal weight index are as follows:

Top stocks – Small Caps, High Risk, Low Quality and Rising EPS Momentum.

Bottom stocks – Large Caps, Low Risk, High Quality and Falling EPS Momentum.

- The top and bottom screens for the 'Boom' phase are based on an initial stock universe based on the 250 largest stocks ranked by market capitalisation. We use month end data as the latest data points.
- Each stock will have an aggregate percentile rank for Value, Growth, Momentum, Risk and Quality. All definitions are based on the description provided in step 2.
- We then filter the list of 250 stocks by each factor - we do not exclude restricted stocks from this screening process.
- Good Value stocks have a Value percentile rank greater than 50, while those with a rank less than 50 are perceived to offer poor Value.
- High Growth stocks have a Growth percentile rank greater than 50, while low Growth stocks have a percentile rank less than 50.
- Rising Momentum stocks have a Momentum percentile rank greater than 50, while falling Momentum have a percentile rank less than 50.
- High Risk stocks have a Risk percentile rank greater than 50, while low Risk stocks have a percentile rank less than 50.
- High Quality stocks have a Quality percentile rank greater than 50, while low Quality stocks have a percentile rank less than 50.
- The top and bottom stock screens based on the European 'Style Cycle' analysis are based on companies that fulfil the selection criteria within each phase of the cycle framework.

Back testing – European style cycle

Back-testing the cycle with investment style

The table below includes the average excess price returns (monthly) for individual investment styles at each phase of the economic cycle. (Style performance is versus MSCI Europe equal weight Price Index).

Table 14: Monthly excess returns by investment style and phases of the economic cycle

Economic cycle	Value	Growth	Momentum	Quality hi-lo	Risk high	Size (large-small)
Phase 1 - 'Boom' rising accelerating	1.10	0.78	0.97	-1.34	0.65	-0.75
Phase 2- 'Slowdown' rising decelerating	0.00	0.44	0.89	0.52	0.07	0.25
Phase 3 - 'Recession' falling decelerating	-0.70	-1.91	-0.81	6.37	-2.85	1.10
Phase 4 - 'Recovery' falling accelerating	2.47	1.31	0.10	-3.00	2.66	-2.05
Cycle average	0.72	0.15	0.29	0.64	0.13	-0.36

Source: BofA European Equity Quant Strategy/ DataStream/ OECD/ MSCI; Back testing period Dec 1992 to Dec 2003

Performance based on equal weight portfolios, monthly rebalanced, no transaction costs are included, and performances based on price returns and not total returns (dividends are not included).

Summarising the results - we draw the following conclusions

Phase 1 'Boom' - investors have benefited most by being overweight Momentum (Rising Price & EPS), High Risk (High Beta & High Estimate Dispersion), Small Caps vs Large Caps and being Neutral on Value vs Growth.

Phase 2 'Slow-down' - investors have benefited most by overweighting Growth vs Value, Momentum (Rising Price & EPS), High Quality (Strong Balance Sheet indicators), Low Risk (Low Beta & Low Estimate Dispersion) and Large Caps vs Small Caps.

Phase 3 'Recession' - overweight Value vs Growth, High Quality (Strong Balance Sheet indicators), Low Risk (Low Beta & Low Estimate Dispersion) and Large Caps vs Small Caps.

Phase 4 'Recovery' - overweight Value vs Growth, Momentum (Rising Price & EPS), Low Quality (Weak Balance Sheet indicators), High Risk & Small vs Large Caps.

The back-testing results illustrate how certain investment styles work well compared to others, depending on the economic conditions and ultimately where we are in the cycle. The data presented above looks at all periods since 1992, including 5 complete cycles.

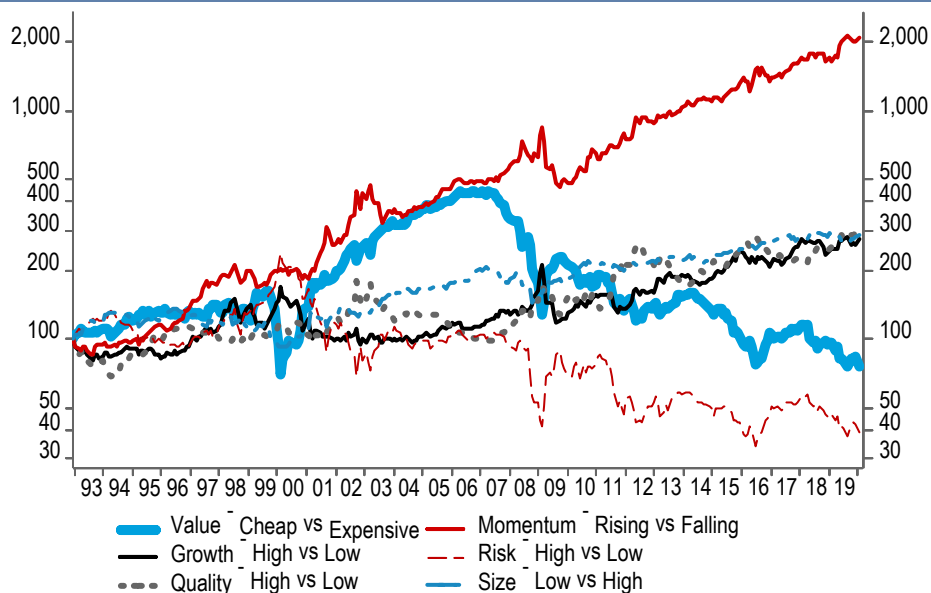
For the purpose of the historical back-testing, we calculate price returns in our analysis, not total returns. Dividends are not re-invested and performance does not include tax withholdings or any investment advisory fees. We do not include transaction costs, and we not do include implementation costs or borrowing costs in the absolute 'Style Cycle' price returns.

Price returns are based on month end data, meaning we use closing stock prices for the last trading day of the calendar month. All screens are based on month end data and it is assumed on the 1st business day of the new month our screens would have been available to the market. We calculate the profit or loss for a particular month based on the month end data from one period to the month end data of the next period.

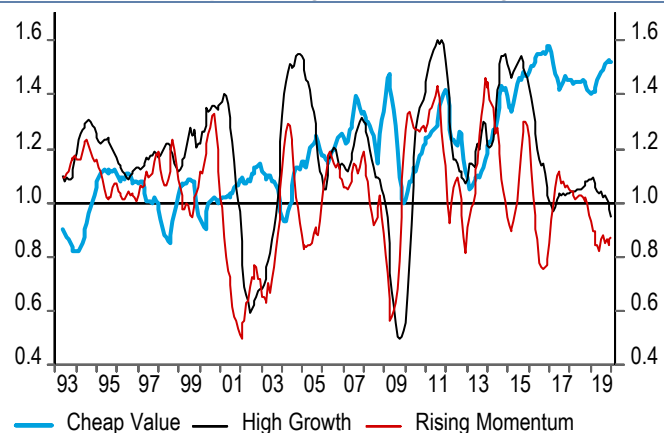
Screens are determined at the end of each month using month-end data. Price performance is calculated as the simple average performance of the stocks within the screen. In order that we compare like with like, screen performance is compared to an equal-weighted average performance of all stocks in the universe. In this way, we remove any size bias from the analysis, and thereby test whether the factors on which we are focused predict price performance. It is noteworthy that BofA restricted stocks have not been excluded from any part of the historical monthly screens as defined as the back-test period.

Back-tested performance is hypothetical in nature and reflects application of the screen prior to its introduction and is not intended to be indicative of future performance.

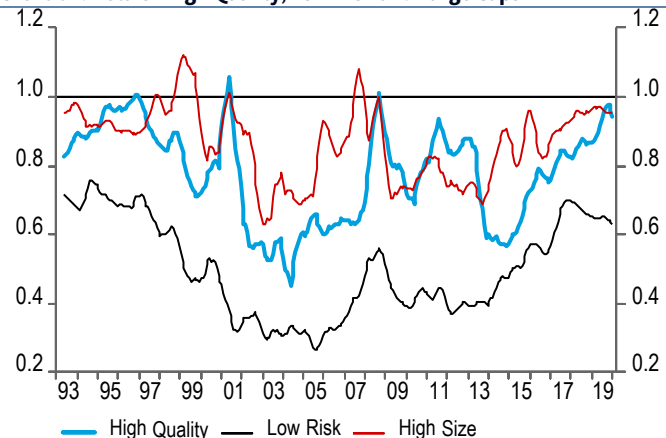


Chart 62: Investment Style – Top vs Bottom Performance

Source: BofA European Equity Quant Strategy, FactSet.

Chart 63: Beta of Cheap Value, High Growth and Rising Momentum

Source: BofA European Equity Quant Strategy, FactSet.

Chart 64: Beta of High Quality, Low Risk and Large Caps

Source: BofA European Equity Quant Strategy, FactSet.



Appendix I

Style Cycle – ‘Recovery’ by sector

Table 15: Style Cycle – Recovery by sector

	Recovery Rank (100=Top)		Recovery Rank (100=Top)		Recovery Rank (100=Top)
Communication Services	62	Royal Ahold Delhaize	48	Banco Santander	69
Media & Entertainment	66	Tesco	41	Nordea Bank Abp	68
WPP	72	Food Beverage & Tobacco	20	KBC Group	62
Vivendi	70	HEINEKEN Holding	57	Svenska Handelsbanken A	61
Publicis Groupe	62	Carlsberg B	46	Swedbank A	48
Informa	40	Mowi	46	HSBC Holdings	45
Telecommunication Services	57	Swedish Match	33	Diversified Financials	80
Cellnex Telecom	85	Associated British Foods	30	Standard Life Aberdeen	98
Royal KPN	82	Imperial Brands	29	Julius Baer Gruppe	90
Telefonica	79	Anheuser-Busch InBev	22	Deutsche Bank	86
Orange	77	Heineken	22	UBS Group	82
Vodafone Group	64	Chocoladefabriken Lindt & Spruengli	18	Credit Suisse Group	77
Swisscom	57	Coca-Cola European	16	London Stock Exch Grp	25
Telia	55	British American Tobacco	12	Partners Group Holding	16
BT Group	52	Kerry Group A	11	Deutsche Boerse N	8
Elisa A	49	Danone	6	Insurance	72
Deutsche Telekom	43	Pernod Ricard	5	ageas	96
Telenor	39	Diageo	2	NN Group	92
Consumer Discretionary	53	Nestle	1	Legal & General Group	89
Automobiles & Components	85	Household & Personal Products	8	Aviva	88
BMW	98	Essity B	49	Assicurazioni Generali	84
Fiat Chrysler Automobiles	96	Henkel Vz	15	Baloise-Holding	83
Volkswagen Vz	90	Beiersdorf	8	Hannover Rueck	74
Continental	87	Reckitt Benckiser Group	8	Swiss Life Holding	72
Porsche AutoHldg Vz	85	L'Oreal	7	Muenchener Rueckversicher	57
Daimler	80	Unilever	1	Prudential	56
Peugeot	64	Energy	59	Sampo A	44
Compagnie Generale	55	Energy	59	AXA	40
Ferrari	32	Repsol	80	Swiss Re	37
Consumer Durables & Apparel	27	Equinor	74	Allianz	35
Barratt Developments	79	Eni	69	Zurich Insurance Group	14
Taylor Wimpey	74	BP	59	Health Care	25
Persimmon	45	Total	57	Health Care Equipment & Services	24
EssilorLuxottica	35	Royal Dutch Shell A	53	Fresenius	74
Burberry Group	27	Neste	13	Fresenius Medical Care	60
Kering	26	Financials	83	Koninklijke Philips	43
Cie Financiere Richemont	24	Banks	88	Sonova Holding	24
LVMH Moet Hennessy Louis Vuitton	9	CaixaBank	100	Straumann Holding	22
Hermes International	7	Credit Agricole	100	Smith & Nephew	10
adidas	3	Intesa Sanpaolo	99	Coloplast B	4
Consumer Services	47	Erste Group Bank	98	Pharmaceuticals Biotechnology & Life Sciences	25
Flutter Entertainment	87	Standard Chartered	97	Galapagos	90
Sodexo	61	Barclays	96	Grifols A	74
InterContinental Hotels Group	33	BNP Paribas A	95	UCB	66
Compass Group	3	UniCredit	93	Merck	46
Retailing	40	Banco Bilbao Vizcaya Argentaria	90	Genmab	37
Delivery Hero SE	99	Royal Bank of Scotland Group	90	Bayer	27
Next	53	Danske Bank	89	Lonza Group	25
Hennes & Mauritz B	27	Societe Generale A	87	GlaxoSmithKline	23
Inditex	19	DNB	86	Novartis	19
Consumer Staples	18	ING Groep	83	Sanofi	16
Food & Staples Retailing	48	Lloyds Banking Group	77	AstraZeneca	6
Carrefour	71	Skandinaviska Enskilda Banken A	72	Roche Holding	4

Source: BofA European Equity Quant Strategy, Factset. Companies listed represent the largest 250 European stocks. Note: Any blank spaces represent stocks restricted under UK Takeover Panel code.

Table 16: Style Cycle – Recovery by sector

	Recovery Rank (100=Top)		Recovery Rank (100=Top)		Recovery Rank (100=Top)
Novo Nordisk B	2	STMicroelectronics	66	United Utilities Group	94
Industrials	40	NXP Semiconductors	55	RWE	87
Capital Goods	39	Infineon Technologies	50	Fortum	81
Actividades de Construcción y Servicios	97	ASML Holding	20	Veolia Environnement	71
Bouygues	95	Software & Services	27	Endesa	68
CNH Industrial	94	Capgemini	51	EDP Portugal	66
Eiffage	84	SAP	38	E.ON	63
ABB	80	Edenred	37	Red Electrica Corp	63
Ferrovial	74	Adyen	29	ENGIE	61
Alstom	73	Dassault Systemes	27	TERNA	52
Smiths Group	70	Amadeus IT Group A	26	SNAM	51
Compagnie de Saint-Gobain	66	Temenos	22	Orsted	40
Melrose Industries	65	Sage Group	18	SSE	33
Volvo B	59	Wirecard	18	National Grid	31
Siemens	55	Technology Hardware & Equipment	38	Iberdrola	21
Sandvik	48	LM Ericsson B	51	Enel	15
Rolls-Royce Holdings	46	Hexagon B	42		
Ashtead Group	41	Nokia	34		
Legrand	41	Halma	17		
Kingspan Group	39	Materials	63		
Spirax-Sarco Engineering	37	Materials	63		
Ferguson	35	ArcelorMittal	92		
VINCI	35	HeidelbergCement	92		
Schneider Electric	34	LafargeHolcim	83		
Bunzl	33	Glencore	78		
Schindler Hldg PS	31	UPM-Kymmene	77		
Vestas	31	Umicore	74		
Atlas Copco A	30	CRH	72		
Geberit	20	Mondi	68		
Kone B	18				
BAE Systems	12	BASF	66		
Airbus	11	Akzo Nobel	59		
Safran	11	Koninklijke DSM	53		
ASSA ABLOY B	10	BHP Group	50		
MTU Aero Engines	9	Rio Tinto	30		
Thales	5	Symrise	29		
Commercial & Professional Services	10	Givaudan	27		
Adecco Group	81	Croda International	24		
Teleperformance	49	Sika	19		
Wolters Kluwer	14	Air Liquide	17		
Rentokil Initial	13	Novozymes B	14		
Intertek Group	7	Real Estate	72		
Experian	5	Real Estate	72		
SGS	3	Land Securities Group	93		
RELX	1	Swiss Prime Site	92		
Transportation	46	Unib-Rodam-West Uts	84		
Atlantia	63	Gecina	79		
Kuehne Nagel Intl	58	Vonovia	64		
DSV Panalpina	46	SEGRO	60		
Deutsche Post	44	Deutsche Wohnen	52		
Aena SME	40	Aroundtown	43		
Information Technology	34	Utilities	62		
Semiconductors & Semiconductor Equipment	53	Utilities	62		

Source: BofA European Equity Quant Strategy, Factset. Companies listed represent the largest 250 European stocks. Note: Any blank spaces represent stocks restricted under UK Takeover Panel code.



Style Cycle – ‘Recovery’ by country

Table 17: Style Cycle – Recovery by country

Recovery Rank (100=Top)		Recovery Rank (100=Top)		Recovery Rank (100=Top)	
Austria	98	Edenred	37	Kingspan Group	39
Erste Group Bank	98	EssilorLuxottica	35	Kerry Group A	11
Belgium	70	VINCI	35	Italy	69
ageas	96	Schneider Electric	34	Intesa Sanpaolo	99
Galapagos	90	Dassault Systemes	27	Fiat Chrysler Automobiles	96
Umicore	74	Kering	26	CNH Industrial	94
UCB	66	Air Liquide	17	UniCredit	93
KBC Group	62	Sanofi	16	Assicurazioni Generali	84
Anheuser-Busch InBev	22	Airbus	11	Eni	69
Denmark	37	Safran	11	Atlantia	63
Danske Bank	89	LVMH Moet Hennessy Louis Vuitton	9	TERNA	52
Carlsberg B	46	Hermes International	7	SNAM	51
DSV Panalpina	46	L'Oreal	7	Ferrari	32
Orsted	40	Danone	6	Enel	15
Genmab	37	Pernod Ricard	5	Netherlands	48
Vestas	31	Thales	5	NN Group	92
Novozymes B	14	Germany	55	ING Groep	83
Coloplast B	4	Delivery Hero SE	99	Royal KPN	82
Novo Nordisk B	2	BMW	98	Akzo Nobel	59
Finland	44	HeidelbergCement	92	HEINEKEN Holding	57
Fortum	81	Volkswagen Vz	90	NXP Semiconductors	55
UPM-Kymmene	77	Continental	87	Koninklijke DSM	53
Elisa A	49	RWE	87	Royal Ahold Delhaize	48
Sampo A	44	Deutsche Bank	86	Koninklijke Philips	43
Nokia	34	Porsche AutoHldg Vz	85	Adyen	29
Kone B	18	Daimler	80	Heineken	22
Neste	13	Fresenius	74	ASML Holding	20
France	55	Hannover Rueck	74	Coca-Cola European	16
Credit Agricole	100	BASF	66	Wolters Kluwer	14
BNP Paribas A	95	Vonovia	64	Unilever	1
Bouygues	95	E.ON	63	Norway	60
ArcelorMittal	92	Fresenius Medical Care	60	DNB	86
Societe Generale A	87	Muenchener Rueckversicher	57	Equinor	74
Eiffage	84	Siemens	55	Mowi	46
Unib-Rodam-West Uts	84	Deutsche Wohnen	52	Telenor	39
Gecina	79	Infineon Technologies	50	Portugal	66
Orange	77	Merck	46	EDP Portugal	66
Alstom	73	Deutsche Post	44	Spain	74
Carrefour	71	Aroundtown	43	CaixaBank	100
Veolia Environnement	71	Deutsche Telekom	43	ACS	97
Vivendi	70	SAP	38	BBVA	90
Compagnie de Saint-Gobain	66	Allianz	35	Cellnex Telecom	85
STMicroelectronics	66	Symrise	29	Repsol	80
Peugeot	64	Bayer	27	Telefonica	79
Publicis Groupe	62	Wirecard	18	Ferrovial	74
ENGIE	61	Henkel Vz	15	Grifols A	74
Sodexo	61	MTU Aero Engines	9	Banco Santander	69
Total	57	Beiersdorf	8	Endesa	68
Compagnie Generale	55	Deutsche Boerse N	8	Red Electrica Corp	63
Capgemini	51	adidas	3	Aena SME	40
Teleperformance	49	Ireland	56	Amadeus IT Group A	26
Legrand	41	Flutter Entertainment	87	Iberdrola	21
AXA	40	CRH	72	Inditex	19

Source: BofA European Equity Quant Strategy, Factset. Companies listed represent the largest 250 European stocks. Note: Any blank spaces represent stocks restricted under UK Takeover Panel code.

Table 18: Style Cycle – Recovery by country

	Recovery Rank (100=Top)		Recovery Rank (100=Top)	Recovery Rank (100=Top)
Sweden	49	Barratt Developments	79	
Skandinaviska Enskilda Banken A	72	Glencore	78	
Nordea Bank Abp	68	Lloyds Banking Group	77	
Svenska Handelsbanken A	61	Taylor Wimpey	74	
Volvo B	59	WPP	72	
Telia	55	Smiths Group	70	
LM Ericsson B	51	Mondi	68	
Essity B	49			
Sandvik	48	Melrose Industries	65	
Swedbank A	48	Vodafone Group	64	
Hexagon B	42	SEGRO	60	
Swedish Match	33	BP	59	
Atlas Copco A	30	Prudential	56	
Hennes & Mauritz B	27	Next	53	
ASSA ABLOY B	10	Royal Dutch Shell A	53	
Switzerland	26	BT Group	52	
Swiss Prime Site	92	BHP Group	50	
Julius Baer Gruppe	90	Rolls-Royce Holdings	46	
Baloise-Holding	83	HSBC Holdings	45	
LafargeHolcim	83	Persimmon	45	
UBS Group	82	Ashtead Group	41	
Adecco Group	81	Tesco	41	
ABB	80	Informa	40	
Credit Suisse Group	77	Spirax-Sarco Engineering	37	
Swiss Life Holding	72	Ferguson	35	
Kuehne Nagel Intl	58	Bunzl	33	
Swisscom	57	InterContinental Hotels Group	33	
Swiss Re	37	SSE	33	
Schindler Hldg PS	31	National Grid	31	
Givaudan	27	Associated British Foods	30	
Lonza Group	25	Rio Tinto	30	
Cie Financiere Richemont	24	Imperial Brands	29	
Sonova Holding	24	Burberry Group	27	
Straumann Holding	22	London Stock Exch Grp	25	
Temenos	22	Croda International	24	
Geberit	20	GlaxoSmithKline	23	
Novartis	19	Sage Group	18	
Sika	19	Halma	17	
Chocoladefabriken Lindt & Spruengli	18	Rentokil Initial	13	
Partners Group Holding	16	BAE Systems	12	
Zurich Insurance Group	14	British American Tobacco	12	
Roche Holding	4	Smith & Nephew	10	
SGS	3	Reckitt Benckiser Group	8	
Nestle	1	Intertek Group	7	
United Kingdom	41	AstraZeneca	6	
Standard Life Aberdeen	98	Experian	5	
Standard Chartered	97	Compass Group	3	
Barclays	96	Diageo	2	
United Utilities Group	94	RELX	1	
Land Securities Group	93			
Royal Bank of Scotland Group	90			
Legal & General Group	89			
Aviva	88			

Source: BofA European Equity Quant Strategy, Factset. Companies listed represent the largest 250 European stocks. Note: Any blank spaces represent stocks restricted under UK Takeover Panel code.



Style Cycle – ‘Recovery’ by country (local indices)

Table 19: UNITED KINGDOM - Style Cycle - Recovery

Top stocks				Bottom stocks			
BBG	Name	Sector	Recovery rank (100= Top)	BBG	Name	Sector	Recovery rank (1= Bottom)
PMO LN	Premier Oil	Oil & Gas	100	REL LN	RELX	Consumer Services	1
CNE LN	Cairn Energy	Oil & Gas	100	ULVR LN	Unilever	Consumer Goods	1
JUST LN	Just Grp	Financials	99	CPG LN	Compass Group	Consumer Services	1
FGP LN	FirstGroup	Consumer Services	99	SGE LN	Sage Group	Technology	2
VMUK LN	Virgin Money UK	Financials	99	ITRK LN	Intertek Group	Industrials	2
FIN LN	Finabl	Industrials	98	DGE LN	Diageo	Consumer Goods	2
DRX LN	Drax Group	Utilities	98	CRDA LN	Croda International	Basic Materials	3
TIFS LN	TI Fluid Systems	Consumer Goods	98	RTO LN	Rentokil Initial	Industrials	3
HOC LN	Hochschild Mining	Basic Materials	97	AUTO LN	Auto Trader Group	Consumer Services	3
SGC LN	Stagecoach Group	Consumer Services	97	RMV LN	Rightmove	Consumer Services	4
BGEO LN	Bank of Georgia Group	Financials	97	HLMA LN	Halma	Industrials	4
SHI LN	SIG	Industrials	96	RB/ LN	Reckitt Benckiser Group	Consumer Goods	5
HMSO LN	Hammerson	Financials	96	CCH LN	Coca-Cola HBC	Consumer Goods	5
ELM LN	Elementis	Basic Materials	95	SN/ LN	Smith & Nephew	Health Care	5
TLW LN	Tullow Oil	Oil & Gas	95	SPX LN	Spirax-Sarco Engineering	Industrials	6
KAZ LN	KAZ Minerals	Basic Materials	95	ASHM LN	Ashmore Group	Financials	6
GLO LN	ContourGlobal Plc	Utilities	94	EXPN LN	Experian	Industrials	6
HYVE LN	Hyve Group	Consumer Services	94	AJB LN	AJ Bell	Financials	7
MARS LN	Marston's	Consumer Services	94	BNZL LN	Bunzl	Industrials	7
AML LN	Aston Martin Lagonda	Consumer Goods	93	HWDN LN	Howden Joinery Group	Industrials	7
WOSG LN	Watches of Switzerland	Consumer Goods	93	ECM LN	Electrocomponents	Industrials	8
WMH LN	William Hill	Consumer Services	92	BVIC LN	Britvic	Consumer Goods	8
BARC LN	Barclays	Financials	92	BA/ LN	BAE Systems	Industrials	8
HTG LN	Hunting	Oil & Gas	91	IHG LN	InterContinental Hotels Group	Consumer Services	9
ESNT LN	Essentra	Industrials	91	AZN LN	AstraZeneca	Health Care	9

Source: BofA European Equity Quant Strategy, FactSet, Price in Local Currency. Companies listed represent the top and bottom 25 of the largest FTSE350 stocks. The screen identified as United Kingdom – Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.

Table 20: GERMANY - Style Cycle - Recovery

Top stocks				Bottom stocks			
BBG	Name	Sector	Recovery rank (100= Top)	BBG	Name	Sector	Recovery rank (1= Bottom)
ZIL2 GR	ErlingKlinger	Consumer Discretionary	100	KBX GR	Knorr-Bremse	Industrials	1
ADL GR	Adler Real Estate	Real Estate	99	BEI GR	Beiersdorf	Consumer Staples	1
PBB GR	Deutsche Pfandbriefbank	Financials	99	HEN3 GR	Henkel Vz	Consumer Staples	2
HDD GR	Heidelberger Druck	Industrials	98	ADS GR	adidas	Consumer Discretionary	2
KCO GR	Kloekner	Industrials	97	MTX GR	MTU Aero Engines	Industrials	3
CBK GR	Commerzbank	Financials	97	DB1 GR	Deutsche Boerse N	Financials	4
NDX1 GR	Nordex	Industrials	96	SHL GR	Siemens Healthineers	Health Care	4
ADV GR	ADVA Optical Networking	Information Technology	95	RAA GR	Rational	Industrials	5
LEO GR	LEONI	Consumer Discretionary	95	PUM GR	PUMA	Consumer Discretionary	6
SFQ GR	SAF-HOLLAND	Consumer Discretionary	94	WDI GR	Wirecard	Information Technology	6
SZG GR	Salzgitter	Materials	93	LEG GR	LEG Immobilien	Real Estate	7
DRW8 GR	Draegerwerk Vz	Health Care	93	EVD GR	CTS Eventim	Communication Services	7
DEQ GR	Deutsche EuroShop	Real Estate	92	AT1 GR	Aroundtown	Real Estate	8
WAC GR	Wacker Neuson SE	Industrials	91	SRT3 GR	Sartorius Vz	Health Care	9
NDA GR	Aurubis	Materials	91	SY1 GR	Symrise	Materials	10
CE2 GR	CropEnergies	Energy	90	NWO GR	New Work	Communication Services	10
G1A GR	GEA Group	Industrials	90	AFX GR	Carl Zeiss Meditec	Health Care	11
RIB GR	RIB Software	Information Technology	88	AOX GR	Alstria Office REIT	Real Estate	11
BYW GR	BayWa	Industrials	88	G24 GR	Scout24	Communication Services	12
DEZ GR	DEUTZ	Industrials	88	WSU GR	WashTec	Industrials	13
LXS GR	LANXESS	Materials	87	BC8 GR	Bechtle	Information Technology	13
BMW GR	BMW	Consumer Discretionary	86	RHM GR	Rheinmetall	Industrials	14
AR4 GR	AURELIUS Equity	Financials	85	GLJ GR	GRENKE	Financials	15
SGL GR	SGL Carbon	Industrials	85	EVT GR	Evotec	Health Care	15
MLP GR	MLP	Financials	84	RKET GR	Rocket Internet	Consumer Discretionary	16

Source: BofA European Equity Quant Strategy, FactSet, Price in Local Currency. Companies listed represent the top and bottom 25 of the largest MSCI Germany IMI stocks. The screen identified as Germany – Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark. Note: Any blank spaces represent stocks restricted under UK Takeover Panel code.



Table 21: FRANCE - Style Cycle - Recovery

Top stocks				Bottom stocks			
BBG	Name	Sector	Recovery rank (100= Top)	BBG	Name	Sector	Recovery rank (1= Bottom)
MAU FP	Maurel & Prom	Energy	100	HO FP	Thales	Industrials	1
GNFT FP	Genfit	Health Care	99	BN FP	Danone	Consumer Staples	1
CGG FP	CGG	Energy	99	RI FP	Pernod Ricard	Consumer Staples	2
ACA FP	Credit Agricole	Financials	98	RMS FP	Hermes International	Consumer Discretionary	2
LAT FP	Latecoere	Industrials	97	ENX FP	Euronext	Financials	3
NEX FP	Nexans	Industrials	97	RCO FP	Remy Cointreau	Consumer Staples	4
DBV FP	DBV Techno	Health Care	95	OR FP	L'Oreal	Consumer Staples	4
ERA FP	Eramet	Materials	95	BIM FP	bioMerieux	Health Care	5
TCH FP	Technicolor	Communication Services	95	SAF FP	Safran	Industrials	6
QDT FP	Quadiant	Information Technology	94	DIM FP	Sartorius Stedim Biotech	Health Care	6
TKTT FP	Tarkett	Industrials	93	MC FP	LVMH	Consumer Discretionary	7
APAM NA	Aperam	Materials	93	AI FP	Air Liquide	Materials	8
FGA FP	Figeac Aero	Industrials	91	DSY FP	Dassault Systemes	Information Technology	8
CO FP	Casino, Guichard	Consumer Staples	91	AIR FP	Airbus	Industrials	9
DBG FP	Derichebourg	Industrials	91	DVT FP	Devoteam	Information Technology	10
LOCAL FP	Solocal Group	Communication Services	90	SAN FP	Sanofi	Health Care	10
VK FP	Vallourec	Energy	89	BB FP	Societe BIC	Industrials	11
MRN FP	Mersen	Industrials	89	AM FP	Dassault Aviation	Industrials	12
MMB FP	Lagardere	Communication Services	88	PUB FP	Publicis Groupe	Communication Services	12
JCQ FP	JACQUET Metal Service	Industrials	87	IPN FP	Ipsen	Health Care	13
BNP FP	BNP Paribas A	Financials	87	TEP FP	Teleperformance	Industrials	14
MDM FP	Maisons du Monde	Consumer Discretionary	86	LR FP	Legrand	Industrials	14
KN FP	Natisis	Financials	85	SW FP	Sodexo	Consumer Discretionary	15
EUCAR FP	Europcar Mobility Group	Industrials	84	ML FP	Compagnie Generale	Consumer Discretionary	15
GLO FP	GL Events	Industrials	84	KER FP	Kering	Consumer Discretionary	15

Source: BofA European Equity Quant Strategy, FactSet, Price in Local Currency. Companies listed represent the top and bottom 25 of the largest MSCI France IMI stocks. The screen identified as France – Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.

Table 22: SWITZERLAND - Style Cycle - Recovery

Top stocks				Bottom stocks			
BBG	Name	Sector	Recovery rank (100= Top)	BBG	Name	Sector	Recovery rank (1= Bottom)
IMP SW	Implenia	Industrials	99	SGSN SW	SGS	Industrials	1
EFGN SW	EFG International	Financials	99	NESN SW	Nestle	Consumer Staples	1
UBXN SW	u-blox Holding	Information Technology	98	LISN SW	Lindt & Spruengli	Consumer Staples	2
COTN SW	Comet Holding	Information Technology	96	EMSN SW	EMS-CHEMIE HOLDING	Materials	3
DUFN SW	Dufry	Consumer Discretionary	96	SRAIL SW	Stadler Rail	Industrials	4
MBTN SW	Meyer Burger Technology	Information Technology	95	BARN SW	Barry Callebaut	Consumer Staples	5
FTON SW	Feintool Intl Holding	Industrials	94	TEMN SW	Temenos	Information Technology	6
AUTN SW	Autoneum Holding	Consumer Discretionary	93	LOGN SW	Logitech International	Information Technology	7
LEON SW	Leonteq	Financials	91	SIKA SW	Sika	Materials	8
AMS SW	ams	Information Technology	91	STMN SW	Straumann Holding	Health Care	8
ARYN SW	Aryzta	Consumer Staples	90	PGHN SW	Partners Group Holding	Financials	10
ARBN SW	Arbonia	Industrials	89	ROG SW	Roche Holding	Health Care	11
RIEN SW	Rieter Holding	Industrials	88	ALC SW	Alcon	Health Care	12
MOLN SW	Molecular Partners	Health Care	87	IFCN SW	INFICON Holding	Information Technology	13
BOBNN SW	Bobst Group	Industrials	87	SCHP SW	Schindler Hldg PS	Industrials	13
IDIA SW	Idorsia	Health Care	86	GEBN SW	Geberit	Industrials	14
SUN SW	Sulzer	Industrials	85	SOON SW	Sonova Holding	Health Care	15
UBSG SW	UBS Group	Financials	84	LONN SW	Lonza Group	Health Care	16
SQN SW	Swissquote Group Holding	Financials	83	BANB SW	Bachem Holding B	Health Care	17
KOMN SW	Komax Holding	Industrials	82	CFR SW	Cie Financiere Richemont	Consumer Discretionary	18
GUR SW	Gurit Holding	Materials	81	FORN SW	Forbo Holding	Consumer Discretionary	19
VALN SW	Valora Holding	Consumer Discretionary	80	EMMN SW	Emmi	Consumer Staples	20
LHN SW	LafargeHolcim	Materials	79	VZN SW	VZ Holding	Financials	21
VPBN SW	VP Bank A	Financials	78	BEAN SW	BELIMO Holding	Industrials	22
VACN SW	VAT Group	Industrials	77	KNIN SW	Kuehne Nagel Intl	Industrials	23

Source: BofA European Equity Quant Strategy, FactSet, Price in Local Currency. Companies listed represent the top and bottom 25 of the largest MSCI Switzerland MI stocks. The screen identified as France – Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.



Style Cycle – ‘Recovery’ by style

Table 23: VALUE - Style Cycle - Recovery

Top stocks			Recovery Rank	Bottom stocks			Recovery Rank
BBG	Name	Sector	(100= Top)	BBG	Name	Sector	(1= Bottom)
CABK SM	CaixaBank	Financials	100	BATS LN	British American Tobacco	Consumer Staples	12
ACA FP	Credit Agricole	Financials	100	ZURN SW	Zurich Insurance Group	Financials	14
ISP IM	Intesa Sanpaolo	Financials	99	ENEL IM	Enel	Utilities	15
BMW GR	BMW	Consumer Discretionary	98	BAYN GR	Bayer	Health Care	27
EBS AV	Erste Group Bank	Financials	98	IMB LN	Imperial Brands	Consumer Staples	29
SLA LN	Standard Life Aberdeen	Financials	98	RIO LN	Rio Tinto	Materials	30
ACS SM	Actividades de Construcción y Servicios	Industrials	97	SSE LN	SSE	Utilities	33
STAN LN	Standard Chartered	Financials	97	NOKIA FH	Nokia	Information Technology	34
AGS BB	ageas	Financials	96	ALV GR	Allianz	Financials	35
BARC LN	Barclays	Financials	96	SREN SW	Swiss Re	Financials	37
FCA IM	Fiat Chrysler Automobiles	Consumer Discretionary	96	CS FP	AXA	Financials	40
BNP FP	BNP Paribas A	Financials	95	TSCO LN	Tesco	Consumer Staples	41
EN FP	Bouygues	Industrials	95	DTE GR	Deutsche Telekom	Communication Services	43
CNHI US	CNH Industrial	Industrials	94	DPW GR	Deutsche Post	Industrials	44
UCG IM	UniCredit	Financials	93	SAMPO FH	Sampo A	Financials	44
MT NA	ArcelorMittal	Materials	92	HSBA LN	HSBC Holdings	Financials	45
HEI GR	HeidelbergCement	Materials	92	PSN LN	Persimmon	Consumer Discretionary	45
NN NA	NN Group	Financials	92	AD NA	Royal Ahold Delhaize	Consumer Staples	48
BBVA SM	Banco Bilbao Vizcaya Argentaria	Financials	90	SWEDA SS	Swedbank A	Financials	48
BAER SW	Julius Baer Gruppe	Financials	90	BHP LN	BHP Group	Materials	50
RBS LN	Royal Bank of Scotland Group	Financials	90	BT/A LN	BT Group	Communication Services	52
VOW GR	Volkswagen Vz	Consumer Discretionary	90	RDSA LN	Royal Dutch Shell A	Energy	53
DANSKE DC	Danske Bank	Financials	89	ML FP	Compagnie Generale	Consumer Discretionary	55
LGEN LN	Legal & General Group	Financials	89	SIE GR	Siemens	Industrials	55
AVI LN	Aviva	Financials	88	PRU LN	Prudential	Financials	56

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom 25 of the 100 Top Growth stocks within our 250 European stock European Large Cap universe. The screen identified as Value – Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.

Table 24: GROWTH - Style Cycle - Recovery

Top stocks			Recovery Rank	Bottom stocks			Recovery Rank
BBG	Name	Sector	(100= Top)	BBG	Name	Sector	(1= Bottom)
STAN LN	Standard Chartered	Financials	97	NESN SW	Nestle	Consumer Staples	1
AGS BB	ageas	Financials	96	REL LN	RELX	Industrials	1
CNHI US	CNH Industrial	Industrials	94	UNA NA	Unilever	Consumer Staples	1
UCG IM	UniCredit	Financials	93	DGE LN	Diageo	Consumer Staples	2
NN NA	NN Group	Financials	92	NOVOB DC	Novo Nordisk B	Health Care	2
GLPG NA	Galapagos	Health Care	90	ADS GR	adidas	Consumer Discretionary	3
RWE GR	RWE	Utilities	87	COLOB DC	Coloplast B	Health Care	4
PAH3 GR	Porsche AutoHldg Vz	Consumer Discretionary	85	ROG SW	Roche Holding	Health Care	4
FGR FP	Eiffage	Industrials	84	RI FP	Pernod Ricard	Consumer Staples	5
BALN SW	Baloise-Holding	Financials	83	HO FP	Thales	Industrials	5
LHN SW	LafargeHolcim	Materials	83	AZN LN	AstraZeneca	Health Care	6
KPN NA	Royal KPN	Communication Services	82	RMS FP	Hermes International	Consumer Discretionary	7
FORTUM FH	Fortum	Utilities	81	OR FP	L'Oreal	Consumer Staples	7
REP SM	Repsol	Energy	80	DB1 GR	Deutsche Boerse N	Financials	8
CSGN SW	Credit Suisse Group	Financials	77	MC FP	LVMH Moet Hennessy Louis Vuitton	Consumer Discretionary	9
FER SM	Ferrovial	Industrials	74	MTX GR	MTU Aero Engines	Industrials	9
HNR1 GR	Hannover Rueck	Financials	74	ASSAB SS	ASSA ABLOY B	Industrials	10
CRH ID	CRH	Materials	72	AIR FP	Airbus	Industrials	11
SLHN SW	Swiss Life Holding	Financials	72	KYG ID	Kerry Group A	Consumer Staples	11
CA FP	Carrefour	Consumer Staples	71	SAF FP	Safran	Industrials	11
VIV FP	Vivendi	Communication Services	70	NESTE FH	Neste	Energy	13
EDP PL	EDP Portugal	Utilities	66	RTO LN	Rentokil Initial	Industrials	13
MRO LN	Melrose Industries	Industrials	65	WKL NA	Wolters Kluwer	Industrials	14
UG FP	Peugeot	Consumer Discretionary	64	ZURN SW	Zurich Insurance Group	Financials	14
ATL IM	Atlantia	Industrials	63	ENEL IM	Enel	Utilities	15

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom 25 of the 100 Top Growth stocks within our 250 European stock European Large Cap universe. The screen identified as Growth – Style Cycle – Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.

Table 25: QUALITY - Style Cycle - Recovery

Top stocks			Recovery Rank	Bottom stocks			Recovery Rank
BBG	Name	Sector	(100= Top)	BBG	Name	Sector	(1= Bottom)
CON GR	Continental	Consumer Discretionary	87	NESN SW	Nestle	Consumer Staples	1
PAH3 GR	Porsche AutoHldg Vz	Consumer Discretionary	85	REL LN	RELX	Industrials	1
ADEW SW	Adecco Group	Industrials	81	UNA NA	Unilever	Consumer Staples	1
BDEV LN	Barratt Developments	Consumer Discretionary	79	DGE LN	Diageo	Consumer Staples	2
UPM FH	UPM-Kymmene	Materials	77	NOVO DC	Novo Nordisk B	Health Care	2
TW/ LN	Taylor Wimpey	Consumer Discretionary	74	ADS GR	adidas	Consumer Discretionary	3
SMIN LN	Smiths Group	Industrials	70	CPG LN	Compass Group	Consumer Discretionary	3
ELE SM	Endesa	Utilities	68	SGSN SW	SGS	Industrials	3
MNDI LN	Mondi	Materials	68	COLO DC	Coloplast B	Health Care	4
STM IM	STMicroelectronics	Information Technology	66	ROG SW	Roche Holding	Health Care	4
UG FP	Peugeot	Consumer Discretionary	64	EXPN LN	Experian	Industrials	5
EOAN GR	E.ON	Utilities	63	HO FP	Thales	Industrials	5
FME GR	Fresenius Medical Care	Health Care	60	AZN LN	AstraZeneca	Health Care	6
VOLVB SS	Volvo B	Industrials	59	RMS FP	Hermes International	Consumer Discretionary	7
KNIN SW	Kuehne Nagel Intl	Industrials	58	ITRK LN	Intertek Group	Industrials	7
SCMN SW	Swisscom	Communication Services	57	OR FP	L'Oreal	Consumer Staples	7
NXT LN	Next	Consumer Discretionary	53	BEI GR	Beiersdorf	Consumer Staples	8
BT/A LN	BT Group	Communication Services	52	RB/ LN	Reckitt Benckiser Group	Consumer Staples	8
BHP LN	BHP Group	Materials	50	MC FP	LVMH Moet Hennessy Louis Vuitton	Consumer Discretionary	9
ELISA FH	Elisa A	Communication Services	49	MTX GR	MTU Aero Engines	Industrials	9
SAND SS	Sandvik	Industrials	48	ASSAB SS	ASSA ABLOY B	Industrials	10
DSV DC	DSV Panalpina	Industrials	46	SN/ LN	Smith & Nephew	Health Care	10
MOWI NO	Mowi	Consumer Staples	46	AIR FP	Airbus	Industrials	11
PSN LN	Persimmon	Consumer Discretionary	45	KYG ID	Kerry Group A	Consumer Staples	11
AT1 GR	Aroundtown	Real Estate	43	SAF FP	Safran	Industrials	11

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom 25 of the 100 Top Quality stocks within our 250 European stock European Large Cap universe. The screen identified as Quality - Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark. Any blank spaces represent stocks restricted under UK Takeover Panel code.

Table 26: INCOME (high Dividend Yield) - Style Cycle - Recovery

Top stocks			Recovery Rank	Bottom stocks			Recovery Rank
BBG	Name	Sector	(100= Top)	BBG	Name	Sector	(1= Bottom)
CABK SM	CaixaBank	Financials	100	BA/ LN	BAE Systems	Industrials	12
ACA FP	Credit Agricole	Financials	100	BATS LN	British American Tobacco	Consumer Staples	12
ISP IM	Intesa Sanpaolo	Financials	99	ZURN SW	Zurich Insurance Group	Financials	14
BMW GR	BMW	Consumer Discretionary	98	ENEL IM	Enel	Utilities	15
EBS AV	Erste Group Bank	Financials	98	SAN FP	Sanofi	Health Care	16
SLA LN	Standard Life Aberdeen	Financials	98	IBE SM	Iberdrola	Utilities	21
ACS SM	Actividades de Construcción y Servicios	Industrials	97	GSK LN	GlaxoSmithKline	Health Care	23
AGS BB	ageas	Financials	96	BAYN GR	Bayer	Health Care	27
BARC LN	Barclays	Financials	96	HMB SS	Hennes & Mauritz B	Consumer Discretionary	27
FCA IM	Fiat Chrysler Automobiles	Consumer Discretionary	96	IMB LN	Imperial Brands	Consumer Staples	29
BNP FP	BNP Paribas A	Financials	95	RIO LN	Rio Tinto	Materials	30
EN FP	Bouygues	Industrials	95	NG/ LN	National Grid	Utilities	31
UU/ LN	United Utilities Group	Utilities	94	SSE LN	SSE	Utilities	33
LAND LN	Land Securities Group	Real Estate	93	ALV GR	Allianz	Financials	35
NN NA	NN Group	Financials	92	SREN SW	Swiss Re	Financials	37
BBVA SM	Banco Bilbao Vizcaya Argentaria	Financials	90	TEL NO	Telenor	Communication Services	39
DANSKE DC	Danske Bank	Financials	89	AENA SM	Aena SME	Industrials	40
LGEN LN	Legal & General Group	Financials	89	CS FP	AXA	Financials	40
AV/ LN	Aviva	Financials	88	DTE GR	Deutsche Telekom	Communication Services	43
CON GR	Continental	Consumer Discretionary	87	DPW GR	Deutsche Post	Industrials	44
GLE FP	Societe Generale A	Financials	87	SAMPO FH	Sampo A	Financials	44
DNB NO	DNB	Financials	86	HSBA LN	HSBC Holdings	Financials	45
PAH3 GR	Porsche AutoHldg Vz	Consumer Discretionary	85	PSN LN	Persimmon	Consumer Discretionary	45
G IM	Assicurazioni Generali	Financials	84	MOWI NO	Mowi	Consumer Staples	46
URW NA	Unib-Rodam-West Uts	Real Estate	84	SWEDA SS	Swedbank A	Financials	48

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom 25 of the 100 Top Income stocks within our 250 European stock European Large Cap universe. The screen identified as Income - Style Cycle - Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark.



Table 27: Sales exposure stocks - Style Cycle - Recovery

Top Developed Europe Exposed					Top US Exposed					Top Emerging Markets Exposed				
BBG	Name	Sector	Exp (%)	Recovery Rank (100=Top)	BBG	Name	Sector	Exp (%)	Recovery Rank (100=Top)	BBG	Name	Sector	Exp (%)	Recovery Rank (100=Top)
CABK SM	CaixaBank	Financials	96	100	ACS SM	ACS	Industrials	43	97	DDER GR	Delivery Hero SE	Discretionary	64	99
ACA FP	Credit Agricole	Financials	88	100	BARC LN	Barclays	Financials	36	96	BMW GR	BMW	Discretionary	31	98
ISP IM	Intesa Sanpaolo	Financials	96	99	FCA IM	Fiat Chrysler Auto	Discretionary	66	96	EBS AV	Erste Group Bank	Financials	53	98
SLA LN	Standard Life Abe	Financials	70	98	MT NA	ArcelorMittal	Materials	28	92	SLA LN	Standard Life Abe	Financials	22	98
AGS BB	ageas	Financials	98	96	UBSG SW	UBS Group	Financials	47	82	STAN LN	Standard Chart	Financials	44	97
BNP FP	BNP Paribas A	Financials	74	95	ABBN SW	ABB	Industrials	29	80	MT NA	ArcelorMittal	Materials	34	92
EN FP	Bouygues	Industrials	77	95	DAI GR	Daimler	Discretionary	29	80	HEI GR	HeidelbergCement	Materials	36	92
UU/ LN	United Utilities	Utilities	100	94	CSGN SW	Credit Suisse	Financials	42	77	BBVA SM	BBVA	Financials	61	90
LAND LN	Land Securities	Real Estate	100	93	FER SM	Ferrovial	Industrials	30	74	BAER SW	Julius Baer	Financials	22	90
UCG IM	UniCredit	Financials	98	93	FRE GR	Fresenius	Health Care	41	74	VOW GR	Volkswagen	Discretionary	23	90
NN NA	NN Group	Financials	72	92	GRF SM	Grifols A	Health Care	66	74	CON GR	Continental	Discretionary	22	87
SPSN SW	Swiss Prime Site	Real Estate	100	92	HNR1 GR	Hannover Rueck	Financials	34	74	LHN SW	LafargeHolcim	Materials	43	83
GLPG NA	Galapagos	Health Care	96	90	CRH ID	CRH	Materials	45	72	FORTUM FH	Fortum	Utilities	27	81
BAER SW	Julius Baer Gruppe	Financials	74	90	WPP LN	WPP	Communication	34	72	ABBN SW	ABB	Industrials	34	80
RBS LN	RBS	Financials	97	90	SMIN LN	Smiths Group	Industrials	49	70	DAI GR	Daimler	Discretionary	24	80
VOW GR	Volkswagen Vz	Discretionary	61	90	VIV FP	Vivendi	Communication	32	70	TEF SM	Telefonica	Communication	40	79
DANSKE DC	Danske Bank	Financials	98	89	BAS GR	BASF	Materials	27	66	GLEN LN	Glencore	Materials	45	78
LGEN LN	Legal & General	Financials	100	89	UCB BB	UCB	Health Care	49	66	ORA FP	Orange	Communication	22	77
AV/ LN	Aviva	Financials	72	88	MRO LN	Melrose Indust	Industrials	53	65	FER SM	Ferrovial	Industrials	30	74
RWE GR	RWE	Utilities	97	87	PUB FP	Publicis Groupe	Communication	52	62	UMI BB	Umicore	Materials	23	74
GLE FP	Societe Generale	Financials	82	87	SW FP	Sodexo	Discretionary	43	61	ALO FP	Alstom	Industrials	31	73
DBK GR	Deutsche Bank	Financials	66	86	FME GR	Fresenius Med Ca	Health Care	70	60	WPP LN	WPP	Communication	30	72
DNB NO	DNB	Financials	80	86	BP/ LN	BP	Energy	40	59	CA FP	Carrefour	Staples	30	71
CLNX SM	Cellnex Telecom	Communication	99	85	VOLVB SS	Volvo B	Industrials	27	59	VIE FP	Veolia Environ	Utilities	26	71
PAH3 GR	Porsche AutoHldg	Discretionary	82	85	KNIN SW	Kuehne Nagel Intl	Industrials	26	58	ENI IM	Eni	Energy	24	69

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top Large Cap stocks within our 250 European stock European Large Cap universe. The screen identified as Sales exposure stocks – Style Cycle – Recovery above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA European Equity Quant Strategy. This screen was not created to act as a benchmark

Appendix II Definitions

Investment styles

Value: Equal weighted combination of factors - Forecast/Trailing EPS Yield, Dividend Yield, Cash to Price Yield, Book to Price Yield, Price to Sales and Forecast PEG.

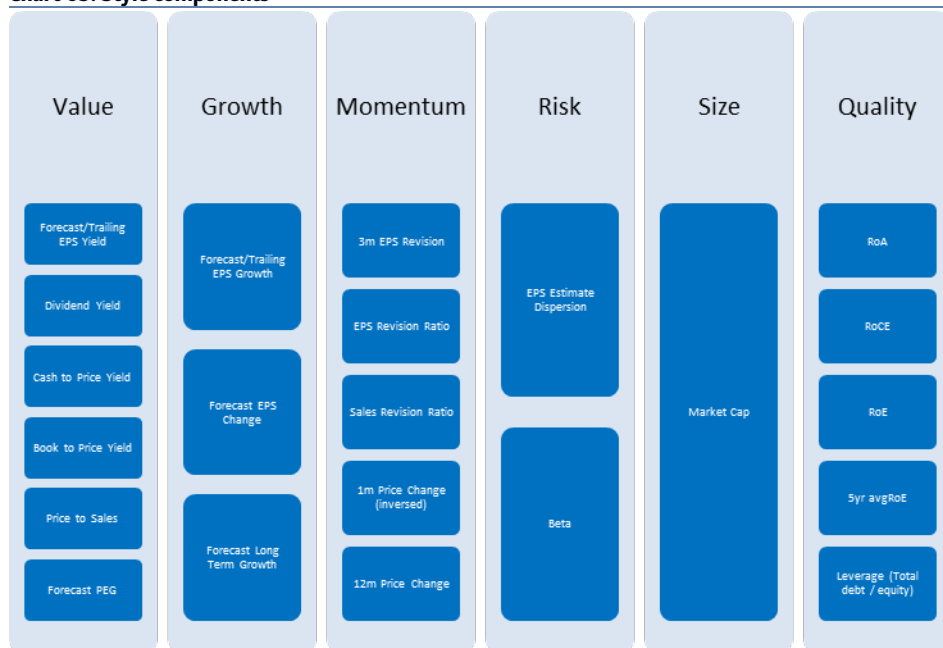
Growth: Equal weighted combination of factors - Forecast/Trailing EPS Growth, Forecast EPS Change and Forecast Long Term Growth.

Momentum: Equal weighted combination of factors - 3m EPS Change, EPS Revision Ratio, Sales Revision Ratio, 1m Price Change and 12m Price Change.

Quality: Equal weighted combination of factors - Return on Assets, Return on Capital, Return on Equity, 5yr Return on Equity and Leverage.

Risk: Equal weighted combination of factors - .EPS Estimate Dispersion and Beta

Chart 65: Style components



Source: BofA European Equity Quant Strategy

Multi factor models

STYLE CYCLE: The European 'Style Cycle' links phases of the economic cycle with the performance of investment style. Stocks are screened based on their equal weighted rank of Value, Growth, Momentum, Quality and Risk.

Absolute return

Absolute return is calculated based on monthly returns and reflects simple price appreciation (depreciation) over the stated period of the screened stocks. For purposes of this calculation, the stocks in the screen are assumed to be equally weighted. Returns do not reflect dividend or costs.

Relative return

Relative return is calculated based on monthly returns and reflects simple price appreciation (depreciation) over the stated period of the screened stocks minus the return for our Equal weighted European Universe. Returns do not reflect dividend or costs.



Appendix III Performance, Advancers & Decliners

Absolute Performance

Table 28: European Absolute factor returns by Style (%) – Prices as of end of last month

Style	Factor Name	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Multi-factor	Style Cycle - Top	-2.2	2.6	5.5	12.9	-2.2	35.6	38.0	398.5
Multi-factor	Style Cycle - Bottom	1.5	5.7	9.2	20.2	1.5	2.0	-0.8	16.7
Multi-factor	Style Cycle - BOOM - Top	-2.7	-0.9	4.1	9.0	-2.7	6.7	14.8	207.3
Multi-factor	Style Cycle - BOOM - Bottom	0.6	6.9	10.4	25.6	0.6	27.9	27.1	181.0
Multi-factor	Style Cycle - SLOWDOWN - Top	0.0	3.9	6.2	24.4	0.0	42.9	42.7	393.2
Multi-factor	Style Cycle - SLOWDOWN - Bottom	-4.9	0.7	4.1	-2.4	-4.9	-6.0	-15.1	40.8
Multi-factor	Style Cycle - RECESSION - Top	1.5	7.0	10.0	20.2	1.5	23.0	14.6	80.6
Multi-factor	Style Cycle - RECESSION - Bottom	-1.4	1.3	4.8	8.1	-1.4	6.0	9.4	156.7
Multi-factor	Style Cycle - RECOVERY - Top	-2.2	3.2	5.3	6.7	-2.2	7.7	15.4	194.8
Multi-factor	Style Cycle - RECOVERY - Bottom	1.5	6.0	9.2	26.4	1.5	39.1	28.4	193.3

Market	European Market (abs)	-0.6	4.1	7.4	14.2	-0.6	15.6	15.6	150.4
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Relative Performance

Table 29: European Relative factor returns by Style (%) – Prices as of end of last month

Style	Factor Name	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Multi-factor	Style Cycle - Top	-1.6	-1.4	-1.7	-1.2	-1.6	17.3	19.4	99.1
Multi-factor	Style Cycle - Bottom	2.1	1.5	1.8	5.3	2.1	-11.7	-14.2	-53.4
Multi-factor	Style Cycle - BOOM - Top	-2.2	-4.9	-3.0	-4.5	-2.2	-7.7	-0.7	22.7
Multi-factor	Style Cycle - BOOM - Bottom	1.2	2.7	2.8	10.0	1.2	10.7	10.0	12.3
Multi-factor	Style Cycle - SLOWDOWN - Top	0.5	-0.2	-1.1	8.9	0.5	23.6	23.4	97.0
Multi-factor	Style Cycle - SLOWDOWN - Bottom	-4.3	-3.3	-3.1	-14.5	-4.3	-18.7	-26.6	-43.8
Multi-factor	Style Cycle - RECESSION - Top	2.1	2.8	2.4	5.2	2.1	6.4	-0.8	-27.9
Multi-factor	Style Cycle - RECESSION - Bottom	-0.8	-2.7	-2.4	-5.3	-0.8	-8.3	-5.3	2.5
Multi-factor	Style Cycle - RECOVERY - Top	-1.6	-0.9	-1.9	-6.6	-1.6	-6.8	-0.2	17.8
Multi-factor	Style Cycle - RECOVERY - Bottom	2.1	1.8	1.8	10.7	2.1	20.3	11.1	17.2

Advancers

Table 30: European Advancers by Style (%) – Prices as of end of last month

Style	Factor Name	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Multi-factor	Style Cycle - Top	7	44	88	186	7	504	813	2825
Multi-factor	Style Cycle - Bottom	15	54	100	193	15	467	773	2700
Multi-factor	Style Cycle - BOOM - Top	7	36	88	170	7	459	773	2814
Multi-factor	Style Cycle - BOOM - Bottom	14	56	101	205	14	514	819	2822
Multi-factor	Style Cycle - SLOWDOWN - Top	13	51	93	203	13	525	823	2860
Multi-factor	Style Cycle - SLOWDOWN - Bottom	4	38	85	157	4	454	754	2702
Multi-factor	Style Cycle - RECESSION - Top	15	57	101	199	15	511	799	2790
Multi-factor	Style Cycle - RECESSION - Bottom	10	44	90	174	10	487	798	2775
Multi-factor	Style Cycle - RECOVERY - Top	7	43	87	166	7	454	773	2773
Multi-factor	Style Cycle - RECOVERY - Bottom	15	55	100	208	15	529	820	2813

Decliners

Table 31: European Decliners by Style (%) – Prices as of end of last month

Style	Factor Name	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Multi-factor	Style Cycle - Top	18	31	62	114	18	396	668	2322
Multi-factor	Style Cycle - Bottom	10	21	50	106	10	432	716	2442
Multi-factor	Style Cycle - BOOM - Top	18	39	62	130	18	440	707	2328
Multi-factor	Style Cycle - BOOM - Bottom	11	19	49	95	11	386	670	2325
Multi-factor	Style Cycle - SLOWDOWN - Top	12	24	57	96	12	374	664	2287
Multi-factor	Style Cycle - SLOWDOWN - Bottom	21	37	65	143	21	446	724	2438
Multi-factor	Style Cycle - RECESSION - Top	10	18	49	100	10	388	690	2354
Multi-factor	Style Cycle - RECESSION - Bottom	15	31	60	126	15	412	684	2361
Multi-factor	Style Cycle - RECOVERY - Top	18	32	63	134	18	445	706	2368
Multi-factor	Style Cycle - RECOVERY - Bottom	10	20	50	91	10	369	668	2333

Source: BofA European Equity Quant Strategy, FactSet. *Inception – January 2003



Appendix IV Historical phases of the ‘Style Cycle’

Table 32: Style Cycle – historical phases, February 1995 to date

Month	CMI phase	Month	CMI phase	Month	CMI phase	Month	CMI phase	Month	CMI phase
Feb - 1995	Slowdown	Sep - 1999	Boom	Apr - 2004	Boom	Nov - 2008	Recession	Jun - 2013	Boom
Mar - 1995	Slowdown	Oct - 1999	Boom	May - 2004	Boom	Dec - 2008	Recession	Jul - 2013	Boom
Apr - 1995	Slowdown	Nov - 1999	Boom	Jun - 2004	Boom	Jan - 2009	Recession	Aug - 2013	Boom
May - 1995	Slowdown	Dec - 1999	Boom	Jul - 2004	Boom	Feb - 2009	Recession	Sep - 2013	Boom
Jun - 1995	Slowdown	Jan - 2000	Boom	Aug - 2004	Slowdown	Mar - 2009	Recession	Oct - 2013	Boom
Jul - 1995	Slowdown	Feb - 2000	Boom	Sep - 2004	Slowdown	Apr - 2009	Recession	Nov - 2013	Slowdown
Aug - 1995	Slowdown	Mar - 2000	Boom	Oct - 2004	Slowdown	May - 2009	Recession	Dec - 2013	Slowdown
Sep - 1995	Slowdown	Apr - 2000	Slowdown	Nov - 2004	Slowdown	Jun - 2009	Recovery	Jan - 2014	Slowdown
Oct - 1995	Recession	May - 2000	Slowdown	Dec - 2004	Slowdown	Jul - 2009	Recovery	Feb - 2014	Slowdown
Nov - 1995	Recession	Jun - 2000	Slowdown	Jan - 2005	Slowdown	Aug - 2009	Recovery	Mar - 2014	Slowdown
Dec - 1995	Recession	Jul - 2000	Slowdown	Feb - 2005	Slowdown	Sep - 2009	Recovery	Apr - 2014	Slowdown
Jan - 1996	Recession	Aug - 2000	Slowdown	Mar - 2005	Slowdown	Oct - 2009	Recovery	May - 2014	Slowdown
Feb - 1996	Recovery	Sep - 2000	Slowdown	Apr - 2005	Slowdown	Nov - 2009	Boom	Jun - 2014	Slowdown
Mar - 1996	Recovery	Oct - 2000	Slowdown	May - 2005	Slowdown	Dec - 2009	Boom	Jul - 2014	Slowdown
Apr - 1996	Recovery	Nov - 2000	Slowdown	Jun - 2005	Slowdown	Jan - 2010	Boom	Aug - 2014	Slowdown
May - 1996	Recovery	Dec - 2000	Slowdown	Jul - 2005	Slowdown	Feb - 2010	Boom	Sep - 2014	Recession
Jun - 1996	Recovery	Jan - 2001	Slowdown	Aug - 2005	Boom	Mar - 2010	Slowdown	Oct - 2014	Recession
Jul - 1996	Recovery	Feb - 2001	Recession	Sep - 2005	Boom	Apr - 2010	Slowdown	Nov - 2014	Recession
Aug - 1996	Recovery	Mar - 2001	Recession	Oct - 2005	Boom	May - 2010	Slowdown	Dec - 2014	Recession
Sep - 1996	Recovery	Apr - 2001	Recession	Nov - 2005	Boom	Jun - 2010	Slowdown	Jan - 2015	Recession
Oct - 1996	Recovery	May - 2001	Recession	Dec - 2005	Boom	Jul - 2010	Slowdown	Feb - 2015	Recession
Nov - 1996	Recovery	Jun - 2001	Recession	Jan - 2006	Boom	Aug - 2010	Slowdown	Mar - 2015	Recession
Dec - 1996	Recovery	Jul - 2001	Recession	Feb - 2006	Boom	Sep - 2010	Slowdown	Apr - 2015	Recovery
Jan - 1997	Boom	Aug - 2001	Recession	Mar - 2006	Boom	Oct - 2010	Slowdown	May - 2015	Recovery
Feb - 1997	Boom	Sep - 2001	Recession	Apr - 2006	Boom	Nov - 2010	Slowdown	Jun - 2015	Recovery
Mar - 1997	Boom	Oct - 2001	Recession	May - 2006	Boom	Dec - 2010	Boom	Jul - 2015	Recovery
Apr - 1997	Boom	Nov - 2001	Recession	Jun - 2006	Boom	Jan - 2011	Boom	Aug - 2015	Recovery
May - 1997	Boom	Dec - 2001	Recession	Jul - 2006	Boom	Feb - 2011	Boom	Sep - 2015	Recovery
Jun - 1997	Boom	Jan - 2002	Recovery	Aug - 2006	Slowdown	Mar - 2011	Boom	Oct - 2015	Recovery
Jul - 1997	Boom	Feb - 2002	Recovery	Sep - 2006	Slowdown	Apr - 2011	Slowdown	Nov - 2015	Recovery
Aug - 1997	Boom	Mar - 2002	Recovery	Oct - 2006	Slowdown	May - 2011	Slowdown	Dec - 2015	Recovery
Sep - 1997	Boom	Apr - 2002	Boom	Nov - 2006	Slowdown	Jun - 2011	Slowdown	Jan - 2016	Recovery
Oct - 1997	Boom	May - 2002	Slowdown	Dec - 2006	Slowdown	Jul - 2011	Slowdown	Feb - 2016	Recovery
Nov - 1997	Boom	Jun - 2002	Slowdown	Jan - 2007	Slowdown	Aug - 2011	Slowdown	Mar - 2016	Recession
Dec - 1997	Boom	Jul - 2002	Slowdown	Feb - 2007	Slowdown	Sep - 2011	Recession	Apr - 2016	Recession
Jan - 1998	Slowdown	Aug - 2002	Slowdown	Mar - 2007	Slowdown	Oct - 2011	Recession	May - 2016	Recession
Feb - 1998	Slowdown	Sep - 2002	Slowdown	Apr - 2007	Slowdown	Nov - 2011	Recession	Jun - 2016	Recession
Mar - 1998	Slowdown	Oct - 2002	Slowdown	May - 2007	Slowdown	Dec - 2011	Recession	Jul - 2016	Recession
Apr - 1998	Recession	Nov - 2002	Slowdown	Jun - 2007	Slowdown	Jan - 2012	Recession	Aug - 2016	Recession
May - 1998	Recession	Dec - 2002	Slowdown	Jul - 2007	Slowdown	Feb - 2012	Recession	Sep - 2016	Recession
Jun - 1998	Recession	Jan - 2003	Recession	Aug - 2007	Slowdown	Mar - 2012	Recession	Oct - 2016	Recovery
Jul - 1998	Recession	Feb - 2003	Recession	Sep - 2007	Slowdown	Apr - 2012	Recovery	Nov - 2016	Recovery
Aug - 1998	Recession	Mar - 2003	Recession	Oct - 2007	Slowdown	May - 2012	Recovery	Dec - 2016	Recovery
Sep - 1998	Recession	Apr - 2003	Recession	Nov - 2007	Slowdown	Jun - 2012	Recovery	Jan - 2017	Recovery
Oct - 1998	Recession	May - 2003	Recession	Dec - 2007	Slowdown	Jul - 2012	Recovery	Feb - 2017	Boom
Nov - 1998	Recession	Jun - 2003	Recovery	Jan - 2008	Slowdown	Aug - 2012	Recovery	Mar - 2017	Boom
Dec - 1998	Recession	Jul - 2003	Recovery	Feb - 2008	Slowdown	Sep - 2012	Recovery	Apr - 2017	Boom
Jan - 1999	Recession	Aug - 2003	Recovery	Mar - 2008	Slowdown	Oct - 2012	Recovery	May - 2017	Boom
Feb - 1999	Recovery	Sep - 2003	Boom	Apr - 2008	Slowdown	Nov - 2012	Recovery	Jun - 2017	Boom
Mar - 1999	Recovery	Oct - 2003	Boom	May - 2008	Slowdown	Dec - 2012	Recovery	Jul - 2017	Boom
Apr - 1999	Recovery	Nov - 2003	Boom	Jun - 2008	Slowdown	Jan - 2013	Recovery	Aug - 2017	Boom
May - 1999	Recovery	Dec - 2003	Boom	Jul - 2008	Slowdown	Feb - 2013	Recovery	Sep - 2017	Boom
Jun - 1999	Recovery	Jan - 2004	Boom	Aug - 2008	Slowdown	Mar - 2013	Recovery	Oct - 2017	Boom
Jul - 1999	Boom	Feb - 2004	Boom	Sep - 2008	Recession	Apr - 2013	Recovery	Nov - 2017	Boom
Aug - 1999	Boom	Mar - 2004	Boom	Oct - 2008	Recession	May - 2013	Recovery	Dec - 2017	Boom

Source: BofA European Equity Quant Strategy



Table 33: Style Cycle – historical phases, February 1995 to date

Month	CMI phase	Month	CMI phase	Month	CMI phase	Month	CMI phase	Month	CMI phase
Jan - 2018	Boom								
Feb - 2018	Boom								
Mar - 2018	Boom								
Apr - 2018	Slowdown								
May - 2018	Slowdown								
Jun - 2018	Slowdown								
Jul - 2018	Slowdown								
Aug - 2018	Slowdown								
Sep - 2018	Slowdown								
Oct - 2018	Recession								
Nov - 2018	Recession								
Dec - 2018	Recession								
Jan - 2019	Recession								
Feb - 2019	Recession								
Mar - 2019	Recession								
Apr - 2019	Recovery								
May - 2019	Recovery								
Jun - 2019	Recovery								
Jul - 2019	Recovery								
Aug - 2019	Recession								
Sep - 2019	Recession								
Oct - 2019	Recession								
Nov - 2019	Recession								
Dec - 2019	Recovery								
Jan - 2020	Recovery								
Feb - 2020	Recovery								

Source: BofA European Equity Quant Strategy



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