

Style Cycle

Rooted in 'Recession'

Quantitative Strategy

Deeper into 'Recession' in September

The European Composite Macro Indicator (CMI) declined in September to its lowest level since Aug '20, rooting the Style Cycle in the 'Recession' phase. We continue to prefer High Quality, Low Risk, Large Caps and Value over Growth. In August, the top Recession stocks outperformed the bottom stocks by 3.1%, and outperformed in 17 out of 20 sectors and 6 out of 8 countries. For the latest 'Recession' screens see Exhibit 40 and Appendix: additional screens.

The middle of typical phase path with half of inputs down

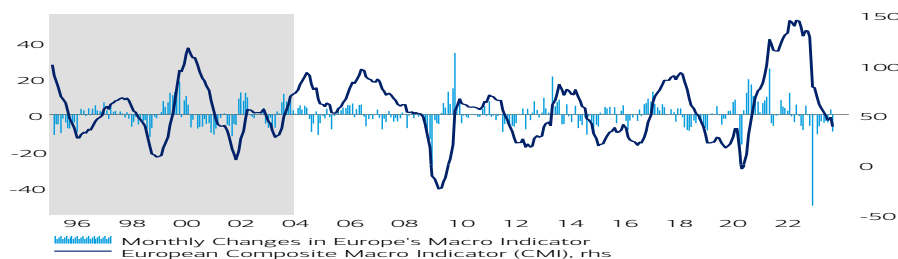
Declining German IFO and PPI are the two inputs with the most extreme readings compared with history (lowest since Jun '20 and Jan '10 respectively). The change in the European bond yield fell as well. On the other hand, the BofA Europe Leading Indicator, GDP forecast and Global EPS Revision Ratio improved over the month. The current 'Recession' phase is in the middle of the usual path: a) the CMI falls on average by 24 points in this phase (so far down by 11 points), and b) the phase lasts on average for 7 months (in the 4th month currently).

Defensives outperform when ECB rates are at peak

During episodes of peak ECB deposit rates, Healthcare, Energy, Low Risk and Switzerland outperformed the most consistently. Note, while our economist expects a 25bps hike from the ECB tomorrow, he flags that if there isn't one, a hike is unlikely later ([Europe Economic Weekly: Done after next week 08 September 2023](#)).

Exhibit 2: The European Composite Macro Indicator (CMI) dropped in September

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.

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13 September 2023

Quant Strategy
Europe

Paulina Strzelinska >>
Quant Strategist
MLI (UK)
+44 20 7996 7059
paulina.strzelinska@bofa.com

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

Exhibit 1: Summary of Europe's macro signals

3 out of 6 inputs are falling

Inputs of EU Composite Macro Indicator

	Direction
BofA Europe Leading Indicator	RISING
German IFO Indicator	FALLING
12mth Change in Pan EU BY	FALLING
Producer Price Inflation	FALLING
Pan Europe Cons. GDP Forecasts	RISING
Global EPS Revision Ratio	RISING

Source: BofA European Equity Quant Strategy.
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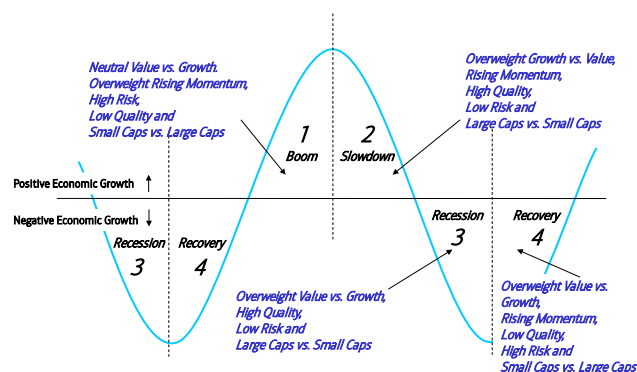
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Timestamp: 13 September 2023 12:30AM EDT

Summary – European Style Cycle

Exhibit 3: European Style Cycle framework

Style Cycle is currently in the 'Recession' phase



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

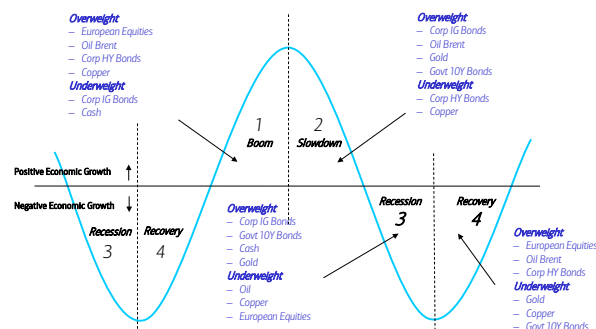
*Economic Cycle based on the ML Composite Macro Indicator

Source: BofA European Equity Quant Strategy

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

Style Cycle is currently in the 'Recession' phase



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

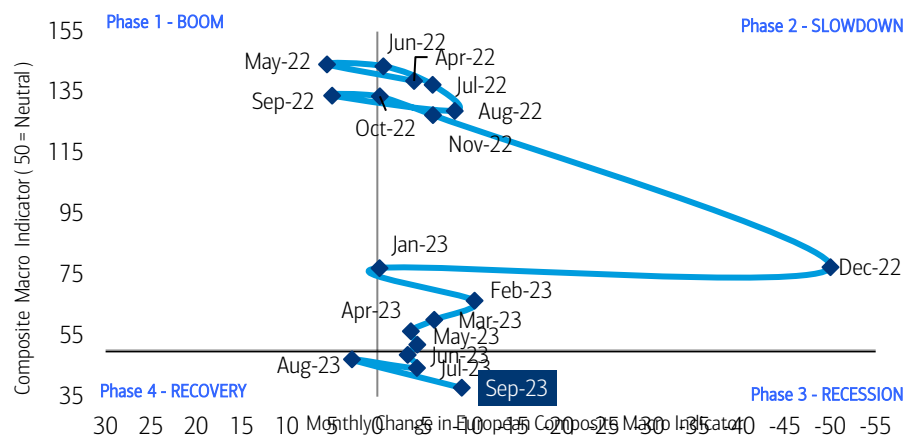
*Economic Cycle based on the ML Composite Macro Indicator

Source: BofA European Equity Quant Strategy

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Exhibit 5: Economic signals generated over the past 18m from the EU Composite Macro Indicator

Style Cycle is currently in the 'Recession' phase



Source: BofA European Equity Quant Strategy – Based on BY, GDP Forecasts, BofA Europe LI, IFO Survey, PPI & EPS Revision Ratio.

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Macro signals were down over the month.

This month 3 out of 6 indicators are rising and 3 are falling.

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

- 1) 12m change in European bond yields,
- 2) 12m forward consensus GDP forecasts,
- 3) 12m change in BofA Europe Leading Indicator
- 4) Germany's IFO Survey,
- 5) 12m change in European PPI and
- 6) Global consensus EPS Revision Ratio

See Exhibit 61 for a complete list of the historical phases of the economic cycle according to the Composite Macro Indicator (CMI).

Exhibit 6: Style Cycle 'Recession' preference and styles' exposures by country

As of the end of the last month

Name	Style Cycle Preference (100=Top)	Value Rank (100=Cheap)	Growth Rank (100=High)	Momentum Rank (100=Rising)	Quality Rank (100=High)	Risk Rank (100=High)	Size Rank (100=High)
Denmark	59	17	69	67	74	31	52
Switzerland	54	33	43	36	61	33	54
France	53	47	53	51	50	46	53
Italy	51	72	61	74	43	71	46
UK	50	60	40	41	46	45	50
Spain	50	67	62	71	30	58	49
Finland	48	59	39	30	53	53	43
Norway	47	73	28	28	57	57	35
Netherlands	46	30	64	62	62	71	52
Germany	46	61	51	52	40	62	50
Sweden	45	44	54	63	55	59	37

Source: BofA European Equity Quant Strategy. Note: The exposure/preference are market cap weighted average Styles ranks /Style Cycle Rank aggregated from the stock level, 100 indicates the highest exposure to the Style/Style Cycle phase, 50 is equal to market cap weighted average, while 1 indicates the lowest exposure to the Style/Style Cycle phase

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Exhibit 7: Style Cycle 'Recession' preference and styles' exposures by sector

As of the end of the last month

Name	Style Cycle Preference (100-Top)	Value Rank (100=Cheap)	Growth Rank (100=High)	Momentum Rank (100=Rising)	Quality Rank (100=High)	Risk Rank (100=High)	Size Rank (100=High)
PCDG Stores (S600PDP)	63	43	38	53	57	11	51
Autos (SXAP)	59	82	45	79	56	81	49
Media (SXMP)	58	30	57	51	65	27	48
Health Care (SXDP)	56	29	51	46	60	20	54
Food, Bev & Tobacco (S600FOP)	56	35	37	18	56	16	53
Utilities (SX6P)	54	70	45	63	25	38	47
Consumer Pds and Svs (S600CPP)	54	22	62	62	70	39	53
Energy (S600ENP)	52	93	16	13	47	74	55
Retail (SXRP)	50	41	58	78	60	63	40
Technology (SX8P)	49	18	67	58	69	61	53
Basic Resources (SXPP)	48	83	6	21	68	91	47
Construction (SXOP)	48	52	52	64	48	67	47
Telecoms (SXKP)	48	72	35	30	25	47	46
Banks (SX7P)	45	95	73	80	12	76	51
Industrial Gds & Svs (SXNP)	45	39	58	64	57	64	46
Insurance (SXIP)	45	78	55	38	32	59	49
Chemicals (SX4P)	40	45	36	25	48	58	46
Financial Svs (SXFP)	36	50	47	47	41	67	46
Travel & Leisure (SXTTP)	32	41	80	79	38	67	39
Real Estate (SX86P)	28	47	25	36	22	46	24

Source: BofA European Equity Quant Strategy. Note: The exposure/preference are market cap weighted average Styles ranks /Style Cycle Rank aggregated from the stock level, 100 indicates the highest exposure to the Style/Style Cycle phase, 50 is equal to market cap weighted average, while 1 indicates the lowest exposure to the Style/Style Cycle phase

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Table of the month**Exhibit 8: Healthcare, Energy, Low Risk and Switzerland are among the most consistently performing assets during ECB deposit rate peak**

Performance statistics during two previous peaks in ECB deposit rate, sectors/countries/styles with most consistent results are shaded

	Relative return over period (EUR)		% of days with positive return		Max drawdown	
	05-Oct-00 to 10-May-01	12-Jun-07 to 11-Nov-08	05-Oct-00 to 10-May-01	12-Jun-07 to 11-Nov-08	05-Oct-00 to 10-May-01	12-Jun-07 to 11-Nov-08
Technology	-32.9%	-8.2%	43%	52%	-44%	-19%
Telecoms	-18.1%	27.4%	38%	49%	-27%	-18%
Healthcare	10.3%	45.4%	53%	49%	-11%	-14%
Financials	5.8%	-26.5%	52%	38%	-4%	-30%
Discretionary	4.0%	2.4%	52%	48%	-4%	-17%
Staples	12.6%	25.5%	51%	52%	-6%	-19%
Industrials	1.0%	-14.8%	48%	48%	-5%	-20%
Materials	25.0%	-6.2%	58%	54%	-6%	-41%
Energy	15.5%	23.5%	56%	52%	-16%	-17%
Utilities	6.4%	32.1%	54%	54%	-9%	-10%
Real Estate	9.0%	-27.6%	56%	46%	-10%	-28%
France	-0.6%	2.3%	48%	45%	-4%	-4%
Germany	-1.4%	6.3%	43%	47%	-5%	-8%
Italy	2.3%	-9.9%	48%	36%	-7%	-17%
UK	2.6%	-2.9%	46%	43%	-6%	-7%
Spain	2.5%	10.3%	48%	41%	-13%	-15%
Sweden	-25.2%	-16.1%	46%	48%	-31%	-24%
Netherlands	1.9%	-3.9%	50%	49%	-4%	-14%
Norway	7.6%	-17.5%	52%	52%	-8%	-43%
Denmark	-7.1%	12.0%	46%	50%	-15%	-17%
Switzerland	4.9%	27.5%	51%	50%	-9%	-8%
Cheap Value	30.1%	-39.6%	55%	38%	-3%	-42%
Expensive Value	-24.3%	36.0%	38%	51%	-31%	-15%
High Growth	-19.1%	-3.4%	42%	50%	-27%	-20%
Low Growth	2.8%	-19.0%	46%	38%	-7%	-24%
Rising Momentum	-6.6%	-5.4%	44%	53%	-11%	-21%
Falling Momentum	-7.6%	-25.6%	39%	32%	-11%	-29%
High Quality	-10.4%	22.3%	44%	52%	-17%	-9%
Low Quality	3.9%	-14.8%	46%	42%	-3%	-18%
High Risk	-11.3%	-31.5%	40%	45%	-16%	-36%
Low Risk	13.8%	32.3%	50%	46%	-7%	-10%
High Size	-10.4%	19.0%	39%	46%	-15%	-11%
Low Size	8.7%	-8.4%	51%	43%	-4%	-13%

Source: BofA European Equity Quant Strategy, Factset, Refinitiv, MSCI.

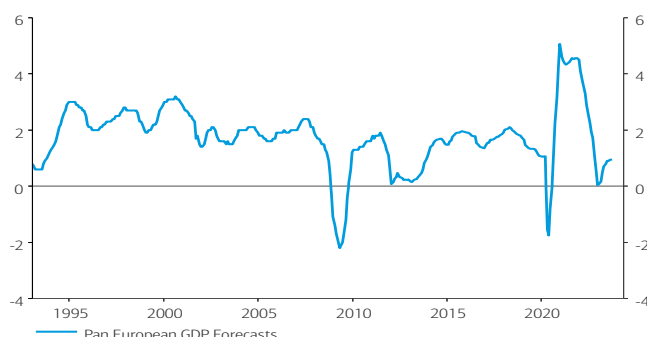
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Inputs of European Composite Macro Indicator (CMI) - **FALLING**

Exhibit 9: Input is **RISING, z-score marginally increased to -0.74, the highest since Oct '22**

Pan Europe – Economists' GDP forecasts

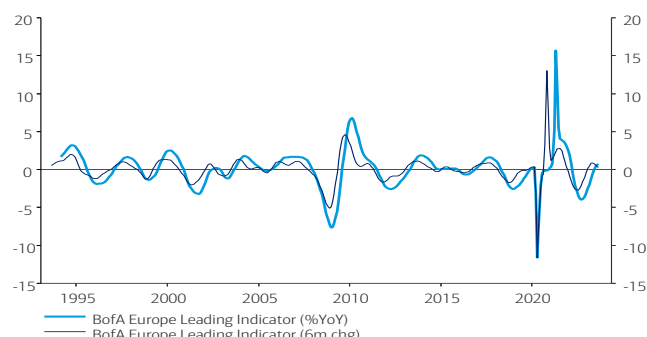


Source: BofA European Equity Quant Strategy, Consensus Economics

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Exhibit 10: Input is **RISING, z-score rose to 0.31, the highest reading since Mar '22**

BofA Europe Leading Indicator 12m change

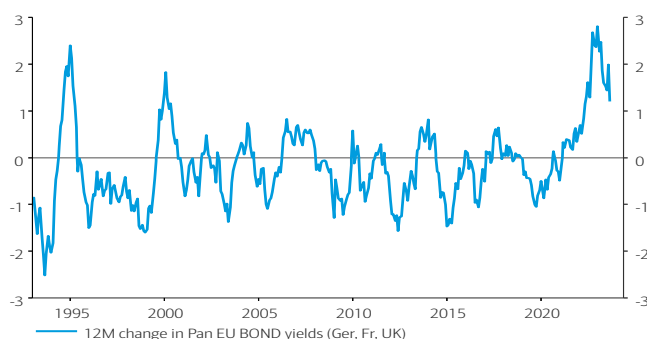


Source: BofA European Equity Quant Strategy, OECD

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Exhibit 11: Input is **FALLING, z-score declined to 1.72, the lowest since Apr '22**

12m change in Pan EU Bond Yield (Germany, France, UK)

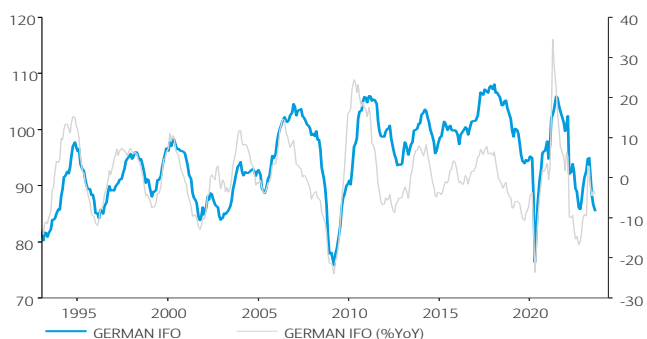


Source: BofA European Equity Quant Strategy, Refinitiv

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Exhibit 12: Input is **FALLING, z-score fell to -1.45, the lowest since Jun '20**

German IFO Indicator

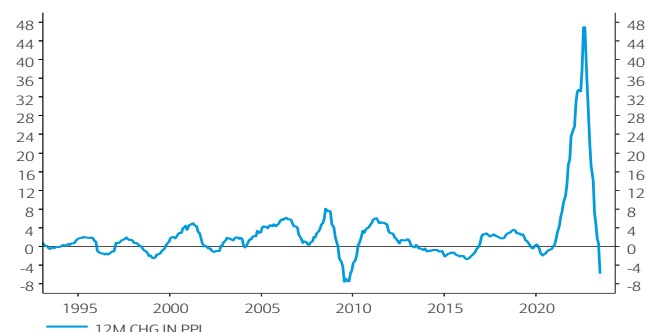


Source: BofA European Equity Quant Strategy, IFO Institute

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Exhibit 13: Input is **FALLING, z-score collapsed to -1.23, the lowest reading since Jul '16**

Pan European Inflation (PPI) 12m change

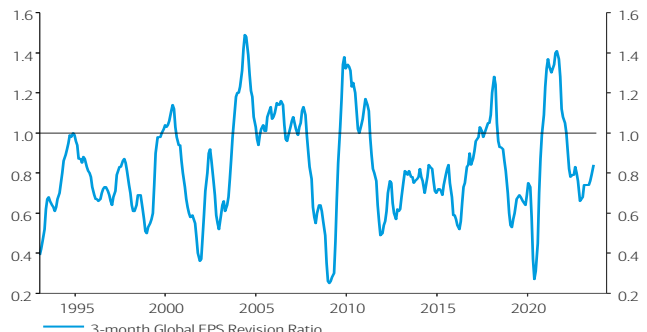


Source: BofA European Equity Quant Strategy, Refinitiv

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Exhibit 14: Input is **RISING, z-score increased to -0.004, the highest since Apr '22**

Global EPS Revision Ratio (>1 = net EPS upgrades)



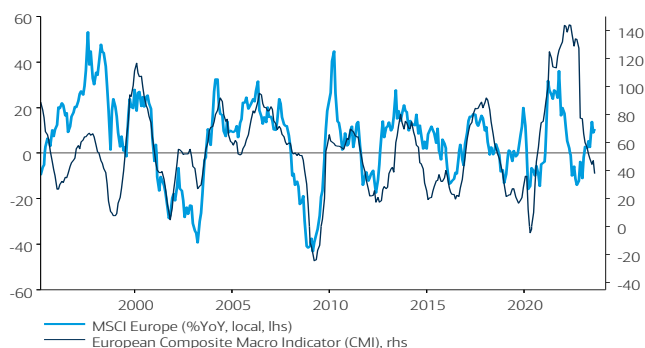
Source: BofA European Equity Quant Strategy, IBES, MSCI

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Key Charts

Exhibit 15: European equities are sensitive to moves in the CMI

European CMI versus MSCI Europe performance (%YoY)

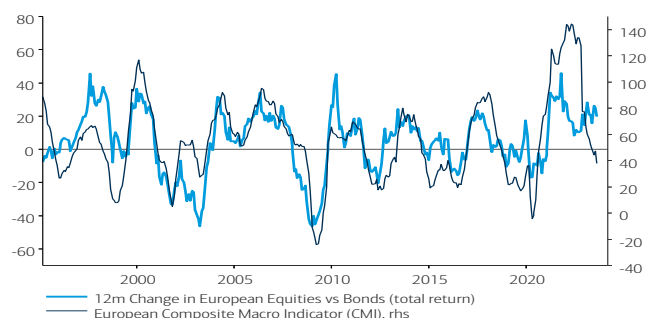


Source: BofA European Equity Quant Strategy, Refinitiv

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Exhibit 16: European equities vs bonds performance is sensitive to moves in the CMI

European CMI versus European equities to bonds performance (%YoY)

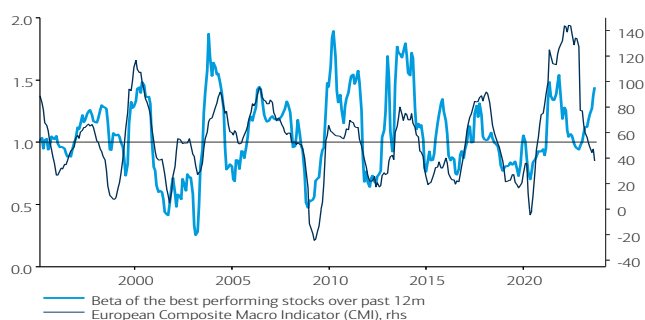


Source: BofA European Equity Quant Strategy, Refinitiv, ICE

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Exhibit 17: Typically, beta of best performing stocks moves in-line with CMI

European CMI versus beta of the best performing stocks over past 12m



Source: BofA European Equity Quant Strategy

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Exhibit 18: Low versus High Quality style performance is sensitive to moves in the CMI

European CMI versus Low vs High Quality performance (%YoY)



Source: BofA European Equity Quant Strategy

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Exhibit 19: European equities 'safe' risk premium is at a decade low reading

European equities "safe" risk premium (safe premium = dividend yield minus European 10Y bond yield)

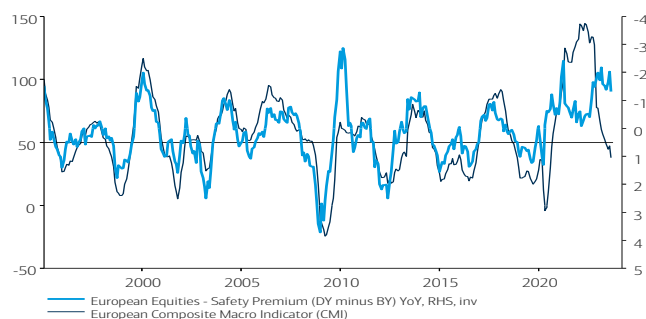


Source: BofA European Equity Quant Strategy, Refinitiv. Note: European bond yield is average of UK France and Germany 10Y bond yields

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Exhibit 20: Typically, European 'safe' risk premium moves in-line with CMI

European CMI versus actual yearly change in European equities "safe" risk premium (safe premium = dividend yield minus European 10Y bond yield)

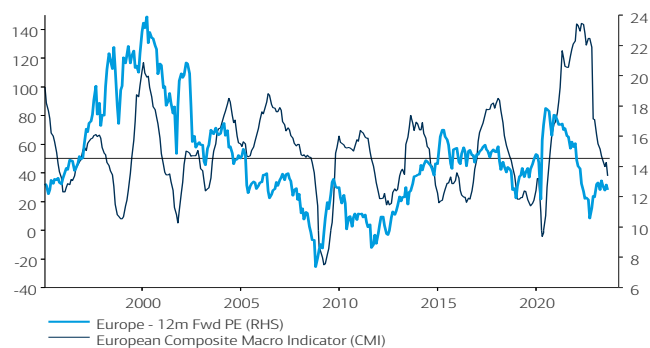


Source: BofA European Equity Quant Strategy. Note: European bond yield is average of UK France and Germany 10Y bond yields

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Exhibit 21: European 12m fwd P/E is sensitive to moves in the CMI

European CMI versus MSCI Europe's 12m fwd P/E

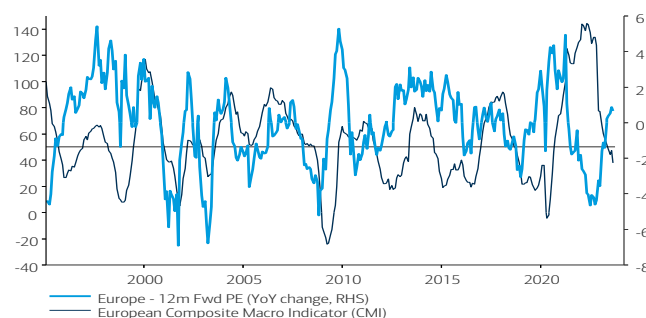


Source: BofA European Equity Quant Strategy, Refinitiv

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Exhibit 22: Typically, European YoY change in 12m fwd P/E moves in-line with CMI

European CMI versus MSCI Europe's 12m fwd P/E YoY change

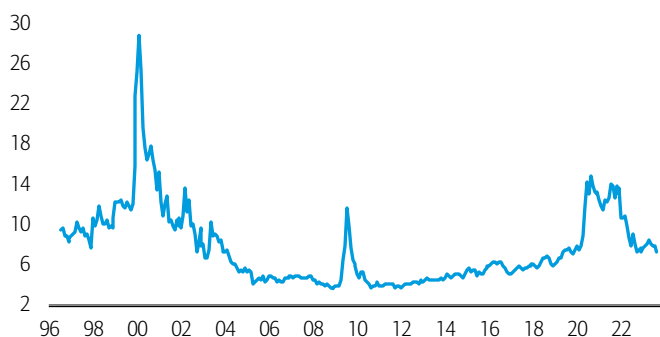


Source: BofA European Equity Quant Strategy, Refinitiv

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Exhibit 23: The current P/E dispersion stands at 7.4

European stocks - standard deviation of 12m Fwd P/E excluding 1% of top and bottom extreme readings

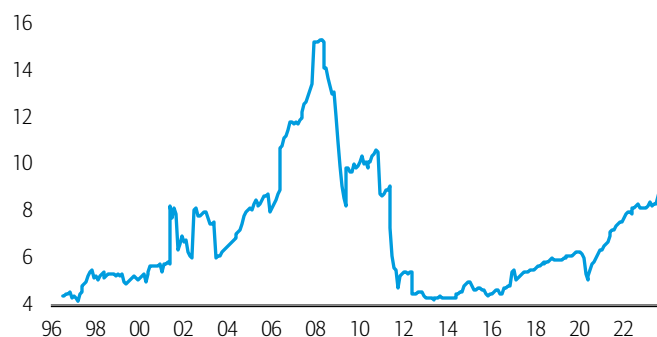


Source: BofA European Equity Quant Strategy, MSCI, I/B/E/S

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Exhibit 24: The current 12m Fwd EPS dispersion stands at 8.8

European stocks - standard deviation of 12m Fwd EPS excluding 1% of top and bottom extreme readings

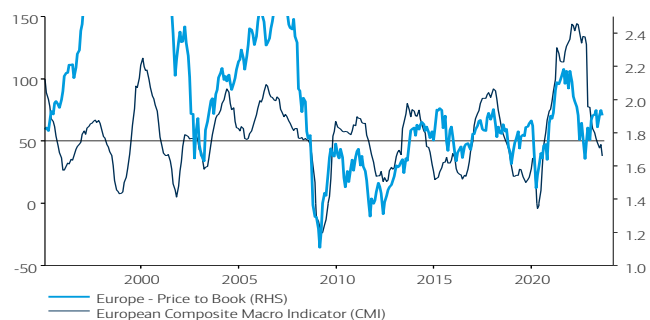


Source: BofA European Equity Quant Strategy, MSCI, I/B/E/S

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Exhibit 25: European price to book ratio is sensitive to moves in the CMI

European CMI versus MSCI Europe's 12m trailing P/B

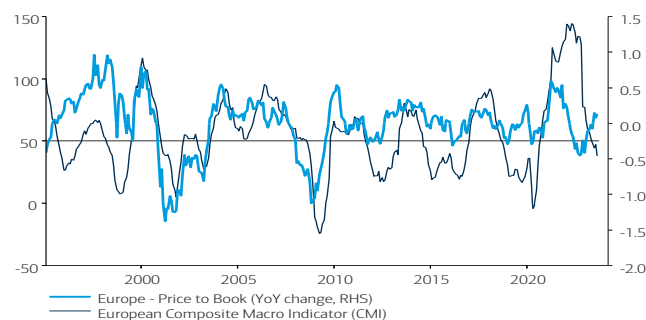


Source: BofA European Equity Quant Strategy, Refinitiv. Note: European equities are represented by MSCI Europe index.

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Exhibit 26: Typically, European YoY change in 12m trailing P/B moves in-line with CMI

European CMI versus MSCI Europe's 12m trailing P/B YoY change

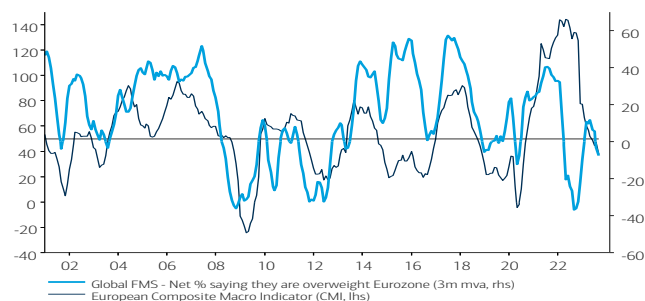


Source: BofA European Equity Quant Strategy, Refinitiv. Note: European equities are represented by MSCI Europe index.

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Exhibit 27: Net 10% of global investors say they are underweight Europe in September, a small decline over the month

Please indicate for each of the following equity markets, how overweight or underweight you consider your position to be relative to your internal benchmark:



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

Exhibit 29: Investors increased their underweight in cyclical & financial sectors vs defensives in Europe in September

Please indicate for each of the following European sectors, whether you consider your position to be overweight, underweight or neutral relative to your internal benchmark



Source: BofA European Equity Quant Strategy, BofA European Fund Manager Survey. Note: The positioning is a difference between average positioning in cyclical and financial sectors (Autos, Basic Resources, Chemicals, Construction, Consumer Pds&Svs, Industrial Gds&Svs, Media, Retail, Technology, Travel&Leisure, Banks, Financial Svs, Insurance, Real Estate) and defensive sectors (Food&Beverages, Pharma/Healthcare, Telecoms, Utilities, PC&G Stores).

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Exhibit 31: Our CMI points to further outflows from European equities

European Composite Macro Indicator (light blue line, rhs) vs rolling 8w flows into Europe-focused equity funds as % of mcap (dark blue line, lhs)

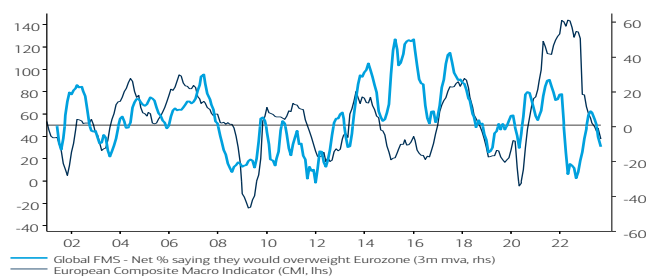


Source: BofA European Equity Quant Strategy, EPFR Global

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Exhibit 28: Net 19% of global Investors continue to intend to underweight the region over the next 12 months, the highest number since Oct '22

Which ONE of the following equity markets would you most like to overweight over the next twelve months, and which ONE would you most like to underweight?

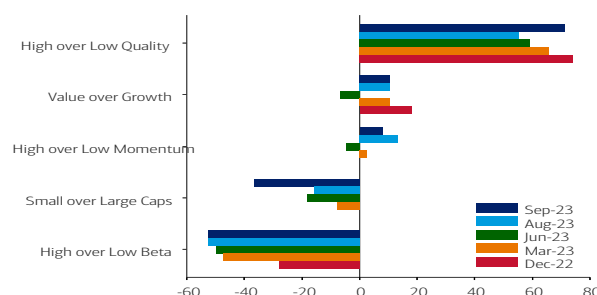


Source: BofA European Equity Quant Strategy, BofA Global Fund Manager Survey

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Exhibit 30: In September, European investors increased their belief the most in High Quality and Large caps outperforming over the next 12m

How do you see Investment Style outperformance in Europe in the next 12 months?

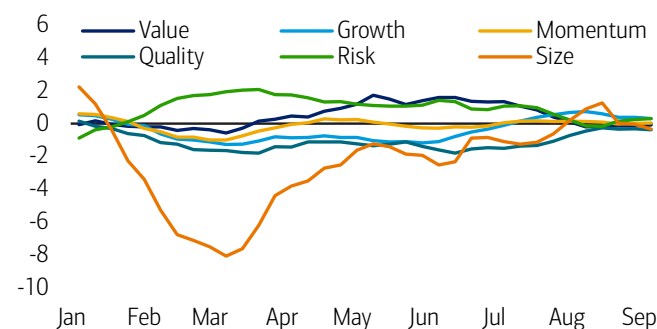


Source: BofA European Fund Manager Survey. Note: Question firstly asked in May '14 survey, the High over Low Momentum answer was added in Apr '19

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Exhibit 32: Flows increased for Size and Quality styles over the past 4w

Rolling 8w flows into European styles (l/s) this year



Source: BofA European Equity Quant Strategy, EPFR Global

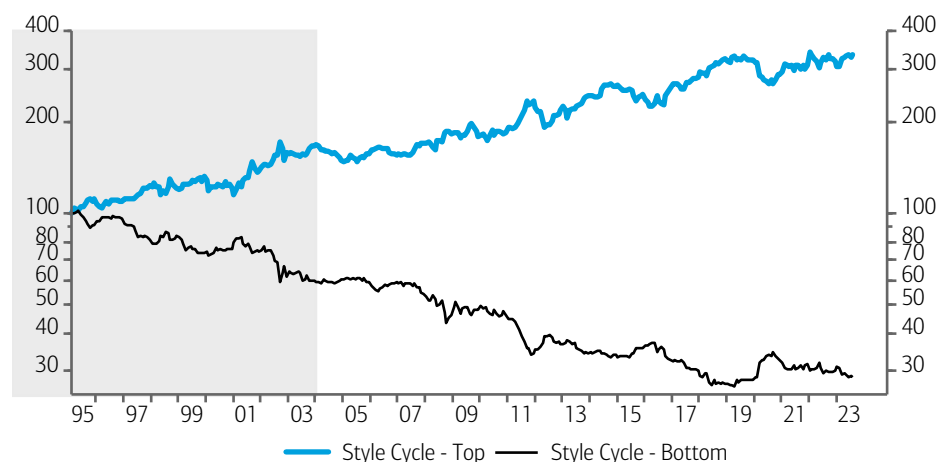
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European Style Cycle - performance

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.

Exhibit 33: Top & Bottom Style Cycle relative price performance

Relative price performance to largest 250 European stocks (price, EUR, equally weighted)



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. The data displayed in this exhibit depends in part on certain monthly screens and other data that were not previously published. Please see [Style Cycle: 'Boom' persists 30 June 2021](#) for details and relevant data.

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Exhibit 34: Last month Top stocks have outperformed Bottom stocks by 3.1%

Excess Price Returns (%)

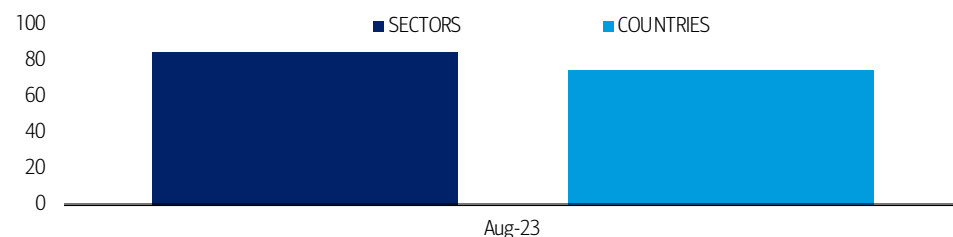
	1M	3M	6M	12M	YTD	3 Yrs	5 Yrs	Since Incept.
Top Style Cycle	1.6	0.2	9.0	3.4	4.5	20.1	5.9	100.1
Bottom Style Cycle	-1.5	-1.6	-7.1	-4.7	-4.8	-14.8	4.9	-52.2
Top vs Bottom Style Cycle	3.1	1.8	17.4	8.5	9.7	41.0	1.0	318.4

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

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Exhibit 35: Top vs Bottom Recession stocks outperformed in 17 out of 20 sectors and in 6 out of 8 countries in Aug-23

% of SXXP supersectors and countries where the Recession top vs bottom stocks are outperforming



BofA European Equity Quant Strategy, FactSet. Note: countries included: France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and UK. Performances are based on the top / bottom quintile/or minimum 5 stocks in each group of stocks ranked by the Recession ranks or in sectors/countries.

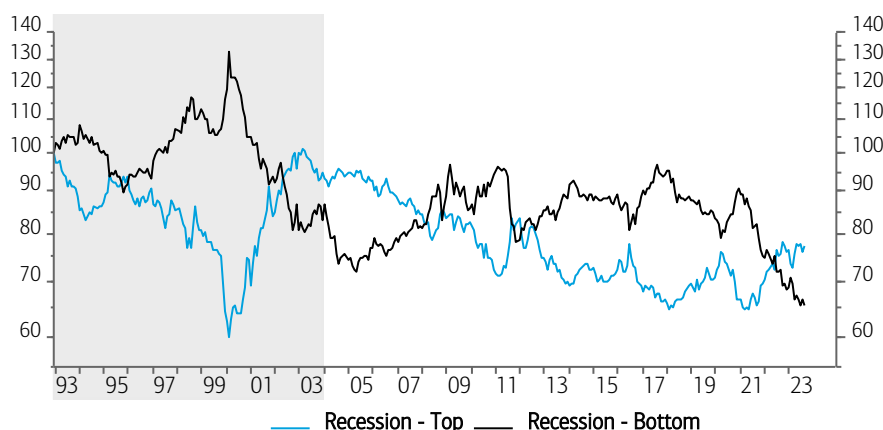
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Style Cycle – Recession

Style Cycle - Recession: 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 'Recession' phase. Stocks are screened on their equal-weighted rank of Value, Growth, Momentum, Quality, Risk and Size.

Exhibit 36: Top & Bottom Recession relative price performance

Price relative performance vs top 250 largest European stocks (EUR, equally weighted)



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. The data displayed in this exhibit depends in part on certain monthly screens and other data that were not previously published. Please see [Style Cycle: 'Boom' persists 30 June 2021](#) for details and relevant data.

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Exhibit 37: Top Recession stocks outperformed Bottom Recession stocks by 3.1% last month

Excess Price Returns (%)

	1M	3M	6M	12M	YTD	3 Yrs	5 Yrs	Since Incept.
Top Recession	1.6	0.2	6.1	2.3	1.1	8.7	15.7	-18.6
Bottom Recession	-1.5	-1.6	-5.8	-9.5	-4.6	-22.4	-25.7	-20.9
Top vs Bottom Recession	3.1	1.8	12.6	13.1	6.1	40.1	55.8	3.0

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

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Exhibit 38: Median Top Recession

Latest valuations for Top Recession stocks

	Fwd P/E	DY	RoE	ERR	Size	Beta
Top	13.7	3.6	26.0	3.4	51.7	0.8
LT Avg	12.9	3.8	21.2	0.6	43.9	0.7
EU Market	14.7	2.7	14.8	1.4	20.4	1.1

Source: BofA European Equity Quant Strategy, FactSet

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Exhibit 39: Median Bottom Recession

Latest valuations for Bottom Recession stocks

	Fwd P/E	DY	RoE	ERR	Size	Beta
Bottom	17.3	2.0	5.9	0.7	11.7	1.3
LT Avg	18.0	1.5	6.3	0.8	8.4	1.3
EU Market	14.7	2.7	14.8	1.4	20.4	1.1

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Exhibit 40: Style Cycle - Recession screens for Sep '23 (data as of 31/08/2023)

Top and Bottom Style Cycle Recession stocks

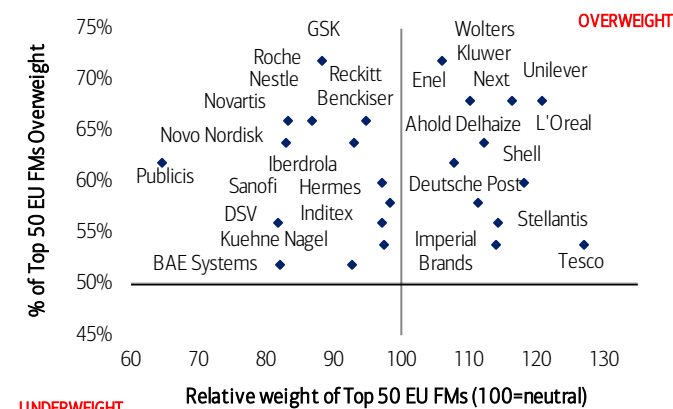
Top Stocks (Good Value, Low Risk, High Quality & Large Size)								Bottom Stocks (Poor Value, High Risk, Low Quality & Small Size)							
BBG Ticker	Name	Recession Rank	Value Rank	Size	Beta	RoE	Price	BBG Ticker	Name	Recession Rank	Value Rank	Size	Beta	RoE	Price
NOVN SW	Novartis	100	45	207259	0.6	21.2	89.3	ALO FP	Alstom	1	52	8954	1.3	0.6	25.5
ULVR LN	Unilever	100	37	129378	0.5	39.8	40.4	1COV GR	Covestro	1	26	10289	1.5	-8.0	49.1
NOVOB DC	Novo Nordisk	99	5	307127	0.5	75.5	1274.0	VWS DC	Vestas Wind Systems	1	7	23380	1.2	-17.9	159.0
ROG SW	Roche	99	39	207050	0.3	51.7	260.3	ENT LN	Entain	2	49	9352	1.4	10.4	11.6
GSK LN	GSK	98	60	72064	0.7	53.6	13.9	FERSM	Ferrovial	2	8	16166	1.1	4.4	29.3
NESN SW	Nestle	98	23	331277	0.5	33.0	106.4	AGN NA	Aegon	3	91	8682	1.4	-9.1	4.7
SAN FP	Sanofi	98	56	121485	0.6	10.9	98.6	MTX GR	MTU Aero Engines	3	32	12546	1.6	11.5	215.8
ITX SM	Inditex	97	24	41864	1.2	28.6	35.4	UU/ LN	United Utilities	3	30	8183	0.8	-0.3	9.5
OR FP	L'Oreal	97	5	106072	0.9	21.7	405.8	SIGN SW	SIG	4	21	8060	0.7	1.7	23.3
DSV DC	DSV	96	28	35444	1.2	21.6	1307.5	WTB LN	Whitbread	4	40	8809	1.4	8.0	34.4
IBE SM	Iberdrola	96	65	71119	0.7	11.3	11.0	CON GR	Continental	5	77	8193	1.6	10.7	68.6
BA/ LN	BAE Systems	95	51	38982	0.8	17.4	10.1	HMB SS	H&M	5	48	10054	1.5	8.0	167.5
ENEL IM	Enel	95	75	54819	1.1	16.0	6.2	SLHN SW	Swiss Life	5	67	19356	1.3	4.5	554.6
STLA US	Stellantis	95	100	41934	1.7	27.9	17.2	CBK GR	Commerzbank	6	79	11727	1.5	5.9	10.2
RMS FP	Hermes	94	1	65338	0.9	29.1	1900.8	SCAB SS	Svenska Cellulosa	6	27	8078	0.8	5.2	146.0
KNIN SW	Kuehne Nagel	94	43	16359	1.0	72.8	265.9	AV/ LN	Aviva	7	88	13244	1.3	-15.2	3.8
NXT LN	Next	94	42	10811	1.6	64.0	69.9	CLNX SM	Cellnex Telecom	7	31	21654	0.7	-1.9	35.3
DHL GR	Deutsche Post	93	57	47064	1.3	19.6	43.1	NWG LN	NatWest	7	99	16742	1.4	9.1	2.3
PUB FP	Publicis	93	63	17901	1.1	15.9	72.1	AKZA NA	Akzo Nobel	8	47	13880	1.2	10.8	75.0
IMB LN	Imperial Brands	92	82	19907	0.8	49.2	17.9	SY1 GR	Symrise	8	17	13858	0.7	7.4	96.2
AD NA	Ahold Delhaize	92	66	31954	0.4	16.2	30.2	EDP PL	EDP	9	60	13370	0.7	1.8	4.2
RKT LN	Reckitt Benckiser	91	35	51745	0.4	26.0	57.0	VIE FP	Veolia Environnement	9	65	21264	1.2	13.7	28.9
SHEL LN	Shell	89	87	209248	0.9	22.8	24.1	ADYEN NA	Adyen	10	9	18195	1.3	19.4	772.5
TSCO LN	Tesco	89	73	24640	0.9	13.2	2.7	AER US	AerCap	10	67	10210	2.0	9.8	61.5
WKL NA	Wolters Kluwer	89	11	31080	0.6	49.4	111.2	SRT GR	Sartorius	10	1	10735	0.8	28.3	377.4

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 – Recession 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.

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Recession characteristics**Exhibit 41: There is no stock from Top Recession list which is unpopular with investors**

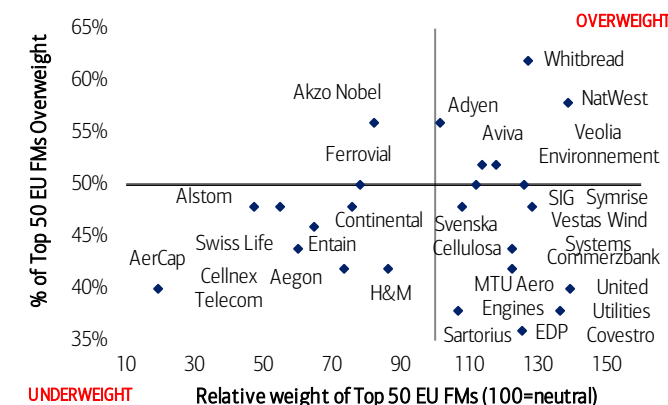
Top Recession stocks ownership

**Source:** BofA European Equity Quant Strategy

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Exhibit 42: There are 5 stocks from Bottom Recession list which are highly popular with investors

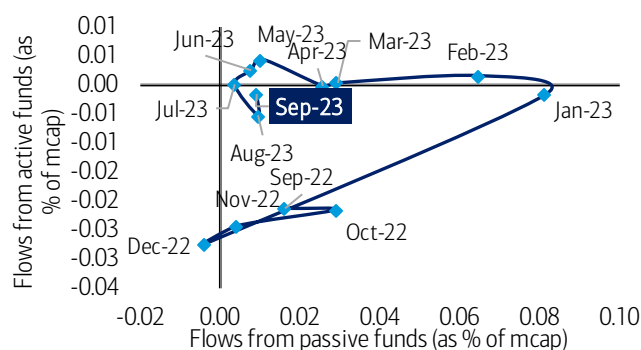
Bottom Recession stocks ownership

**Source:** BofA European Equity Quant Strategy

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Exhibit 43: So far in September, Top Recession stocks saw \$0.04bn outflows from the active funds and \$0.21bn inflows from passive funds

Top Recession stocks flows over the past 12 months as % of mcap

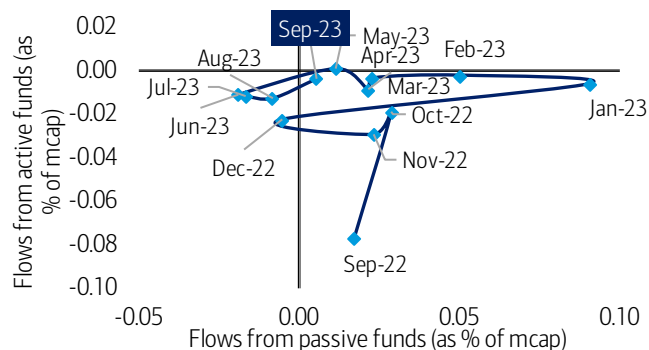


Source: BofA European Equity Quant Strategy, EPFR Global

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Exhibit 44: So far in September, Bottom Recession stocks saw \$0.01bn outflows from the active funds and \$0.02bn inflows from passive funds

Bottom Recession stocks flows over the past 12 months as % of mcap

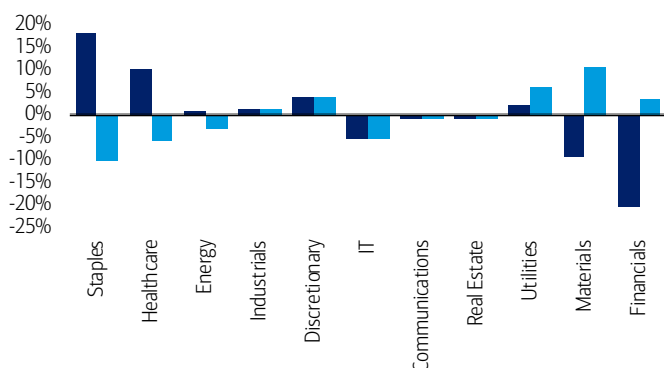


Source: BofA European Equity Quant Strategy, EPFR Global

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Exhibit 45: Top Recession stocks are most OW Staples, while bottom stocks are most OW Materials

Top and bottom Recession relative sector weights

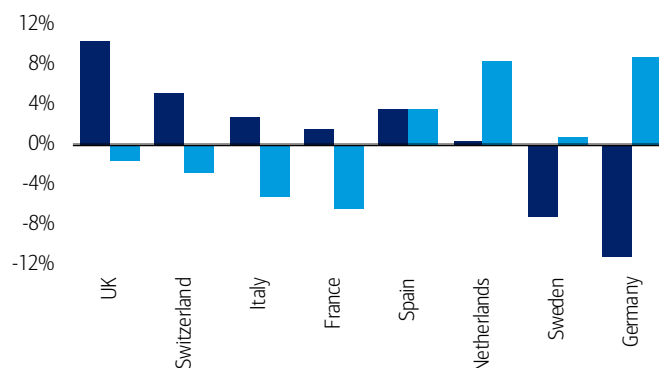


Source: BofA European Equity Quant Strategy

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Exhibit 46: Top Recession stocks are most OW UK, while bottom stocks are most OW Germany

Top and bottom Recession relative country weights

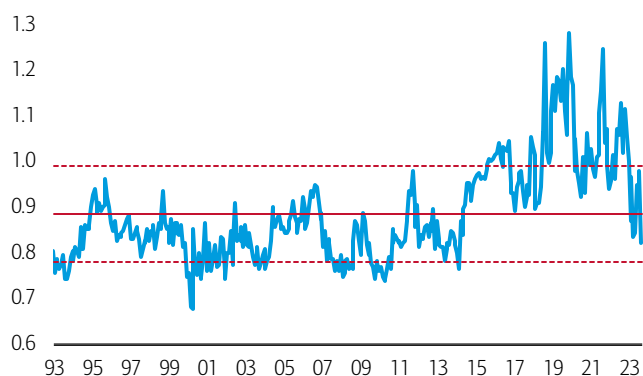


Source: BofA European Equity Quant Strategy

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Exhibit 47: Top Recession stocks trade at a 7% P/E discount to the market relative to the long term average

Top Recession stocks P/E relative to market

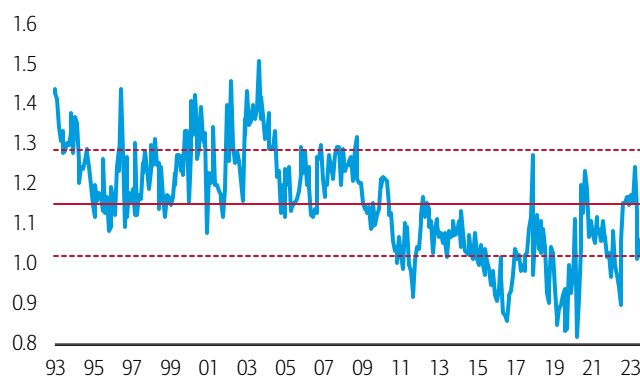


Source: BofA European Equity Quant Strategy

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Exhibit 48: Bottom Recession stocks trade at a 13% P/E discount to the market relative to the long term average

Bottom Recession stocks P/E relative to market



Source: BofA European Equity Quant Strategy

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Appendix: additional screens

Style Cycle screen for European SMIDs

Exhibit 49: Style Cycle SMID - Recession screens for Sep '23 (data as of 31/08/2023)

Top and Bottom Style Cycle SMID Recession stocks

Top Stocks (Good Value, Low Risk, High Quality & Large Size)								Bottom Stocks (Poor Value, High Risk, Low Quality & Small Size)							
BBG Ticker	Name	Recession Rank	Value Rank	Size (EUR bn)	Beta	RoE	Price	BBG Ticker	Name	Recession Rank	Value Rank	Size (EUR bn)	Beta	RoE	Price
ELISA FH	Elisa	100	26	6	0.2	35.2	45.3	AML LN	Aston Martin	1	14	1	2.0	-105.8	3.6
IPN FP	Ipsen	100	43	5	0.8	21.0	119.8	BFIT NA	Basic-Fit	1	14	1	2.0	0.0	28.2
KESKOB FH	Kesko	100	69	5	0.7	25.4	18.0	BORR NO	Borr Drilling	1	22	1	3.3	-26.9	75.0
NXT LN	Next	100	38	10	1.6	64.0	69.9	IWG LN	IWG	1	33	2	2.3	-66.1	1.8
RS1 LN	RS	99	51	4	1.2	22.4	7.6	MBTN SW	Meyer Burger	1	2	1	2.9	-16.7	0.4
HWDN LN	Howden Joinery	99	49	5	1.1	42.0	7.4	SPM IM	Saipem	1	44	2	1.8	-9.0	1.5
MNDI LN	Mondi	99	79	7	1.0	22.2	13.1	ARYN SW	Aryzta	2	41	2	2.3	5.3	1.5
YAR NO	Yara	99	94	6	0.7	16.7	388.9	BAVA DC	Bavarian Nordic	2	42	2	1.6	3.3	153.2
ADM LN	Admiral	98	28	6	0.2	32.4	24.9	ROO LN	Deliveroo	2	23	1	1.8	-37.0	1.1
EMSN SW	EMS-CHEMIE	98	7	5	0.8	29.3	664.5	NDX1 GR	Nordex	2	21	1	2.3	-96.1	11.0
IGG LN	IG	98	81	3	0.7	25.9	6.8	RDC GR	Redcare Pharmacy	2	10	2	0.8	-15.7	110.0
RED SM	Redeia Corporacion	98	63	6	0.5	11.9	15.0	ZEAL DC	Zealand Pharma	2	1	2	1.0	-50.6	256.8
BME LN	B&M European Value Retail	97	53	6	1.1	50.8	5.8	FRA GR	Fraport	3	61	2	2.2	5.8	50.1
DCC LN	DCC	97	85	5	0.9	12.2	43.3	HMSO LN	Hammerson	3	49	1	2.7	4.6	0.2
ITRK LN	Intertek	97	26	8	0.7	26.7	41.4	ONT LN	Oxford Nanopore Technologies	3	4	1	1.8	-13.2	2.4
EMG LN	Man	97	72	3	1.1	35.5	2.1	TRN LN	Trainline	3	19	1	2.1	12.8	2.3
NZYMB DC	Novozymes	97	9	8	0.6	26.3	298.5	VK FP	Vallourec	3	74	2	3.0	14.1	12.4
WPP LN	WPP	97	80	10	1.5	29.2	7.7	CCL LN	Carnival	4	11	2	2.8	-65.5	11.2
AUTO LN	Auto Trader	96	7	7	0.7	47.2	6.1	EZJ LN	easyJet	4	65	1	2.9	-1.6	4.2
CCC LN	Computacenter	96	54	2	1.0	24.5	21.8	SCYR SM	Sacyr	4	71	1	1.9	20.5	2.9
CRDA LN	Croda	96	13	9	0.8	15.7	55.2	SCHA NO	Schibsted	4	20	1	0.8	-22.8	226.5
HIK LN	Hikma Pharmaceuticals	96	47	4	0.4	18.8	21.9	SHC LN	Shaftesbury Capital	4	15	2	1.3	1.2	1.2
QIA GR	QIAGEN	95	12	10	0.1	11.2	42.2	SSPG LN	SSP	4	26	2	2.0	57.4	2.4
RAND NA	Randstad	95	76	6	1.5	22.4	54.2	WG/ LN	John Wood	5	70	1	2.1	1.1	1.6
RMV LN	Rightmove	95	7	5	1.0	288.1	5.6	S92 GR	SMA Solar Technology	5	12	1	1.5	20.4	74.3

Source: BofA European Equity Quant Strategy, FactSet, Price in Local Currency. Companies listed represent the top and bottom 25 stocks within European SMIDs (companies with market cap less than 10bn EUR).

The screen identified as Style Cycle SMID - Recession 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. This screen is 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

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Exhibit 50: Style Cycle Europe Stoxx 600 supersectors - Recession screens for Sep '23 (data as of 31/08/2023)

Top and Bottom Style Cycle Recession stocks by Europe Stoxx 600 supersectors

BBG Ticker	Name	Recession Rank (100=Top)	BBG Ticker	Name	Recession Rank (1=Bottom)	BBG Ticker	Name	Recession Rank (100=Top)	BBG Ticker	Name	Recession Rank (1=Bottom)
Automobiles and Parts						GAW LN	Games Workshop	67	ALE PW	Allegro.eu	1
STLA US	Stellantis	98	CON GR	Continental	44	Energy					
MBG GR	Mercedes-Benz	97	RNO FP	Renault	34	EQNR NO	Equinor	94	HBR LN	Harbour Energy	6
BMW GR	BMW	96	VOLCARB SS	Volvo Car	23	REP SM	Repsol	90	ENR GR	Siemens Energy	4
RACE IM	Ferrari	95	FRVIA FP	Forvia	9	TTE FP	TotalEnergies	90	SUBC NO	Subsea 7	2
ML FP	Michelin	94	FR FP	Valeo	2	PKN PW	ORLEN	79	ENOG LN	Energean	1
Banks						GTT FP	Gaztransport & Technigaz	77	NEL NO	NEL	1
HSBA LN	HSBC	90	PKO PW	PKO Bank Polski	37	Financial Services					
SEBA SS	SEB	90	ABN NA	ABN AMRO Bank	27	IGG LN	IG	98	RF FP	Eurazeo	14
DNB NO	DNB Bank	87	CBK GR	Commerzbank	25	III LN	3i	97	ICP LN	Intermediate Capital	7
SWEDA SS	Swedbank	81	JYSK DC	Jyske Bank	23	DB1 GR	Deutsche Boerse	94	ALLFG NA	Allfunds	6
BBVA SM	BBVA	80	AIBG ID	AiB	16	EMG LN	Man	92	MNG LN	M&G	6
SAN SM	Banco Santander	79	SPL PW	Santander Bank Polska	11	EXO NA	EXOR	75	MF FP	Wendel	6
SHBA SS	Svenska	78	SYDB DC	Sydbank	11	Food Beverage and Tobacco					
KBC BB	KBC	76	CBG LN	Close Brothers	7	IMB LN	Imperial Brands	96	ABI BB	Anheuser-Busch InBev	42
UCG IM	UniCredit	63	VMUK LN	Virgin Money UK	7	NESN SW	Nestle	94	HEIA NA	Heineken	41
Basic Resources						BN FP	Danone	91	BARN SW	Barry Callebaut	36
RIO LN	Rio Tinto	95	UPM FH	UPM-Kymmene	51	MOWI NO	Mowi	89	CPR IM	Davide Campari-Milano	19
MT NA	ArcelorMittal	81	NDA GR	Aurubis	36	ORK NO	Orkla	89	BAKKA NO	Bakkafrost	13
GLEN LN	Glencore	75	KGH PW	KGHM Polska Miedz	32	TATE LN	Tate & Lyle	82	DSFIR NA	DSM-Firmenich	9
AAL LN	Anglo American	64	SCAB SS	Svenska Cellulosa	26	Health Care					
HOLMB SS	Holmen B	43	ANTO LN	Antofagasta	15	NOVN SW	Novartis	100	ARGX BB	argenx	25
Chemicals						NOVOB DC	Novo Nordisk	100	GETIB SS	Getinge	22
AI FP	L'Air Liquide	84	WCH GR	Wacker Chemie	21	GSK LN	GSK	99	EKTAB SS	Elekta	16
YAR NO	Yara	64	OCI NA	OCI	20	ROG SW	Roche	98	ALKB DC	ALK-Abello	12
GIVN SW	Givaudan	61	EVK GR	Evonik Industries	12	HIK LN	Hikma Pharmaceuticals	97	GXI GR	Gerresheimer	12
BNR GR	Brenntag	53	1COV GR	Covestro	9	IPN FP	Ipsen	97	BANB SW	Bachem	11
IMCD NA	IMCD	34	LXS GR	LANXESS	4	SAN FP	Sanofi	95	AMP IM	Amplifon	8
Construction and Materials						MRK GR	Merck	77	AMBUB DC	Ambu	7
SGO FP	Saint-Gobain	91	ACS SM	ACS Actividades	32	BIM FP	bioMerieux	76	GN DC	GN Store Nord	5
KSP ID	Kingspan	91	SPIE FP	SPIE	21	QIA GR	QIAGEN	71	EVT GR	Evotec	2
DG FP	VINCI	91	ANA SM	Acciona	14	HLN LN	Haleon	69	BAVA DC	Bavarian Nordic	1
ASSAB SS	ASSA ABLOY	90	FER SM	Ferrovial	9	Industrial Goods and Services					
SIKA SW	Sika	56	ARCAD NA	Arcadis	8	BA/ LN	BAE Systems	99	GFTU LN	Grafton	25
Consumer Products and Services						DSV DC	DSV	99	EDEN FP	Edenred	23
OR FP	L'Oreal	98	UBI FP	Ubisoft Entertainment	12	KNIN SW	Kuehne Nagel	99	NEX FP	Nexans	23
RMS FP	Hermes	97	LPP PW	LPP	11	DHL GR	Deutsche Post	96	VALMT FH	Valmet	21
HEN3 GR	Henkel	89	EMBRACB SS	Embracer	8	KNEBV FH	Kone	95	BEIJB SS	Beijer	20
MC FP	LVMH	84	DHER GR	Delivery Hero	5	SRP LN	Serco	95	MTX GR	MTU Aero Engines	20
MONC IM	Moncler	78	ELUXB SS	Electrolux	2	VOLVB SS	Volvo	94	ELIS FP	Elis	18

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom quintile stocks (or minimum 5 stocks) within Europe Stoxx 600 supersectors. The screens identified as Europe Stoxx 600 supersectors - Recession above are 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. These screens were not created to act as benchmarks. This screen is 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

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Exhibit 51: Style Cycle Europe Stoxx 600 supersectors - Recession screens for Sep '23 (data as of 31/08/2023)

Top and Bottom Style Cycle Recession stocks by Europe Stoxx 600 supersectors

BBG Ticker	Name	Recession Rank (100=Top)	BBG Ticker	Name	Recession Rank (1=Bottom)	BBG Ticker	Name	Recession Rank (100=Top)	BBG Ticker	Name	Recession Rank (1=Bottom)
ATCOA SS	Atlas Copco	93	KGX GR	KION	18	LI FP	Klepierre	49	COL SM	Inmobiliaria Colonial	2
EPIA SS	Epiroc	93	TOM NO	TOMRA Systems	17	Retail					
BNZL LN	Bunzl	91	FHZN SW	Flughafen Zuerich	14	NXT LN	Next	100	RUI FP	Rubis	44
EXPN LN	Experian	91	TPK LN	Travis Perkins	10	ITX SM	Inditex	99	HMB SS	H&M	27
LR FP	Legrand	91	INPST NA	InPost	9	BME LN	B&M European Value Retail	96	SMWH LN	WH Smith	7
MAERSKB DC	A.P. Moller - Maersk	90	TKA GR	thyssenkrupp	8	HWDN LN	Howden Joinery	87	DUFN SW	Dufry	2
ABBN SW	ABB	89	WLN FP	Worldline	6	MKS LN	Marks & Spencer	53	ZAL GR	Zalando	2
DPLM LN	Diploma	88	GET FP	Gedlink	5	Technology					
SCHP SW	Schindler	88	ISS DC	ISS A/S	5	AUTO LN	Auto Trader	94	PRX NA	Prosus	36
HO FP	Thales	87	ALO FP	Alstom	3	SGE LN	Sage	87	BESI NA	BE Semiconductor	26
SAND SS	Sandvik	83	AZE BB	Azelis	3	STMPA FP	STMicroelectronics	87	NOD NO	Nordic Semiconductor	14
SGSN SW	SGS	82	NKT DC	NKT	3	CCC LN	Computacenter	86	FNOX SS	Fortnox	11
ITRK LN	Intertek	81	IDS LN	Intl. Distri. Svs	3	CAP FP	Cappgemini	79	AMS SW	ams-OSRAM	4
IMI LN	IMI	78	ADP FP	Aeroports de Paris	1	SCT LN	Softcat	78	TKWY NA	Just Eat Takeaway.com	4
Insurance						Telecommunications					
MUV2 GR	Munich Re	92	PHNX LN	Phoenix	23	KPN NA	Royal KPN	92	CLNX SM	Cellnex Telecom	21
PST IM	Poste Italiane	89	HSX LN	Hiscox	17	DTE GR	Deutsche Telekom	85	SESG FP	SES	5
G IM	Generali	84	STB NO	Storebrand	17	ORA FP	Orange	74	TIT IM	Telecom Italia	5
CS FP	AXA	84	AGN NA	Aegon	15	TEF SM	Telefonica	74	O2D GR	Telefonica Deutschland	4
ADM LN	Admiral	83	SCR FP	SCOR	15	VOD LN	Vodafone	51	TIGO US	Millicom	3
NN NA	NN	72	BEZ LN	Beazley	12	Travel and Leisure					
Media						EVO SS	Evolution	86	LHA GR	Deutsche Lufthansa	24
PUB FP	Publicis	98	INF LN	Informa	66	FDJ FP	La Francaise des Jeux	76	AC FP	Accor	15
WKL NA	Wolters Kluwer	95	WPP LN	WPP	45	IHG LN	Icrl. Hotels	70	IAG LN	IAG	14
REL LN	RELX	93	ITV LN	ITV	37	SW FP	Sodexo	66	TUI1 GR	TUI	5
UMG NA	Universal Music	79	EVD GR	CTS Eventim	34	RYA ID	Ryanair	54	SSPG LN	SSP	1
PERSON LN	Pearson	60	VIV FP	Vivendi	21	Utilities					
Personal Care Drug and Grocery S						ELE SM	Endesa	99	UU/ LN	United Utilities	26
TSCO LN	Tesco	100	CA FP	Carrefour	66	EOAN GR	E ON	97	VIE FP	Veolia	24
ULVR LN	Unilever	100	ESSITYB SS	Essity	60	SSE LN	SSE	97	DRX LN	Drax	15
SBRY LN	J Sainsbury	88	GRG LN	Greggs	55	IBE SM	Iberdrola	95	EDPR PL	EDP Renovaveis	12
RKT LN	Reckitt Benckiser	87	DNP PW	Dino Polska	53	RWE GR	RWE	93	PNN LN	Pennon	7
BEI GR	Beiersdorf	84	OCDO LN	Ocado	10	Real Estate					
RMV LN	Rightmove	78	FABG SS	Fabege	13						
WDP BB	Warehouses De Pauw	71	KOJAMO FH	Kojamo	13						
PSPN SW	PSP Swiss Property	60	LXI LN	LXI REIT	13						
COFB BB	Cofinimmo	59	BALDB SS	Fastighets Balder	10						
LAND LN	Land Securities	53	COV FP	Covivio	9						

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom quintile stocks (or minimum 5 stocks) within Europe Stoxx 600 supersectors. The screens identified as Europe Stoxx 600 supersectors - Recession above are 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. These screens were not created to act as benchmarks. This screen is 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

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Exhibit 52: Style Cycle Europe Stoxx 600 countries - Recession screens for Sep '23 (data as of 31/08/2023)

Top and Bottom Style Cycle Recession stocks by Europe Stoxx 600 countries

Recession				Recession				Recession				Recession			
BBG		Rank			Rank		BBG		Rank				Rank		
Ticker	Name	(100=Top)	BBG Ticker	Name	(1=Bottom)	Ticker	Name	(100=Top)	BBG Ticker	Name	(1=Bottom)	Ticker	Name	(1=Bottom)	
France															
OR FP	L'Oreal	98	ADP FP	Aeroports de Paris	1	WKL NA	Wolters Kluwer	95	TKWY NA	Just Eat Takeaway.com	4				
PUB FP	Publicis	98	FR FP	Valeo	2	AD NA	Ahold Delhaize	93	ALLFG NA	Allfunds	6				
RMS FP	Hermes	97	ALO FP	Alstom	3	KPN NA	Royal KPN	92	ARCAD NA	Arcadis	8				
IPN FP	Ipsen	97	GET FP	Getlink	5	ASML NA	ASML	85	DSFIR NA	DSM-Firmenich	9				
SAN FP	Sanofi	95	MF FP	Wendel	6	UMG NA	Universal Music	79	INPST NA	InPost	9				
ML FP	Michelin	94	WLN FP	Worldline	6	EXO NA	EXOR	75	AGN NA	Aegon	15				
SGO FP	Saint-Gobain	91	AF FP	Air France-KLM	9	Netherlands									
BN FP	Danone	91	COV FP	Covivio	9	ELE SM	Endesa	99	COL SM	Inmobiliaria Colonial	2				
LR FP	Legrand	91	FRVIA FP	Forvia	9	ITX SM	Inditex	99	FER SM	Ferrovial	9				
DG FP	VINCI	91	UBI FP	Ubisoft Entertainment	12	IBE SM	Iberdrola	95	GRF SM	Grifols	10				
TTE FP	TotalEnergies	90	RF FP	Eurazeo	14	RED SM	Redeia Corporacion	92	ANA SM	Acciona	14				
HO FP	Thales	87	AC FP	Accor	15	REP SM	Repsol	90	MRL SM	MERLIN Properties SOCIMI	17				
AI FP	L'Air Liquide	84	SCR FP	SCOR	15	Spain									
CS FP	AXA	84	TE FP	Technip Energies	15	VOLVB SS	Volvo	94	ELUXB SS	Electrolux	2				
MC FP	LVMH	84	SOI FP	Soitec	17	ATCOA SS	Atlas Copco	93	TIGO US	Millicom	3				
Germany															
EOAN GR	E.ON	97	EVT GR	Evotec	2	EPIA SS	Epiroc	93	EMBRACB SS	Embracer	8				
MBG GR	Mercedes-Benz	97	ZAL GR	Zalando	2	ASSAB SS	ASSA ABLOY	90	BALDB SS	Fastighets Balder	10				
BMW GR	BMW	96	LXS GR	LANXESS	4	SEBA SS	SEB	90	FNOX SS	Fortnox	11				
DHL GR	Deutsche Post	96	ENR GR	Siemens Energy	4	EVO SS	Evolution	86	WIHL SS	Wihlborgs Fastigheter	12				
DB1 GR	Deutsche Boerse	94	O2D GR	Telefonica Deutschland	4	SAND SS	Sandvik	83	FABG SS	Fabege	13				
RWE GR	RWE	93	DHER GR	Delivery Hero SE	5	SECUB SS	Securitas	82	SAGAB SS	Sagax	15				
MUV2 GR	Munich Re	92	ECV GR	Encavis	5	SWEDA SS	Swedbank	81	EKTAB SS	Elekta	16				
P911 GR	Porsche	91	TKA GR	thyssenkrupp	8	SHBA SS	Svenska Handelsbanken	78	SAVE SS	Nordnet	16				
HEN3 GR	Henkel	89	1COV GR	Covestro	9	ERICB SS	LM Ericsson	76	CAST SS	Castellum	17				
FME GR	Fresenius Medical Care	86	EVK GR	Evonik Industries	12	Sweden									
DTE GR	Deutsche Telekom	85	GXI GR	Gerrresheimer	12	NOVN SW	Novartis	100	DUFN SW	Dufry	2				
BEI GR	Beiersdorf	84	FNTN GR	freenet	18	KNIN SW	Kuehne Nagel	99	AMS SW	ams-OSRAM	4				
G24 GR	Scout24	81	KGX GR	KION	18	ROG SW	Roche	98	BANB SW	Bachem	11				
DTG GR	Daimler Truck	79	MTX GR	MTU Aero Engines	20	NESN SW	Nestle	94	FHZN SW	Flughafen Zuerich	14				
Italy															
STLA US	Stellantis	98	TIT IM	Telecom Italia	5	ABBW SW	ABB	89	ALLN SW	Allreal	18				
ENEL IM	Enel	95	AMP IM	Amplifon	8	SCHP SW	Schindler	88	CMBN SW	Cembra Money Bank	18				
RACE IM	Ferrari	95	INW IM	Infrastrutture Wireless	10	SGSN SW	SGS	82	SFSN SW	SFS	18				
PST IM	Poste Italiane	89	CPR IM	Davide Campari-Milano	19	LISN SW	Lindt & Spruengli	81	SIGN SW	SIG	21				
STMPA FP	STMMicroelectronics	87	BPE IM	BPER Banca	23	LOGN SW	Logitech	81	SLHN SW	Swiss Life	22				
SRG IM	SNAM	85	BC IM	Brunello Cucinelli	23	SCMN SW	Swisscom	80	SPSN SW	Swiss Prime Site	25				
G IM	Generali	84	IP IM	Interpump	25	United Kingdom									
						NXT LN	Next	100	ENOG LN	Energean	1				
						TSCO LN	Tesco	100	SSPG LN	SSP	1				

Exhibit 53: Style Cycle Europe Stoxx 600 countries - Recession screens for Sep '23 (data as of 31/08/2023)

Top and Bottom Style Cycle Recession stocks by Europe Stoxx 600 countries

		Recession				Recession				Recession			
BBG Ticker	Name	Rank (100=Top)	BBG Ticker	Name	Rank (1=Bottom)	BBG Ticker	Name	Rank (100=Top)	BBG Ticker	Name	Rank (1=Bottom)		
ULVR LN	Unilever	100	IDS LN	Intl. Distri. Svs	3								
BA/ LN	BAE Systems	99	TUI1 GR	TUI	5								
GSK LN	GSK	99	HBRLN	Harbour Energy	6								
IGG LN	IG	98	MNG LN	M&G	6								
III LN	3i	97	CBG LN	Close Brothers	7								
HIK LN	Hikma Pharmaceuticals	97	ICP LN	Intermediate Capital	7								
SSE LN	SSE	97	PNN LN	Pennon	7								
BME LN	B&M European Value Retail	96	VMUK LN	Virgin Money UK	7								
IMB LN	Imperial Brands	96	SMWH LN	WH Smith	7								
RIO LN	Rio Tinto	95	OCDO LN	Ocado	10								
SRP LN	Serco	95	TPK LN	Travis Perkins	10								
AUTO LN	Auto Trader	94	ENT LN	Entain	11								
REL LN	RELX	93	BEZ LN	Beazley	12								
EMG LN	Man	92	NWG LN	NatWest	12								
BNZL LN	Bunzl	91	LXI LN	LXI REIT	13								
EXP LN	Experian	91	IAG LN	IAG	14								
HSBA LN	HSBC	90	OSB LN	OSB	14								
BATS LN	British American Tobacco	89	ANTO LN	Antofagasta	15								
CNA LN	Centrica	88	DRX LN	Drax	15								
DPLM LN	Diploma	88	ABDN LN	Abrdn	16								
SBRY LN	J Sainsbury	88	HSX LN	Hiscox	17								
HWDN LN	Howden Joinery	87	DLN LN	Derwent London	18								
RKT LN	Reckitt Benckiser	87	WOSG LN	Watches of Switzerland	19								
SHEL LN	Shell	87	MRO LN	Melrose Industries	21								
SGE LN	Sage	87	PHNX LN	Phoenix	23								
CCC LN	Computacenter	86	GFTU LN	Grafton	25								

Source: BofA European Equity Quant Strategy, FactSet. Companies listed represent the top and bottom quintile stocks (or minimum 5 stocks) within 8 Europe Stoxx 600 countries. The screens identified as Europe Stoxx 600 countries - Recession above are 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. These screens were not created to act as benchmarks. This screen is 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

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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

As a reminder, the CMI is an equal-weighted composite indicator of 6 inputs:

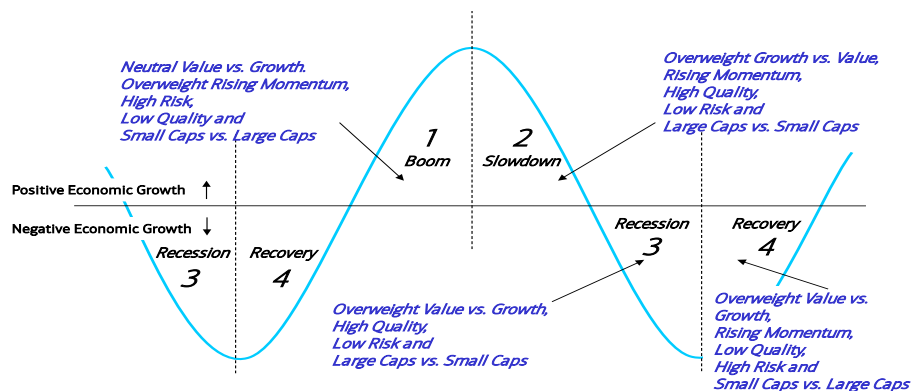
- Pan European GDP forecasts – 12m fwd forecasted GDP growth for the Developed European countries
- BofA Europe Leading Indicator – 12m change in BofA Europe Leading Indicator which indicates an acceleration (deceleration) in anticipated GDP growth, above (below) long-term GDP growth for Europe
- European 10Y bond yield – 12m actual change in average of 10Y bond yields of Germany, UK and France
- German IFO – level of indicator as published by the IFO institute for the Trade and Industry (Excluding Services) survey
- European PPI – Eurozone Producer Price inflation (expressed as 12m change) ex Construction, SRWG, Waste Management and Remediation Activities
- Global EPS Revision Ratio – ratio between the number of companies in the MSCI ACWI index for which Refinitiv consensus earnings estimates have been raised versus those that have been lowered



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 Index (CMI).

Exhibit 54: Phases of the Economic Cycle* & Investment Style Preferences – ‘Style Cycle’

Style Cycle framework



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.

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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).

Exhibit 55: Monthly excess returns by investment style and phases of the economic cycle

Backtesting results (based on period from Dec '92 to Dec '03)

Economic cycle	Value	Growth	Momentum	Quality	Risk	Size
				hi-lo	high	(large-small)
Phase 1 - 'Boom' rising accelerating	1.1	0.78	0.97	-1.34	0.65	-0.75
Phase 2 - 'Slowdown' rising decelerating	0	0.44	0.89	0.52	0.07	0.25
Phase 3 - 'Recession' falling decelerating	-0.7	-1.91	-0.81	6.37	-2.85	1.1
Phase 4 - 'Recovery' falling accelerating	2.47	1.31	0.1	-3	2.66	-2.05
Cycle average	0.72	0.15	0.29	0.64	0.13	-0.36

Source: BofA European Equity Quant Strategy/ Refinitiv/ 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).

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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 and 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 do not 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.

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.

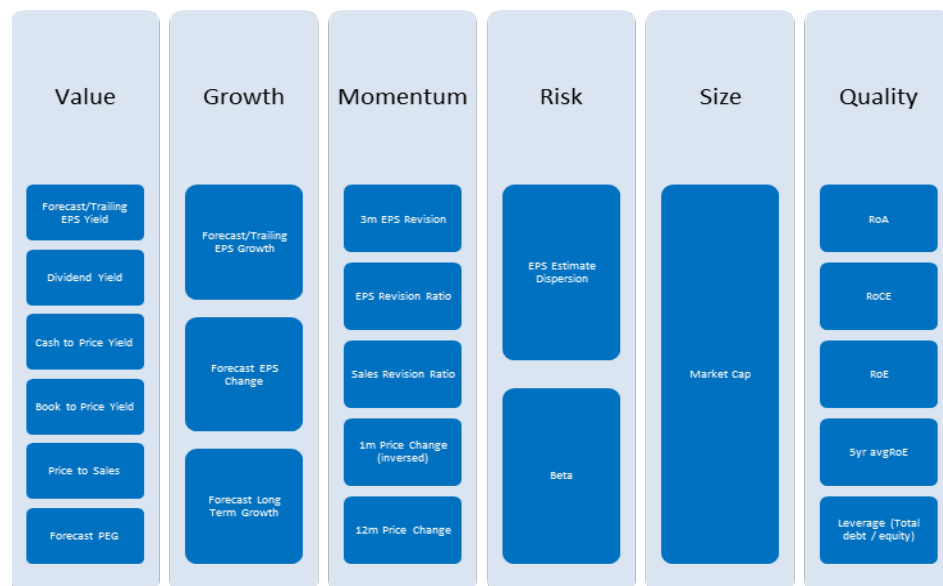
Momentum: Equal weighted combination of factors - 3m EPS Change, EPS Revision Ratio, Sales Revision Ratio, 1m Price Change and 12m Price Change.

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

Exhibit 56: Style components

Individual factors that are used for style composites



Source: BofA European Equity Quant Strategy

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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.

Performances of phases**Exhibit 57: European Absolute factor returns by Style Cycle phase (%)**

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	1.8	6.8	12.9	12.6	48.1	23.9	376.0
Multi-factor	Style Cycle - Bottom	-4.6	-0.1	-9.0	4.1	2.6	5.0	22.7	13.8
Multi-factor	Style Cycle - BOOM - Top	-2.4	9.7	-5.9	12.6	4.7	53.3	20.3	189.1
Multi-factor	Style Cycle - BOOM - Bottom	-4.4	-1.5	1.4	5.5	5.4	12.9	30.7	199.5
Multi-factor	Style Cycle - SLOWDOWN - Top	-2.8	-0.4	4.5	10.5	10.2	9.3	26.0	419.8
Multi-factor	Style Cycle - SLOWDOWN - Bottom	-3.9	-0.4	-9.3	3.7	2.2	29.4	-15.2	-3.8
Multi-factor	Style Cycle - RECESSION - Top	-1.6	1.8	3.9	11.7	8.9	34.0	35.4	93.7
Multi-factor	Style Cycle - RECESSION - Bottom	-4.6	-0.1	-7.7	-1.3	2.7	-4.3	-13.1	88.1
Multi-factor	Style Cycle - RECOVERY - Top	-2.6	6.8	-9.2	10.3	2.9	63.3	29.7	169.4
Multi-factor	Style Cycle - RECOVERY - Bottom	-6.1	-4.1	2.2	9.2	9.8	17.8	41.8	234.2
Market	European Market (abs)	-3.1	1.6	-2.0	9.1	7.7	23.3	17.0	137.9

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

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Exhibit 58: European Relative factor returns by Style Cycle phase (%)

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	0.2	9.0	3.4	4.5	20.1	5.9	100.1
Multi-factor	Style Cycle - Bottom	-1.5	-1.6	-7.1	-4.7	-4.8	-14.8	4.9	-52.2
Multi-factor	Style Cycle - BOOM - Top	0.8	8.0	-4.0	3.2	-2.7	24.3	2.8	21.5
Multi-factor	Style Cycle - BOOM - Bottom	-1.3	-3.0	3.5	-3.3	-2.2	-8.5	11.7	25.9
Multi-factor	Style Cycle - SLOWDOWN - Top	0.3	-1.9	6.7	1.2	2.3	-11.4	7.7	118.5
Multi-factor	Style Cycle - SLOWDOWN - Bottom	-0.8	-2.0	-7.4	-5.0	-5.1	4.9	-27.5	-59.5
Multi-factor	Style Cycle - RECESSION - Top	1.6	0.2	6.1	2.3	1.1	8.7	15.7	-18.6
Multi-factor	Style Cycle - RECESSION - Bottom	-1.5	-1.6	-5.8	-9.5	-4.6	-22.4	-25.7	-20.9
Multi-factor	Style Cycle - RECOVERY - Top	0.6	5.1	-7.3	1.0	-4.4	32.4	10.8	13.2
Multi-factor	Style Cycle - RECOVERY - Bottom	-3.1	-5.6	4.3	0.1	1.9	-4.5	21.2	40.5

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

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Exhibit 59: European Style Cycle advancers

Number of companies which saw their price up over the last month

Factor Name	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Style Cycle - Top	9	41	93	169	125	481	802	3382
Style Cycle - Bottom	6	37	66	154	103	476	815	3268
Style Cycle - BOOM - Top	6	46	72	164	107	498	795	3387
Style Cycle - BOOM - Bottom	4	33	76	154	104	478	832	3387
Style Cycle - SLOWDOWN - Top	5	34	86	162	118	468	808	3413
Style Cycle - SLOWDOWN - Bottom	6	40	69	157	106	469	755	3248
Style Cycle - RECESSION - Top	9	41	84	160	116	499	841	3368
Style Cycle - RECESSION - Bottom	6	37	73	154	107	447	762	3310
Style Cycle - RECOVERY - Top	7	42	66	164	102	503	800	3356
Style Cycle - RECOVERY - Bottom	3	30	80	155	112	477	843	3382
Market	63	383	742	1615	1111	4710	7945	11820

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

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Exhibit 60: European Style Cycle decliners

Number of companies which saw their price down over the last month

Factor Name	1M	3M	6M	12M	YTD	3YR	5YR	Since Incpt.*
Style Cycle - Top	16	34	57	131	75	418	622	2839
Style Cycle - Bottom	19	38	84	146	97	424	587	2949
Style Cycle - BOOM - Top	19	29	78	136	93	402	612	2830
Style Cycle - BOOM - Bottom	21	42	74	146	96	421	570	2833
Style Cycle - SLOWDOWN - Top	20	41	64	138	82	431	608	2808
Style Cycle - SLOWDOWN - Bottom	19	35	81	143	94	431	651	2967
Style Cycle - RECESSION - Top	16	34	66	140	84	400	573	2850
Style Cycle - RECESSION - Bottom	19	38	77	146	93	453	644	2901
Style Cycle - RECOVERY - Top	18	33	84	136	98	397	602	2860
Style Cycle - RECOVERY - Bottom	22	45	70	145	88	423	567	2838
Market	187	367	758	1384	889	4284	6151	10403

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

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Historical phases of the 'Style Cycle'

Exhibit 61: Style Cycle – historical phases

February 1995 to date

Month	CMI phase	Month	CMI phase	Month	CMI phase	Month	CMI phase	Month	CMI phase
Feb-95 Slowdown		Dec-99 Boom		Oct-04 Slowdown		Aug-09 Recovery		Jun-14 Slowdown	
Mar-95 Slowdown		Jan-00 Boom		Nov-04 Slowdown		Sep-09 Recovery		Jul-14 Slowdown	
Apr-95 Slowdown		Feb-00 Boom		Dec-04 Slowdown		Oct-09 Recovery		Aug-14 Slowdown	
May-95 Slowdown		Mar-00 Boom		Jan-05 Slowdown		Nov-09 Boom		Sep-14 Recession	
Jun-95 Slowdown		Apr-00 Slowdown		Feb-05 Slowdown		Dec-09 Boom		Oct-14 Recession	
Jul-95 Slowdown		May-00 Slowdown		Mar-05 Slowdown		Jan-10 Boom		Nov-14 Recession	
Aug-95 Slowdown		Jun-00 Slowdown		Apr-05 Slowdown		Feb-10 Boom		Dec-14 Recession	
Sep-95 Slowdown		Jul-00 Slowdown		May-05 Slowdown		Mar-10 Slowdown		Jan-15 Recession	
Oct-95 Recession		Aug-00 Slowdown		Jun-05 Slowdown		Apr-10 Slowdown		Feb-15 Recession	
Nov-95 Recession		Sep-00 Slowdown		Jul-05 Slowdown		May-10 Slowdown		Mar-15 Recession	
Dec-95 Recession		Oct-00 Slowdown		Aug-05 Boom		Jun-10 Slowdown		Apr-15 Recovery	
Jan-96 Recession		Nov-00 Slowdown		Sep-05 Boom		Jul-10 Slowdown		May-15 Recovery	
Feb-96 Recovery		Dec-00 Slowdown		Oct-05 Boom		Aug-10 Slowdown		Jun-15 Recovery	
Mar-96 Recovery		Jan-01 Slowdown		Nov-05 Boom		Sep-10 Slowdown		Jul-15 Recovery	
Apr-96 Recovery		Feb-01 Recession		Dec-05 Boom		Oct-10 Slowdown		Aug-15 Recovery	
May-96 Recovery		Mar-01 Recession		Jan-06 Boom		Nov-10 Slowdown		Sep-15 Recovery	
Jun-96 Recovery		Apr-01 Recession		Feb-06 Boom		Dec-10 Boom		Oct-15 Recovery	
Jul-96 Recovery		May-01 Recession		Mar-06 Boom		Jan-11 Boom		Nov-15 Recovery	
Aug-96 Recovery		Jun-01 Recession		Apr-06 Boom		Feb-11 Boom		Dec-15 Recovery	
Sep-96 Recovery		Jul-01 Recession		May-06 Boom		Mar-11 Boom		Jan-16 Recovery	
Oct-96 Recovery		Aug-01 Recession		Jun-06 Boom		Apr-11 Slowdown		Feb-16 Recovery	
Nov-96 Recovery		Sep-01 Recession		Jul-06 Boom		May-11 Slowdown		Mar-16 Recession	
Dec-96 Recovery		Oct-01 Recession		Aug-06 Slowdown		Jun-11 Slowdown		Apr-16 Recession	
Jan-97 Boom		Nov-01 Recession		Sep-06 Slowdown		Jul-11 Slowdown		May-16 Recession	
Feb-97 Boom		Dec-01 Recession		Oct-06 Slowdown		Aug-11 Slowdown		Jun-16 Recession	
Mar-97 Boom		Jan-02 Recovery		Nov-06 Slowdown		Sep-11 Recession		Jul-16 Recession	
Apr-97 Boom		Feb-02 Recovery		Dec-06 Slowdown		Oct-11 Recession		Aug-16 Recession	
May-97 Boom		Mar-02 Recovery		Jan-07 Slowdown		Nov-11 Recession		Sep-16 Recession	
Jun-97 Boom		Apr-02 Boom		Feb-07 Slowdown		Dec-11 Recession		Oct-16 Recovery	
Jul-97 Boom		May-02 Slowdown		Mar-07 Slowdown		Jan-12 Recession		Nov-16 Recovery	
Aug-97 Boom		Jun-02 Slowdown		Apr-07 Slowdown		Feb-12 Recession		Dec-16 Recovery	
Sep-97 Boom		Jul-02 Slowdown		May-07 Slowdown		Mar-12 Recession		Jan-17 Recovery	
Oct-97 Boom		Aug-02 Slowdown		Jun-07 Slowdown		Apr-12 Recovery		Feb-17 Boom	
Nov-97 Boom		Sep-02 Slowdown		Jul-07 Slowdown		May-12 Recovery		Mar-17 Boom	
Dec-97 Boom		Oct-02 Slowdown		Aug-07 Slowdown		Jun-12 Recovery		Apr-17 Boom	
Jan-98 Slowdown		Nov-02 Slowdown		Sep-07 Slowdown		Jul-12 Recovery		May-17 Boom	
Feb-98 Slowdown		Dec-02 Slowdown		Oct-07 Slowdown		Aug-12 Recovery		Jun-17 Boom	
Mar-98 Slowdown		Jan-03 Recession		Nov-07 Slowdown		Sep-12 Recovery		Jul-17 Boom	
Apr-98 Recession		Feb-03 Recession		Dec-07 Slowdown		Oct-12 Recovery		Aug-17 Boom	
May-98 Recession		Mar-03 Recession		Jan-08 Slowdown		Nov-12 Recovery		Sep-17 Boom	
Jun-98 Recession		Apr-03 Recession		Feb-08 Slowdown		Dec-12 Recovery		Oct-17 Boom	
Jul-98 Recession		May-03 Recession		Mar-08 Slowdown		Jan-13 Recovery		Nov-17 Boom	
Aug-98 Recession		Jun-03 Recovery		Apr-08 Slowdown		Feb-13 Recovery		Dec-17 Boom	
Sep-98 Recession		Jul-03 Recovery		May-08 Slowdown		Mar-13 Recovery		Jan-18 Boom	
Oct-98 Recession		Aug-03 Recovery		Jun-08 Slowdown		Apr-13 Recovery		Feb-18 Boom	
Nov-98 Recession		Sep-03 Boom		Jul-08 Slowdown		May-13 Recovery		Mar-18 Boom	
Dec-98 Recession		Oct-03 Boom		Aug-08 Slowdown		Jun-13 Boom		Apr-18 Slowdown	
Jan-99 Recession		Nov-03 Boom		Sep-08 Recession		Jul-13 Boom		May-18 Slowdown	
Feb-99 Recovery		Dec-03 Boom		Oct-08 Recession		Aug-13 Boom		Jun-18 Slowdown	
Mar-99 Recovery		Jan-04 Boom		Nov-08 Recession		Sep-13 Boom		Jul-18 Slowdown	
Apr-99 Recovery		Feb-04 Boom		Dec-08 Recession		Oct-13 Boom		Aug-18 Slowdown	
May-99 Recovery		Mar-04 Boom		Jan-09 Recession		Nov-13 Slowdown		Sep-18 Slowdown	
Jun-99 Recovery		Apr-04 Boom		Feb-09 Recession		Dec-13 Slowdown		Oct-18 Recession	
Jul-99 Boom		May-04 Boom		Mar-09 Recession		Jan-14 Slowdown		Nov-18 Recession	
Aug-99 Boom		Jun-04 Boom		Apr-09 Recession		Feb-14 Slowdown		Dec-18 Recession	
Sep-99 Boom		Jul-04 Boom		May-09 Recession		Mar-14 Slowdown		Jan-19 Recession	
Oct-99 Boom		Aug-04 Slowdown		Jun-09 Recovery		Apr-14 Slowdown		Feb-19 Recession	
Nov-99 Boom		Sep-04 Slowdown		Jul-09 Recovery		May-14 Slowdown		Mar-19 Recession	

Source: BofA European Equity Quant Strategy



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Underperform	N/A	≥ 20%

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