

SAS All Cap Sentiment and Screens

Why are UK stocks not hitting all-time highs?

05 March 2024^



Joachim Klement
+44 (0)20 3100 2073
joachim.klement@liberum.com

Susana Cruz
+44 (0) 20 3100 2277
susana.cruz@liberum.com

While the US and Eurozone stock markets have hit new all-time highs in February, UK stock markets trade down with defensive sectors like healthcare and consumer staples (our preferred sectors for Q1 24) outperforming. But if inflation, growth and interest rate dynamics are similar in the UK, Eurozone and the US, why do UK stocks not participate in the global rally? We think it is all about prior expectations for growth and the disappointing recent news flow.

Observations for this month

In February, both the S&P 500 and the Stoxx Europe reached new all-time highs. Year-to-date, they are up 7.7% and 3.9%, respectively. Meanwhile, the FTSE 100 is down 0.7% and the FTSE 250 1.7%, year-to-date.

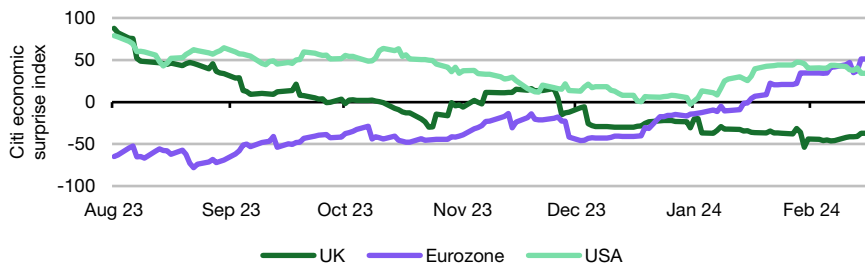
Yet, looking at the macro environment, inflation is coming down faster in the UK than in the US and Eurozone and central banks and interest rates move in lockstep in all three regions. So why are UK stocks not hitting all-time highs?

In our view, the driving force behind the difference in market performance is the development of the real economy. While UK GDP growth is no weaker than the Eurozone, data has surprised to the downside in the UK in 2024, while the surprises have become more positive both in the US and Eurozone. Indeed, the UK economy looks surprisingly weak lately while the Eurozone and US look surprisingly strong, creating pressure on the earnings growth outlook for UK stocks and a market where defensive sectors outperform.

Styles and Screens

- The tendency to underestimate UK growth is also visible in the relative undervaluation of UK stocks vs. fundamentals while Europe and the US are slightly overvalued (Fig 5).
- Strong outperformance of growth stocks in 2024 (Fig 46, Fig 95, Fig 131).

Economic surprises: The UK has not been like Europe or US



Source: Liberum, Bloomberg

This document is a marketing communication and has been prepared and distributed by Liberum Capital Limited. This communication has not been prepared in accordance with legal requirements under COBS 12 of the FCA Handbook designed to promote the independence of investment research and is not subject to a prohibition on dealing ahead of the dissemination of investment research. However, Liberum is required by the FCA to have policies in place to identify and manage the conflicts of interest which may arise in its production, which include preventing dealing ahead. Information regarding our policies is available, www.liberum.com. In addition, a list of items which could create a conflict of interest and other material interests in relation to research material is set out on LCL's website. For detailed disclosures, please refer to www.liberum.com/legal For Reg-AC certification, see the end of the text. If this communication is distributed by another firm, it is considered independent third-party research and additional information regarding such firm is provided at the end of this communication. Liberum does and seeks to do business with companies covered in this communication. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this communication. Investors should consider this communication as only a single factor in making their investment decision. ^Completed when first distributed.

Contents

Sentiment.....3

Fund flows and performance.....11

IPOs and M&A14

UK Screens.....19

Europe ex UK Screens.....31

US Screens.....41

Disclaimer.....51

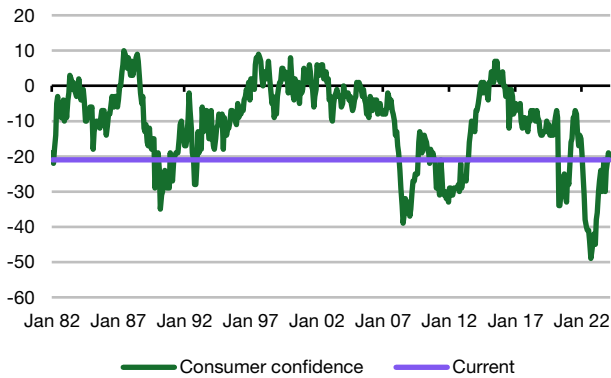
Sentiment

Economic and investor sentiment

Economic sentiment

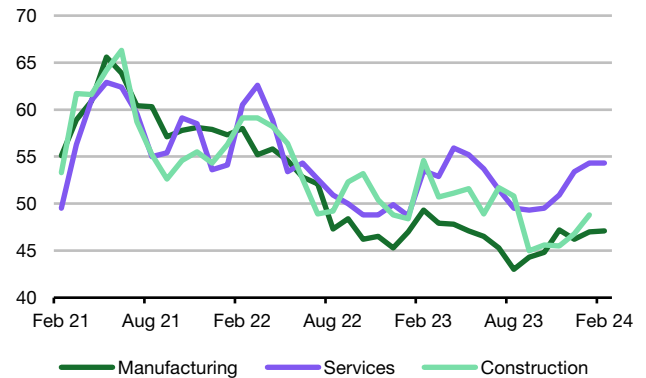
PMIs barely changed in February with Manufacturing PMIs still in contraction territory, while services PMIs in expansionary territory. Consumer sentiment also hardly changed in February.

Figure 1: UK consumer sentiment



Source: Liberum, Bloomberg

Figure 2: UK PMI components

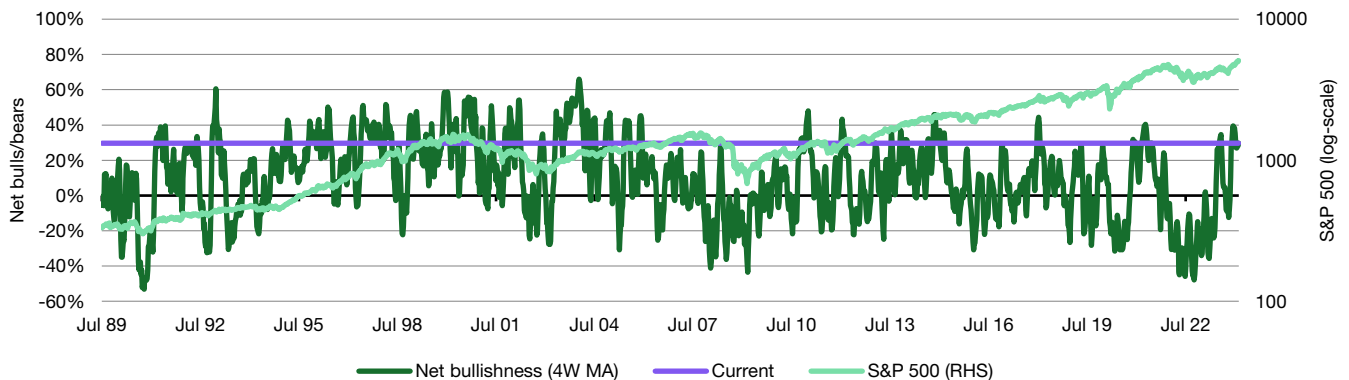


Source: Liberum, Bloomberg

Investor sentiment

Retail investor sentiment is still 29% net bullish but is coming down. If sentiment continues to normalise, it would be a healthy consolidation for the market.

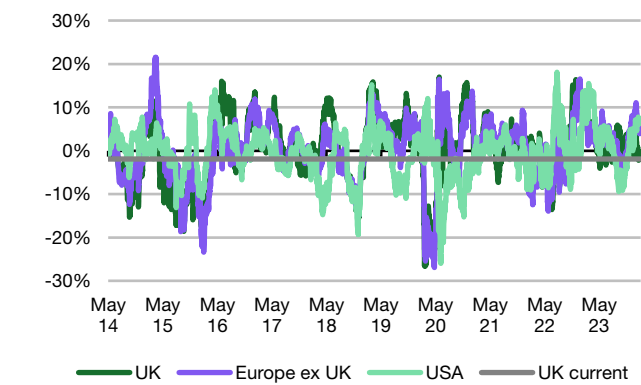
Figure 3: AAll net bulls/bears and S&P 500



Source: Liberum, Bloomberg

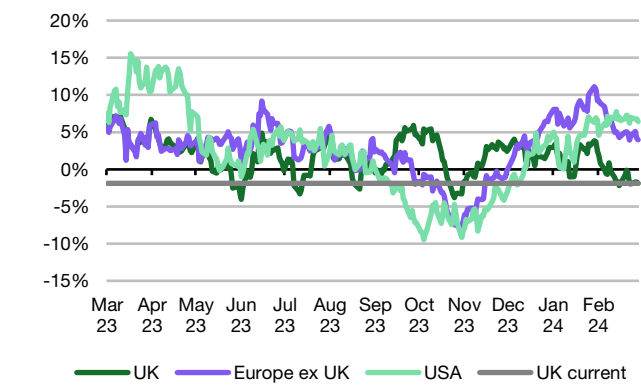
Both the US and European markets seem significantly overbought now that they have reached new all-time highs. If anything, our Liberum Sentiment indicator shows a slightly undervalued UK market vs. fundamentals.

Figure 4: Liberum investor sentiment last 10 years



Source: Liberum, Bloomberg

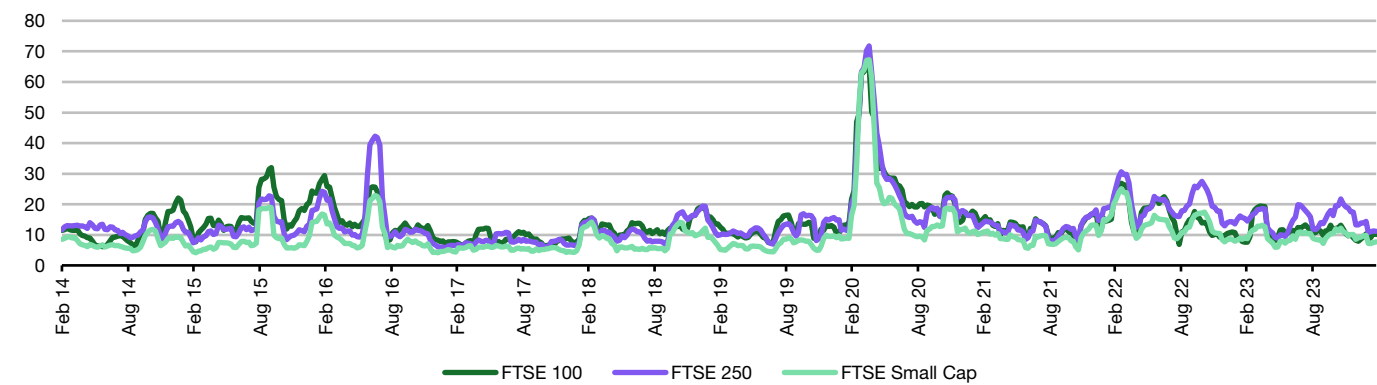
Figure 5: Liberum investor sentiment last 12 months



Source: Liberum, Bloomberg

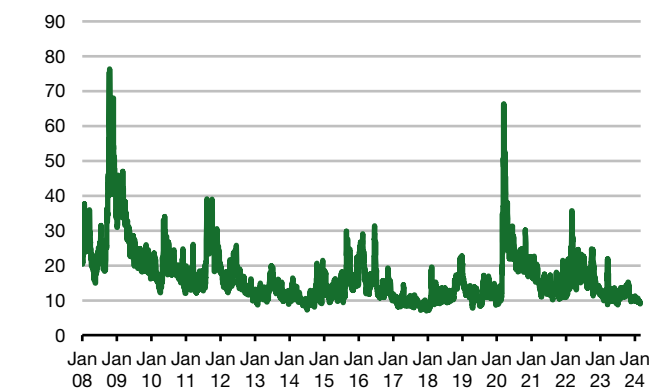
Volatility

Figure 6: UK Volatility



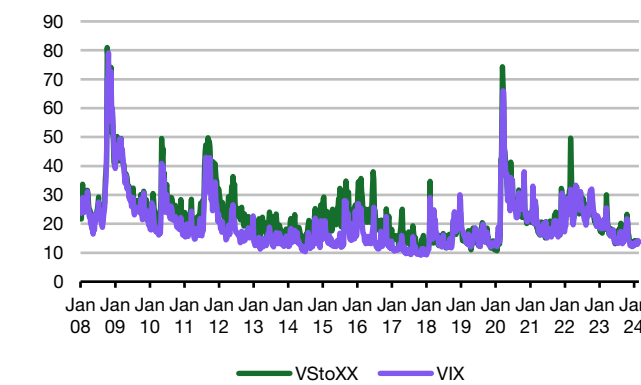
Source: Liberum, Bloomberg

Figure 7: FTSE 100 implied volatility



Source: Liberum, Bloomberg

Figure 8: US and Europe implied volatility

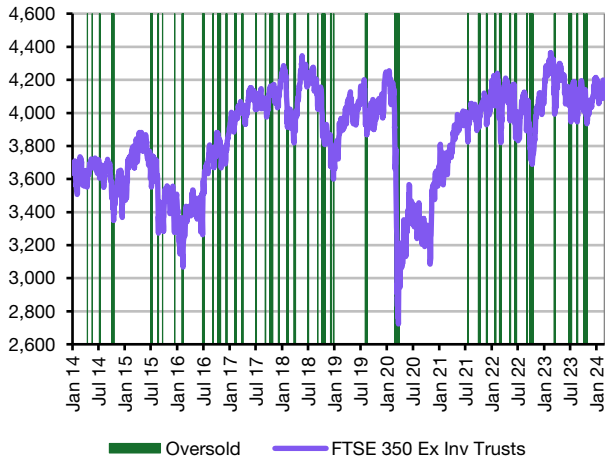


Source: Liberum, Bloomberg

Overbought or oversold

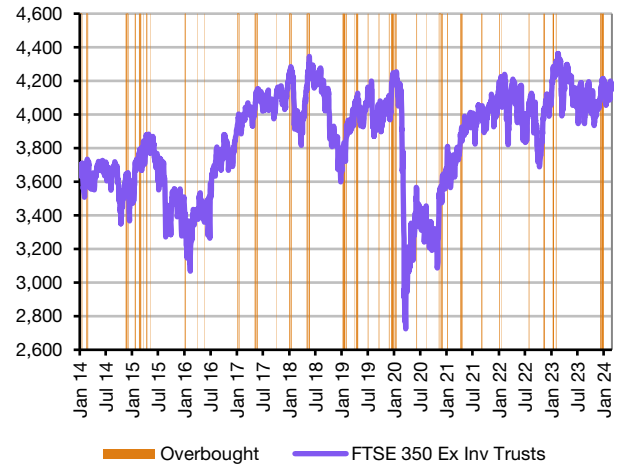
No new signal since the overbought signal in early January.

Figure 9: Percentage of constituents at oversold least 1.5 standard deviations higher than historical average



Source: Liberum, Bloomberg. NB FTSE 250 ex Inv Trusts

Figure 10: Percentage of constituents at overbought least 1.5 standard deviations higher than historical average



Source: Liberum, Bloomberg. NB FTSE 250 ex Inv Trusts

Below we present the 20 most overbought and oversold stocks currently in the FTSE All-Share.

Figure 11: UK most overbought stocks

Name	Sector	Market Cap (£m)	14d RSI
INTERCONTINENTAL	Leisure	14,256.3	81.3
INDIVIOR PLC	Health Care	2,326.7	78.8
BLOOMSBURY PUBL	Media	466.8	77.6
ABRDN EUROPEAN L	Real Estate	264.2	76.3
BEAZLEY PLC	Insurance	4,274.0	76.3
BARCLAYS PLC	Banks	25,579.9	75.0
BANK OF GEORGIA	Banks	2,107.2	74.5
PPHE HOTEL GROUP	Leisure	559.2	74.1
HALFORDS GRP PLC	Retail	309.8	74.0
HISCOX LTD	Insurance	3,842.8	73.3
HALMA PLC	Industrials	8,876.1	73.1
ROLLS-ROYCE HOLD	Industrials	30,687.3	72.0
ME GROUP INTERNA	Consumer P&S	604.7	71.8
APTITUDE SOFTWARE	Technology	177.2	71.7
RENISHAW PLC	Industrials	3,134.3	71.7
DIAGEO PLC	Food & Tobacco	67,765.0	70.9
HOSTELWORLD GRP	Leisure	200.3	70.2
CMC MARKETS PLC	Financial Services	465.1	70.1

Source: Liberum, Bloomberg

Figure 12: UK most oversold stocks

Name	Sector	Market Cap (£m)	14d RSI
LIFE SCIENCE REI	Real Estate	155.8	10.6
NINETY ONE PLC	Financial Services	1,475.8	23.0
AIRTEL AFRICA	Telecom	3,538.3	24.3
TREATT PLC	Chemicals	243.9	25.2
PZ CUSSONS PLC	Staple Retail	428.3	25.7
AEW UK REIT PLC	Real Estate	133.1	27.2
IMPERIAL BRANDS	Food & Tobacco	14,907.2	27.5
GLENCORE PLC	Resources	45,057.2	29.7
FULLER SMITH & T	Leisure	301.6	30.3
W.A.G PAYMENT	Industrials	506.1	30.4
PRIMARY HEALTH	Real Estate	1,177.5	30.4
BYTES TECHNOLOGY	Technology	1,296.6	30.4
BIG YELLOW GROUP	Real Estate	1,969.8	30.6
LSL PROPERTY SER	Real Estate	248.5	30.6
PRS REIT PLC/THE	Real Estate	414.1	30.7
VICTREX PLC	Chemicals	1,077.3	30.9
BARRATT DEV	Consumer P&S	4,549.4	30.9
DRAX GROUP PLC	Utilities	1,581.4	31.3
CAP & REGIONAL	Real Estate	115.4	31.6
BRIT LAND CO PLC	Real Estate	3,238.5	31.6

Source: Liberum, Bloomberg

Analyst sentiment

Estimate revisions & re-ratings (last month)

We aggregate earnings and ratings changes by sub-sector. The table below is sorted by index weighting in the FTSE 100.

Earnings estimates remained stable for the FTSE 100, but there have been significant EPS downgrades for the FTSE 250 and FTSE Small Cap as the macro picture for the UK deteriorated. In the FTSE Small Cap, downgrades were concentrated in the commodity sectors, but utilities also suffered a lot.

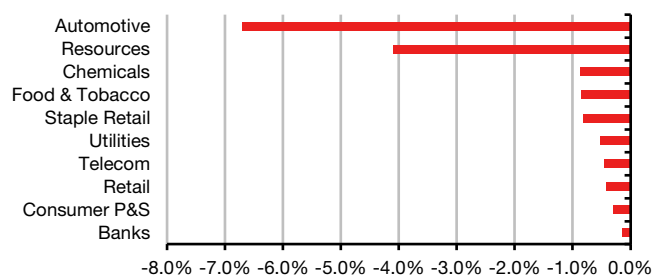
Figure 13: Earnings and ratings changes by sector

Sector	FTSE 100			FTSE 250			FTSE Small Cap		
	Index	+12m P/E	FY1 EPS	Index	+12m P/E	FY1 EPS	Index	+12m P/E	FY1 EPS
	Weighting	(1m % chg.)	(1m % chg.)	Weighting	(1m % chg.)	(1m % chg.)	Weighting	(1m % chg.)	(1m % chg.)
Health Care	13.8%	-1.5%	0.1%	2.0%	-4.0%	5.3%	0.5%	-2.6%	-3.0%
Energy	13.2%	-0.1%	0.3%	2.2%	0.5%	-2.9%	3.1%	28.8%	-34.6%
Industrials	11.4%	5.1%	1.7%	19.7%	-2.0%	1.3%	17.6%	5.6%	-4.2%
Banks	10.1%	4.2%	-0.3%	3.6%	-4.0%	3.0%	1.4%	72.5%	-42.8%
Staple Retail	8.4%	-2.8%	-0.8%	1.5%	-1.7%	-0.4%	0.0%	0.0%	0.0%
Food & Tobacco	7.0%	1.8%	-0.9%	4.2%	-4.0%	0.3%	2.2%	-2.2%	1.8%
Resources	6.7%	-4.3%	-4.4%	1.4%	-15.5%	10.4%	2.0%	3.2%	-12.8%
Financial Services	6.1%	-3.4%	3.5%	12.5%	-4.5%	0.2%	13.1%	7.6%	-5.7%
Media	4.8%	4.1%	-0.1%	2.1%	-4.9%	0.5%	2.9%	9.6%	0.0%
Utilities	4.0%	-3.4%	0.3%	1.9%	2.0%	-9.2%	1.7%	2.4%	-8.7%
Insurance	3.4%	-0.8%	0.1%	3.9%	7.8%	2.6%	2.9%	-2.3%	1.1%
Consumer P&S	3.3%	-2.9%	0.2%	6.5%	3.6%	-1.9%	2.3%	3.3%	3.0%
Leisure	2.7%	0.7%	2.1%	7.6%	-6.8%	4.9%	8.3%	0.9%	1.3%
Retail	1.5%	1.4%	-0.4%	2.6%	5.7%	-0.5%	8.9%	3.5%	-4.0%
Telecom	1.3%	-0.4%	-0.5%	1.0%	-5.4%	1.6%	0.0%	0.0%	0.0%
Real Estate	1.1%	-4.9%	0.8%	13.9%	-7.4%	-0.4%	19.3%	-5.9%	-1.2%
Technology	1.0%	3.1%	1.0%	6.3%	-2.8%	1.5%	5.0%	-1.7%	1.4%
Chemicals	0.3%	4.6%	-5.2%	2.4%	-4.7%	1.1%	1.8%	26.8%	-30.8%
Automotive	0.0%	0.0%	0.0%	0.9%	6.5%	-6.7%	0.0%	0.0%	0.0%
Construction	0.0%	0.0%	0.0%	3.7%	-0.2%	0.6%	6.8%	1.6%	-1.5%
Total	100.0%	0.2%	-0.1%	100.0%	-3.0%	0.8%	100.0%	5.0%	-6.5%

Source: Liberum, Datastream

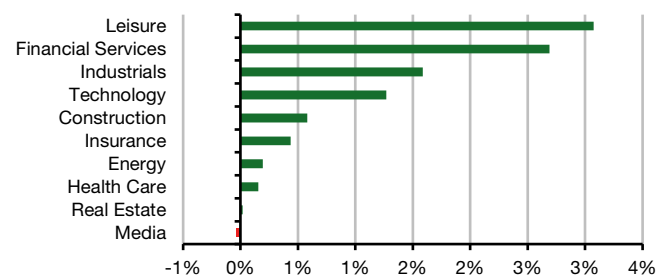
Most upgraded/downgraded FTSE 350 sectors last month

Figure 14: Most downgraded last month



Source: Liberum, Datastream. NB, market cap weighted.

Figure 15: Most upgraded last month



Source: Liberum, Datastream. NB, market cap weighted

Percentage point contribution to +12m EPS revision LTM

Figure 16: Percentage point contribution to +12m EPS revisions last 12 months

	FTSE 100	FTSE 250	Small Cap	Europe
Automotive	n.a.	0.8	n.a.	1.0
Banks	0.8	1.0	0.5	3.3
Resources	-3.7	0.3	-2.0	-0.2
Chemicals	-0.1	-0.3	-4.4	-0.6
Construction	n.a.	0.2	-0.3	0.5
Consumer P&S	-0.2	-1.1	-1.2	0.3
Energy	-4.5	-2.9	-3.4	-2.3
Financial Services	1.0	0.7	-2.1	-0.4
Food & Tobacco	-0.5	0.3	0.2	0.1
Health Care	0.5	0.2	-0.2	0.3
Industrials	0.6	1.4	32.9	1.1
Insurance	-0.7	0.4	0.3	0.6
Media	0.2	-0.3	0.0	0.1
Staple Retail	0.4	0.0	n.a.	0.1
Real Estate	0.0	0.3	-14.2	-0.1
Retail	0.1	0.1	-1.2	0.3
Technology	0.1	0.5	-0.3	0.5
Telecom	-0.2	-0.1	n.a.	0.1
Leisure	0.5	2.6	0.5	0.4
Utilities	0.3	-0.1	-0.2	0.3
Domestic Cyclical	3.0	6.4	16.2	5.0
Domestic Defensive	0.0	0.3	0.1	1.0
International	-8.4	-2.6	-11.4	-0.7
Index	-5.3	4.2	4.9	5.4

Source: Liberum, Bloomberg

Short seller targets

We identify stocks in the FTSE and AIM that have the largest percentage of their shares currently out on loan. These stocks could be susceptible to high volatility. Positive news, or even the absence of negative news, can result in shares spiking as funds cover short positions. This is why we also show the share price performance (ex dividends) over the last one and three months to identify companies that might be susceptible to a short squeeze in the next couple of weeks. Energy and retail stocks continue to top the list as the main targets of short sellers.

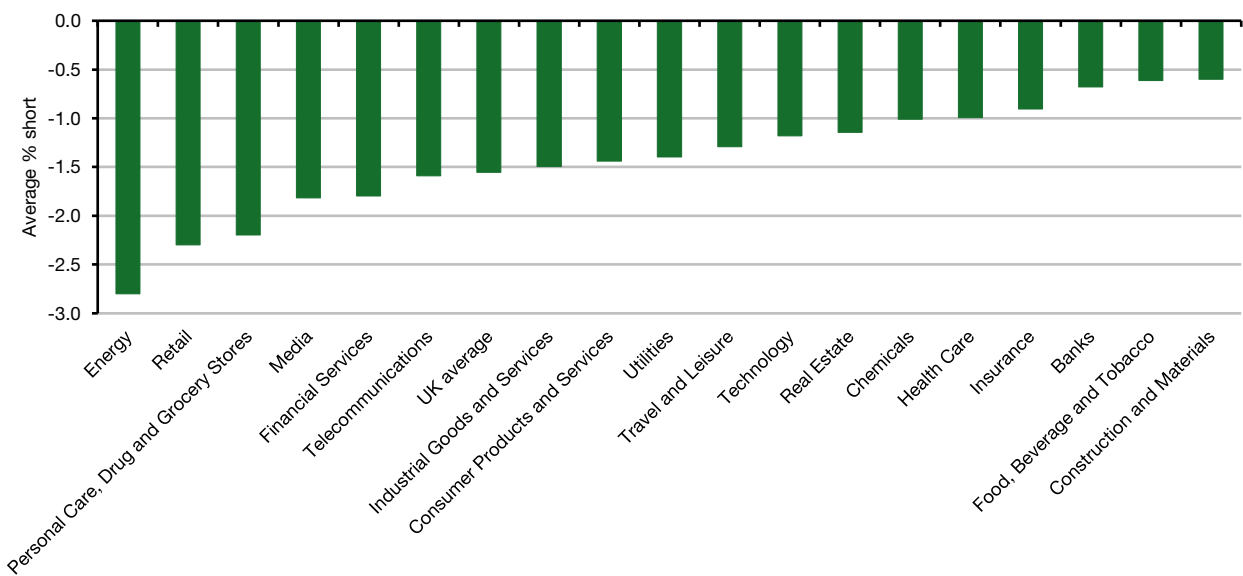
Figure: UK companies with largest short positions

Name	Sector	Market cap (£m)	Price change 1 month (%)	Price change 3 months (%)	MV of short stock (£m)	% short	# funds
Smurfit Kappa Group PLC	Industrial Goods and Services	8,576.1	6.3	18.1	-1144.9	-13.4	14
Petrofac Ltd	Energy	144.4	-14.2	3.3	-16.3	-11.3	7
Hargreaves Lansdown PLC	Financial Services	3,512.8	-3.1	5.3	-247.3	-7.0	8
Kingfisher PLC	Retail	4,343.4	2.9	5.3	-301.0	-6.9	7
abrdn plc	Financial Services	2,879.8	-10.8	-4.5	-176.8	-6.1	7
ASOS PLC	Retail	439.2	-2.2	-5.5	-24.6	-5.6	6
boohoo Group PLC	Retail	436.9	-6.7	3.7	-22.9	-5.2	6
Domino's Pizza Group PLC	Travel and Leisure	1,373.7	-1.9	-5.1	-62.2	-4.5	3
Diversified Energy Co PLC	Energy	477.7	5.9	-28.3	-18.6	-3.9	5
Burberry Group PLC	Consumer Products and Services	4,582.2	-4.7	-12.1	-167.3	-3.7	4
ITM Power PLC	Energy	335.0	15.4	2.8	-11.5	-3.4	2
Ocado Group PLC	Personal Care, Drug and Grocery Stores	3,961.5	-15.9	-14.6	-128.7	-3.2	4
Keywords Studios PLC	Consumer Products and Services	1,186.2	-6.1	12.6	-36.4	-3.1	3
Future PLC	Media	751.1	-10.7	-32.5	-21.8	-2.9	4
J Sainsbury PLC	Personal Care, Drug and Grocery Stores	6,000.6	-8.2	-10.0	-170.4	-2.8	2
888 Holdings PLC	Travel and Leisure	389.2	8.2	10.9	-10.4	-2.7	4
Victoria PLC	Consumer Products and Services	292.5	-9.3	-0.6	-7.6	-2.6	2
Moonpig Group PLC	Retail	585.3	5.9	-6.3	-15.2	-2.6	3
Hammerson PLC	Real Estate	1,248.6	-5.3	-6.4	-32.0	-2.6	3
SIG PLC	Industrial Goods and Services	361.0	-6.3	4.4	-9.1	-2.5	2
Tullow Oil PLC	Energy	412.6	-12.4	-25.1	-10.3	-2.5	2
BT Group PLC	Telecommunications	10,487.1	-9.3	-13.7	-258.0	-2.5	4
Primary Health Properties PLC	Real Estate	1,177.5	-8.4	-11.8	-27.6	-2.3	3
Darktrace PLC	Technology	2,498.7	1.8	4.4	-57.5	-2.3	3
B&M European Value Retail SA	Retail	5,210.4	-3.5	-4.5	-119.8	-2.3	2
Ceres Power Holdings PLC	Energy	317.5	-28.7	-10.2	-7.2	-2.3	4
Energiean PLC	Energy	1,809.1	2.3	-0.6	-40.7	-2.3	3
AFC Energy PLC	Energy	115.6	-19.4	0.5	-2.6	-2.2	1
ConvaTec Group PLC	Health Care	5,046.6	2.4	8.7	-110.5	-2.2	2
Halfords Group PLC	Retail	308.7	-19.3	-38.3	-6.7	-2.2	2
Johnson Matthey PLC	Chemicals	2,868.3	-5.9	-2.8	-60.8	-2.1	2
Naked Wines PLC	Retail	44.4	-7.7	88.1	-0.9	-2.1	1
Watches of Switzerland Group P	Consumer Products and Services	993.3	6.6	-33.5	-18.9	-1.9	2
Renewi PLC	Utilities	444.4	-12.0	-8.9	-8.4	-1.9	1
Auction Technology Group PLC	Technology	729.9	27.9	-3.4	-13.6	-1.9	2
Harbour Energy PLC	Energy	1,940.6	-15.5	15.4	-35.1	-1.8	2
FD Technologies PLC	Technology	361.2	2.2	30.8	-6.4	-1.8	1
ITV PLC	Media	2,275.0	-9.1	-6.2	-39.8	-1.8	3
Dr Martens PLC	Consumer Products and Services	915.5	8.2	-14.8	-15.5	-1.7	2
Drax Group PLC	Utilities	1,584.1	-17.0	-5.7	-25.7	-1.6	2

Source: Liberum, Bloomberg. Note: Only positions >0.5% publicly disclosed

To assess the overall mood of short sellers on specific sectors, we calculate the average % of shares out on loan per sector. We only count companies where there are shares out on loan and ignore companies with no shorts outstanding.

Figure 17: Most shorted sectors in the UK



Source: Liberum, Bloomberg

Fund flows and performance

UK and Europe fund flows

We measure the total fund flows for funds focused on UK equity markets and Eurozone equity markets. In the UK, we witness the third month in a row with net outflows across all fund styles. ESG funds lost the most in the last four weeks with net outflows of £1bn or 6.5% of starting AUM. However, if we look closer at these flows, the bulk of the net outflows are due to a £880m outflow in the week of 22 January from the State Street UK Screened Index Equity Fund. This is a fund only accessible to pension funds and it seems as if one major investor has adjusted their allocation.

Outside the ESG space, we also saw significant outflows in the last four weeks from broad market funds (-£1.3bn or 2.2% of starting AUM) and mid cap funds (-£0.1bn or 3.3% of starting AUM).

In total, this puts the net outflows from actively managed UK equity funds to £10.9bn in the last 12 months or 12.6% of starting AUM. This compares to net outflows of £5.1bn or 7.1% of starting AUM in the ETF and index fund space. The overall trend towards index trackers thus remains intact. If there is any consolation in the data for this month, it is that the net outflows from UK equities seems to slow down compared to the previous two months.

Figure 18: UK fund flows (£bn)

	Last month			Last 12 months		
	Flow (£bn)	Starting AUM (£bn)	% of AUM	Flow (£bn)	Starting AUM (£bn)	% of AUM
UK active funds	-2.36	85.33	-2.8%	-10.93	86.94	-12.6%
Broad market	-1.30	59.63	-2.2%	-6.95	60.35	-11.5%
Large cap	-0.09	3.12	-2.9%	-0.37	3.37	-11.1%
Mid cap	-0.10	2.98	-3.3%	-0.75	3.27	-23.0%
Small cap	-0.08	5.14	-1.6%	-0.34	5.16	-6.6%
Value	-0.15	16.89	-0.9%	-1.58	16.76	-9.4%
Growth	-0.22	11.43	-1.9%	-1.08	12.14	-8.9%
Thematic	-0.06	1.64	-3.4%	-0.30	1.93	-15.5%
ETFs	-0.30	66.25	-0.5%	-5.13	72.25	-7.1%
ESG funds	-1.01	15.60	-6.5%	-1.77	15.28	-11.6%

Source: Liberum, Bloomberg. Notes: We track a total of 397 active funds on UK equities, 51 ETFs and 63 dedicated ESG funds with their investment universe limited to UK equities only. Not all funds report holdings, so Starting AUM is not the full amount invested in the UK market.

Compared to the UK, the picture for Eurozone equity funds is vastly different and much more positive. We have seen net inflows in the last four weeks for most active fund styles. The one big inflow was recorded by Shinhan Euro Securities Fund, a South Korean-domiciled large cap growth fund. This fund saw net inflows of €3bn in the week of 19 February. Without this inflow, the net flows for actively managed funds in the last four weeks would have been negative instead of a positive €1.95bn or 2.0% of starting AUM.

However, there are other positive flows in the Eurozone with growth funds, as well as mid cap and small cap funds all gaining assets in the last four weeks. Growth funds would have seen net inflows even without the large flow into the Shinhan fund, while small- and mid-cap funds in the Eurozone saw net inflows of 2.5% and 0.6% of starting AUM, respectively.

On a rolling 12-month basis small- and mid-cap funds in the Eurozone now show only small net outflows of 3.4% and 2.1% of starting AUM, while large cap and growth funds see net inflows thanks to the aforementioned large influx.

Figure 19: Eurozone fund flows (€bn)

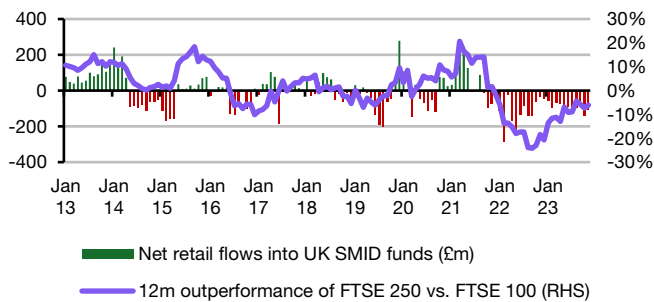
	Last month			Last 12 months		
	Flow (€bn)	Starting AUM (€bn)	% of AUM	Flow (€bn)	Starting AUM (€bn)	% of AUM
Eurozone active funds	1.95	98.34	2.0%	-3.03	99.41	-3.0%
Broad market	-0.37	25.63	-1.5%	-1.76	25.86	-6.8%
Large cap	2.21	26.32	8.4%	1.34	26.10	5.1%
Mid cap	0.04	6.86	0.6%	-0.15	7.25	-2.1%
Small cap	0.07	2.91	2.5%	-0.11	3.14	-3.4%
Value	-0.25	6.32	-3.9%	-1.64	7.41	-22.1%
Growth	3.02	5.86	51.5%	2.26	6.45	35.1%
ETFs	-1.44	30.84	-4.7%	0.11	27.51	0.4%
ESG funds	-0.95	81.96	-1.2%	-4.57	80.89	-5.7%

Source: Liberum, Bloomberg. Notes: We track a total of 479 active funds on EUR equities, 100 ETFs and 216 dedicated ESG funds with their investment universe limited to Eurozone equities only. Not all funds report holdings, so Starting AUM is not the full amount invested in the Eurozone market.

UK retail flows

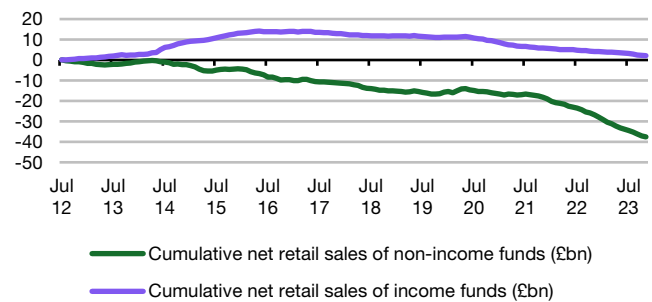
Retail flow data is delayed by two months.

Figure 20: SMID retail flows vs 6m relative performance of FTSE 250



Source: Liberum, IMA

Figure 21: Net retail flows of income funds vs non-income funds

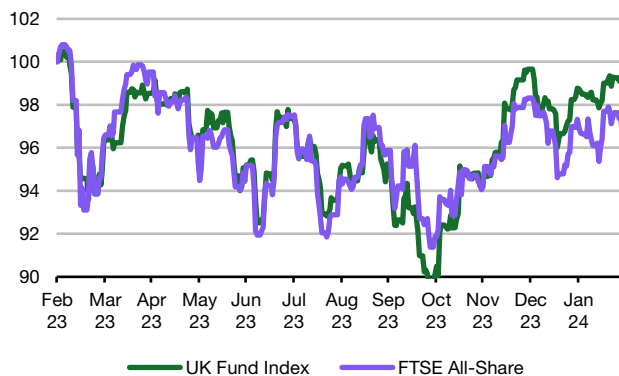


Source: Liberum, IMA

Performance

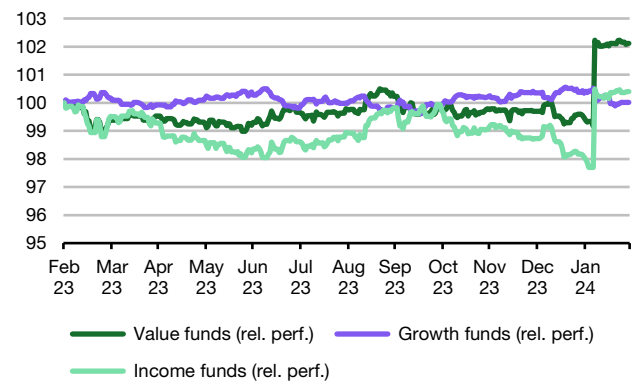
We show the performance of our equal-weighted UK Fund Index vs the FTSE All-Share.

Figure 22: UK Fund Index vs FTSE All-Share



Source: Liberum, Bloomberg NB: UK Fund index is a Liberum construct

Figure 23: Relative performance of UK funds by style (vs all UK funds)



Source: Liberum, Bloomberg. All three indices are created and maintained by Liberum.

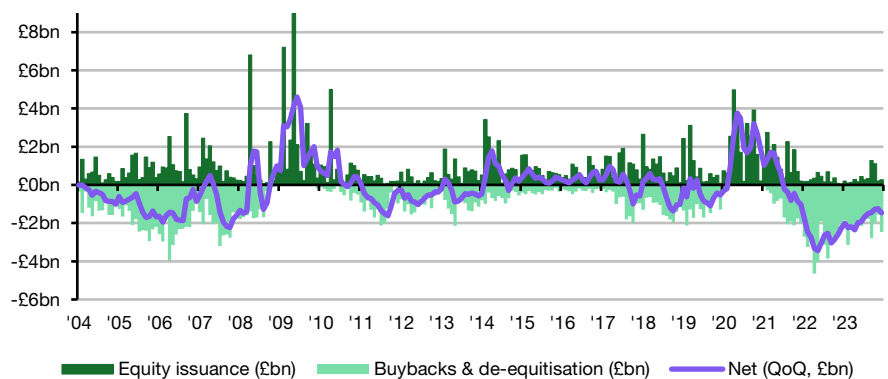
IPOs and M&A

Equitisation & fund flows

The declining equity base – driven largely by M&A and share buybacks – has been a key support of SMID outperformance over the last 10 years.

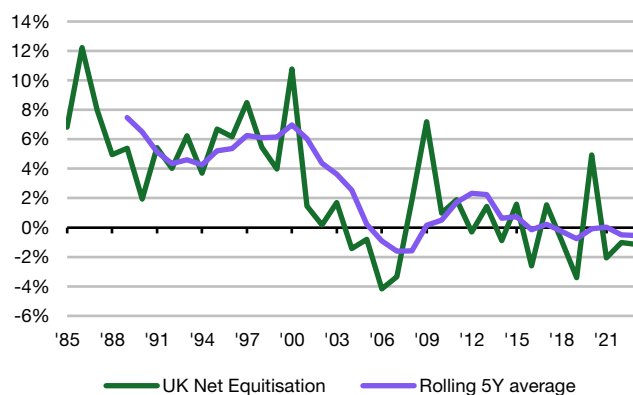
- 2020 became a repeat of the financial crisis where many companies were forced to raise equity capital quickly and recapitalise in the face of comprehensive lockdowns.
- In 2021, companies were busy returning excess cash hoarded through the pandemic to investors through buybacks. As a result, net equitization was negative.
- In 2022 and 2023, the trend towards returning excess cash to shareholders has accelerated and averaged £0.8bn per month in 2022 and £0.6bn per month in 2023.
- The increased trend toward share buybacks in the UK moves the UK more in line with practices in Europe and the US, but obviously increases the divergence between index prices and market cap.

Figure 24: Net listed equitisation (£bn)



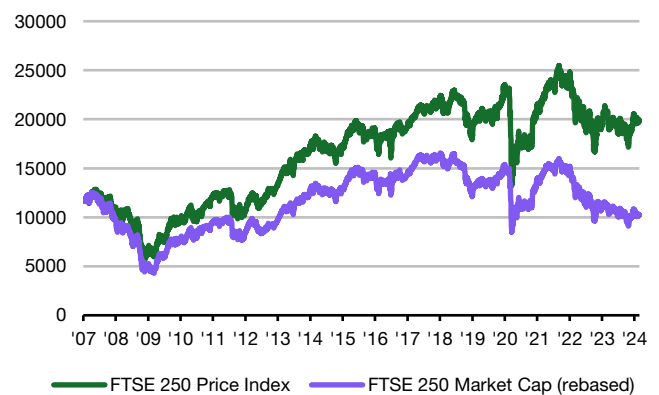
Source: Liberum, Bloomberg, Bank of England. The dataset contains PNFCs - Private Non-Financial Corporates - though these are publicly listed firms only (BoE's only source is the LSE)

Figure 25: UK market net equitisation



Source: Datastream

Figure 26: FTSE 250 – divergence in price and market cap



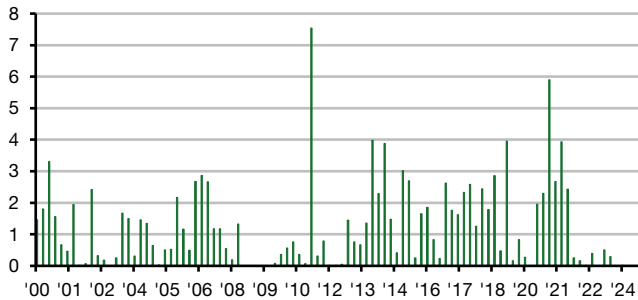
Source: Datastream

We aggregate the value of UK IPOs, equity issues and acquisitions in the following pages. Together, these make up three of the key variables in the size of the equity base.

IPOs

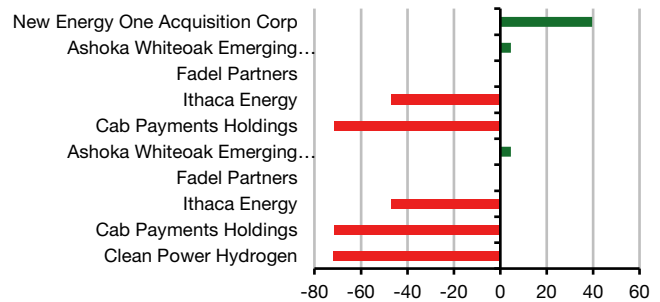
- Total UK IPO volume in 2023 was some £795m if we include the £431m SPAC Admiral Acquisitions Ltd. Without that, the IPO volume is a mere £364m.

Figure 27: UK – initial public offerings (£bn)



Source: Liberum, Bloomberg. NB: We date each IPO on trade date

Figure 28: Recent IPO performance (best and worst 5, %)



Source: Liberum, Bloomberg

IPO watch

Figure 29: UK IPOs (> £25m primary)

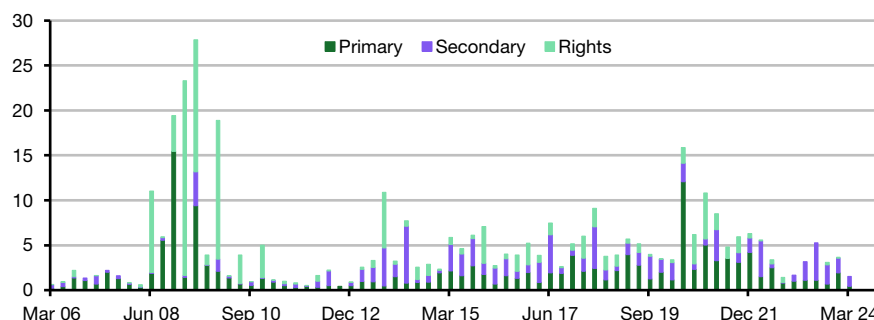
Issuer Name	Date	Industry	Lead Manager	IPO Value (£m)	Market Cap (£m)	Perf. since IPO (%)
Cab Payments Holdings	06/07/2023	Investment Companies	Barclays, Canaccord Genuity, JP Morgan, Liberum Capital Ltd, Peel Hunt LLP, Barclays, JP Morgan	291.4	238.9	-71.3
Ashoka Whiteoak Emerging Markets Trust	03/05/2023	Closed-end Funds	Howard Kennedy	30.5	33.6	4.5
Fadel Partners	06/04/2023	Computers	FinnCap	28.8	29.1	0.0
Ithaca Energy	09/11/2022	Oil&Gas	BofA Securities, Goldman Sachs, HSBC, Jefferies, Morgan Stanley	262.5	1,353.2	-46.8
New Energy One Acquisition Corp	11/03/2022	Holding Companies-Divers	BofA Securities, JP Morgan, BofA Securities	175.0	86.8	39.5
Clean Power Hydrogen	16/02/2022	Energy-Alternate Sources	Cenkos Securities	30.5	31.5	-71.9
CT Automotive Group	23/12/2021	Auto Parts&Equipment	Liberum Capital Ltd	33.6	50.4	-53.4
Public Policy Holding Co	16/12/2021	Commercial Services	Stifel	30.6	126.3	-18.9
LBG Media	15/12/2021	Media	Zeus Capital	111.1	174.8	-52.2
Windward	06/12/2021	Software	Canaccord Genuity	34.5	89.8	-30.6
Ashtead Technology Holdings	23/11/2021	Oil&Gas Services	Numis	51.6	553.2	316.0
Life Science Reit	19/11/2021	REITS	Panmure Gordon	350.0	156.1	-54.9
Procook Group	10/11/2021	Retail	Peel Hunt LLP	39.7	36.0	-77.2
Marks Electrical Group	05/11/2021	Retail	Panmure Gordon	30.0	76.6	-33.6
Stelrad Group	05/11/2021	Building Materials	Investec, Investec	95.0	144.5	-47.2
Devolver Digital	04/11/2021	Software	Zeus Capital	190.8	82.3	-88.2
Pod Point Group Holdings	04/11/2021	Machinery-Constr&Mining	Barclays, BofA Securities, Numis, Barclays, BofA	103.9	33.3	-90.3
Tungsten West	21/10/2021	Mining	Strand Hanson Ltd	38.7	2.5	-97.8
Castelnau Group	18/10/2021	Closed-end Funds	Liberum Capital Ltd	50.0	250.1	-21.5
WAG Payment Solutions	08/10/2021	Commercial Services	Citi, Jefferies, Morgan Stanley, Numis, UBS, Citi	186.0	518.5	-50.0
Tortilla Mexican Grill	08/10/2021	Retail	Liberum Capital Ltd	28.0	17.0	-76.8
Made Tech Group	30/09/2021	Computers	Nplus1 Singer Ltd	85.4	13.8	-92.9
Oxford Nanopore Technologies	30/09/2021	Biotechnology	Barclays, Citi, Guggenheim Capital, Joh Berenberg Gossler & Co KG, JP Morgan, BofA	602.8	1,202.4	-66.9
Peel Hunt	29/09/2021	Diversified Finan Serv	Grant Thornton International Ltd	112.0	165.8	-43.0
Petershill Partners	28/09/2021	Private Equity	BofA Securities, BNP Paribas, Goldman Sachs, JP Morgan, UBS, BofA	1022.7	1,892.6	-51.3
Average						-35.1

Source: Bloomberg

Issuance

- Issuance declined 2021. Primary issuance was £13.5bn, compared with £20.3bn in 2020.
- In 2022, primary, secondary and rights issuance was £5.9m, £5.1m and £1.2m, respectively for a total of £12.2bn.
- In 2024, we have seen primary issuance of £0.4bn and £1.1bn in secondary issuance for a total of £1.5bn.

Figure 30: UK equity issues (£bn)



Source: Liberum, Bloomberg; no rights issue data pre-2006

Equity issuance watch

Figure 31: UK equity Issuance (>£100m)

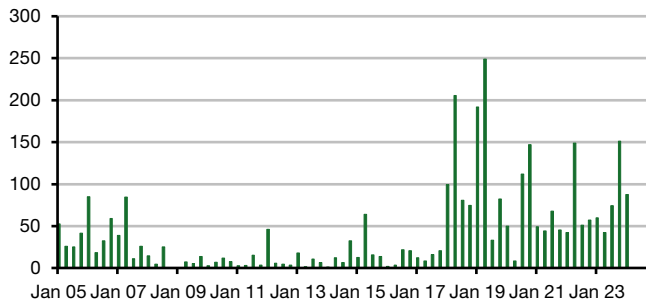
Issuer Name	Date	Type	Industry	Primary (£m)	Secondary (£m)	Total (£m)
Haleon	17/01/2024	Secondary Offering	Cosmetics/Personal Care	0	978	978
Pennon Group	12/01/2024	Primary Offering	Water	180	0	180
SigmaRoc	04/01/2024	Primary Offering	Building Materials	199	0	199
B&M European Value Retail	13/12/2023	Secondary Offering	Retail	0	162	162
VIDENDUM	08/12/2023	Primary Offering	Miscellaneous Manufactur	125	0	125
Barclays	05/12/2023	Secondary Offering	Banks	0	510	510
Sirius Real Estate	24/11/2023	Primary Offering	Real Estate	147	0	147
VIDENDUM	21/11/2023	Rights Issue	Miscellaneous Manufactur	125	0	125
Zegona Communications	17/11/2023	Primary Offering	Investment Companies	262	0	262
Big Yellow Group	13/10/2023	Primary Offering	REITS	108	0	108
Haleon	06/10/2023	Secondary Offering	Cosmetics/Personal Care	0	886	886
Severn Trent	03/10/2023	Primary Offering	Water	1,000	0	1,000
Yellow Cake	02/10/2023	Primary Offering	Investment Companies	103	0	103
Synthomer	28/09/2023	Rights Issue	Chemicals	276	0	276
London Stock Exchange Group	07/09/2023	Secondary Offering	Diversified Finan Serv	0	2,026	2,026
Aston Martin Lagonda	03/08/2023	Primary Offering	Auto Manufacturers	211	0	211
UNITE Group PLC	27/07/2023	Primary Offering	REITS	296	0	296
British American Tobacco	27/06/2023	Secondary Offering	Agriculture	0	197	197
Entain	16/06/2023	Primary Offering	Entertainment	594	0	594
London Stock Exchange Group	17/05/2023	Secondary Offering	Diversified Finan Serv	0	2,657	2,657
Haleon	12/05/2023	Secondary Offering	Cosmetics/Personal Care	0	804	804
Centrica	25/04/2023	Secondary Offering	Gas	0	165	165
Flutter Entertainment	12/04/2023	Secondary Offering	Entertainment	0	327	327
Diploma	21/03/2023	Primary Offering	Miscellaneous Manufactur	235	0	235
London Stock Exchange Group	10/03/2023	Secondary Offering	Diversified Finan Serv	0	2,002	2,002
BH Macro	15/02/2023	Primary Offering	Closed-end Funds	312	0	312
3i Infrastructure	14/02/2023	Primary Offering	Closed-end Funds	102	0	102
Diversified Energy Co	09/02/2023	Primary Offering	Oil&Gas	133	0	133
Castelnau Group	06/02/2023	Primary Offering	Closed-end Funds	116	0	116
Flutter Entertainment	23/11/2022	Secondary Offering	Entertainment	0	297	297

Source: Bloomberg

M&A

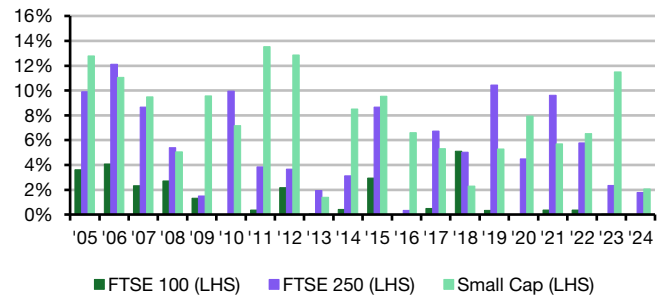
- **M&A is typically a SMID phenomenon** – Average M&A as a proportion of index market cap is 1.5% for the FTSE 100, 5.8% for the FTSE 250, and 7.5% for the Small Cap index since 2003.
- In the first month of 2024, we already saw 1.8% of FTSE 250 market cap and 2.1% of FTSE Small Cap market cap subject to M&A.

Figure 32: Acquisitions of UK-listed companies (£bn)



Source: Liberum, Bloomberg

Figure 33: Acquisition value as a % of index market cap



Source: Liberum, Bloomberg. NB: Year assigned on date of announcement. Completed and pending deals only.

M&A watch (pending and completed deals)

Figure 34: UK acquisitions (>£100m)

Target Name	Acquirer Name	Date	Value (£m)	Payment Type	Target Industry
Wincanton PLC	GXO Logistics Inc	29/02/2024	951.5	Cash	Consumer, Cyclical
Societe pour l'Informatique Industrielle	Private Investor,BTO Sanok Srl	29/02/2024	113.8	Cash	Technology
Covivio Hotels SACA	Covivio	22/02/2024	2,488.3	Stock	Financial
UK Commercial Property REIT Ltd	Tritax Big Box REIT PLC	12/02/2024	1,129.5	Stock	Financial
Cymbay Therapeutics Inc	Gilead Sciences Inc	12/02/2024	2,568.7	Cash	Consumer, Non-cyclical
Redrow PLC	Barratt Developments PLC	07/02/2024	2,311.1	Stock	Consumer, Cyclical
Everbridge Inc	Thoma Bravo LLC	05/02/2024	1,379.0	Cash	Technology
Besqab AB	Aros Bostadsutveckling AB	31/01/2024	140.7	Stock	Industrial
Wincanton PLC	CMA CGM SA	19/01/2024	795.8	Cash	Consumer, Cyclical
ABRDN PROPERTY INCOME TRUST LTD	Custodian Reit PLC	19/01/2024	384.0	Stock	Financial
MDC Holdings Inc	Sekisui House Ltd	18/01/2024	3,477.3	Cash	Consumer, Cyclical
LXI REIT Plc	LondonMetric Property PLC	11/01/2024	2,938.3	Stock	Financial
Southwestern Energy Co	Chesapeake Energy Corp	11/01/2024	9,116.5	Stock	Energy
Belvoir Group PLC	Property Franchise Group PLC/The	10/01/2024	104.5	Stock	Financial
Juniper Networks Inc	Hewlett Packard Enterprise Co	09/01/2024	10,271.8	Cash	Communications
ANSYS Inc	Synopsys Inc	05/01/2024	26,241.4	Cash and Stock	Technology
Byggfakta Group Nordic Holdco AB	Macquarie Group Ltd,TA Associates Management LP,Stirling Square Capital Partners LLP	05/01/2024	247.6	Cash	Technology
Tipiak SA	Terrena Innovation SASU	22/12/2023	103.0	Cash	Consumer, Non-cyclical
Shanta Gold Ltd	ETC Holdings Ltd	20/12/2023	155.9	Cash	Basic Materials
CropEnergies AG	Suedzucker AG	19/12/2023	224.3	Cash	Energy
Kin & Carta PLC	BC Partners Holdings Ltd	19/12/2023	262.1	Cash	Technology
United States Steel Corp	Nippon Steel Corp	18/12/2023	10,587.0	Cash	Basic Materials
Alteryx Inc	Insight Venture Partners LP (Fund: InSight Venture Partners VIII LP),Clearlake Capital Group LP (Fund: Clearlake Capital Partners VIII LP)	18/12/2023	3,251.6	Cash	Technology
Impellam Group PLC	HeadFirst Group	13/12/2023	437.1	Cash	Consumer, Non-cyclical

Source: Bloomberg, Liberum

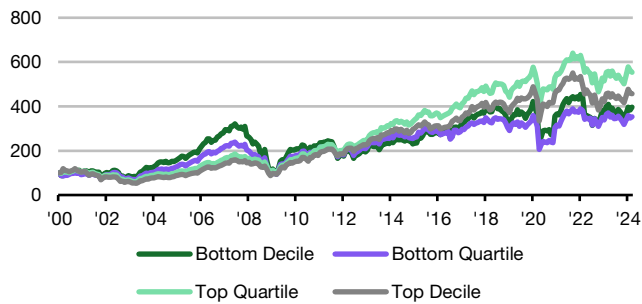
UK Screens

Value

Price/Earnings

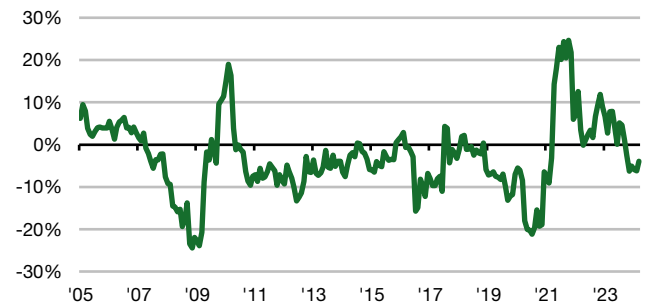
- The cheapest 25% of stocks as measured by P/E outperformed the most expensive ones by 3.3% in February. Over the last 12 months, though, expensive stocks outperformed cheap ones by 3.9%.

Figure 35: Returns to P/E buckets, re-balancing each month



Source: Liberum, Datastream

Figure 36: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Figure 37: Cheapest FTSE 350 stocks by FY2 PER

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 EPS Growth	FY2 EPS Growth
TULLOW OIL	0.29	110.0%	174.8%	1.8x	1.4x	0.0%	0.0%	n.a.	25.6%
JUST GROUP	0.81	0.0%	0.0%	3.1x	2.7x	2.4%	2.7%	n.a.	14.1%
IP GROUP	0.48	0.0%	0.0%	n.a.	3.2x	0.0%	0.0%	-0.6%	-146.3%
TBC BANK GROUP	30	0.0%	0.0%	4.4x	3.8x	7.2%	8.4%	33.5%	17.1%
ENERGEAN	9.9	29.4%	57.1%	7.2x	3.8x	9.6%	11.8%	n.a.	90.9%
DRAX GROUP	4.19	47.3%	52.8%	3.7x	3.8x	5.5%	6.1%	n.a.	-3.6%
OSB GROUP	4.26	0.0%	0.0%	5.7x	4.3x	6.9%	8.7%	-20.0%	32.7%
CLOSE BROTHERS GROUP	3.58	0.0%	0.0%	4.1x	4.4x	0.0%	15.1%	59.5%	-5.7%
BARCLAYS	1.67	0.0%	0.0%	5.4x	4.4x	5.6%	6.2%	12.3%	21.5%
BANK OF GEORGIA GROUP	45.2	0.0%	0.0%	4.9x	4.4x	5.8%	7.0%	6.5%	10.4%

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Figure 38: Most Expensive FTSE 350 stocks by FY2 PER

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 EPS Growth	FY2 EPS Growth
PENNON GROUP	6.81	15.0%	16.8%	81.8x	34.2x	6.6%	6.9%	n.a.	138.9%
FLUTTER ENTERTAINMENT	170.8	3.7%	5.1%	42.3x	34.0x	0.0%	1.2%	n.a.	24.2%
DARKTRACE	3.61	4.1%	6.5%	40.9x	31.1x	0.0%	0.0%	19.5%	31.4%
SPIRAX-SARCO ENGR.	104	3.7%	3.9%	33.2x	30.3x	1.5%	1.6%	2.8%	9.4%
SAGE GROUP	12.07	4.2%	4.7%	33.6x	29.4x	1.7%	1.8%	73.4%	14.5%
HALMA	23.65	3.4%	3.7%	29.3x	27.2x	0.9%	1.0%	30.0%	7.8%
EXPERIAN	34.16	4.5%	4.9%	29.9x	26.9x	1.3%	1.5%	63.5%	10.9%
RELX	34.54	4.4%	4.8%	28.1x	25.8x	1.8%	2.0%	44.1%	9.0%
BALTIC CLASSIFIEDS GROUP	2.42	3.4%	4.3%	30.7x	25.7x	1.0%	1.3%	93.8%	19.6%
CRODA INTERNATIONAL	47.48	5.1%	5.1%	30.2x	25.5x	2.3%	2.4%	-66.3%	18.5%

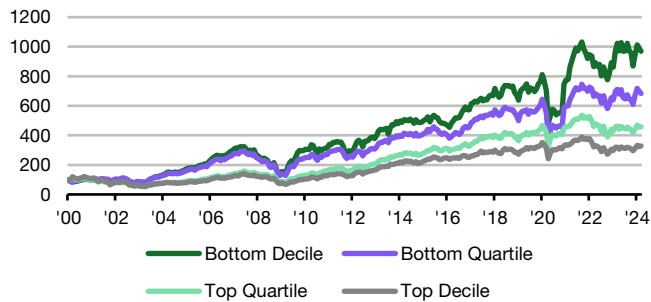
Source: Datastream. NB: We exclude stocks with FY2 P/E > 40

*Cash flow yield - Cash flow from operations, before investing and financing activities

Price/Book

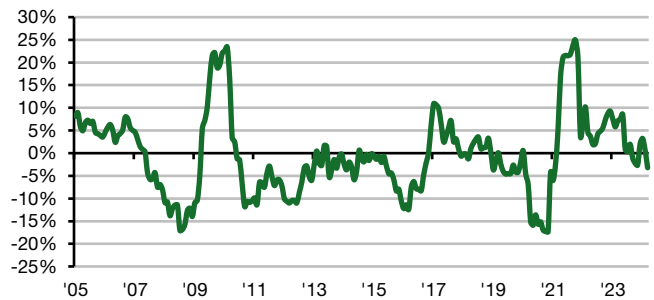
- Since 2000, buying the cheapest stocks by P/B each month has generated outperformance over the most expensive stocks.
- However, during the financial crisis and again in the Covid crisis we have seen cheap stocks suffering more than expensive stocks.
- Value stocks as measured by P/B significantly underperformed (2.8%) in February and by 3.2% over the last 12 months.

Figure 39: Returns to P/B buckets, re-balancing each month



Source: Liberum, Datastream

Figure 40: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Figure 41: Cheapest FTSE 350 stocks by historical P/B

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1 EPS	Historic
		Flow Yield	Flow Yield			Div Yield	Div Yield		
DOWLAIS GROUP	0.89	22.4%	30.7%	6.1x	5.4x	4.2%	5.1%	n.a.	0.3
CLOSE BROTHERS GROUP	3.58	0.0%	0.0%	4.1x	4.4x	0.0%	15.1%	59.5%	0.3
WOOD GROUP (JOHN)	1.47	3.0%	22.4%	38.1x	9.2x	0.0%	0.0%	-105.0%	0.3
VODAFONE GROUP	0.68	49.6%	46.5%	11.0x	9.2x	10.7%	8.9%	-83.4%	0.3
IP GROUP	0.48	0.0%	0.0%	n.a.	3.2x	0.0%	0.0%	-0.6%	0.4
MOBICO GROUP	0.81	69.0%	67.0%	9.6x	6.2x	2.2%	7.1%	-123.3%	0.4
VIRGIN MONEY UK	1.59	0.0%	0.0%	5.1x	4.5x	5.0%	6.2%	122.1%	0.4
FERREXPO	0.76	28.0%	25.9%	15.3x	5.6x	2.2%	8.7%	-83.6%	0.4
BARCLAYS	1.67	0.0%	0.0%	5.4x	4.4x	5.6%	6.2%	12.3%	0.4
FERREXPO	0.75	36.1%	10.9%	8.8x	5.3x	14.4%	4.4%	-71.8%	0.4

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities. We ignore negative P/B.

Figure 42: Most expensive FTSE 350 stocks by historical P/B

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1 EPS	Historic
		Flow Yield	Flow Yield			Div Yield	Div Yield		
RIGHTMOVE	5.63	4.5%	4.8%	22.6x	n.a.	1.6%	1.7%	6.4%	68.2
INDIVIOR	17.25	0.0%	0.0%	11.3x	8.5x	0.0%	0.0%	n.a.	55.8
BYTES TECHNOLOGY GROUP	5.39	4.4%	5.5%	26.8x	24.4x	1.9%	1.8%	18.9%	21.0
TRUSTPILOT GROUP	1.91	2.0%	2.4%	484.8x	n.a.	0.0%	0.0%	-113.8%	21.0
RELX	34.54	4.4%	4.8%	28.1x	25.8x	1.8%	2.0%	44.1%	17.5
DUNELM GROUP	11.54	7.7%	8.7%	15.5x	14.5x	5.6%	5.0%	-1.2%	16.9
4IMPRINT GROUP	56.6	5.5%	5.4%	19.7x	18.7x	2.8%	3.0%	23.8%	13.7
GAMES WORKSHOP	96.8	5.1%	5.6%	22.1x	20.7x	4.4%	4.5%	7.1%	13.6
AUTO TRADER GROUP	7.38	3.7%	4.2%	26.5x	23.3x	1.3%	1.4%	11.2%	12.9
DARKTRACE	3.61	4.1%	6.5%	40.9x	31.1x	0.0%	0.0%	19.5%	12.2

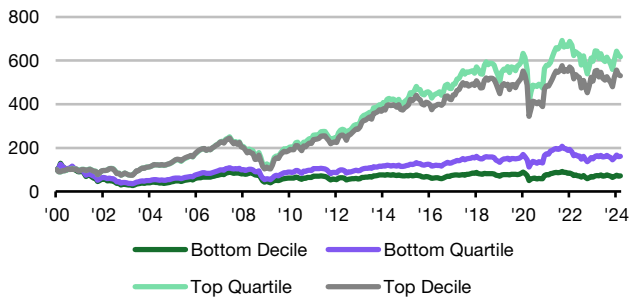
Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Dividend yield

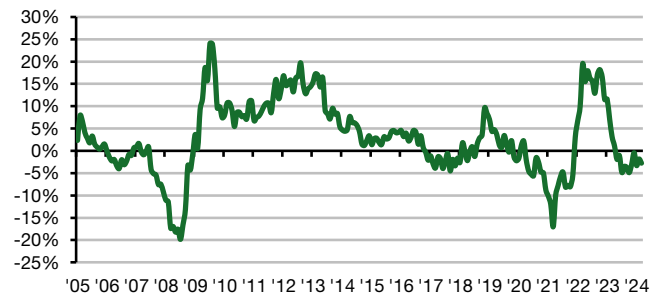
- We group stocks with the lowest and highest dividend yield. Since 2000, buying the highest-yielding stocks each month has generated significant outperformance over the lowest-yielding stocks.
- In February, low income stocks have outperformed income stocks by 2.3%.

Figure 43: Returns to DY buckets, re-balancing each month



Source: Liberum, Datastream

Figure 44: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

Figure 45: Cheapest FTSE 350 stocks by FY2 dividend yields (FY2 dividend cover > 1.5x)

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 Div Cover	FY2 Div Cover
CLOSE BROTHERS GROUP	3.58	0.0%	0.0%	4.1x	4.4x	0.0%	15.1%	n.a.	1.5x
ENERGEAN	9.9	29.4%	57.1%	7.2x	3.8x	9.6%	11.8%	1.4x	2.2x
BRITISH AMERICAN TOBACCO	23.64	17.6%	18.5%	6.5x	6.1x	10.1%	10.5%	1.5x	1.6x
LANCASHIRE HOLDINGS	6.51	1500.0%	1410.4%	6.5x	6.1x	9.6%	10.1%	1.6x	1.6x
IMPERIAL BRANDS	17.3	20.6%	22.3%	5.8x	5.3x	9.0%	9.4%	1.9x	2.0x
FERREXPO	0.76	28.0%	25.9%	15.3x	5.6x	2.2%	8.7%	3.0x	2.1x
OSB GROUP	4.26	0.0%	0.0%	5.7x	4.3x	6.9%	8.7%	2.5x	2.7x
TBC BANK GROUP	30	0.0%	0.0%	4.4x	3.8x	7.2%	8.4%	3.1x	3.2x
HARBOUR ENERGY	2.52	87.6%	45.0%	15.6x	5.6x	8.0%	8.3%	0.8x	2.2x
ITV	0.57	16.0%	13.6%	7.0x	6.9x	8.8%	8.2%	1.6x	1.8x

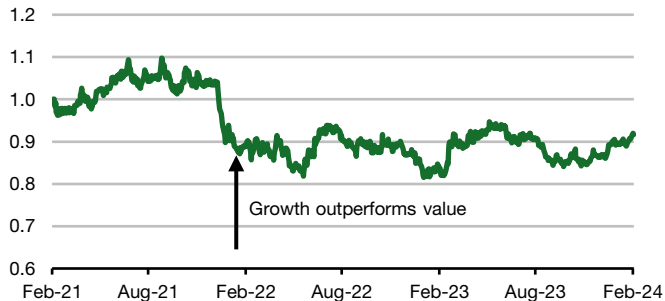
Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Value vs. growth

We saw an acceleration in the outperformance of growth vs. value in February, particularly in the FTSE 250.

Figure 46: MSCI UK Large Cap Growth relative to Value



Source: Liberum, Datastream

Figure 47: MSCI UK Mid Cap Growth relative to Value



Source: Liberum, Datastream

We screen for stocks that have:

- Not seen earnings downgrades over the last three or six months
- Positive EPS growth for the past three years
- FY1 and FY2 EPS growth of more than 5%
- FY1 and FY2 sales growth of more than 3%
- Return on Capital Employed of at least 10%

Figure 48: Growth stocks – FTSE 100

Name	P/E	FY2 EPS change		EPS growth		Sales growth		ROCE	Relative price change		
	(12m fwd)	3m (%)	12m (%)	FY1 (%)	FY2 (%)	FY1 (%)	FY2 (%)	12m fwd (%)	1m (%)	3m (%)	6m (%)
RELX	27.7	-1.3	1.5	7.7	9.1	6.3	5.6	33%	7.1	7.7	29.2
HALMA	27.4	0.3	1.3	5.5	7.9	7.1	6.3	20%	9.5	6.6	7.6
ICTL.HTLS.GP.	25.6	5.1	24.9	12.5	11.5	6.3	5.6	456%	17.9	35.5	39.7
DIPLOMA	24.4	3.7	11.3	9.0	7.1	11.7	5.5	22%	5.1	-0.7	4.6
COMPASS GROUP	21.8	-1.6	2.1	13.4	12.0	10.4	7.5	29%	2.1	-0.5	1.0
BAE SYSTEMS	17.9	1.3	19.4	8.6	10.6	19.3	6.9	20%	7.5	12.4	17.9
IMI	13.9	-1.0	9.5	9.5	8.5	6.9	4.1	26%	6.8	6.9	12.3
SMITH & NEPHEW	13.5	-1.3	16.0	24.4	9.2	5.1	5.1	13%	2.4	4.3	-0.5

Source: Liberum, Datastream

Figure 49: Growth stocks – FTSE 250

Name	P/E	FY2 EPS change		EPS growth		Sales growth		ROCE	Relative price change		
	(12m fwd)	3m (%)	12m (%)	FY1 (%)	FY2 (%)	FY1 (%)	FY2 (%)	12m fwd (%)	1m (%)	3m (%)	6m (%)
GAMES WORKSHOP	21.1	1.2	7.8	7.2	6.3	4.5	9.2	132%	-1.0	-12.7	-12.8
JTC GROUP	17.8	-0.8	13.1	12.6	14.3	27.1	18.3	13%	-3.6	-0.6	8.2
CRANSWICK	16.3	6.0	11.6	9.3	5.3	9.7	4.4	18%	-1.7	-4.5	15.5
INDIVIOR	10.7	3.1	14.0	23.8	32.6	14.2	10.6	143%	28.1	34.9	-6.0

Source: Liberum, Datastream

Figure 50: Growth stocks – FTSE Small Cap

Name	P/E	FY2 EPS change		EPS growth		Sales growth		ROCE	Relative price change		
	(12m fwd)	3m (%)	12m (%)	FY1 (%)	FY2 (%)	FY1 (%)	FY2 (%)	12m fwd (%)	1m (%)	3m (%)	6m (%)
XPS PENSIONS GROUP	13.7	6.7	30.9	11.0	17.1	17.2	10.7	24%	6.7	-9.9	14.3

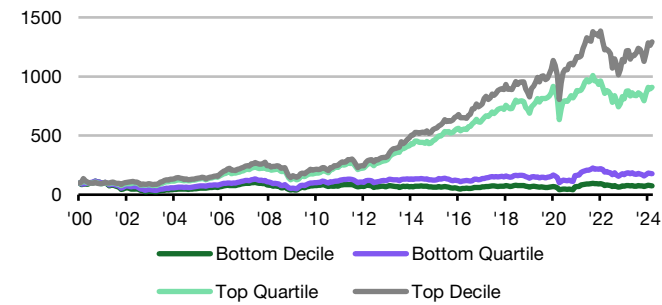
Source: Liberum, Datastream

Momentum

Price momentum

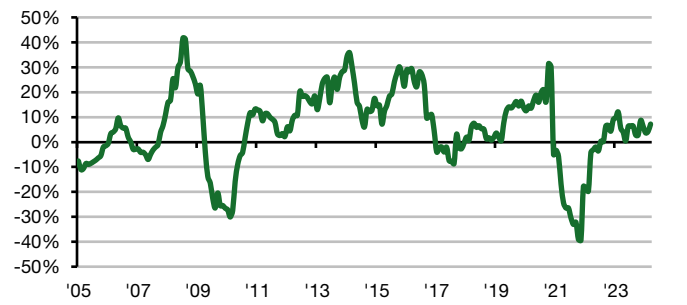
- Momentum stocks outperformed by 7.3% in the last 12 months and by 2.3% in February.

Figure 51: Returns to price momentum buckets, re-balancing each month



Source: Liberum, Datastream

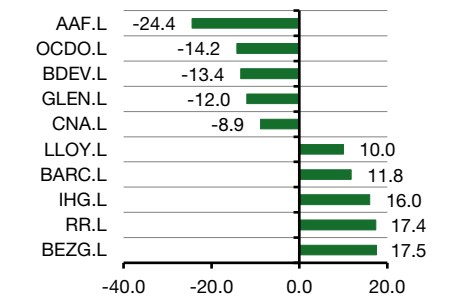
Figure 52: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

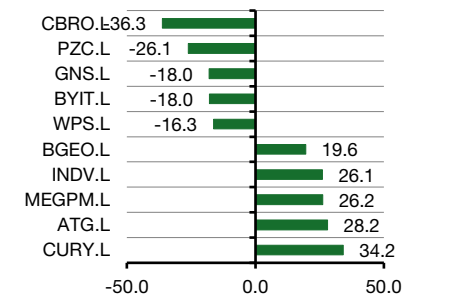
Best and worst returners last month

Figure 53: FTSE 100 (%)



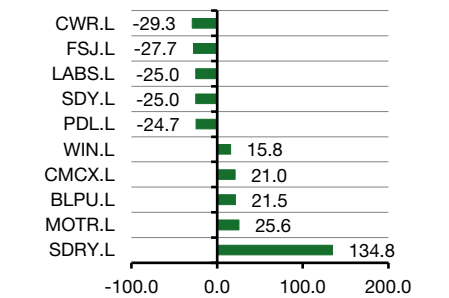
Source: Liberum, Datastream

Figure 54: FTSE 250 (%)



Source: Liberum, Datastream

Figure 55: FTSE Small Cap (%)

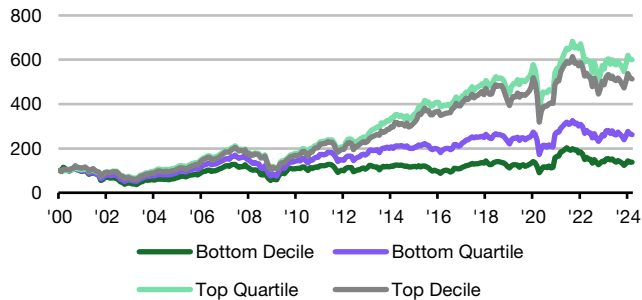


Source: Liberum, Datastream

EPS momentum

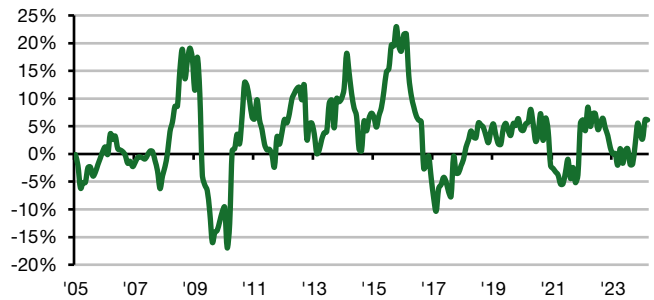
- Companies with strong EPS momentum managed to beat their peers with low EPS momentum by 1.1% in February and 6.1% over the last 12 months.

Figure 56: Returns to EPS momentum buckets, re-balancing each month



Source: Liberum, Datastream

Figure 57: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

We screen for stocks that have seen earnings upgrades over the last one, three and six months.

Figure 58: FTSE 100 forward earnings momentum

	Change in forward earnings			Relative share price	
	0m/-1m	-1m/-3m	-3m/-6m	1m	3m
ROLLS-ROYCE HOLDINGS	11.1%	9.7%	17.2%	19.3%	41.4%
M&G	1.8%	4.7%	15.9%	-0.8%	3.9%
MARKS & SPENCER GROUP	0.3%	8.7%	10.4%	-4.8%	-7.9%
3I GROUP	5.5%	1.3%	10.1%	1.8%	5.8%
ASSOCIATED BRIT.FOODS	3.1%	2.1%	9.9%	-2.9%	-8.1%
NEXT	0.2%	3.1%	3.2%	-0.1%	2.5%
PERSHING SQUARE (LON) HOLDINGS	0.0%	7.9%	3.0%	7.7%	17.3%
NATIONAL GRID	0.1%	2.0%	1.6%	0.3%	-2.6%
DCC	0.5%	1.5%	1.6%	0.3%	1.3%
SAINSBURY J	0.9%	0.2%	1.3%	-6.2%	-11.5%
DIPLOMA	0.3%	3.8%	0.4%	5.1%	-0.7%

Source: Liberum, Datastream

Figure 59: FTSE 250 forward earnings momentum

	Change in forward earnings			Relative share price	
	0m/-1m	-1m/-3m	-3m/-6m	1m	3m
BANK OF GEORGIA GROUP	9.4%	6.6%	8.6%	21.5%	27.2%
BRIDGEPOINT GROUP	0.1%	7.7%	7.7%	-4.1%	18.5%
MITCHELLS & BUTLERS	3.5%	7.0%	7.3%	-5.5%	-2.6%
FIRST GROUP	2.7%	5.9%	6.1%	-6.4%	-6.6%
HILL AND SMITH	0.6%	1.4%	5.9%	-0.3%	-5.5%
SPIRE HEALTHCARE GP.	1.1%	0.1%	5.7%	3.1%	4.5%
PREMIER FOODS	1.3%	0.1%	3.0%	-0.4%	6.5%
COMPUTACENTER	0.1%	0.1%	2.5%	2.8%	2.4%
SUPERMARKET INCOME REIT	0.3%	0.5%	1.0%	-3.1%	-10.5%
CLARKSON	2.7%	4.3%	0.8%	2.7%	17.6%
QINETIQ GROUP	0.4%	0.3%	0.6%	2.4%	10.7%
INDIVIOR	4.5%	0.5%	0.5%	28.1%	33.0%
VOLUTION GROUP	0.5%	0.9%	0.5%	-1.0%	3.7%
REDDE NORTHGATE	2.0%	3.7%	0.4%	0.3%	-8.0%
CRANSWICK	0.2%	5.8%	0.2%	-1.7%	-2.3%

Source: Liberum, Datastream

Largest upgrades & downgrades last month

Below, we show the largest EPS upgrades and downgrades by index.

Figure 60: Consensus earnings – largest upgrades and downgrades over the month

FTSE 100			FTSE 100		
	FY1 EPS Change			FY2 EPS Change	
BEAZLEY	12.7%	↑	ROLLS-ROYCE HOLDINGS	10.8%	
ROLLS-ROYCE HOLDINGS	11.2%	↑	3I GROUP	5.5%	
M&G	7.1%	↑	SMITH & NEPHEW	5.5%	
3I GROUP	6.9%	↑	ENDEAVOUR MINING (LON)	5.3%	
COCA-COLA HBC	3.1%	↑	INTERMEDIATE CAPITAL GP.	3.9%	
MONDI	-6.2%	↓	RIO TINTO	-5.4%	
RS GROUP	-6.7%	↓	RS GROUP	-5.4%	
LLOYDS BANKING GROUP	-7.0%	↓	AIRTEL AFRICA	-5.6%	
GLENCORE	-7.2%	↓	HSBC HOLDINGS	-5.6%	
FRESNILLO	-19.9%	↓	MONDI	-8.3%	

FTSE 250			FTSE 250		
	FY1 EPS Change			FY2 EPS Change	
HOCHSCHILD MINING	91.1%	↑	CENTAMIN	20.6%	
DIRECT LINE IN.GROUP	21.6%	↑	FERREXPO	15.3%	
ITHACA ENERGY	16.8%	↑	WIZZ AIR HOLDINGS	10.7%	
EASYJET	10.4%	↑	BANK OF GEORGIA GROUP	10.4%	
PPHE HOTEL GROUP	9.0%	↑	TRUSTPILOT GROUP	10.3%	
IG GROUP HOLDINGS	-10.0%	↓	TRITAX EUROBOX	-9.8%	
HAYS	-11.8%	↓	ENERGEAN	-13.2%	
GENUS	-13.9%	↓	IWG	-17.1%	
WATCHES OF SWITZERLAND GROUP	-19.1%	↓	WATCHES OF SWITZERLAND GROUP	-20.5%	
DIVERSIFIED ENERGY COMPANY	-21.7%	↓	CLOSE BROTHERS GROUP	-23.9%	

FTSE Small Cap			FTSE Small Cap		
	FY1 EPS Change			FY2 EPS Change	
CMC MARKETS	314.6%	↑	CMC MARKETS	58.3%	
BLOOMSBURY PBL.	27.6%	↑	KIN AND CARTA	17.4%	
CHESNARA	22.7%	↑	LIFE SCIENCE REIT	15.2%	
FOXTONS GROUP	16.0%	↑	FOXTONS GROUP	7.7%	
IMPACT HEALTHCARE REIT	9.1%	↑	IMPACT HEALTHCARE REIT	6.9%	
ENQUEST	-11.7%	↓	SIG	-26.2%	
LIFE SCIENCE REIT	-15.2%	↓	TRIFAST	-29.1%	
SPEEDY HIRE	-34.0%	↓	XP POWER (DI)	-30.9%	
PALACE CAPITAL	-40.6%	↓	ENQUEST	-31.9%	
TRIFAST	-45.2%	↓	PALACE CAPITAL	-49.4%	

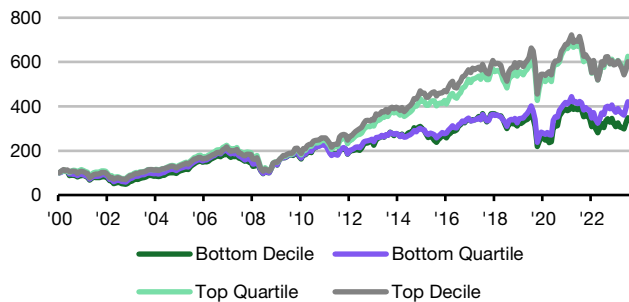
Source: Liberum, Datastream.

Quality

Profitability – ROE

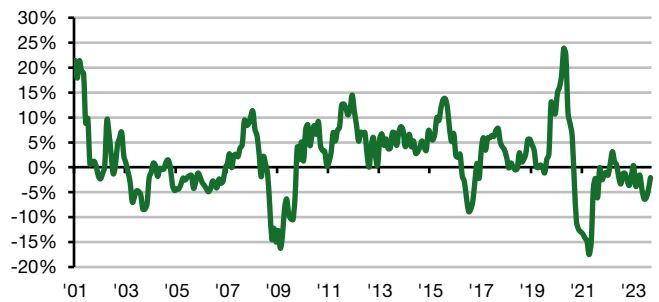
- Quality companies with high profitability saw a bit of a comeback in February with the 25% most profitable companies beating the 25% least profitable ones by 2.1%.

Figure 61: Returns to ROE buckets, re-balancing monthly



Source: Liberum, Datastream

Figure 62: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most Profitable

Figure 63: FTSE 100

Name	Mkt Cap (£m)	ROE (%)
RIGHTMOVE	4,514	323.6
RELX	65,026	66.0
B&M EUROPEAN VAL.RET.	5,186	48.5
AUTO TRADER GROUP	6,674	48.3
NEXT	10,630	47.0
ADMIRAL GROUP	7,893	43.0
IMPERIAL BRANDS	15,077	42.8
DIAGEO	67,620	41.2
GLAXOSMITHKLINE	68,790	40.0
INTL.CONS.AIRL.GP.	7,670	38.4
UNILEVER (UK)	97,849	35.7
CENTRICA	6,718	32.3
COMPASS GROUP	36,800	31.3
ASTRAZENECA	160,103	30.2
EXPERIAN	31,387	29.0

Source: Liberum, Datastream

Figure 64: FTSE 250

Name	Mkt Cap (£m)	ROE (%)
MOONPIG GROUP	592	181.3
WIZZ AIR HOLDINGS	2,324	164.7
INDIVIOR	2,333	144.5
DUNELM GROUP	2,333	111.1
BYTES TECHNOLOGY GROUP	1,295	63.6
4IMPRINT GROUP	1,595	63.5
ENERGEAN	1,817	58.2
GAMES WORKSHOP	3,190	58.0
FORESIGHT GROUP HOLDINGS	491	42.2
SOFTCAT	2,936	41.3
KAINOS GROUP	1,415	40.8
HARBOUR ENERGY	1,939	40.8
MONEYSUPERMARKET COM GP.	1,335	39.8
AJ BELL	1,289	38.7
BRITVIC	2,163	38.7

Source: Liberum, Datastream

Least Profitable

Figure 65: FTSE 100

Name	Mkt Cap (£m)	ROE (%)
VODAFONE GROUP	18,522	3.4
SEGRO	10,425	4.3
UNITE GROUP	4,260	4.5
PERSHING SQUARE (LON) HOLDINGS	8,227	5.0
BARRATT DEVELOPMENTS	4,584	5.5
FRESNILLO	3,448	5.7
KINGFISHER	4,321	6.5
SAINSBURY J	6,038	7.1
LAND SECURITIES GROUP	4,614	7.4
TAYLOR WIMPEY	4,970	7.4
LONDON STOCK EXCHANGE GROUP	46,509	7.7
BARCLAYS	25,316	7.9
ANTOFAGASTA	17,731	8.1
FLUTTER ENTERTAINMENT	30,243	8.6
PERSIMMON	4,378	8.6

Source: Liberum, Datastream

Figure 66: FTSE 250

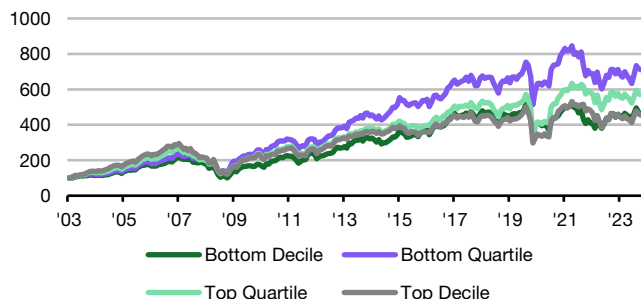
Name	Mkt Cap (£m)	ROE (%)
WOOD GROUP (JOHN)	1,014	2.8
CREST NICHOLSON HOLDINGS	549	3.8
ABRDN	2,875	4.4
CLOSE BROTHERS GROUP	538	4.6
PENNON GROUP	1,946	4.7
BELLWAY	3,225	4.9
TRAVIS PERKINS	1,589	5.2
JUPITER FUND MANAGEMENT	465	5.3
TRUSTPILOT GROUP	793	5.8
HUNTING	510	5.9
SPIRE HEALTHCARE GP.	978	6.1
FERREXPO	452	6.1
MOBICO GROUP	497	6.3
MITCHELLS & BUTLERS	1,445	6.4

Source: Liberum, Datastream

Leverage – Net debt/EBITDA

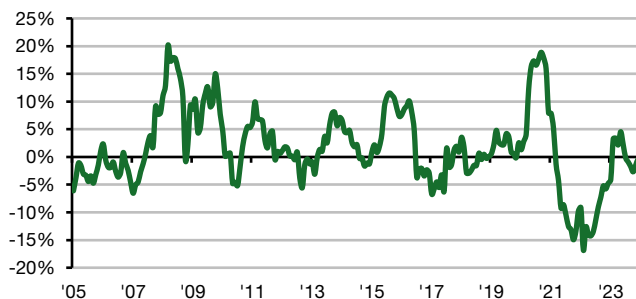
- We continue to see companies with low leverage outperform companies with high leverage for now on a rolling 12-month basis.

Figure 67: Returns to ND/E buckets, re-balancing monthly



Source: Liberum, Datastream

Figure 68: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most Levered

Figure 69: FTSE 100

Name	Mkt Cap (£m)	Net Debt / EBITDA x
OCADO GROUP	4,092	8.2
UNITED UTILITIES GROUP	7,037	7.2
SEVERN TRENT	7,480	7.0
NATIONAL GRID	38,313	6.6
SCHRODERS	6,282	5.0
WHITBREAD	6,409	3.9
SSE	17,421	3.1
ENTAIN	5,841	3.1
VODAFONE GROUP	18,522	2.9
DIAGEO	67,620	2.7
HALEON	29,740	2.5
BRITISH AMERICAN TOBACCO	52,869	2.4
BT GROUP	10,572	2.2
RENTOKIL INITIAL	10,860	2.1
TESCO	19,540	2.0

Source: Liberum, Datastream

Figure 70: FTSE 250

Name	Mkt Cap (£m)	Net Debt / EBITDA x
PENNON GROUP	1,946	9.0
CARNIVAL	1,644	4.9
PPHE HOTEL GROUP	559	4.6
HELIOS TOWERS	816	4.0
WETHERSPOON (JD)	985	3.6
MITCHELLS & BUTLERS	1,445	3.6
SPIRE HEALTHCARE GP.	978	3.5
WIZZ AIR HOLDINGS	2,324	2.8
DIVERSIFIED ENERGY COMPANY	476	2.8
MOBICO GROUP	497	2.5
TRAVIS PERKINS	1,589	2.1
DOMINO'S PIZZA GROUP	1,401	2.1
RHI MAGNESITA	1,691	2.0
BAKKAVOR GROUP	549	1.8
BRITVIC	2,163	1.8

Source: Liberum, Datastream

Least Levered

Figure 71: FTSE 100

Name	Mkt Cap (£m)	Net Debt / EBITDA x
BARRATT DEVELOPMENTS	4,584	-1.8
CENTRICA	6,718	-1.3
BERKELEY GROUP HOLDINGS (THE)	4,930	-1.2
TAYLOR WIMPEY	4,970	-0.9
PERSIMMON	4,378	-0.8
JD SPORTS FASHION	5,955	-0.7
BURBERRY GROUP	4,702	-0.5
ASSOCIATED BRIT. FOODS	17,213	-0.4
AUTO TRADER GROUP	6,674	-0.2
3I GROUP	23,516	0.0
RIO TINTO	63,973	0.1
ROLLS-ROYCE HOLDINGS	30,182	0.2
HOWDEN JOINERY GP.	4,259	0.2

Source: Liberum, Datastream

Figure 72: FTSE 250

Name	Mkt Cap (£m)	Net Debt / EBITDA x
QUILTER	1,365	-4.7
PLUS500	1,447	-3.7
INTEGRAFIN HOLDINGS	887	-2.6
DARKTRACE	2,528	-2.5
BALFOUR BEATTY	1,818	-2.1
W A G PAYMENT SOLUTIONS	517	-2.1
CLARKSON	1,099	-2.0
NINETY ONE	1,021	-2.0
IG GROUP HOLDINGS	2,673	-1.8
BYTES TECHNOLOGY GROUP	1,295	-1.8
KAINOS GROUP	1,415	-1.7
SPIRENT COMMUNICATIONS	627	-1.5
HARGREAVES LANSDOWN	3,574	-1.5
OXFORD INSTRUMENTS	1,273	-1.5
AJ BELL	1,289	-1.4

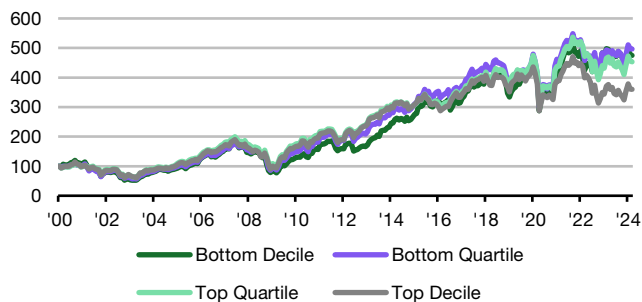
Source: Liberum, Datastream

Contrarian – Loved, Unloved & Unknown

Most Loved/Unloved

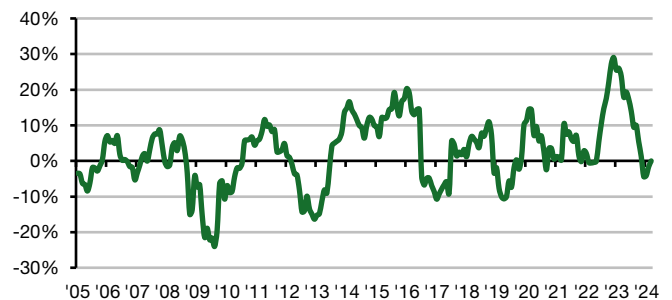
- Since 2000, buying the most loved stocks (by analysts, as measured by Datastream) each month has generated no obvious outperformance vs the most unloved. Sometimes, the most loved stocks even underperformed.
- February saw the most unloved stocks outperform the most loved ones by 0.5%.

Figure 73: Returns to recommendation buckets, re-balancing each month



Source: Liberum, Datastream

Figure 74: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

FTSE 100

Figure 75: Most Loved

Name	I/B/E/S Rec
SMURFIT KAPPA GP. (LON)	1.6
ENDEAVOUR MINING (LON)	1.8
INTERMEDIATE CAPITAL GP.	1.8
MELROSE INDUSTRIES	1.8
BEAZLEY	1.8
FLUTTER ENTERTAINMENT	1.9
CONVATEC GROUP	1.9
DIPLOMA	1.9
3I GROUP	1.9
DCC	1.9

Source: Liberum, Datastream (1-1.49 = Strong Buy, 1.5-2.49 = Buy, 2.5-3.49 = Hold, 3.5-4.49 = Underperform, 4.5-5 = Sell). Only stocks with at least five analyst recommendations are included.

Figure 76: Most Unloved

Name	I/B/E/S Rec
ICTL.HTLS.GP.	3.2
SCHRODERS	3.1
KINGFISHER	3.1
BURBERRY GROUP	3.1
ADMIRAL GROUP	3.1
BUNZL	3.0
SPIRAX-SARCO ENGR.	3.0
FRESNILLO	3.0
UNILEVER	3.0
ANTOFAGASTA	2.9

FTSE 250

Figure 77: Most Loved

Name	I/B/E/S Rec
BANK OF GEORGIA GROUP	1.0
TBC BANK GROUP	1.2
KELLER	1.2
MITIE GROUP	1.2
FORESIGHT GROUP HOLDINGS	1.2
PLAYTECH	1.3
BALFOUR BEATTY	1.3
MORGAN SINDALL GROUP	1.3
MOBICO GROUP	1.4
PLUS500	1.4

Source: Liberum, Datastream (1-1.49 = Strong Buy, 1.5-2.49 = Buy, 2.5-3.49 = Hold, 3.5-4.49 = Underperform, 4.5-5 = Sell). Only stocks with at least five analyst recommendations are included.

Figure 78: Most Unloved

Name	I/B/E/S Rec
ABRDN	3.6
HAMMERSON	3.2
JUPITER FUND MANAGEMENT	3.2
ASHMORE GROUP	3.1
GREAT PORTLAND ESTATES	2.9
VICTREX	2.9
TRAVIS PERKINS	2.9
RENISHAW	2.9
NINETY ONE	2.8
QUILTER	2.8

FTSE Small Cap

Figure 79: Most Loved

Name	I/B/E/S Rec
NORCROS	1.3
SEVERFIELD	1.3
WAREHOUSE REIT	1.3
HELICAL REIT	1.3
BOOT (HENRY)	1.3
FISHER(JAMES)& SONS	1.3
GALLIFORD TRY	1.4
HOLLYWOOD BOWL GROUP	1.4
NEWRIVER REIT (REG S)	1.5

Source: Liberum, Datastream (1-1.49 = Strong Buy, 1.5-2.49 = Buy, 2.5-3.49 = Hold, 3.5-4.49 = Underperform, 4.5-5 = Sell). Only stocks with at least five analyst recommendations are included.

Figure 80: Most Unloved

Name	I/B/E/S Rec
METRO BANK HOLDINGS	3.4
ASOS	3.1
PETROFAC	3.0
CMC MARKETS	3.0
FULLER SMITH & TURNR.	2.8
VANQUIS BANKING GROUP	2.7
CAPRICORN ENERGY	2.7
PETRA DIAMONDS	2.6
HALFORDS GROUP	2.6

Low coverage

We screen for stocks that are the least covered by the sell-side.

Figure 81: FTSE 100 – 20 Most Unknown

Name	No. Analysts	Freefloat (£m)
F&C IT.	0	4,986.0
SCOTTISH MORTGAGE	2	11,238.6
PERSHING SQUARE (LON) HOLDINGS	2	8,227.3
SMURFIT KAPPA GP. (LON)	7	7,946.7
ENDEAVOUR MINING (LON)	8	2,568.9
FRASERS GROUP	8	813.1
MONDI	9	4,520.9
SMITH (DS)	9	4,385.8
AIRTEL AFRICA	10	961.4
DIPLOMA	11	4,022.4

Source: Liberum, Datastream

Name	No. Analysts	Freefloat (£m)
3I GROUP	12	23,516.5
DCC	12	4,835.3
SAINSBURY J	12	4,226.9
HIKMA PHARMACEUTICALS	12	3,212.5
UNITE GROUP	12	2,982.3
MELROSE INDUSTRIES	13	6,051.3
JD SPORTS FASHION	13	2,858.6
FRESNILLO	13	862.0
IMPERIAL BRANDS	14	10,554.0
SEVERN TRENT	14	6,582.6

Figure 82: FTSE 250 – 20 Most Unknown

Name	No. Analysts	Freefloat (£m)
BALANCED COMMERCIAL PROPERTY TRUST	1	514.4
UK COMMERCIAL PROPERTY REIT	1	359.8
TELECOM PLUS	2	995.2
TARGET HEALTHCARE REIT	2	486.9
IP GROUP	2	420.4
ME GROUP INTERNATIONAL	2	304.6
INDIVIOR	3	1,843.4
LXI REIT	3	1,626.1
URBAN LOGISTICS REIT	3	545.6
PURETECH HEALTH	3	522.8

Source: Liberum, Datastream

Name	No. Analysts	Freefloat (£m)
GAMES WORKSHOP	4	2,775.0
NETWORK INTERNATIONAL HOLDINGS	4	1,575.2
4IMPRINT GROUP	4	1,435.1
SAVILLS	4	1,328.4
SIRIUS REAL ESTATE LD	4	1,167.5
SENIOR	4	638.7
EMPIRIC STUDENT PROPERTY	4	466.3
TRITAX EUROBOX	4	417.7
PZ CUSSONS	4	263.6
FERREXPO	4	230.8

Figure 83: FTSE Small Cap – 20 Most Unknown

Name	No. Analysts	Freefloat (£m)
CUSTODIAN PROPERTY INCOME REIT	0	319.2
ABRDN EUROPEAN	0	224.6
POLLEN STREET GROUP	0	192.1
ABRDN PROPERTY INCOME TRUST	0	166.3
PHOENIX SPREE DEUTSCHLAND	0	154.3
SCHRODER REAL ESTATE INVESTMENT TRUST	0	147.9
VPC SPY.LENDING INVS.	0	123.3
CITY OF LONDON INV.GP.	0	95.0
ANGLO-EASTERN PLTNS.	0	85.1
RESIDENTIAL SECURE INCOME	0	81.5

Source: Liberum, Datastream

Name	No. Analysts	Freefloat (£m)
SCHRODER EUR.REIT.TST.	0	72.1
PINWOOD TECHNOLOGIES GROUP	1	406.5
IMPACT HEALTHCARE REIT	1	336.9
REAL ESTATE CREDIT	1	239.7
TRIPLE PNT.SCL.HSG.REITS	1	192.4
AEW UK REIT	1	135.5
ULTIMATE PRODUCTS	1	92.2
RECORD	1	86.7
SMITHS NEWS	1	77.2
MOTORPOINT GROUP	1	72.7

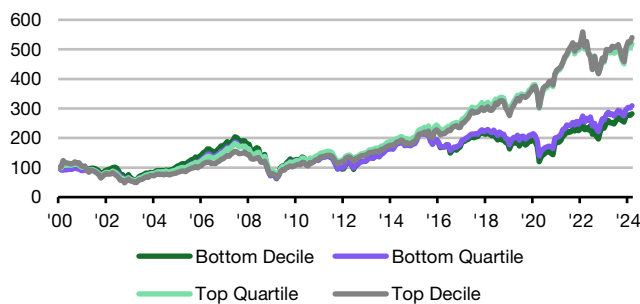
Europe ex UK Screens

Value

Price/Earnings

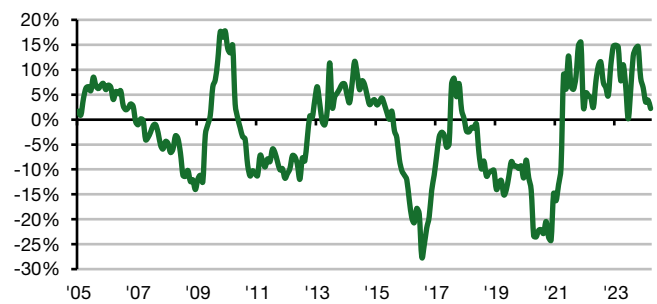
- Using P/E as a method of selecting value stocks has not worked over the last 20 years with high P/E stocks outperforming low P/E stocks, particularly in the last decade.
- However, since November 2021, value stocks have continued to outperform, ending a long period of persistent underperformance of value stocks.
- Interestingly, while value underperformed on most measures (e.g. P/B below), value stocks as measured by P/E managed to beat expensive stocks by 0.4% in February.

Figure 84: Returns to P/E buckets, re-balancing each month



Source: Liberum, Datastream

Figure 85: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Figure 86: Cheapest Stoxx Europe ex UK stocks by FY2 PER

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1 EPS	FY2 EPS
		Flow Yield	Flow Yield			Div Yield	Div Yield		
FORVIA	13.855	93.0%	101.4%	5.9x	3.8x	4.5%	7.8%	107.8%	55.9%
SOCIETE GENERALE	22.33	0.0%	0.0%	5.0x	4.1x	5.4%	6.7%	160.2%	21.0%
VOLKSWAGEN PREF.	124.08	55.9%	57.6%	4.1x	4.2x	7.2%	7.2%	2.4%	-2.3%
STELLANTIS	24.245	31.9%	32.2%	4.4x	4.3x	6.3%	6.5%	-10.1%	1.0%
EMBRACER GROUP	1.57	83.4%	39.4%	5.3x	4.6x	0.0%	0.0%	-19.7%	14.1%
COMMERZBANK	10.865	0.0%	0.0%	5.6x	4.7x	5.1%	7.0%	96.4%	18.0%
THYSSENKRUPP	4.624	40.5%	40.1%	7.6x	4.8x	3.4%	3.9%	-118.3%	59.2%
BPER BANCA	3.75	0.0%	0.0%	4.2x	4.8x	9.9%	10.2%	-12.7%	-12.4%
DEUTSCHE BANK	12.384	0.0%	0.0%	5.8x	4.8x	5.3%	7.6%	-11.4%	19.2%
DEUTSCHE LUFTHANSA	7.374	43.3%	44.0%	4.8x	5.0x	4.6%	5.1%	132.0%	-3.3%

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Figure 87: Most Expensive Stoxx Europe ex UK stocks by FY2 PER

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1 EPS	FY2 EPS
		Flow Yield	Flow Yield			Div Yield	Div Yield		
SARTORIUS PREF.	341.8	3.4%	3.7%	64.0x	49.1x	0.3%	0.4%	78.1%	30.4%
CD PROJEKT	26.8	5.1%	3.2%	26.6x	47.2x	0.9%	0.7%	36.8%	-43.7%
HERMES INTL.	2,297.0	2.0%	2.2%	52.7x	47.1x	0.8%	0.8%	35.3%	11.9%
FERRARI	389.2	2.9%	3.3%	50.6x	45.1x	0.6%	0.7%	11.3%	12.1%
LOTUS BAKERIES	8,720.0	2.5%	2.8%	48.9x	43.8x	0.7%	0.8%	40.0%	11.6%
BACHEM HOLDING	73.2	2.7%	2.3%	49.6x	42.7x	1.1%	1.2%	6.9%	16.0%
ADYEN	1,463.8	3.0%	3.8%	52.8x	41.7x	0.0%	0.0%	52.3%	26.6%
FERROVIAL	34.8	3.9%	4.7%	52.8x	39.9x	2.2%	2.3%	167.5%	32.2%
SARTORIUS STEDIM BIOTECH	249.0	2.6%	2.9%	51.4x	39.3x	0.4%	0.5%	44.1%	30.9%
RATIONAL	759.5	2.7%	2.8%	41.1x	38.8x	1.8%	1.8%	13.3%	5.7%

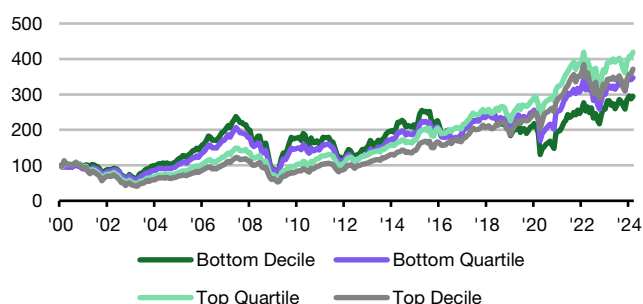
Source: Datastream.

*Cash flow yield - Cash flow from operations, before investing and financing activities

Price/Book

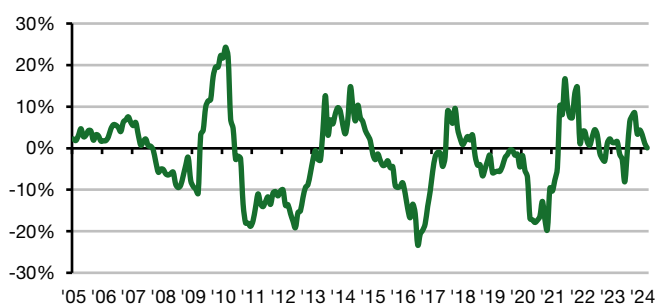
- Just like value investing based on P/E didn't work in Europe, using P/B as a selection criterion also led to underperformance, particularly during the last decade.
- However, during the financial crisis and again in the Covid crisis we have seen value stocks based on P/B underperform less than value stocks based on P/E. And since the vaccine news in November 2020, low P/B stocks have outperformed again.
- Value stocks as measured by P/B underperformed by 1.2% last month.

Figure 88: Returns to P/B buckets, re-balancing each month



Source: Liberum, Datastream

Figure 89: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Figure 90: Cheapest Stoxx Europe ex UK stocks by historical P/B

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 EPS Growth	Historic P/B
SOCIETE GENERALE	22.3	0.0%	0.0%	5.0x	4.1x	5.4%	6.7%	160.2%	0.3
EMBRACER GROUP	1.6	83.4%	39.4%	5.3x	4.6x	0.0%	0.0%	-19.7%	0.3
K + S	12.9	31.5%	29.1%	14.3x	17.4x	6.3%	3.1%	-88.6%	0.4
RAIFFEISEN BANK INTL.	19.3	0.0%	0.0%	3.6x	3.6x	6.5%	8.1%	-23.2%	0.4
RENAULT	38.3	54.3%	53.8%	3.0x	2.9x	6.1%	8.2%	n.a.	0.4
ARCELORMITTAL	24.4	28.8%	29.4%	5.7x	5.2x	2.0%	2.2%	-55.9%	0.4
TELECOM ITALIA	0.3	68.6%	70.0%	n.a.	n.a.	0.0%	0.0%	-79.0%	0.4
DEUTSCHE BANK	12.4	0.0%	0.0%	5.8x	4.8x	5.3%	7.6%	-11.4%	0.4
JUST EAT TAKEAWAY.COM	15.0	7.6%	26.3%	n.a.	n.a.	0.0%	0.0%	-96.4%	0.4
VOLKSWAGEN PREF.	124.1	55.9%	57.6%	4.1x	4.2x	7.2%	7.2%	2.4%	0.4

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities. We ignore negative P/B.

Figure 91: Most expensive Stoxx Europe ex UK stocks by historical P/B

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 EPS Growth	Historic P/B
INPOST	14.4	5.5%	7.4%	37.8x	24.3x	0.0%	0.0%	95.4%	71.9
FORTNOX AB	6.7	1.7%	2.3%	66.5x	n.a.	0.3%	0.4%	95.7%	35.2
NOVO NORDISK 'B'	111.9	3.2%	3.8%	36.5x	30.2x	1.3%	1.6%	22.4%	34.9
SGS 'N'	88.2	7.4%	8.0%	23.0x	20.9x	3.8%	3.9%	18.4%	32.9
SECTRA B	18.7	0.0%	0.0%	98.0x	n.a.	0.6%	0.7%	11.0%	31.5
FERRARI	389.2	2.9%	3.3%	50.6x	45.1x	0.6%	0.7%	11.3%	31.0
TEAMVIEWER	14.7	9.1%	10.4%	18.9x	15.6x	0.0%	0.0%	113.4%	22.6
ASML HOLDING	879.2	2.5%	3.4%	46.9x	31.0x	0.8%	1.0%	-9.1%	21.3
BE SEMICONDUCTOR INDUSTRIES	167.4	2.3%	3.4%	50.9x	32.7x	1.8%	2.6%	8.4%	20.9
UNIVERSAL MUSIC GROUP	26.4	3.3%	3.8%	31.4x	27.7x	1.9%	2.0%	94.7%	20.3

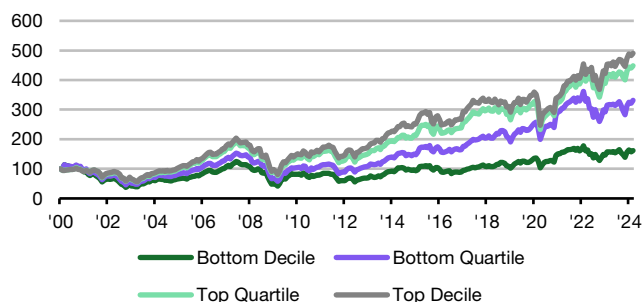
Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Dividend yield

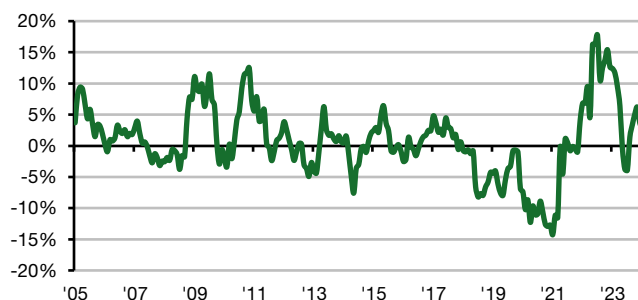
- Since 2000, buying the highest-yielding stocks each month has generated significant outperformance over the lowest-yielding stocks. However, this outperformance is almost exclusively due to the large underperformance of the bottom decile stocks neither of which pay a dividend.
- Low income stocks outperformed in February but are still lagging income stocks by 2.5% over the last 12 months.

Figure 92: Returns to DY buckets, re-balancing each month



Source: Liberum, Datastream

Figure 93: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

Figure 94: Cheapest Stoxx Europe ex UK stocks by FY2 dividend yields (FY2 dividend cover > 1.5x)

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 Div Cover	FY2 Div Cover
BANCA MONTE DEI PASCHI	3.7	0.0%	0.0%	4.7x	5.2x	11.1%	11.7%	1.9x	1.6x
BPER BANCA	3.8	0.0%	0.0%	4.2x	4.8x	9.9%	10.2%	2.4x	2.1x
BAWAG GROUP	51.3	0.0%	0.0%	6.1x	5.8x	9.7%	10.1%	1.7x	1.7x
CAIXABANK	4.2	0.0%	0.0%	6.3x	6.8x	9.9%	9.7%	1.6x	1.5x
OMV	40.7	38.3%	38.0%	6.5x	6.4x	9.4%	9.6%	1.7x	1.6x
BANCO COMR.PORTUGUES 'R'	0.3	54.6%	51.0%	5.5x	5.2x	8.0%	9.5%	2.3x	2.0x
BNP PARIBAS	55.6	0.0%	0.0%	6.3x	5.7x	8.4%	9.0%	1.9x	2.0x
AGEAS (EX-FORTIS)	39.3	7.4%	7.9%	6.5x	6.0x	8.2%	8.8%	1.9x	1.9x
NN GROUP	37.8	0.0%	0.0%	7.1x	5.7x	8.1%	8.7%	1.8x	2.0x
DANSKE BANK	26.1	0.0%	0.0%	7.8x	7.4x	7.8%	8.5%	1.7x	1.6x

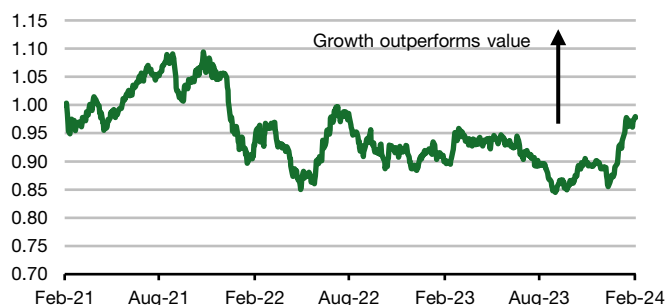
Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Value vs. growth

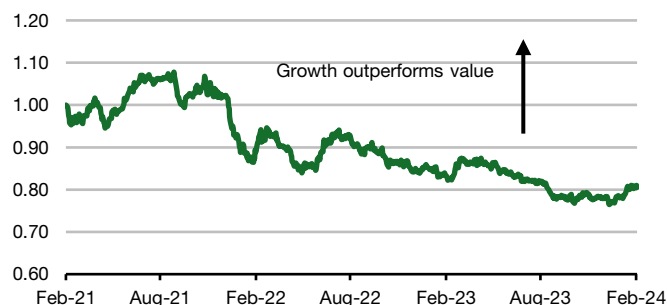
We saw strong outperformance of growth stocks over value stocks among the largest stocks in the Stoxx Europe, but more muted outperformance among mid caps.

Figure 95: MSCI EMU Large Cap Growth relative to Value



Source: Liberum, Datastream

Figure 96: MSCI EMU Mid Cap Growth relative to Value



Source: Liberum, Datastream

We screen for stocks that have:

- Not seen earnings downgrades over the last three or six months
- Positive EPS growth for the past three years
- FY1 and FY2 EPS growth of more than 5%
- FY1 and FY2 sales growth of more than 3%
- Return on Capital Employed of at least 10%

Figure 97: Growth stocks – Stoxx Europe ex UK

Name	P/E	FY2 EPS change		EPS growth		Sales growth		ROCE	Relative price change		
	(12m fwd)	3m (%)	12m (%)	FY1 (%)	FY2 (%)	FY1 (%)	FY2 (%)	12m fwd (%)	1m (%)	3m (%)	6m (%)
SECTRA B	86.6	8.8	14.4	9.5	15.7	17.3	13.7	89%	7.7	41.9	12.2
FORTNOX AB	63.4	-0.6	3.6	20.1	29.9	24.3	24.8	69%	23.0	24.4	19.7
HERMES INTL.	51.7	2.6	28.4	6.0	11.9	12.0	11.4	906%	13.2	9.5	9.0
FERRARI	49.6	-1.2	14.1	11.5	12.1	9.0	7.8	56%	20.4	5.4	22.5
LOTUS BAKERIES	48.0	5.8	11.2	12.0	11.6	9.5	9.5	24%	7.7	0.6	5.7
NOVO NORDISK 'B'	35.3	3.2	36.0	22.7	20.8	22.6	19.4	122%	10.4	10.4	17.4
L'OREAL	34.3	-2.2	2.2	7.3	8.6	7.2	6.7	27%	-1.7	-4.5	1.4
DASSAULT SYSTEMES	33.0	-1.1	0.3	7.3	10.6	7.5	9.3	29%	-12.3	-7.9	8.8
LAGERCRANTZ GROUP B	31.0	11.7	27.0	20.7	10.3	14.0	7.4	23%	7.6	17.8	18.0
WOLTERS KLUWER	29.6	0.7	17.1	6.1	10.3	5.9	5.9	32%	2.2	4.7	19.8
KONGSBERG GRUPPEN	26.5	7.0	21.3	16.7	17.7	11.8	12.7	33%	23.2	31.6	37.2
DAVIDE CAMPARI MILANO	25.0	-6.0	5.2	9.7	15.1	8.6	9.0	13%	0.7	-12.0	-25.2
SCHNEIDER ELECTRIC	24.2	-1.6	3.1	14.8	11.1	5.2	7.1	17%	8.8	12.8	17.7
SCOUT24	23.2	0.8	12.0	29.6	14.0	14.0	11.7	18%	-2.4	-2.0	-1.5
AIXTRON	22.1	0.0	8.5	41.3	12.1	35.3	10.4	34%	-12.7	-8.6	-15.9
ASSA ABLOY B	20.4	-2.6	6.5	14.7	12.3	6.1	5.2	16%	-0.8	0.2	9.1
DEUTSCHE BOERSE	18.9	1.2	7.8	8.2	5.2	16.8	4.4	17%	1.6	1.5	6.8
SWECO B	18.4	-4.3	8.9	10.5	14.6	7.2	4.8	20%	-17.8	-19.9	-7.3
WARTSILA	18.3	3.5	14.3	26.5	14.5	12.3	7.0	23%	4.8	5.1	15.2
PANDORA	17.6	-0.1	8.1	15.5	17.6	9.5	8.9	45%	12.7	16.0	48.3

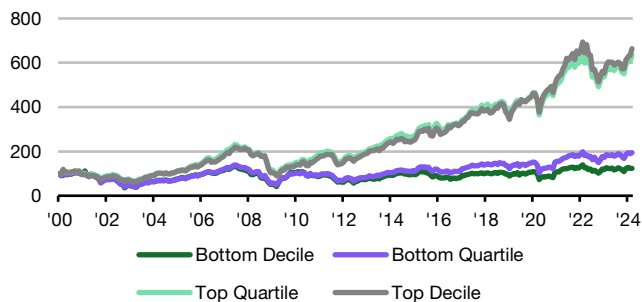
Source: Liberum, Datastream

Momentum

Price momentum

- Price momentum was one of the most reliable factors to create outperformance over the last decade and throughout the pandemic.
- Price momentum works in 2024 YTD with high momentum stocks outperforming low momentum stocks by 2.0% in January and 2.5% in February.

Figure 98: Returns to price momentum buckets, re-balancing each month



Source: Liberum, Datastream

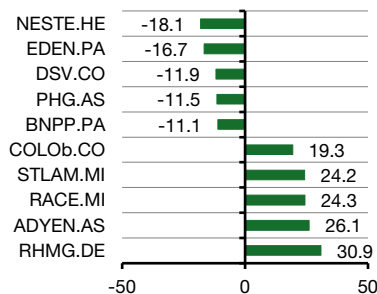
Figure 99: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

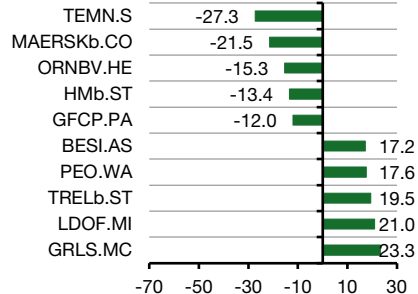
Best and worst returners last month

Figure 100: Stoxx Europe ex UK Large (%)



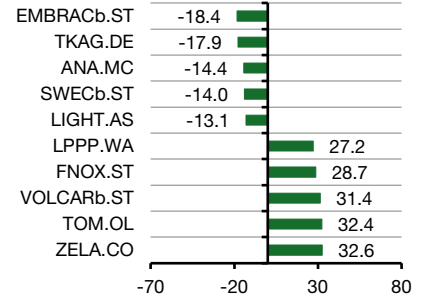
Source: Liberum, Datastream

Figure 101: Stoxx Europe ex UK Mid (%)



Source: Liberum, Datastream

Figure 102: Stoxx Europe ex UK Small (%)

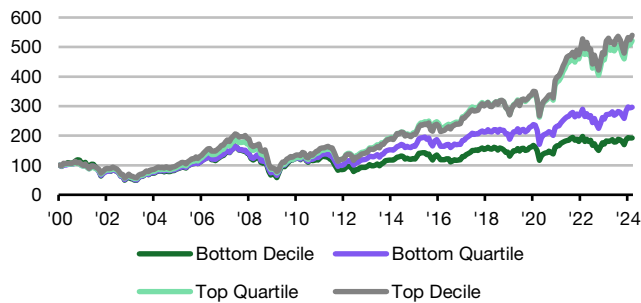


Source: Liberum, Datastream

EPS momentum

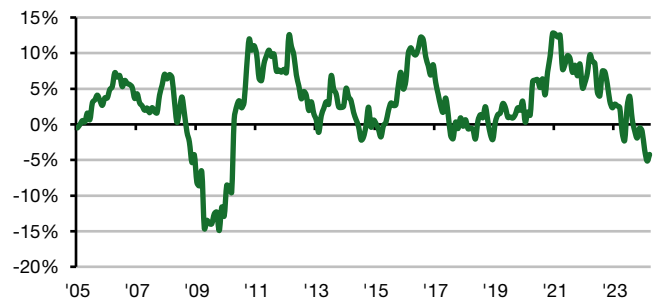
- EPS momentum as a factor has been absolutely dreadful in the UK but not so in Europe ex UK.
- Companies with high EPS momentum managed to outperform through most of H2 2020 and 2021.
- Companies with strong EPS momentum underperformed 4.2% over the last 12 months.

Figure 103: Returns to EPS momentum buckets, re-balancing each month



Source: Liberum, Datastream

Figure 104: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

We screen for stocks that have seen earnings upgrades over the last one, three and six months.

Figure 105: Stoxx Europe ex UK forward earnings momentum

	Change in forward earnings			Relative share price	
	0m/-1m	-1m/-3m	-3m/-6m	1m	3m
BPER BANCA	10.6%	6.6%	22.6%	12.0%	1.2%
AEGON	2.9%	4.0%	19.0%	-5.2%	0.4%
NN GROUP	1.9%	1.1%	16.5%	-3.3%	8.3%
VOLVO CAR B	8.9%	0.4%	10.5%	25.6%	-6.8%
BANKINTER 'R'	0.7%	2.2%	9.5%	-1.7%	-15.9%
BANK POLSKA KASA OPIEKI	7.5%	11.0%	9.0%	12.4%	15.1%
BBV.ARGENTARIA	3.6%	2.3%	7.6%	12.2%	2.0%
SALMAR	9.3%	2.5%	7.2%	8.5%	-0.4%
UNICREDIT	11.3%	0.9%	7.0%	11.7%	13.5%
NKT	6.6%	4.7%	6.7%	2.5%	18.8%
ACCOR	5.3%	0.5%	6.7%	6.0%	16.8%
NOVO NORDISK 'B'	1.8%	0.5%	6.6%	10.4%	7.4%
RAIFFEISEN BANK INTL.	6.6%	4.6%	6.2%	-6.6%	15.6%
BRUNELLO CUCINELLI	0.6%	3.7%	6.2%	19.6%	33.3%
SAAB B	7.0%	2.2%	5.9%	15.7%	35.7%

Source: Liberum, Datastream

Largest upgrades & downgrades last month

Figure 106: Consensus earnings – largest upgrades and downgrades over the month

Stoxx Europe ex UK	FY1 EPS Change		Stoxx Europe ex UK	FY2 EPS Change
SES FDR	104.7%	↑	BOLLORE	400.0%
WENDEL	20.2%	↑	BAKKAFROST	15.4%
TOMRA SYSTEMS	18.5%	↑	BANK POLSKA KASA OPIEKI	14.2%
LOGITECH 'R'	13.7%	↑	WENDEL	13.6%
UNICREDIT	11.3%	↑	SAAB B	12.6%
STMICROELECTRONICS	-16.3%	↓	PUMA	-19.7%
FORVIA	-21.4%	↓	VALEO	-20.5%
UPM-KYMMENE	-21.6%	↓	SOITEC	-21.4%
PUMA	-21.8%	↓	LANXESS	-25.7%
STORA ENSO R	-24.7%	↓	ADIDAS	-32.1%

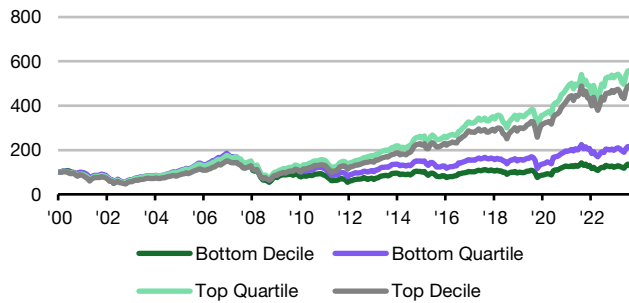
Source: Liberum, Datastream.

Quality

Profitability – ROE

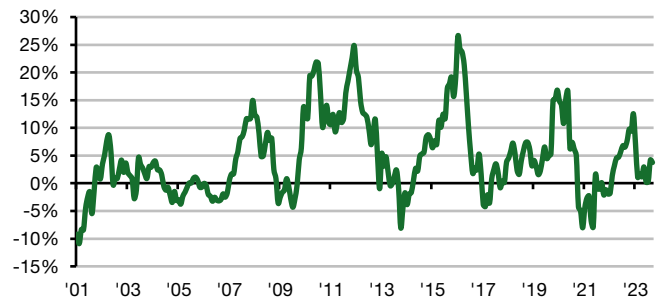
- Quality companies with high ROE outperformed low profitability companies by 1.0% in February and 3.7% over the last 12 months.

Figure 107: Returns to ROE buckets, re-balancing monthly



Source: Liberum, Datastream

Figure 108: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most and least profitable

Figure 109: Stoxx Europe ex UK most profitable

Name	Mkt Cap (£m)	ROE (%)
SGS 'N'	16,522	120.2
TEAMVIEWER	2,562	112.6
PANDORA	13,773	89.1
NOVO NORDISK 'B'	384,314	79.5
GTT	5,132	72.3
BE SEMICONDUCTOR	13,584	67.5
WOLTERS KLUWER	36,159	62.2
INPOST	7,195	59.3
ACCELLERON N	2,907	55.5
ASML HOLDING	351,315	55.3
UNIVERSAL MUSIC GROUP	48,019	52.8
PARTNERS GROUP HOLDING	35,342	48.8
OCI	5,235	42.8
VERALLIA	4,185	42.3
ROCHE HOLDING	170,857	42.2

Source: Liberum, Datastream

Figure 110: Stoxx Europe ex UK least profitable

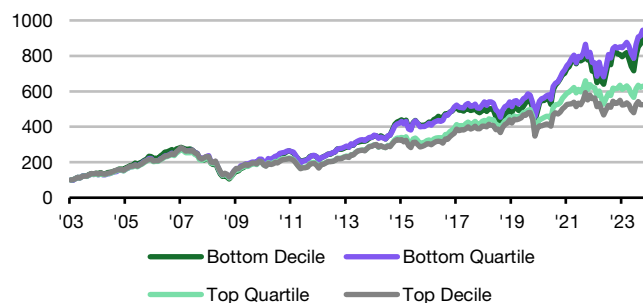
Name	Mkt Cap (£m)	ROE (%)
INDUSTRIVARDEN C	5,648	0.0
LANXESS	2,082	0.3
VONOVIA	21,376	1.7
INMOBILIARIA COLONIAL	2,801	2.1
K + S	2,315	2.3
SES FDR	2,355	2.7
BOLLORE	18,010	2.9
DSM FIRMENICH	26,190	2.9
GBL NEW	10,322	2.9
STORA ENSO R	7,093	3.3
LEG IMMOBILIEN	5,170	3.3
COVIVIO	4,291	3.4
GECINA	7,046	3.5
FABEGE	2,524	3.6
THYSSENKRUPP	2,879	3.6

Source: Liberum, Datastream

Leverage – Net debt/EBITDA

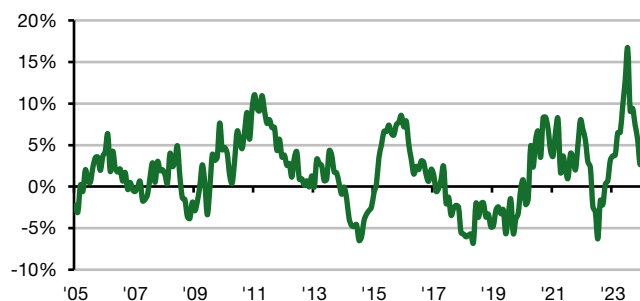
- For the month of February, we record a 2.5% underperformance of companies with high leverage vs. companies with lower financial leverage.

Figure 111: Returns to ND/E buckets, re-balancing monthly



Source: Liberum, Datastream

Figure 112: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

Most and least levered

Figure 113: Stoxx Europe ex UK most levered

Name	Mkt Cap (£m)	Net Debt / EBITDA x
NN GROUP	10,776	12.6
ELIA GROUP	7,543	8.1
D IETEREN GROUP	9,576	6.4
SNAM	14,647	6.3
ENCAVIS	1,818	5.8
CELLNEX TELECOM	24,289	5.3
TERNA RETE ELETTRICA NAZ	14,757	5.1
ITALGAS	4,115	5.0
ENAGAS	3,500	4.9
BAYER	28,623	4.8
FERROVIAL	25,739	4.7
GRIFOLS ORD CL A	5,024	4.5
REDEIA CORPORACION	8,016	4.5
DELIVERY HERO	6,063	4.3
GETLINK	8,624	4.3

Source: Liberum, Datastream

Figure 114: Stoxx Europe ex UK least levered

Name	Mkt Cap (£m)	Net Debt / EBITDA x
GENMAB	17,627	-3.7
BEIERSDORF	35,053	-2.5
CTS EVENTIM	6,826	-2.4
THYSSENKRUPP	2,879	-2.2
LOGITECH 'R'	13,817	-2.1
SCHINDLER 'P'	9,870	-1.8
AIXTRON	3,637	-1.8
NKT	3,676	-1.8
DAIMLER TRUCK HOLDING E	30,671	-1.7
CARL ZEISS MEDITEC	10,035	-1.6
BUCHER INDUSTRIES	4,039	-1.6
SKANSKA B	6,754	-1.6
THE SWATCH GROUP	6,423	-1.5
TENARIS	19,697	-1.3
NOKIA	18,320	-1.3

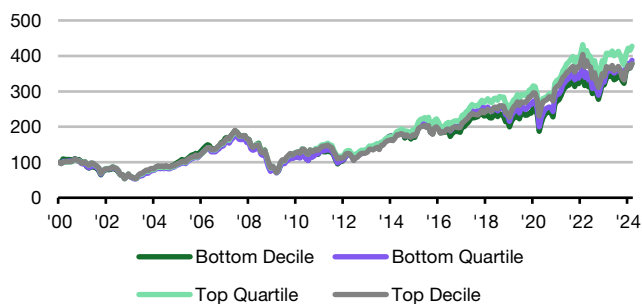
Source: Liberum, Datastream

Contrarian – Loved, Unloved & Unknown

Most Loved/Unloved

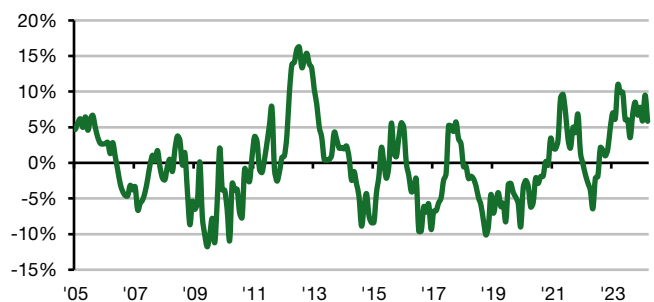
- Since 2000, buying the Most Loved stocks (by analysts, as measured by Datastream) each month has generated no obvious outperformance vs the Most Unloved.
- There was no performance difference last month between the most loved and most unloved stocks in Europe.

Figure 115: Returns to recommendation buckets, re-balancing each month



Source: Liberum, Datastream

Figure 116: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most loved and unloved

Figure 117: Stoxx Europe ex UK most loved

Name	I/B/E/S Rec
D IETEREN GROUP	1.5
VALLOUREC	1.5
SMURFIT KAPPA GROUP	1.6
ANDRITZ	1.7
ALTEN	1.7
RHEINMETALL	1.7
ARCADIS	1.7
WENDEL	1.7
RYANAIR HOLDINGS	1.7
GERRESHEIMER	1.7

Source: Liberum, Datastream (1-1.49 = Strong Buy, 1.5-2.49 = Buy, 2.5-3.49 = Hold, 3.5-4.49 = Underperform, 4.5-5 = Sell). Only stocks with at least five analyst recommendations are included.

Figure 118: Stoxx Europe ex UK most unloved

Name	I/B/E/S Rec
NATURGY ENERGY	4.0
RANDSTAD	3.7
LOTUS BAKERIES	3.7
GEBERIT 'R'	3.7
AVANZA BANK HOLDING	3.6
HELVETIA HOLDING N	3.6
VERBUND	3.6
CD PROJEKT	3.6
BACHEM HOLDING	3.5
KUEHNE UND NAGEL INTERNATIONAL	3.5

Low coverage

We screen for stocks that are the **least covered by the sell-side**.

Figure 119: Stoxx Europe ex UK – Lowest number of analysts covering the stock

Name	No. Analysts	Freefloat (£m)	Name	No. Analysts	Freefloat (£m)
CHRISTIAN DIOR	0	2,871.9	LIFCO B	4	4,629.0
SSAB B	1	4,648.6	INDUSTRIVARDEN C	4	4,405.1
BC VAUD N	1	3,207.0	BOLLORE	4	4,322.4
HEINEKEN HOLDING	2	9,672.1	LATOUR INVESTMENT B	4	3,521.4
RINGKJOBING LANDBOBANK	2	3,712.6	JYSKE BANK	4	3,259.5
SYDBANK	2	2,449.9	ALLREAL HOLDING	4	2,495.5
SECTRA B	2	1,830.0	LAGERCRANTZ GROUP B	4	2,155.0
LUNDBERGFORETAGEN B	3	7,703.7	STMICROELECTRONICS	5	28,249.4
SOFINA	3	3,255.1	INDUTRADE	5	5,873.8
CEMBRA MONEY BANK N ORD	3	2,265.0	ADDTECH B	5	4,621.9

Source: Liberum, Datastream

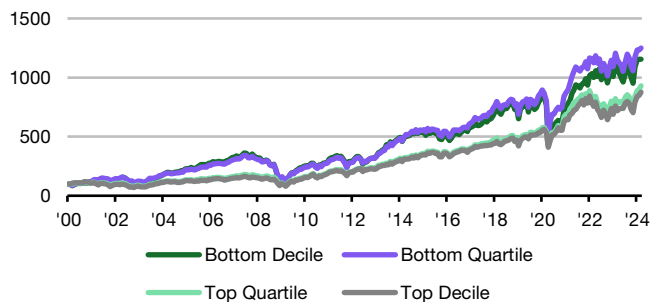
US Screens

Value

Price/Earnings

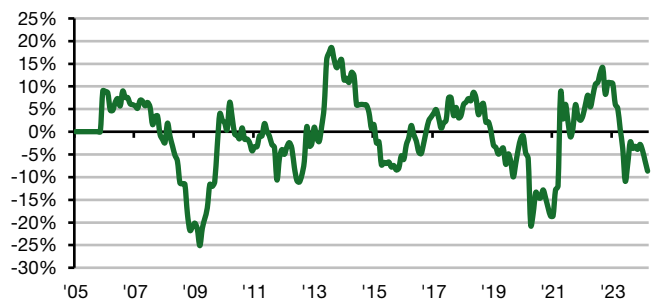
- Using P/E as a method of selecting value stocks has not worked over the last 20 years with high P/E stocks outperforming low P/E stocks, particularly in the last decade.
- February was another month of strong outperformance for stocks with high P/E. The top quartile stocks beat the bottom quartile stocks by 2.3%.

Figure 120: Returns to P/E buckets, re-balancing each month



Source: Liberum, Datastream

Figure 121: Bottom quartile relative to top quartile (yoy%)



Source: Liberum, Datastream

Figure 122: Cheapest S&P 500 stocks by FY2 PER

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1 EPS	FY2 EPS
		Flow Yield	Flow Yield			Div Yield	Div Yield		
EVEREST GROUP	367.7	0.0%	0.0%	6.0x	5.4x	1.9%	2.1%	n.a.	11.6%
DELTA AIR LINES	42.0	32.0%	29.9%	6.5x	5.6x	1.0%	1.9%	-9.5%	15.4%
APA	30.2	37.5%	41.9%	7.9x	5.7x	10.6%	9.7%	-58.7%	39.8%
WALGREENS BOOTS ALLIANCE	21.6	20.4%	22.7%	6.6x	6.1x	6.3%	6.2%	n.a.	9.2%
SYNCHRONY FINANCIAL	41.0	13.2%	15.6%	7.3x	6.4x	2.5%	2.6%	8.2%	13.5%
FORD MOTOR	12.0	21.1%	22.1%	6.4x	6.5x	5.9%	5.6%	73.4%	-1.4%
FIRST SOLAR	145.0	10.9%	16.3%	10.8x	6.9x	0.0%	0.0%	n.a.	57.4%
METLIFE	69.2	0.0%	0.0%	7.9x	6.9x	3.1%	3.2%	n.a.	13.4%
BORGWARNER	30.7	19.9%	22.5%	7.9x	7.0x	1.7%	1.8%	46.3%	11.7%
HEWLETT PACKARD ENTER.	14.9	26.1%	27.5%	7.8x	7.1x	3.5%	3.6%	24.8%	9.8%

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Figure 123: Most Expensive S&P 500 stocks by FY2 PER

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1 EPS	FY2 EPS
		Flow Yield	Flow Yield			Div Yield	Div Yield		
SERVICENOW	767.1	2.4%	2.8%	58.0x	48.0x	0.0%	0.0%	57.1%	20.9%
TESLA	199.7	2.3%	3.1%	64.7x	47.7x	0.0%	0.0%	-28.3%	35.5%
IDEXX LABORATORIES	575.1	2.2%	2.5%	51.6x	45.2x	0.0%	0.0%	10.7%	14.2%
INSULET	166.6	3.0%	3.5%	56.2x	44.1x	0.0%	0.0%	0.7%	27.5%
FAIR ISAAC	1276.0	2.0%	2.2%	54.3x	44.0x	0.0%	0.0%	31.4%	23.4%
MONOLITHIC PWR.SYS.	709.3	1.9%	2.6%	55.2x	43.6x	0.7%	0.7%	42.0%	26.5%
COSTCO WHOLESALE	744.7	3.1%	3.5%	47.1x	43.3x	2.5%	0.6%	7.8%	8.8%
CADENCE DESIGN SYS.	300.0	1.8%	2.5%	50.5x	43.2x	0.0%	0.0%	55.5%	17.0%
TYLER TECHNOLOGIES	436.4	2.2%	2.9%	48.4x	42.5x	0.0%	0.0%	132.6%	13.7%
ELI LILLY	765.0	1.7%	2.4%	61.0x	42.3x	0.7%	0.8%	116.0%	44.4%

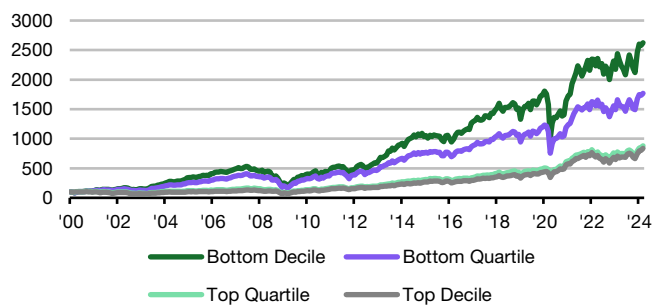
Source: Datastream. NB: We exclude stocks with FY2 P/E > 40

*Cash flow yield - Cash flow from operations, before investing and financing activities

Price/Book

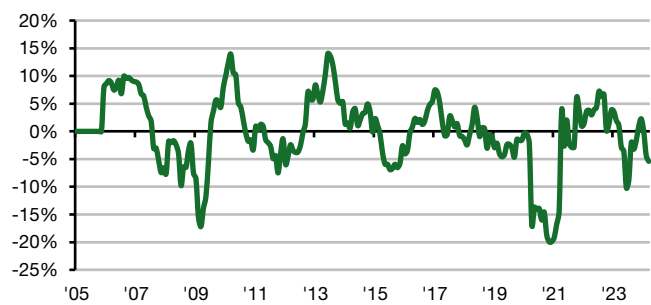
- While value investing based on P/E didn't work in the United States, using P/B as a selection criteria worked just fine, both over the last 20 years and the last decade.
- During the financial crisis and again in the Covid crisis we have seen value stocks based on P/B underperform less than value stocks based on P/E. And since the vaccine news in November 2020, low P/B stocks have started to outperform again.
- Value stocks as measured by P/B underperformed growth by 1.8% in February and by 5.4% in the last 12 months.

Figure 124: Returns to P/B buckets, re-balancing each month



Source: Liberum, Datastream

Figure 125: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Figure 126: Cheapest S&P 500 stocks by historical P/B

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 EPS Growth	Historic P/B
BERKSHIRE HATHAWAY 'B'	408.9	0.0%	0.0%	22.3x	21.4x	0.0%	0.0%	-100.0%	0.0
PARAMOUNT GLOBAL B	11.3	8.1%	10.1%	22.3x	10.4x	3.5%	1.9%	-68.6%	0.3
WARNER BROS DISCOVERY SERIES A	8.7	36.2%	39.0%	n.a.	n.a.	0.0%	0.0%	-94.2%	0.4
CITIGROUP	55.7	0.0%	0.0%	9.5x	7.8x	3.9%	4.0%	45.1%	0.6
CITIZENS FINANCIAL GROUP	31.0	9.9%	13.1%	9.6x	7.7x	5.5%	5.7%	3.2%	0.6
INVESCO	15.4	13.3%	15.1%	9.1x	8.1x	5.5%	5.8%	n.a.	0.7
GENERAL MOTORS	40.2	38.9%	41.2%	4.5x	4.4x	1.1%	1.3%	21.8%	0.8
VIATRIS	13.2	19.7%	20.5%	4.5x	4.7x	3.2%	3.8%	73.1%	0.8
MOSAIC	31.2	18.5%	17.7%	10.0x	10.3x	2.6%	2.6%	-10.9%	0.8
TRUIST FINANCIAL	34.9	10.1%	13.5%	10.1x	8.9x	6.0%	6.1%	-22.0%	0.9

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities. We ignore negative P/B.

Figure 127: Most expensive S&P 500 stocks by historical P/B

Stock Name	Price	FY1 Cash Flow Yield	FY2 Cash Flow Yield	FY1 P/E	FY2 P/E	FY1 Div Yield	FY2 Div Yield	FY1 EPS Growth	Historic P/B
CLOROX	151.9	3.4%	5.4%	26.8x	23.4x	3.2%	3.3%	n.a.	355.6
HOME DEPOT	375.6	5.2%	5.7%	24.5x	22.8x	2.4%	2.5%	-8.1%	244.3
NORWEGIAN CRUISE LINE HDG.	19.1	17.4%	20.1%	15.5x	11.2x	0.0%	0.0%	-122.7%	117.3
COLGATE-PALM.	86.4	5.5%	5.8%	24.8x	22.8x	2.4%	2.5%	25.6%	116.5
VERISK ANALYTICS CL.A	242.9	3.3%	3.7%	37.2x	33.0x	0.6%	0.7%	56.5%	112.3
IRON MOUNTAIN	74.0	6.4%	6.8%	38.1x	n.a.	3.5%	3.7%	n.a.	102.1
ORACLE	111.4	5.5%	6.5%	20.1x	17.9x	1.3%	1.4%	53.5%	79.2
MOTOROLA SOLUTIONS	328.7	4.1%	4.6%	25.8x	23.7x	1.1%	1.1%	28.1%	75.5
ELI LILLY	765.0	1.7%	2.4%	61.0x	42.3x	0.7%	0.8%	116.0%	67.4
MASTERCARD	474.8	3.3%	3.7%	33.0x	28.3x	0.5%	0.5%	21.6%	64.0

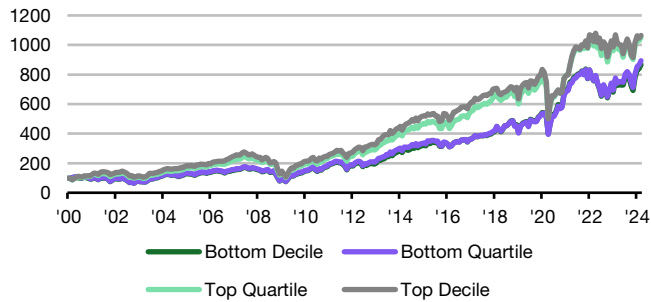
Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Dividend yield

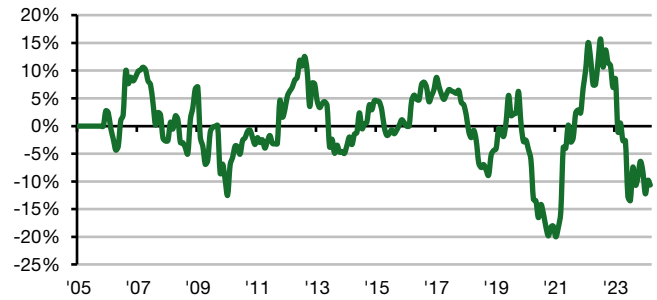
- Outperformance of low income stocks in February (1.2%) as tech rallied and energy lagged. For the last 12 months, we note a large outperformance of 10.6% for low income stocks.

Figure 128: Returns to DY buckets, re-balancing each month



Source: Liberum, Datastream

Figure 129: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

Figure 130: Cheapest S&P 500 stocks by FY2 dividend yields (FY2 dividend cover > 1.5x)

Stock Name	Price	FY1 Cash	FY2 Cash	FY1 P/E	FY2 P/E	FY1	FY2	FY1	FY2
		Flow Yield	Flow Yield			Div Yield	Div Yield		
VERIZON COMMUNICATIONS	39.9	21.3%	21.7%	8.7x	8.5x	6.7%	6.9%	1.7x	1.7x
AT&T	16.8	31.0%	30.7%	7.6x	7.3x	6.7%	6.8%	2.0x	2.0x
PFIZER	26.9	8.6%	11.3%	12.2x	9.8x	6.3%	6.5%	1.3x	1.6x
WHIRLPOOL	107.8	17.6%	21.7%	8.0x	7.1x	6.5%	6.5%	1.9x	2.2x
WALGREENS BOOTS ALLIANCE	21.6	20.4%	22.7%	6.6x	6.1x	6.3%	6.2%	2.4x	2.6x
VICI PPTYS	29.4	8.1%	8.2%	11.2x	n.a.	5.8%	6.0%	1.6x	1.5x
KEYCORP	14.1	8.2%	12.5%	11.9x	8.4x	5.8%	5.9%	1.4x	2.0x
INVESCO	15.4	13.3%	15.1%	9.1x	8.1x	5.5%	5.8%	2.0x	2.1x
CITIZENS FINANCIAL GROUP	31.0	9.9%	13.1%	9.6x	7.7x	5.5%	5.7%	1.9x	2.3x
FORD MOTOR	12.0	21.1%	22.1%	6.4x	6.5x	5.9%	5.6%	2.7x	2.8x

Source: Datastream

*Cash flow yield - Cash flow from operations, before investing and financing activities

Value vs. growth

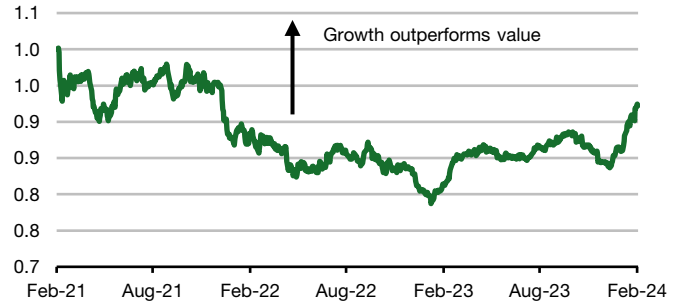
Growth stocks strongly outperformed in the last couple of months.

Figure 131: S&P 500 Growth relative to Value



Source: Liberum, Datastream

Figure 132: S&P 400 Mid Cap Growth relative to Value



Source: Liberum, Datastream

We screen for stocks that have:

- Not seen earnings downgrades over the last three or six months
- Positive EPS growth for the past three years
- FY1 and FY2 EPS growth of more than 5%
- FY1 and FY2 sales growth of more than 3%
- Return on Capital Employed of at least 10%

Figure 133: Growth stocks – S&P 500

Name	P/E	FY2 EPS change		EPS growth		Sales growth		ROCE	Relative price change			
	(12m fwd)	3m (%)	12m (%)	FY1 (%)	FY2 (%)	FY1 (%)	FY2 (%)	12m fwd (%)	1m (%)	3m (%)	6m (%)	
SERVICENOW	56.0	3.8	13.5	22.7	20.9	21.3	20.7	78%	-4.0	3.4	17.8	
PALO ALTO NETWORKS	53.6	-4.2	29.7	23.8	11.8	15.8	14.2	148%	-11.5	1.6	18.2	
FAIR ISAAC	49.5	3.0	13.0	19.3	23.4	12.2	13.6	108%	2.7	6.6	28.8	
CADENCE DESIGN SYS.	49.1	3.4	11.5	15.3	17.0	12.2	13.0	67%	-0.6	-0.6	12.1	
CHIPOTLE MEXN.GRILL	47.8	1.9	2.4	19.0	21.6	13.8	13.5	81%	9.5	7.5	21.6	
ROLLINS	41.9	-0.4	6.3	11.2	10.5	9.0	7.7	37%	-4.9	-4.2	-6.3	
SYNOPSYS	40.1	6.0	10.1	21.3	16.5	13.4	13.0	48%	4.7	-5.3	12.9	
CINTAS	39.8	1.6	1.6	12.4	10.7	8.4	7.4	33%	1.2	1.6	9.9	
INTUIT	37.5	1.1	3.6	14.0	14.8	11.7	12.4	30%	0.5	6.2	12.6	
ARISTA NETWORKS	35.5	6.5	24.4	7.9	14.3	12.6	14.9	92%	-1.0	12.3	30.5	
ANSYS	34.3	-0.3	15.4	9.5	10.4	9.7	8.9	19%	-2.7	2.2	-4.9	
COPART	34.1	2.2	0.3	15.0	12.1	9.4	9.0	36%	6.1	-6.4	5.2	
FASTENAL	33.5	1.9	3.7	6.6	8.8	6.5	8.0	46%	3.0	9.5	11.4	
AMPHENOL 'A'	32.2	1.9	4.8	9.4	11.4	7.1	8.6	28%	3.2	7.7	8.8	
MICROSOFT	31.9	3.2	7.7	18.8	14.6	15.3	14.3	51%	-2.8	-4.5	9.9	
GENERAL ELECTRIC	31.8	-0.4	34.8	64.3	29.9	6.2	7.6	24%	13.1	16.2	18.0	
XYLEM	29.9	2.3	10.9	9.2	11.0	15.4	5.4	12%	7.7	9.8	7.8	
ADOBE (NAS)	29.8	-1.3	1.9	11.7	13.2	10.6	11.8	69%	-13.3	-20.5	-9.0	
STRYKER	29.1	3.5	8.6	11.8	11.8	8.2	7.5	20%	8.9	8.2	10.5	
BOSTON SCIENTIFIC	28.8	1.3	7.2	10.0	13.2	9.4	9.4	16%	4.7	8.5	7.8	

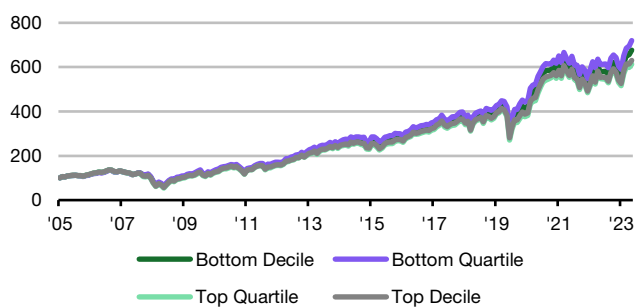
Source: Liberum, Datastream

Momentum

Price momentum

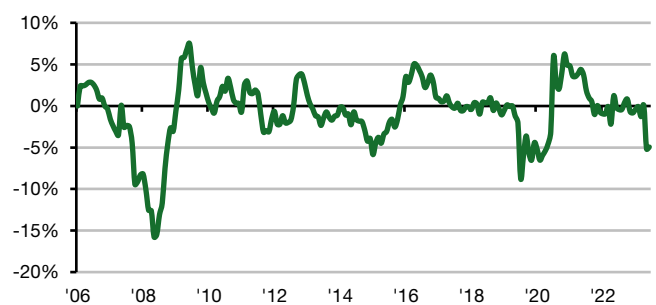
- Thanks to several large momentum crashes (e.g. in 2009 and 2020) price momentum as a factor has not performed too well in the United States over the last two decades.
- Strangely, despite the outperformance of expensive stocks, price momentum did not work in February as a factor exposure with stocks with high price momentum underperforming stocks with low price momentum by 1.2%.

Figure 134: Returns to price momentum buckets, re-balancing each month



Source: Liberum, Datastream

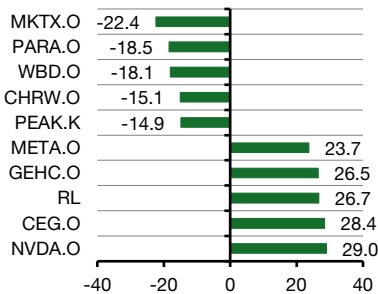
Figure 135: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

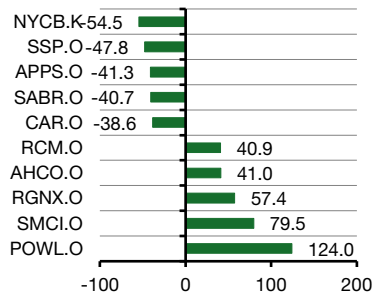
Best and worst returners last month

Figure 136: S&P 500 (%)



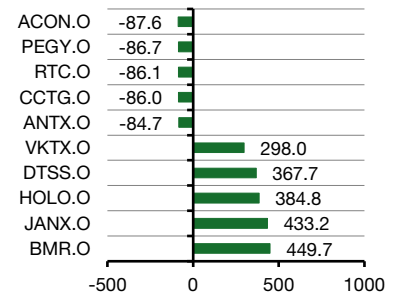
Source: Liberum, Datastream

Figure 137: Russell 2000 (%)



Source: Liberum, Datastream

Figure 138: Nasdaq Composite (%)

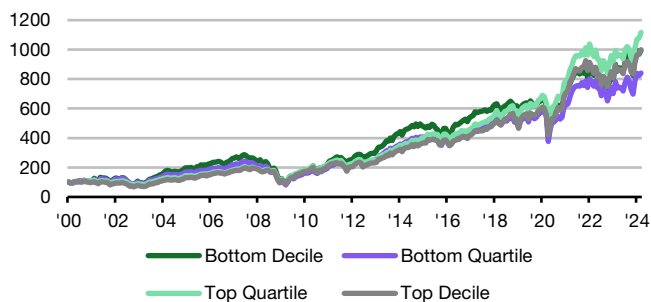


Source: Liberum, Datastream

EPS momentum

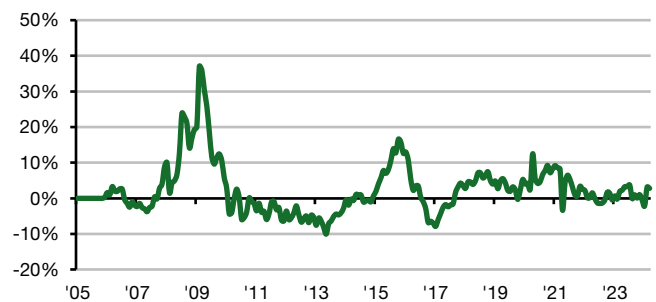
- EPS momentum has a very chequered past in the United States. While the factor worked in Europe and has been absolutely dreadful in the UK the US is somewhere in the middle with high EPS momentum stocks performing well during the 2008/2009 financial crisis and the 2020 pandemic but losing all of that outperformance again in 2010 and 2021.
- Companies with strong EPS momentum outperformed companies with weak EPS momentum by 1.5% last month.

Figure 139: Returns to EPS momentum buckets, re-balancing each month



Source: Liberum, Datastream

Figure 140: Top quartile relative to bottom quartile (yoy %)



Source: Liberum, Datastream

We screen for stocks that have seen earnings upgrades over the last one, three and six months.

Figure 141: S&P 500 forward earnings momentum

S&P500	Change in forward earnings			Relative share price	
	0m/-1m	-1m/-3m	-3m/-6m	1m	3m
NVIDIA	18.3%	19.5%	44.7%	24.2%	46.2%
WESTERN DIGITAL	30.0%	9.7%	14.4%	-4.9%	9.1%
AMAZON.COM	14.1%	2.0%	13.8%	5.0%	5.3%
INSULET	21.0%	0.4%	8.9%	-17.9%	-20.5%
PACCAR	6.5%	1.3%	8.6%	5.4%	8.7%
MOLSON COORS BEVERAGE COMPANY B	2.7%	0.7%	7.9%	-3.7%	-6.6%
DAVITA	2.8%	3.8%	7.2%	14.7%	15.0%
EMERSON ELECTRIC	2.5%	0.2%	6.9%	7.5%	8.1%
ROYAL CARIBBEAN GROUP	8.5%	1.1%	6.6%	-3.9%	3.8%
CBOE GLOBAL MARKETS(BTS)	1.1%	2.8%	6.0%	0.7%	-3.2%
DEXCOM	1.6%	1.2%	5.6%	-8.9%	-9.3%
PROGRESSIVE OHIO	10.9%	5.2%	5.5%	3.2%	4.7%
JP MORGAN CHASE & CO.	0.4%	2.5%	5.0%	2.6%	7.3%
SALESFORCE	0.1%	1.8%	4.4%	3.0%	19.4%
WABTEC	0.6%	1.4%	4.2%	2.0%	5.7%

Source: Liberum, Datastream

Largest upgrades & downgrades last month

Below, we show the largest EPS upgrades and downgrades by index.

Figure 142: Consensus earnings – largest upgrades and downgrades over the month

S&P 500			S&P 500		
	FY1 EPS Change			FY2 EPS Change	
SEAGATE TECHNOLOGY HOLDINGS	128.1%	↑	WESTERN DIGITAL	30.0%	
SOUTHWEST AIRLINES	23.0%	↑	HEALTHPEAK PROPERTIES	25.6%	
CLOROX	22.3%	↑	NVIDIA	23.9%	
INSULET	21.0%	↑	GENERAL MOTORS	16.3%	
NVIDIA	18.3%	↑	INSULET	15.6%	
V F	-28.1%	↓	DIGITAL REALTY TST.	-24.6%	
EQT	-38.8%	↓	V F	-29.7%	
CATALENT	-40.1%	↓	HUMANA	-31.6%	
HUMANA	-46.6%	↓	MICROCHIP TECH.	-33.1%	
COSTAR GP.	-54.7%	↓	ALBEMARLE	-44.3%	

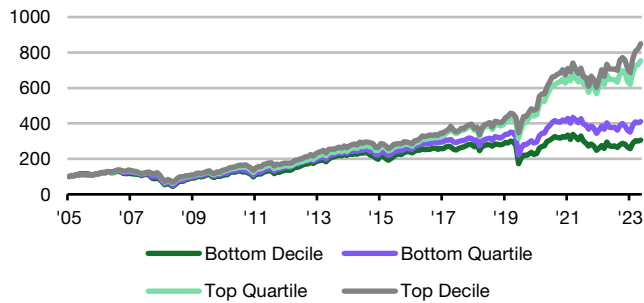
Source: Liberum, Datastream.

Quality

Profitability – ROE

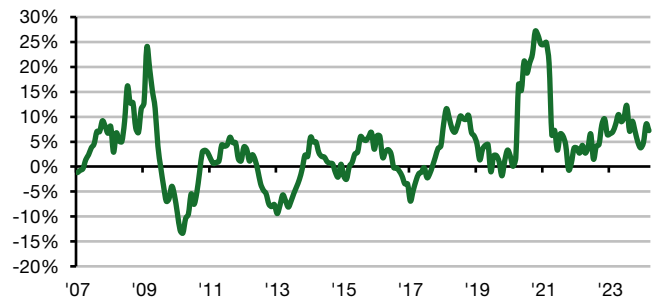
- Highly profitable companies managed to outperform by 1.3% in February and by 7.2% in the last 12 months.

Figure 143: Returns to ROE buckets, re-balancing monthly



Source: Liberum, Datastream

Figure 144: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most and least profitable

Figure 145: S&P 500 most profitable

Name	Mkt Cap (£m)	ROE (%)
MATCH GROUP	10,002	537.4
MASCO	16,841	428.8
FORTINET	53,374	416.1
HOME DEPOT	373,781	391.6
COLGATE-PALM.	71,128	322.2
CLOROX	18,851	303.8
IRON MOUNTAIN	21,628	293.8
VERISK ANALYTICS CL.A	34,832	247.0
MOTOROLA SOLUTIONS	54,605	191.5
KIMBERLY-CLARK	40,827	189.7
MASTERCARD	439,487	177.0
CENCORA	47,179	171.4
APPLE	2,820,150	146.5
AUTODESK	54,965	124.1
ABBVIE	316,181	123.4

Source: Liberum, Datastream

Figure 146: S&P 500 least profitable

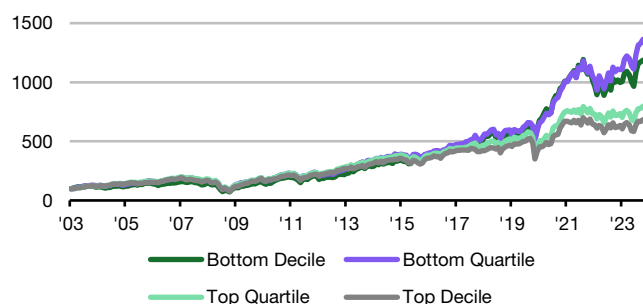
Name	Mkt Cap (£m)	ROE (%)
DIGITAL REALTY TST.	43,168	2.5
ALEXANDRIA RLST.EQTIES.	21,291	2.9
ILLUMINA	22,208	2.9
WELLTOWER	52,405	2.9
PARAMOUNT GLOBAL B	6,870	3.2
BIO-RAD LABORATORIES 'A'	7,723	3.3
CAMDEN PROPERTY TST.	9,973	3.5
CATALENT	10,519	3.6
COSTAR GP.	34,670	3.6
UDR	11,549	3.8
BERKSHIRE HATHAWAY 'B'	536,001	3.9
REALTY INCOME	45,045	3.9
WARNER BROS DISCOVERY	21,225	4.2
HEALTHPEAK PROPERTIES	8,886	4.5
INVITATION HOMES	20,519	4.5

Source: Liberum, Datastream

Leverage – Net debt/EBITDA

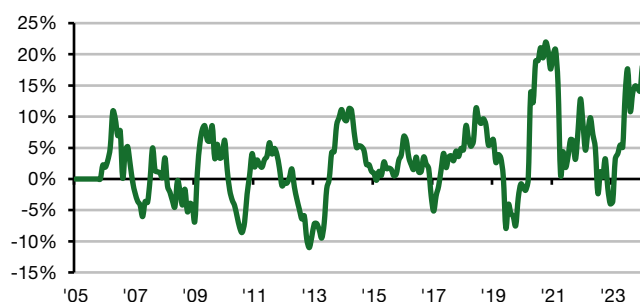
- There has been a strong outperformance of companies with low financial leverage throughout 2021 as high inflation rates and rising rates make investors weary of highly levered companies, but the trend changed from the end of 2021.
- Over the last 12 months, companies with low financial leverage managed to beat companies with high leverage by a large 12.6%.

Figure 147: Returns to ND/E buckets, re-balancing monthly



Source: Liberum, Datastream

Figure 148: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most and least levered

Figure 149: S&P 500 most levered

Name	Mkt Cap (£m)	Net Debt / EBITDA x
INTERCONTINENTAL EX.	79,382	14.6
AES	10,725	7.1
EVERSOURCE ENERGY	20,726	5.9
AMERICAN WATER WORKS	22,987	5.8
PG&E	35,397	5.7
EXELON	36,193	5.6
FIRSTENERGY	21,180	5.5
DOMINION ENERGY	40,021	5.5
NORWEGIAN CRUISE LINE	8,124	5.4
EDISON INTL.	26,036	5.3
AMER.ELEC.PWR.	44,236	5.3
PINNACLE WEST CAP.	7,828	5.2
PUB.SER.ENTER.GP.	30,703	5.1
DUKE ENERGY	70,028	5.1
SEMPRA	44,921	5.1

Source: Liberum, Datastream

Figure 150: S&P 500 least levered

Name	Mkt Cap (£m)	Net Debt / EBITDA x
VERTEX PHARMS.	111,310	-3.3
INCYTE	13,696	-3.1
EPAM SYSTEMS	17,755	-3.1
AIRBNB A	66,616	-2.4
MARKETAXESS HOLDINGS	8,111	-1.9
MOLINA HEALTHCARE	23,367	-1.8
PACCAR	58,324	-1.7
FRANKLIN RESOURCES	14,264	-1.5
REGENERON PHARMS.	107,226	-1.5
BIO-RAD LABORATORIES 'A'	7,723	-1.4
MONSTER BEVERAGE	58,379	-1.4
GARMIN	25,830	-1.3
ALIGN TECHNOLOGY	23,977	-1.3
NVR	24,033	-1.3
ROBERT HALF	8,516	-1.3

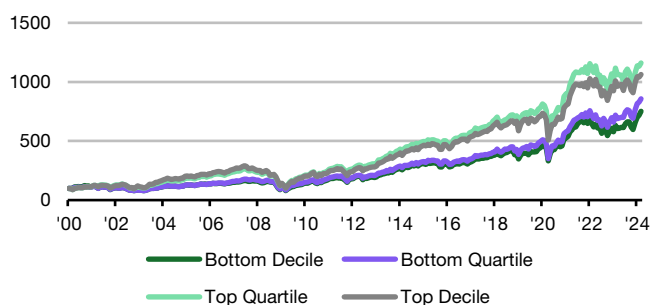
Source: Liberum, Datastream

Contrarian – Loved, Unloved & Unknown

Most Loved/Unloved

- Since 2000, buying the Most Loved stocks (by analysts, as measured by Datastream) each month has generated no obvious outperformance vs the Most Unloved. A notable exception was the pandemic in 2020 when the beloved tech stocks managed to leave the market in the dust, creating a temporary outperformance of most loved stocks by pure coincidence.
- The most loved stocks underperformed the least liked ones by 0.8% last month but managed to outperform by 12.4% in the last 12 months.

Figure 151: Returns to recommendation buckets, re-balancing each month



Source: Liberum, Datastream

Figure 152: Bottom quartile relative to top quartile (yoy %)



Source: Liberum, Datastream

Most loved and most unloved

Figure 153: S&P 500 most loved

Name	I/B/E/S Rec
ALEXANDRIA RLST.EQTIES.	1.6
LAMB WESTON HOLDINGS	1.6
DELTA AIR LINES	1.6
TARGA RESOURCES	1.6
SYNOPSIS	1.6
S&P GLOBAL	1.7
MICROSOFT	1.7
LKQ	1.7
AMAZON.COM	1.7
NISOURCE	1.7

Source: Liberum, Datastream (1-1.49 = Strong Buy, 1.5-2.49 = Buy, 2.5-3.49 = Hold, 3.5-4.49 = Underperform, 4.5-5 = Sell). Only stocks with at least five analyst recommendations are included.

Figure 154: S&P 500 most unloved

Name	I/B/E/S Rec
T ROWE PRICE GROUP	3.5
EXPEDITORS INTL.OF WASH.	3.4
FRANKLIN RESOURCES	3.4
HORMEL FOODS	3.4
ROBERT HALF	3.3
AMCOR	3.2
ILLINOIS TOOL WORKS	3.2
PRINCIPAL FINL.GP.	3.2
CH ROBINSON WWD.	3.2
CAMPBELL SOUP	3.2

Lowest coverage

We screen for stocks that are the **least covered by the sell-side.**

Figure 155: S&P 500 stocks with lowest number of analysts covering the stock

Name	No. Analysts	Freefloat (£m)	Name	No. Analysts	Freefloat (£m)
LOEWS	0	13,496.9	NEWS 'A'	8	7,030.8
FOX B	0	3,576.5	CBRE GROUP CLASS A	9	26,114.7
NEWS 'B'	0	2,581.6	WEST PHARM.SVS.	9	24,686.7
VERISIGN	3	15,819.5	BROADRIDGE FINL.SLTN.	9	22,142.3
BERKSHIRE HATHAWAY 'B'	4	503,841.0	IRON MOUNTAIN	9	20,330.7
BIO-RAD LABORATORIES 'A'	6	7,105.5	GARMIN	9	19,372.9
NVR	7	22,591.5	PACKAGING CORP.OF AM.	9	14,568.0
DAVITA	7	6,602.4	AMCOR	9	12,159.7
STERIS	8	21,597.7	GEN DIGITAL	9	11,596.2
ASSURANT	8	7,841.0	EVERGY	9	10,948.8

Source: Liberum, Datastream

Disclaimer

This communication has been issued in the UK by Liberum Capital Limited ("LCL") which is authorised and regulated by the Financial Conduct Authority ("FCA") and is a member of The London Stock Exchange PLC. The registered address of Liberum Capital Limited is Ropemaker Place, 25 Ropemaker Street, London EC2Y 9LY. Telephone: 020 3100 2000.

This communication has been prepared by its author(s) as non-impartial research in relation to Company (the "Company"), as such that it is inappropriate to characterise it as independent investment research, as it has not been prepared in accordance with UK legal requirements designed to promote the independence of investment research. Therefore, even if it contains a research recommendation, it should be treated as a marketing communication. However, Liberum is required by the FCA to have policies in place to identify and manage the conflicts of interest which may arise in its production, which include preventing dealing ahead. Information regarding our policies is available, www.liberum.com. In addition, a list of items which could create a conflict of interest and other material interests in relation to research material is set out on LCL's website. For detailed disclosures, please refer to www.liberum.com/legal

The individuals who prepared this communication may be involved in providing other financial services to the company or companies referenced herein or to other companies who might be said to be competitors of the company or companies referenced herein. As a result, both LCL and the individual employees who prepared this communication may have responsibilities that conflict with the interests of the persons who receive this communication and information may be known to LCL or persons connected with it which is not reflected in this communication.

LCL may provide or may have provided corporate services to the issuers of securities mentioned in this communication and recipients of this document should not therefore rely on this communication as being an impartial document. Accordingly, information may be known to LCL or persons connected with it which is not reflected in this material.

LCL has put in place procedures, systems and controls to identify and prevent (where this is possible) conflicts of interest and also has a conflicts management policy relating to its research and marketing communication activities, which is available on its website, www.liberum.com. In addition, a list of items which could create a conflict of interest and other material interests in relation to research material is set out on LCL's website (see "Disclosures" below).

This communication is provided for information purposes only and should not be regarded as an offer or solicitation to buy or sell any security or other financial instrument. This communication has no regard for the specific investment objectives, financial situation and needs of any specific person or entity. LCL and/or its officers, directors and employees may have or take positions in securities of companies mentioned in this communication (or in any related investment) and may from time to time dispose of any such positions and may also provide corporate finance or underwriting services for or relating to those companies, for which it is remunerated. LCL analysts, including the author of this communication, receive compensation based on a number of factors including the quality of research, client feedback, firm profitability and normal competitive factors. This communication is based on materials and sources that are believed to be reliable; however, they are not independently verified and are not guaranteed as being accurate. All expressions of opinions, projections, forecasts and estimates constitute a judgment and are those of the author and the research department of LCL only, and should not be relied upon and are subject to change without notice. The content of this communication may have been disclosed to the company referenced herein prior to dissemination in order to verify factual accuracy, however the company takes no responsibility for the accuracy or otherwise of any opinion, projection,

forecast or estimate contained within this communication. While LCL endeavours to update its research communications from time to time it is under no obligation to do so. No representation or warranty either expressed or implied, is made nor responsibility of any kind is accepted by LCL, its officers or employees either as to the accuracy or completeness of any information stated in this document. LCL shall not be liable for any direct or indirect damages, including lost profits, arising in any way from use of all or any of the information contained in this communication.

LCL may have issued other communications that are inconsistent with and reach different conclusions from, the information contained in this communication. Those communications reflect the different assumptions, views and analytical methods of the individuals that prepared them.

This communication is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to therein. No representation or warranty either expressed or implied, is made nor responsibility of any kind is accepted by LCL, its directors, officers, employees or agents either as to the accuracy or completeness of any information contained in this communication nor should it be relied on as such.

This communication is provided with the understanding that LCL is not acting in a fiduciary capacity and it is not a personal recommendation to you.

The investments discussed in this communication may not be eligible for sale in some states or countries and may not be suitable for all investors. Investors should make their own investment decisions based upon their own financial objectives and financial resources and, if in any doubt, should seek advice from an investment advisor.

Past performance is not necessarily a guide to future performance. The stated price of any securities mentioned herein will generally be as at the end of the business day immediately prior to the publication date on this communication unless otherwise stated and is not a representative that any transaction can be effected at this price.

This communication is confidential and may not be re-distributed, retransmitted or disclosed, in whole or in part, or in any manner, without the express written consent of LCL.

For more information on models, please contact the Analyst.

In the United Kingdom

This communication is for the use of (a) Professional Clients and Eligible Counterparties (such terms as defined by the rules of the FCA) of LCL and (b) other persons who are not clients of LCL who have expressed interest in receiving it and who are Qualified Investors (as defined below) and either investment professionals (persons having professional experience in matters relating to investments, as defined in Article 19(5) or Article 49(2)(a) to (d) (high net worth companies, unincorporated associations etc) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 (as amended) or any other persons to whom this communication for the purposes of section 21 of the Financial Services and Markets Act 2000 can otherwise lawfully be communicated).

For the purpose of clarity, this communication is not intended for and should not be relied upon by Retail Clients (as defined by the rules of the Financial Conduct Authority).

The content includes data provided by FTSE International Limited ("FTSE") © FTSE 2013. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE under licence. All rights in the FTSE indices and / or FTSE ratings vest in FTSE and / or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and / or FTSE ratings or underlying data. No further distribution of FTSE data is permitted without FTSE's express written consent.

EU Third-Party Disclaimer

If this communication is distributed in the European Union ("EU") by Raymond James & Associates, Inc. ("RJA"), an entity registered with the United States

Securities and Exchange Commission as a broker/dealer and a member of the Financial Industry Regulatory Authority, or its independent contractors or such independent contractor's tied agents (collectively, the "independent contractors") or by LCL to clients of RJA's independent contractors, then this communication is independent third-party research prepared for and distributed in the relevant EU countries at the determination of RJA and/or the independent contractors and pursuant to an arrangement between RJA, Liberum Capital Inc. and LCL. Neither RJA, nor its independent contractors, nor any of their affiliates has or had any involvement in the production, content, or timing of this communication and neither Liberum Capital Inc. nor LCL are affiliates of RJA or its independent contractors.

This communication is distributed solely to persons who are Qualified Investors within the meaning of Article 2(e) of EU Regulation 2017/1129 (as amended or superseded), and this communication is only for such Qualified Investors whose ordinary business activities involve investing in equities, bonds, and associated securities and/or derivative securities and who have professional experience reviewing and engaging in such investments. This communication is therefore not intended to be distributed or passed on, directly or indirectly, to any other class of persons, and is not intended for private individuals or those who would not be classified as "Qualified Investors." The delivery of this communication is not a recommendation to effect any transactions in the securities discussed herein, nor an endorsement of any opinion expressed herein. If you are receiving this communication in one of the relevant EU countries from RJA or its independent contractors, or LCL, as a consequence of being a client of RJA's independent contractors, RJA accepts responsibility for the distribution of the communication. Any Qualified Investor who receives this communication from RJA, its independent contractors or directly from LCL as a consequence of being a client of RJA's independent contractors, is receiving such communication solely as a result of its relationship with RJA or its independent contractor, as applicable, and such recipient shall not be considered as having a relationship with Liberum Capital Inc. or LCL. For additional disclosures about RJA, including those related to material conflicts of interest, please visit: <https://www.raymondjames.com/-/media/rj/dotcom/files/legal-disclosures/Liberum-disclosures.pdf>. For further information regarding the above or related to the above-mentioned securities, please contact RJA's independent contractors.

For US Investors

This document is a marketing communication and has been prepared and distributed by LCL. Liberum Capital Inc. is a U.S. registered broker-dealer and an affiliate of LCL. This document is distributed solely to persons who qualify as "Major U.S. Institutional Investors" or "U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934. This communication is only for those Major U.S. Institutional Investors and U.S. Institutional Investors whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major Institutional Investor must not rely on this communication. The delivery of this research communication to any person in the United States of America is not a recommendation to affect any transactions in the securities discussed herein, nor an endorsement of any opinion expressed herein. Liberum Capital Inc. is a FINRA/SIPC member and takes responsibility for the content of this communication. Any U.S. recipient of this communication that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding the securities or to place an order in any of the above-mentioned securities please contact a registered representative of Liberum Capital Inc.

Analyst Certification: The analyst(s) who prepared this communication hereby certifies that all of the views expressed in this communication accurately reflect his / her personal views about the subject securities or issuers. No part of his/her compensation was, is,

or will be directly or indirectly related to the inclusion of specific recommendations or views in this communication. The analyst(s) responsible for preparing this research communication received compensation that is based upon various factors, including total revenues of Liberum Capital Inc. and its affiliates, a portion of which are or have been generated by investment banking activities of Liberum Capital Inc. and its affiliates. Research analysts, and their households, are prohibited from dealing in the securities of a company which they cover in any manner.

LCL may make a market in the securities mentioned in the communication and may act as principal with regard to sales and purchases of this security. LCL may have managed or co-managed a public offering of any of the securities mentioned in the past 12 months. LCL may have received compensation for investment banking services from any of the companies mentioned in the past 12 months. LCL may receive compensation for investment banking services from any of the companies mentioned within the next 3 months.

Liberum Capital Inc. does not make a market on other securities mentioned in the communication. Liberum Capital Inc. has not managed or co-managed a public offering of any of the securities mentioned in the past 12 months. Liberum Capital Inc. has not received compensation for investment banking services from any of the companies mentioned in the past 12 months. Liberum Capital Inc. neither expects to receive nor intends to seek compensation for investment banking services from any of the companies mentioned within the next 3 months.

United States Third-Party Disclaimer:

If this communication is distributed in the United States of America by RJA, an entity registered with the Securities and Exchange Commission ("SEC") as a broker/dealer and a member of the Financial Industry Regulatory Authority, then this communication is independent third-party research prepared for and distributed in the United States of America by RJA pursuant to an arrangement between RJA, Liberum Capital Inc. and LCL. Liberum Capital Inc. and LCL are not affiliates of RJA. Any transactions in securities discussed in this communication must be effected through a broker/dealer registered with the SEC, such as Liberum Capital, Inc. or RJA.

This communication is distributed solely to persons who qualify as "U.S. Institutional Investors" or as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934, as amended, and is not intended to be distributed or passed on, directly or indirectly, to any other class of persons, and is therefore not intended for private individuals or those who would not be classified as U.S. Institutional Investors or as Major U.S. Institutional Investors. This communication is only for U.S. Institutional Investors or Major U.S. Institutional Investors whose ordinary business activities involve investing in equities, bonds, and associated securities and/or derivative securities and who have professional experience reviewing and engaging in such investments. The delivery of this communication is not a recommendation to affect any transactions in the securities discussed herein, nor an endorsement of any opinion expressed herein. If you are receiving this communication in the U.S. from RJA, RJA accepts responsibility for the content and distribution of this communication. For additional disclosures about RJA, including those related to material conflicts of interest, please visit: <https://www.raymondjames.com/-/media/rj/dotcom/files/legal-disclosures/Liberum-disclosures.pdf>.

For Canadian Investors

This information is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this information to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer

properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This information is not, and under no circumstances is it to be construed as, a prospectus, an offering memorandum, an advertisement or a public offering of any securities in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. If you are located in Canada, this information has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 45-106 Prospectus Exemptions and a "permitted client" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada nor should it be construed as being tailored to the needs of the recipient. Canadian recipients are advised that Liberum Capital Inc., its affiliates and its authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential loss arising from any use of this research communication or the information contained herein.

For Swiss Investors

This publication is intended to be distributed to professional investors in circumstances such that there is no public offer. This publication does not constitute a prospectus within the meaning of Articles 652a and 1156 of the Swiss Code of Obligations.

For Australian Investors

This communication is distributed in Australia by Liberum Capital Limited which is exempt from the requirement to hold an Australian Financial Services Licence. This communication may only be distributed to a "Wholesale Client" (within the meaning of section 761G of the Corporations Act 2001 (Cth) (the "Act"). Liberum Capital Limited is regulated by the FCA under UK laws, which differ from Australian laws.

Other countries

Laws and regulations of other countries may also restrict the distribution of this communication. Persons in possession of this communication should inform themselves about possible legal restrictions and observe accordingly.

Disclosures

Please refer to www.liberum.com/legal for regulatory disclosures.

Research

Alternatives
Energy Transition & Infrastructure
Shonil Chande
+44 (0) 20 3100 2259
shonil.chande@liberum.com
Alexandro da Silva O'Hanlon
+44 (0)20 3100 2268
alex.ohanlon@liberum.com

Building
Building Materials, Equipment Hire & Housebuilders
Edward Prest
+44 (0)20 3100 2096
edward.prest@liberum.com

Consumer
Consumer Discretionary
Adam Tomlinson
+44 (0)20 3100 2174
adam.tomlinson@liberum.com
Consumer Goods
Anubhav Malhotra
+44 (0)20 3100 2197
anubhav.malhotra@liberum.com
Roving
Wayne Brown
+44 (0) 20 3100 2082
wayne.brown@liberum.com

Financials and FinTech
Financial & Professional Services
James Allen
+44 (0)20 3100 2088
james.allen@liberum.com
FinTech
Nick Anderson
+44 (0)20 3100 2076
nick.anderson@liberum.com

Healthcare
Seb Jantet
+44 (0) 20 3100 2047
seb.jantet@liberum.com

Industrials
Capital Goods
Edward Maravanyika
+44 (0) 20 3100 2275
edward.maravanyika@liberum.com

Leisure & Travel
Leisure
Anna Barnfather
+44 (0)20 3100 2176
anna.barnfather@liberum.com
Nishant Dahad
+44 (0)20 3100 2068
nishant.dahad@liberum.com

Real Estate
Bjorn Zietsman
+44 (0)20 3100 2067
bjorn.zietsman@liberum.com

Convertibles

Simon Smith
+44 (0)20 3100 2171
simon.smith@liberum.com

Resources
Mining & Commodities
Ben Davis
+44 (0)20 3100 2083
ben.davis@liberum.com
Yuen Low
+44 (0)20 3100 2091
yuen.low@liberum.com
Tom Price
+44 (0) 203 100 2085
tom.price@liberum.com
New Energy
Sam Wahab
+44 (0)20 3100 2095
sam.wahab@liberum.com
Oil & Gas
David Hewitt
+353 87 704 4038
david.hewitt@liberum.com

Strategy, Accounting and Sustainability
Joachim Klement
+44 (0)20 3100 2073
joachim.klement@liberum.com
Dr Kenneth Lee
+44 (0) 203 100 2069
kenneth.lee@liberum.com
Susana Cruz
+44 (0) 203 100 2277
susana.cruz@liberum.com

Support Services
Support Services & Special Situations
Joe Brent (Head of Research)
+44 (0)20 3100 2272
joe.brent@liberum.com
Sanjay Vidyarthi
+44 (0)20 3100 2278
sanjay.vidyarthi@liberum.com
Alexandro da Silva O'Hanlon
+44 (0)20 3100 2268
alex.ohanlon@liberum.com
Transport
Gerald Khoo
+44 (0)20 3100 2195
gerald.khoo@liberum.com

Technology & Media
Andrew Ripper
+44 (0)20 3100 2086
andrew.ripper@liberum.com
Caspar Erskine
+44 (0)20 3100 2071
caspar.erskine@liberum.com
Pool Analyst
Jon Byrne
+44 (0) 20 3100 2074
jon.byrne@liberum.com

Richard Tomblin
+44 (0)20 3100 2172
richard.tomblin@liberum.com

Corporate & Investor Relations

Natalie Clarke
+44 (0)20 3100 2191
natalie.clarke@liberum.com
Chris Cooper
+44 (0)20 3100 2258
chris.cooper@liberum.com
Nicole Barbour
+44 (0)20 3100 2182
nicole.barbour@liberum.com
Skaiste Miglin
+44 (0)20 3100 2187
skaiste.miglin@liberum.com

Marcio Remedios
+44 (0)20 3100 2033
marcio.remedios@liberum.com
Martin Parker
+44 (0)20 3100 2065
martin.parker@liberum.com
Connie Owens
+44 (0)20 3100 2021
connie.owens@liberum.com

Equity Sales – London

David Parsons (Head of Equities)
+44 (0)20 3100 2125
david.parsons@liberum.com
Oliver Baxendale (Head of Sales)
+44 (0)20 3100 2193
oliver.baxendale@liberum.com
William Game
+44 (0)20 3100 2120
william.game@liberum.com
Joel Knight
+44 (0)20 3100 2030
joel.knight@liberum.com

Guy Froud
+44 (0)20 3100 2242
guy.froud@liberum.com
Oliver Houghton
+44 (0)20 3100 2129
oliver.houghton@liberum.com
Paras Amlani
+44 (0)20 3100 2113
paras.amlani@liberum.com
Ruth Watts
+44 (0)20 3100 2216
Ruth.watts@liberum.com

Specialist Sales

Real Estate
John Mozley
+44 (0)20 3100 2115
john.mozley@liberum.com
New Energy, Mining and Industrials
Simon Fickling
+44 (0)20 3100 2112
simon.fickling@liberum.com

Alternative Funds
James Shields
+44 (0) 20 3100 2266
james.shields@liberum.com
Tom Biltcliffe
+44 (0) 20 3100 2253
tom.biltcliffe@liberum.com

Equity Sales – New York

Julian Plant (CEO - USA)
+1 212 596 4824
julian.plant@liberum.com
Tony Beckett
+1 212 596 4807
tony.beckett@liberum.com

Sarah Giovannetti
+1 212 596 4818
sarah.port@liberum.com
Peter Penha
+1 212 596 4808
peter.penha@liberum.com

Sales Trading

Graham Smith (Head of Execution)
+44 (0)20 3100 2101
graham.smith@liberum.com
Nick Worthington
+44 (0)20 3100 2106
nick.worthington@liberum.com

Mark O'Hara (Head of Sales Trading)
+44 (0)20 3100 2061
mark.o'hara@liberum.com
David Thompson
+44 (0)20 3100 2062
david.thompson@liberum.com

Alternative Execution

Dominic Lowres (Head of Execution Strategy)
+44 (0)20 3100 2103
dominic.lowres@liberum.com
Rhys Henry
+44 (0)20 3100 2119
rhys.henry@liberum.com

Cameron Symes
+44 (0)20 3100 2109
cameron.symes@liberum.com
Matthew West
+44 (0)20 3100 2241
matthew.west@liberum.com

Agency Trading

Simon Warrener
+44 (0)20 3100 2108
simon.warrener@liberum.com

Matt Hudson
+44 (0)20 3100 2063
matthew.hudson@liberum.com

Market Making

James Cass (Head of Small & Mid Cap Trading)
+44 (0)20 3100 2205
james.cass@liberum.com
David O'Gram
+44 (0)20 3100 2201
david.ogram@liberum.com
Marc Wilkinson
+44 (0)20 3100 2206
marc.wilkinson@liberum.com

Peter Jennings
+44 (0)20 3100 2207
peter.jennings@liberum.com
Peter Turner
+44 (0)20 3100 2203
peter.turner@liberum.com

STX 77440
+44 (0)20 3100 2200

Retail Execution

Stuart Rutherford (Head of Retail Execution Services)
+44 (0)20 3100 2110
stuart.rutherford@liberum.com