

Small/Mid Cap Factors: a PM's Guide

Fundamentals in focus; Value could work next

Small Cap

Best strategy YTD? Buying + revisions/selling – revisions

The fundamental outlook for small caps has mattered more than other factors this year: Russell 2000 stocks with the most positive estimate revisions have outperformed those with the most negative revisions by 10ppt YTD – the widest spread among all factors we track. Earnings Surprise was also among the top long and long-short factors. Small caps saw a better-than-expected earnings season, with profits continuing to recover (-12% YoY vs. -14% in 3Q and -21% in 2Q) and coming in 3% better than expected, though with weak forward guidance (which we've seen across the cap spectrum). We continue to expect earnings to be a bigger driver of returns than multiple expansion this year (see: [SMID Valuations](#)). Note that our Estimate Revision factor has historically performed best in environments similar to today: when the overall Earnings Revision ratio for small caps is still negative but improving (Exhibit 3).

Regime Indicator back in Recovery: how to position

Our team's US Regime Indicator improved for a second month, putting it officially back in the "Recovery" phase (see: [Quantitative Profiles](#)). Historically, recoveries have lasted eight months on avg., but ranged from 3-14 months. If this Recovery is sustainable, the shift is most supportive for Value factors within small caps (with Operating Cash Flow/Price the best-performing long and long-short factor); Cash Return factors have also typically outperformed in this phase. Factors which have historically lagged most in Recoveries include stocks with high short interest ratios, GARP (low PEG ratio) stocks and secular growth stocks (High Long-Term Growth). And while Quality factors have seen mixed results in this phase (50/50 hit rate both long and long-short), we would stick with higher quality SMID caps (avoid non-earners with duration risk).

Liquidity & Risk factors led last month

Amid a strong month for the index (eq. wtd. Russell 2000 +5.0%), only half of the long (Quintile 1) factors we track led the index, and only three long-short factors saw better returns. Liquidity and Risk factors were the top long and long-short factors, led by 3M Avg. Daily Volume (Liquidity), 1M Trading Volume (Liquidity) and 1yr Price Volatility (Risk). Value factors saw the weakest performance last month, and also struggled in large caps (see Quantitative Profiles note linked above) – but less-muddled signals from our US Regime Indicator going forward could help.

Screen of the month: stocks for a Recovery

Given the official move in the US Regime Indicator to "Recovery", we include an updated screen of Buy-rated Russell 2000 stocks that rank well on "Recovery" factors (including Value & Cash Return), including a Quality overlay (given views above) and excluding stocks with high short interest (worst "Recovery" factor). See Exhibit 4.

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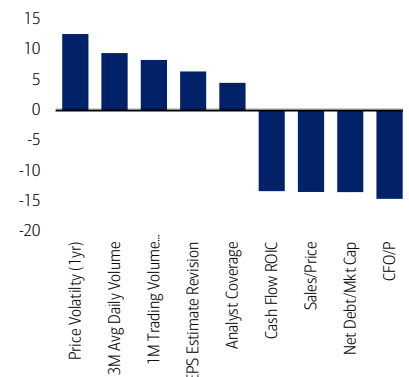
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Exhibit 1: Russell 2000 top 5/bottom 5 factors by Q1-Q5 spreads in Feb. (ppt)

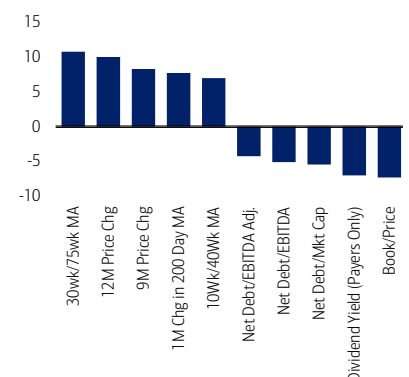
Price Volatility (1yr) best; Forward E/P worst



Source: FactSet, BofA US Equity & Quant Strategy
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Exhibit 2: Russell Midcap top 5/bottom 5 factors by Q1-Q5 spreads in Feb. (ppt)

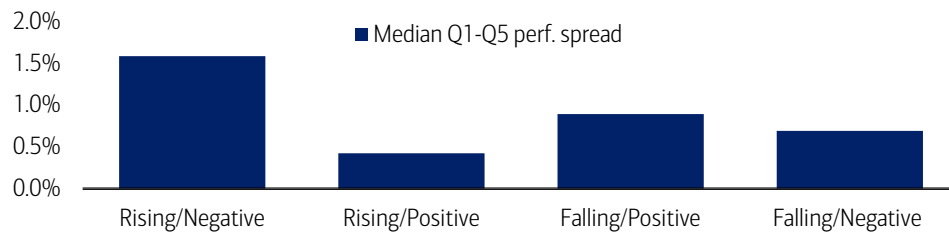
30wk/75wk MA best; Book/Price worst



Source: FactSet, BofA US Equity & Quant Strategy
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Exhibit 3: The outperformance of small cap stocks with the most positive estimate revisions vs. those with the most negative revisions has been strongest when the earnings revision ratio is still negative but improving (the case today)

Long-short (Q1-Q5) performance spread of Russell 2000 Estimate Revisions factor based on overall small cap earnings revision ratio phase (2001-2/2024)



Source: FactSet, BofA US Equity & US Quant Strategy

Note: Earnings revision ratio based on # of S&P 600 stocks with upward revisions to consensus estimates / # of stocks with downward revisions to consensus estimates over a trailing 3-month period.

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Screen of the month: Small caps for a shift to Recovery

Below we include a screen of Russell 2000 stocks based on the following criteria (liquidity metrics provided for reference):

- Value: top quintile of the index on either CFO/P, EBITDA/EV, Sales/EV, Book/Price or FCF/EV (top 5 Value factors in Early Cycle regimes since 1991).
- Cash return: dividend payer or buying back shares in last 12 mos. (where Cash Return has been one of the best-performing “Recovery” styles since 1991).
- Excludes non-earners and excludes top quintile of the index on Short Interest (SI) Ratio (worst performing factor in Early Cycle regimes since 1991).
- Buy-rated by BofA fundamental analysts.

Exhibit 4: Small caps for a Recovery/Early Cycle regime screen

Buy-rated Russell 2000 stocks that rank well on Early Cycle factors/avoid factors that do poorly Early Cycle (see criteria above) plus a Quality overlay

Ticker	Company Name	Sector	BofA Rating	Price	3m avg. daily \$ volume	CFO/P (LTM)	EBITDA /EV	Sales/EV	Book/Price	FCF/ EV	Dividend Payer?	Share Repurchase	SI Ratio
MODG	Topgolf Callaway Brands Corp.	Cons. Disc.	BUY	13.91	45.90	0.06	8.11	65.36	1.50	-0.06	NONPAYER	-0.16	6.88
UPBD	Upbound Group, Inc.	Cons. Disc.	BUY	33.20	13.70	0.15	49.01	121.31	0.32	0.07	PAYER	-5.00	5.00
VC	Visteon Corporation	Cons. Disc.	BUY	114.53	33.24	0.11	11.87	126.77	0.23	0.07	NONPAYER	-0.71	3.22
ADNT	Adient plc	Cons. Disc.	BUY	32.58	34.66	0.22	17.46	299.70	0.70	0.08	NONPAYER	-1.22	5.64
KNTK	Kinetik Holdings Inc. Class A	Energy	BUY	36.66	13.38	0.28	7.44	13.55	-0.44	0.03	PAYER	26.55	3.91
TNK	Teekay Tankers Ltd. Class A	Energy	BUY	55.77	27.13	0.34	36.38	75.76	0.76	0.34	PAYER	0.51	1.44
AESI	Atlas Energy Solutions Inc.	Energy	BUY	21.93	13.63	0.12	11.92	22.34	-0.07	0.08	PAYER	-87.35	5.66
PTEN	Patterson-UTI Energy, Inc.	Energy	BUY	11.54	76.66	0.18	16.85	55.41	1.00	0.05	PAYER	92.46	2.97
GRNT	Granite Ridge Resources, Inc.	Energy	BUY	6.25	3.34	0.31	32.36	44.63	0.79	0.28	PAYER	N/A	6.24
FBP	First Bancorp	Financials	BUY	16.49	21.14	N/A	N/A	N/A	0.44	N/A	PAYER	-6.37	3.64
NMIH	NMI Holdings, Inc. Class A	Financials	BUY	30.01	15.39	N/A	N/A	N/A	0.73	N/A	NONPAYER	-2.58	2.14
ESNT	Essent Group Ltd.	Financials	BUY	55.33	27.02	N/A	N/A	N/A	0.84	N/A	PAYER	-0.75	1.47
VCTR	Victory Capital Holdings, Inc. Class A	Financials	BUY	40.16	13.72	N/A	N/A	N/A	0.42	N/A	PAYER	-3.75	4.02
PAGS	PagSeguro Digital Ltd. Class A	Financials	BUY	13.91	37.71	N/A	N/A	N/A	0.58	N/A	NONPAYER	-2.48	3.72
CODI	Compass Diversified Holdings	Financials	BUY	23.56	4.33	N/A	N/A	N/A	0.51	N/A	PAYER	-0.53	4.64
ACT	Enact Holdings Inc	Financials	BUY	29.33	8.99	N/A	N/A	N/A	1.00	N/A	PAYER	-1.75	2.81
PDCO	Patterson Companies Incorporated	Health Care	BUY	27.22	34.94	-0.29	12.19	212.16	0.41	-0.26	PAYER	-3.05	3.44
HEES	H&E Equipment Services, Inc.	Industrials	BUY	57.95	10.65	0.18	18.44	39.61	0.24	-0.09	PAYER	0.39	2.72
IDCC	InterDigital, Inc.	Tech	BUY	102.59	45.25	0.22	16.54	24.61	0.21	0.26	PAYER	-12.43	8.52
OI	O-I Glass Inc	Materials	BUY	15.56	28.77	0.31	21.32	104.72	0.76	0.02	NONPAYER	-0.26	3.24
CMC	Commercial Metals Company	Materials	BUY	53.93	50.41	0.20	18.88	123.96	0.67	0.10	PAYER	-0.50	4.52
PTVE	Pactiv Evergreen, Inc.	Materials	BUY	13.08	5.96	0.24	16.87	90.64	0.49	0.06	PAYER	0.37	2.34
SLVM	Sylvamo Corporation	Materials	BUY	56.78	19.32	0.22	19.73	112.32	0.33	0.10	PAYER	-5.68	1.36
PNM	PNM Resources, Inc.	Utilities	BUY	36.70	62.30	0.17	8.65	25.14	0.71	-0.06	PAYER	0.00	2.06

Source: FactSet, BofA US Equity & US Quant Strategy Note: This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decisions. Prices as of close 03/15/23.

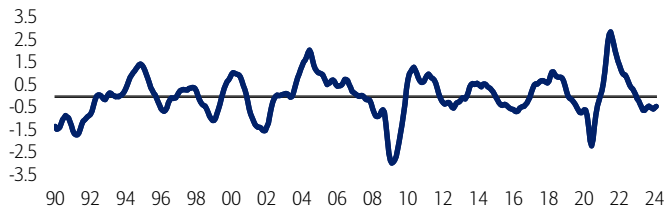
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Style performance in US regimes

Our team's US Regime Indicator (see [Quantitative Profiles](#) report and the Appendix of this report for details) aggregates top-down variables that capture earnings and economic growth expectations, inflation, credit conditions, and other variables to yield four phases (charts below). The indicator (which is based on smoothed 3mo. data) improved for the second month in February, confirming its Recovery phase. To complement our work within large caps, we analyzed small-cap style performance during each phase of the cycle, below. Value has typically led in Recovery phases while Quality outperforms in Downturns; Cash Return strategies typically outperform in both phases.

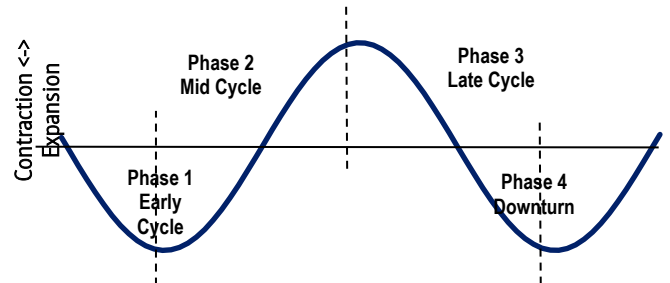
Exhibit 5: US Regime Indicator improved in Feb., now back in Recovery
US Regime Indicator, 1/970-2/2024



Source: BofA US Equity & US Quant Strategy, Refinitiv, ICE Data Indices, LLC, ISM Federal Reserve, Bureau of Labor Statistics. See Appendix for Methodology. Disclaimer: The indicator identified as US Regime Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

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Exhibit 6: Recovery: Value, Small Size, High Risk tend to fare well
US Regimes – a heuristic



Source: BofA US Equity & US Quant Strategy

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Exhibit 7: Value has historically performed best in Early Cycle

Small-cap factor group performance during phases of our US Regime Indicator (January 1990-present; back-tested)

Quintile 1 vs. Index		Valuation	Quality	Liquidity	Growth	Risk	Momentum	Leverage	Cash Deployment	Size
Early Cycle	Median	12%	1%	-1%	2%	1%	0%	-3%	2%	-3%
	Hit Rate	88%	50%	50%	63%	63%	50%	38%	75%	25%
Mid Cycle	Median	4%	2%	2%	4%	5%	2%	1%	-4%	-2%
	Hit Rate	63%	75%	63%	75%	75%	75%	88%	25%	50%
Late Cycle	Median	0%	7%	0%	0%	-10%	0%	1%	6%	3%
	Hit Rate	44%	100%	56%	56%	11%	78%	67%	78%	89%
Recession	Median	-1%	3%	1%	0%	-7%	5%	-2%	4%	3%
	Hit Rate	43%	71%	57%	43%	29%	71%	43%	71%	71%
Quintile 5 vs. Index		Valuation	Quality	Liquidity	Growth	Risk	Momentum	Leverage	Cash Deployment	Size
Early Cycle	Median	-9%	-7%	-6%	-1%	-3%	4%	-2%	-2%	-2%
	Hit Rate	38%	38%	25%	38%	38%	50%	50%	25%	50%
Mid Cycle	Median	1%	3%	-6%	0%	-6%	-3%	2%	0%	-2%
	Hit Rate	50%	63%	0%	38%	13%	13%	63%	38%	25%
Late Cycle	Median	-9%	-13%	-2%	-7%	8%	-12%	-5%	-1%	-9%
	Hit Rate	11%	0%	22%	11%	67%	0%	33%	22%	0%
Recession	Median	-3%	-7%	-4%	-4%	6%	-10%	-4%	-3%	-5%
	Hit Rate	43%	14%	14%	14%	86%	0%	29%	14%	14%
Quintile 1-Quintile 5		Valuation	Quality	Liquidity	Growth	Risk	Momentum	Leverage	Cash Deployment	Size
Early Cycle	Median	20%	4%	5%	4%	4%	-6%	5%	6%	-1%
	Hit Rate	88%	50%	75%	63%	63%	50%	75%	75%	50%
Mid Cycle	Median	4%	-4%	8%	6%	12%	7%	-2%	-6%	3%
	Hit Rate	50%	38%	88%	75%	75%	88%	38%	13%	63%
Late Cycle	Median	13%	19%	2%	7%	-19%	13%	2%	8%	17%
	Hit Rate	89%	100%	56%	100%	11%	100%	89%	78%	100%
Recession	Median	2%	7%	3%	7%	-12%	15%	2%	7%	10%
	Hit Rate	71%	86%	71%	86%	14%	100%	57%	86%	71%

Note: Hit rate = % of periods in which style outperformed the equal-weighted Russell 2000. For complete definitions of our factors, please see the Appendix. Back-tested performance is hypothetical in nature and reflects application of the screen and is not intended to be indicative of future performance. Back-tested performance here is the annualized performance during each regime of the US Regime Indicator from January 1990 through the present, based on our top quintile factors of the Russell 2000. **Source:** FactSet financial data and analytics, BofA US Equity & US Quant Strategy

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Early Cycle factor playbook for small-cap investors

We show the best- and worst-performing factors – both long (Q1) and long-short (Q1-Q5) – during Recovery/Early Cycle periods of our US Regime Indicator. Value factors, such as CFO/P (LTM) and Sales/Price, were among the best long-short and long factors; EBITDA/EV was also a top long factor. Leverage and Short Interest factors fared poorly.

Exhibit 8: Top small-cap long factors (Q1 versus index) in Early Cycle (Back-tested)

Annualized performance (Q1-Russell 2000 equal-wtd index) and hit rates of top 15 Russell 2000 factors during Early Cycle regimes since 1990

Q1 vs. Index

Factor	Category	Avg	Median	Hit Rate
CFO/P (LTM)	Valuation	29%	19%	88%
EBITDA/EV	Valuation	17%	11%	88%
Sales/EV	Valuation	17%	12%	88%
Book/Price	Valuation	16%	6%	88%
FCF Yield	Valuation	16%	11%	88%
Forward E/P	Valuation	16%	10%	88%
Trailing E/P	Valuation	11%	9%	88%
FCF/EV	Valuation	10%	9%	88%
FY1/FY0 Growth	Growth	5%	3%	88%
Sales/Price	Valuation	28%	15%	75%
Net Debt/Mkt Cap	Leverage	20%	13%	75%
Cumulative trading volume (-1m)	Liquidity	7%	5%	75%
3M Avg Daily Volume	Liquidity	6%	2%	75%
Dividends: Nonpayer-Payer	Cash Deployment	1%	2%	75%
1M Change 200 Day MA	Momentum	-4%	4%	75%

Source: FactSet, BofA US Equity & US Quant Strategy. Avg = average.

Note: Hit rate = % of periods in which Q1 outperformed Q5. For complete definitions of our factors, please see the Appendix. Back-tested performance is hypothetical in nature and reflects application of the screen and is not intended to be indicative of future performance. Back-tested performance here is the annualized performance during each regime of the US Regime Indicator from January 1990 through the present, based on our top quintile factors of the Russell 2000.

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Exhibit 9: Top small-cap long-short factors (Q1-Q5) in Early Cycle (Back-tested)

Annualized performance (Q1-Q5 spreads and hit rates) of top 15 Russell 2000 factors during Early Cycle regimes since 1990

Q1-Q5

Factor	Category	Avg	Median	Hit Rate
CFO/P (LTM)	Valuation	34%	43%	88%
Sales/Price	Valuation	33%	30%	88%
Book/Price	Valuation	20%	21%	88%
EBITDA/EV	Valuation	18%	24%	88%
FCF Yield	Valuation	11%	24%	88%
Sales/EV	Valuation	21%	25%	75%
Cumulative trading volume (-1m)	Liquidity	20%	14%	75%
Net Debt/Mkt Cap	Leverage	19%	27%	75%
3M Avg Daily Volume	Liquidity	16%	11%	75%
Trailing EG/P	GARP	16%	13%	75%
5Yr Beta	Risk	15%	1%	75%
FCF/EV	Valuation	9%	11%	75%
Net Debt/Equity	Leverage	7%	13%	75%
Forward E/P	Valuation	6%	17%	75%
Share Repurchase	Cash Deployment	6%	16%	75%

Source: FactSet, BofA US Equity & US Quant Strategy

Note: Hit rate = % of periods in which Q1 outperformed Q5. For complete definitions of our factors, please see the Appendix. Back-tested performance is hypothetical in nature and reflects application of the screen and is not intended to be indicative of future performance. Back-tested performance here is the annualized performance during each regime of the US Regime Indicator from January 1990 through the present, based on our top quintile factors of the Russell 2000.

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Exhibit 10: Bottom small cap long factors (Q1 versus index) in Early Cycle (Back-tested)

Annualized performance (Q1-Russell 2000 equal-wtd index) and hit rates of bottom 15 Russell 2000 factors during Early Cycle regimes since 1990

Factor	Category	Avg	Median	Hit Rate
SI Ratio	Miscellaneous	-12%	-10%	0%
Net Debt/EBITDA Adj.	Leverage	-12%	-12%	0%
Net Debt/EBITDA	Leverage	-9%	-9%	0%
Forward PEG	GARP	-8%	-5%	13%
3M Avg Daily \$ Volume	Liquidity	-8%	-8%	13%
Short interest 12m z-score	Miscellaneous	-8%	-8%	14%
Market Cap	Liquidity	-7%	-2%	25%
IBES Mean LT Growth	Growth	-3%	-7%	25%
Closing Price	Miscellaneous	-7%	-5%	38%
12M Price Change	Momentum	-7%	0%	38%
YoY Change in Trailing EPS	Growth	-5%	-3%	38%
Operating Margin Expansion	Growth	-4%	-5%	38%
Return on Avg Assets LTM	Quality	-4%	-2%	38%
3M Price Chg	Momentum	-3%	-2%	38%
ROE	Quality	-1%	-4%	38%

Source: FactSet, BofA US Equity & US Quant Strategy

Note: Hit rate = % of periods in which Q1 outperformed Q5. For complete definitions of our factors, please see the Appendix. Back-tested performance is hypothetical in nature and reflects application of the screen and is not intended to be indicative of future performance. Back-tested performance here is the annualized performance during each regime of the US Regime Indicator from January 1990 through the present, based on our top quintile factors of the Russell 2000.

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Exhibit 11: Bottom small cap long-short factors (Q1-Q5) in Early Cycle (Back-tested)

Annualized performance (Q1-Q5 spreads and hit rates) of bottom 15 Russell 2000 factors during Early Cycle regimes since 1990

Factor	Category	Avg	Median	Hit Rate
SI Ratio	Miscellaneous	-22%	-17%	0%
Forward PEG	GARP	-22%	-10%	13%
Net Debt/EBITDA	Leverage	-20%	-14%	13%
Net Debt/EBITDA Adj.	Leverage	-14%	-12%	13%
Short interest 12m z-score	Miscellaneous	-14%	-13%	14%
IBES Mean LT Growth	Growth	-8%	-9%	25%
Trailing 5 Year Sales Growth	Growth	-5%	-10%	25%
Trailing 5 Year EPS Growth	Growth	0%	-4%	25%
ROE	Quality	-10%	-3%	38%
3M Avg Daily \$ Volume	Liquidity	-10%	-11%	38%
1Yr Daily Price Volatility	Risk	14%	-3%	38%
Earnings Surprise	Growth	-4%	-3%	43%
12M Price Change	Momentum	-26%	-4%	50%
9M price change	Momentum	-24%	-7%	50%
Avg 1m & 12m price return rank	Momentum	-23%	-10%	50%

Source: FactSet, BofA US Equity & US Quant Strategy

Note: Hit rate = % of periods in which Q1 outperformed Q5. For complete definitions of our factors, please see the Appendix. Back-tested performance is hypothetical in nature and reflects application of the screen and is not intended to be indicative of future performance. Back-tested performance here is the annualized performance during each regime of the US Regime Indicator from January 1990 through the present, based on our top quintile factors of the Russell 2000.

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Small cap factor performance

Last month

Exhibit 12: Q1 total returns (%) – 1m (2/29/24)

Best: Price Volatility (1yr) **Worst:** Dividend Yield (Payers Only)

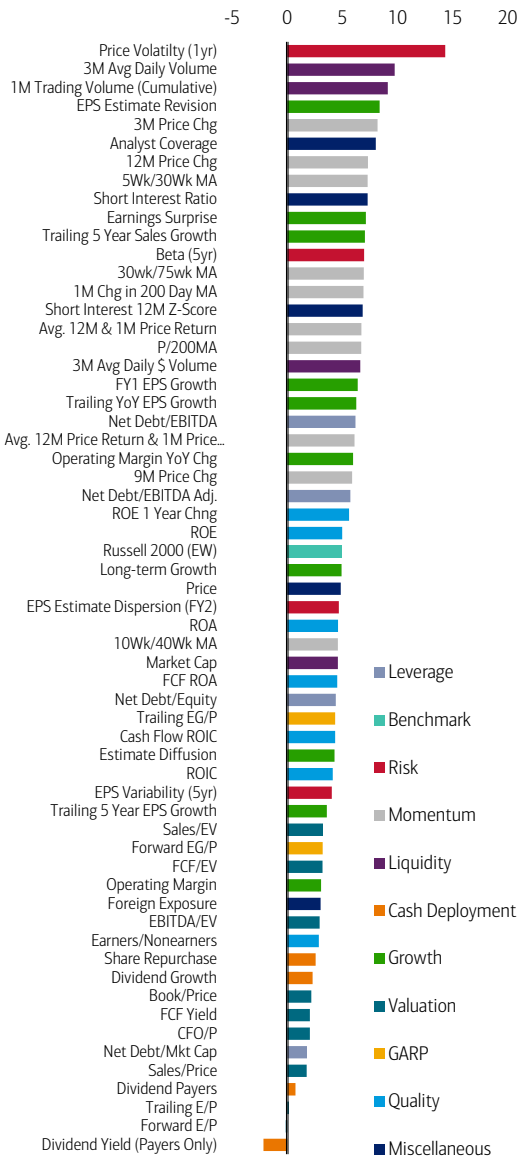


Exhibit 13: Q5 total returns (%) – 1m (2/29/24)

Best: Low Cash Flow ROIC **Worst:** Low 3M Avg Daily Volume

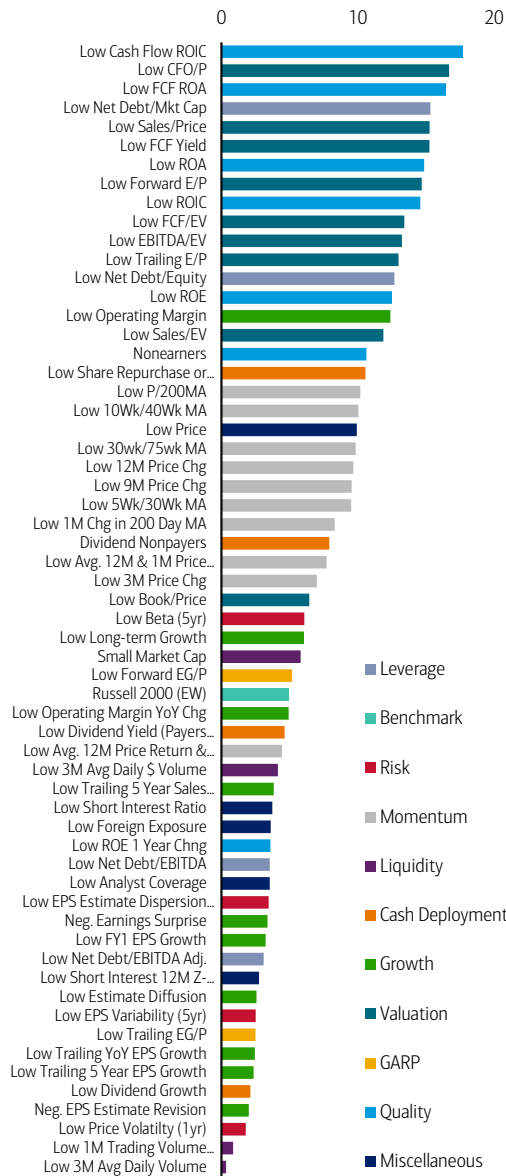
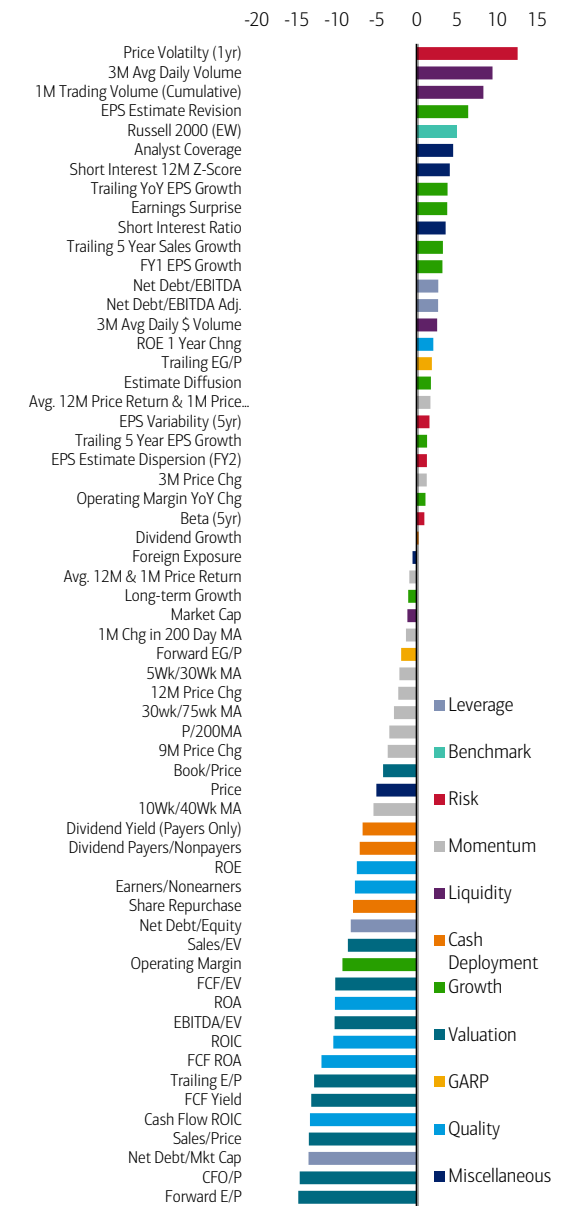


Exhibit 14: Q1-Q5 total returns (%) – 1m (2/29/24)

Best: Price Volatility (1yr) **Worst:** Forward E/P



3-month (3m) factor performance

Exhibit 15: Q1 total returns (%) – 3m (2/29/24)

Best: Price Volatility (1yr) **Worst:** Dividend Yield (Payers only)

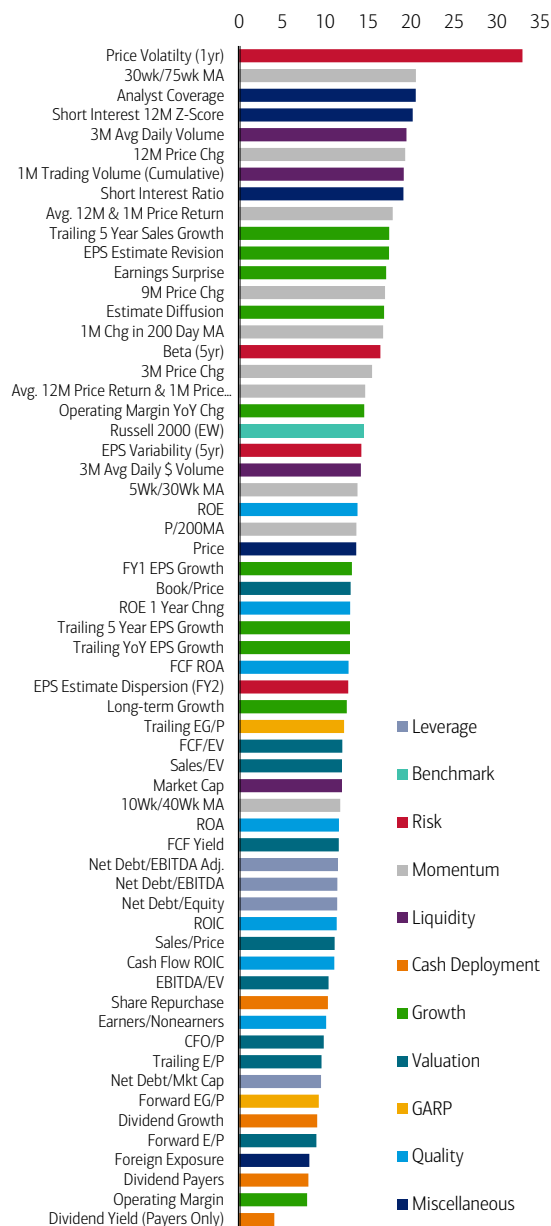


Exhibit 16: Q5 total returns (%) – 3m (2/29/24)

Best: Low Cash Flow ROIC **Worst:** Low trailing EG/P

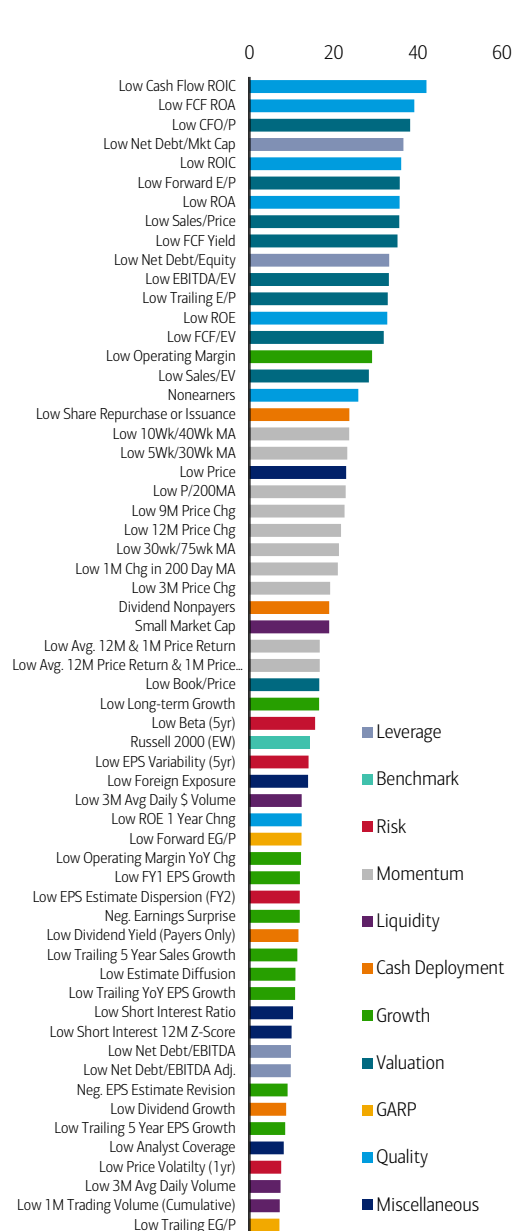
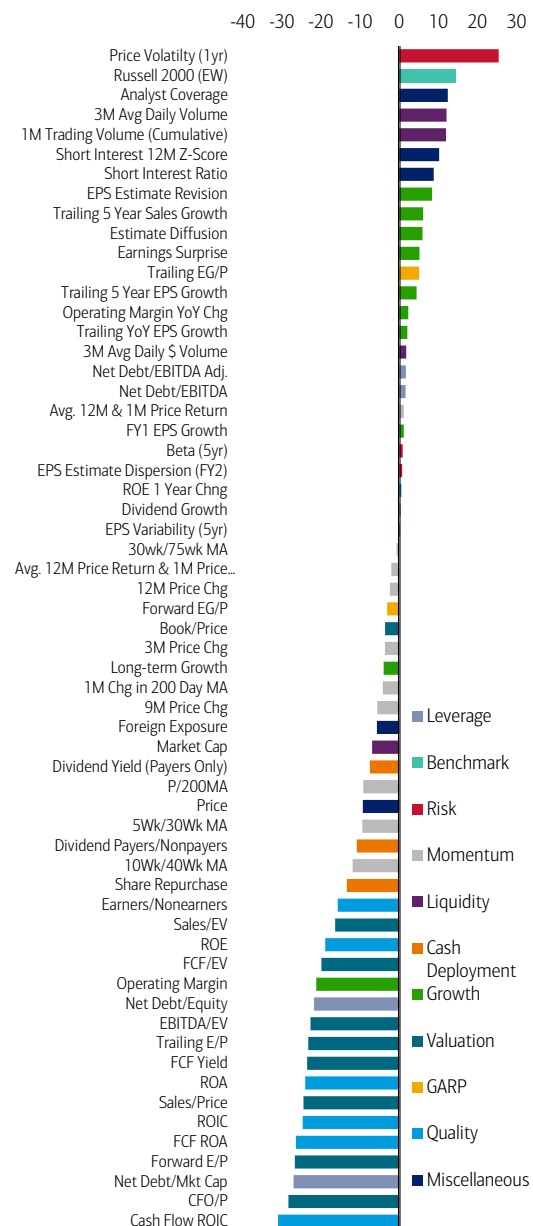


Exhibit 17: Q1-Q5 total returns (%) – 3m (2/29/24)

Best: Price Volatility (1yr) **Worst:** Cash Flow ROIC



Source: FactSet, BofA US Equity & US Quant Strategy

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Source: FactSet, BofA US Equity & US Quant Strategy

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Source: FactSet, BofA US Equity & US Quant Strategy

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YTD factor performance

Exhibit 18: Q1 total returns (%) – YTD (2/29/24)

Best: Price Volatility (1yr) **Worst:** Dividend Yield (Payers Only)

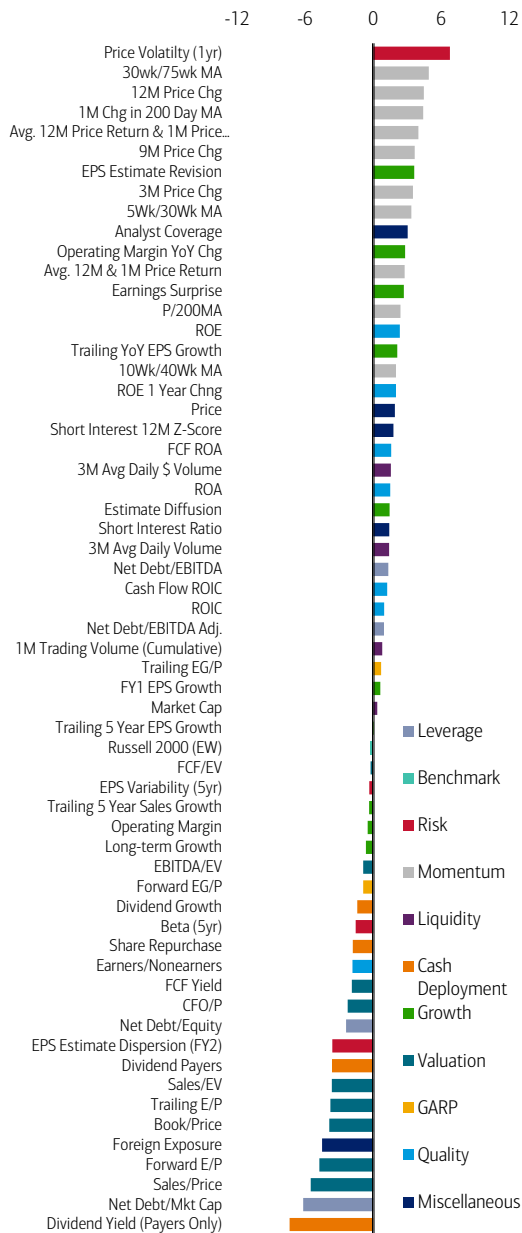


Exhibit 19: Q5 total returns (%) – YTD (2/29/24)

Best: Low Cash Flow ROIC **Worst:** Neg. Estimate EPS Revision

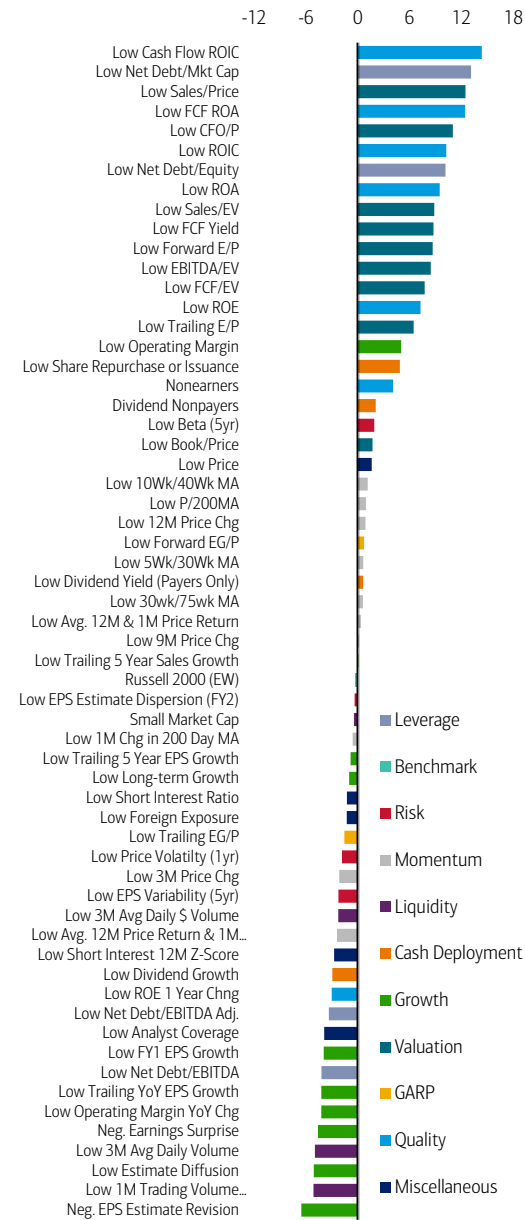
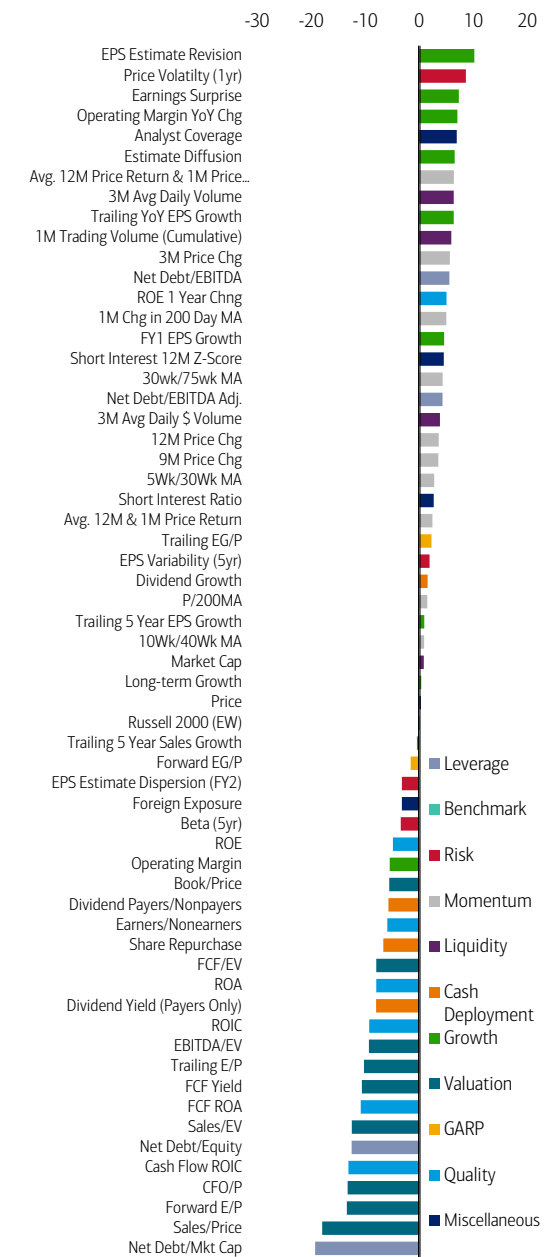


Exhibit 20: Q1-Q5 total returns (%) – YTD (2/29/24)

Best: EPS Estimate Revision **Worst:** Net Debt/Mkt Cap



Source: FactSet, BofA US Equity & US Quant Strategy

BofA GLOBAL RESEARCH

Source: FactSet, BofA US Equity & US Quant Strategy

BofA GLOBAL RESEARCH

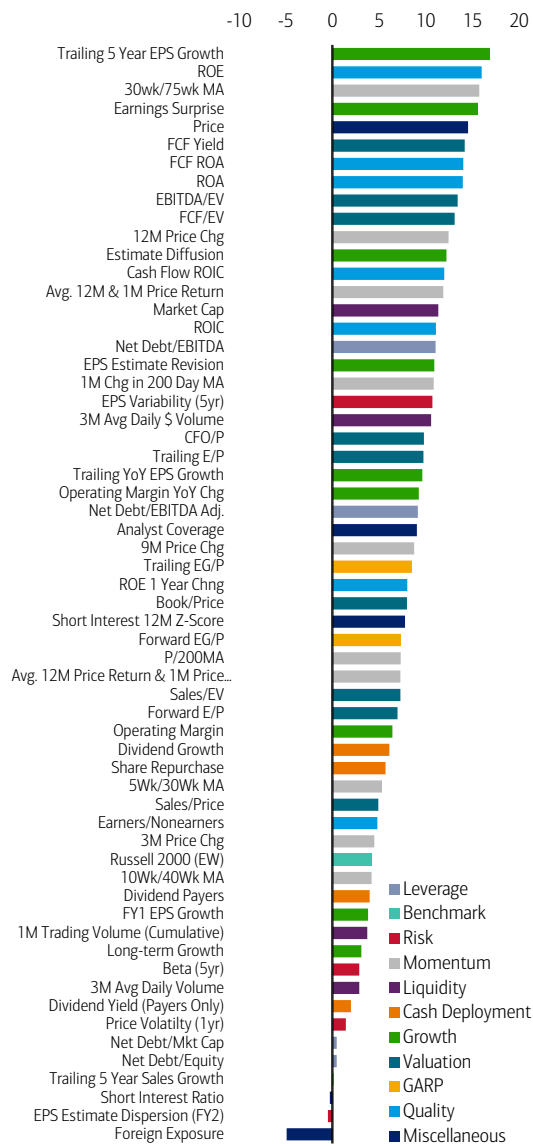
Source: FactSet, BofA US Equity & US Quant Strategy

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12-month (12m) factor performance

Exhibit 21: Q1 total returns (%) – 12m (2/29/24)

Best: Trailing 5 Year EPS Growth **Worst:** Foreign Exposure

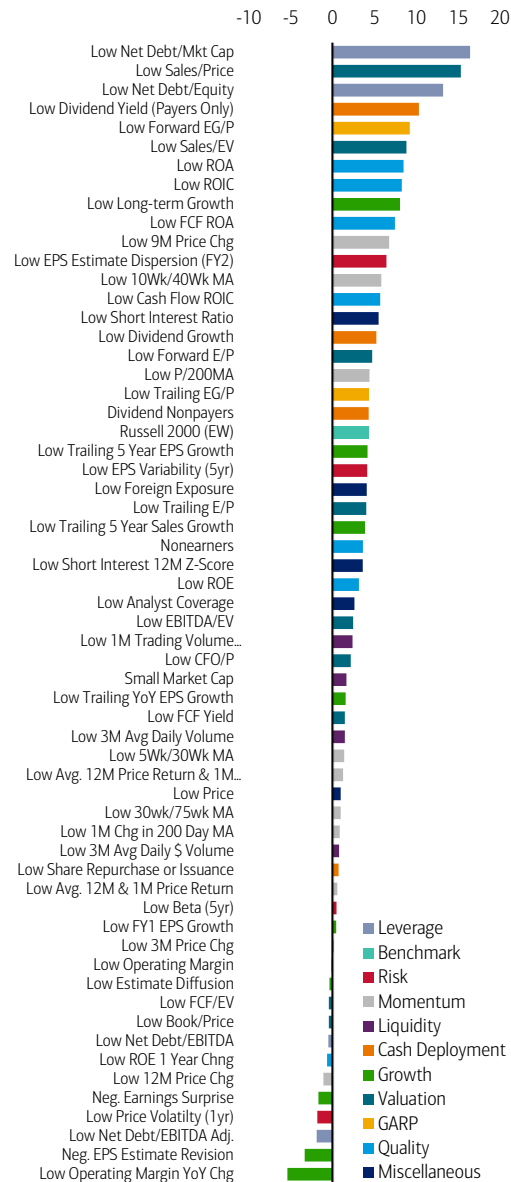


Source: FactSet, BofA US Equity & US Quant Strategy

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Exhibit 22: Q5 total returns (%) – 12m (2/29/24)

Best: Low Net Debt/Mkt Cap **Worst:** Low Operating Margin YoY Change

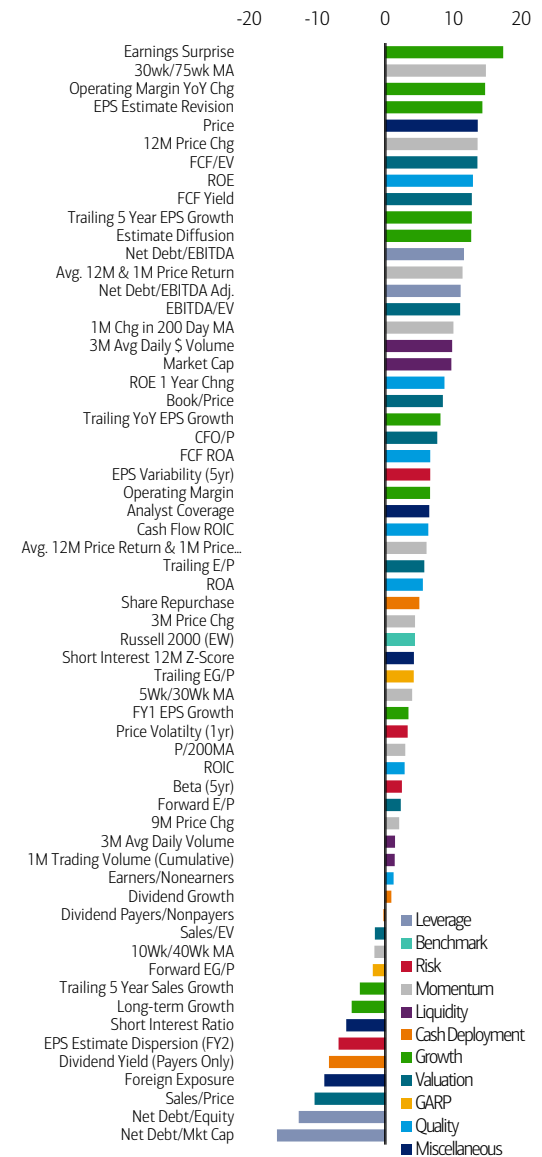


Source: FactSet, BofA US Equity & US Quant Strategy

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Exhibit 23: Q1-Q5 total returns (%) – 12m (2/29/24)

Best: Earnings Surprise **Worst:** Net Debts/Mkt Cap



Source: FactSet, BofA US Equity & US Quant Strategy

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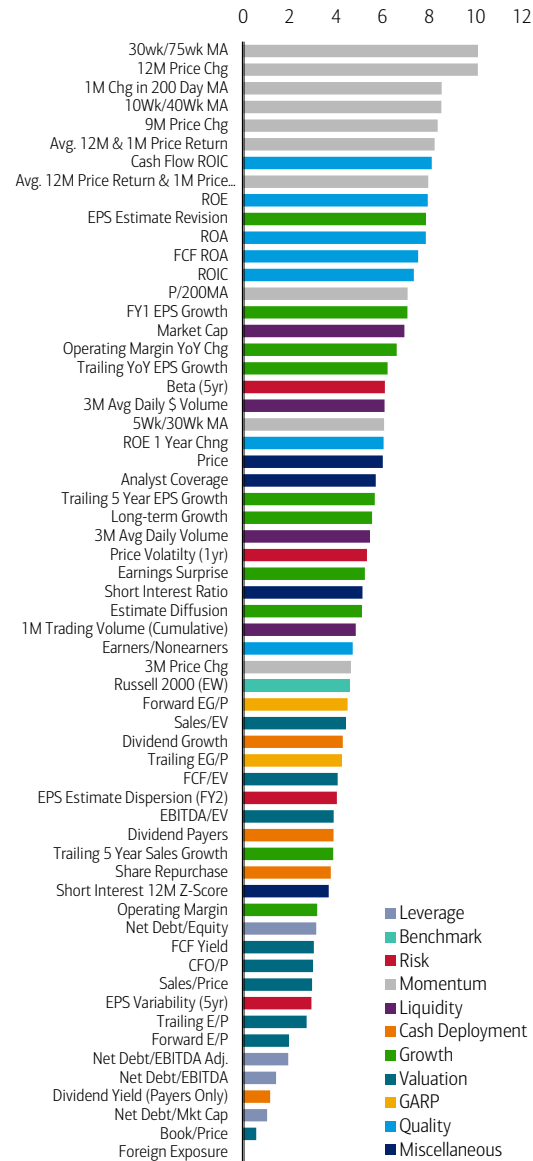


Mid-cap factor performance

Last month

Exhibit 24: Q1 total returns (%) – 1m (2/29/24)

Best: 30wk/75wk MA **Worst:** Foreign Exposure

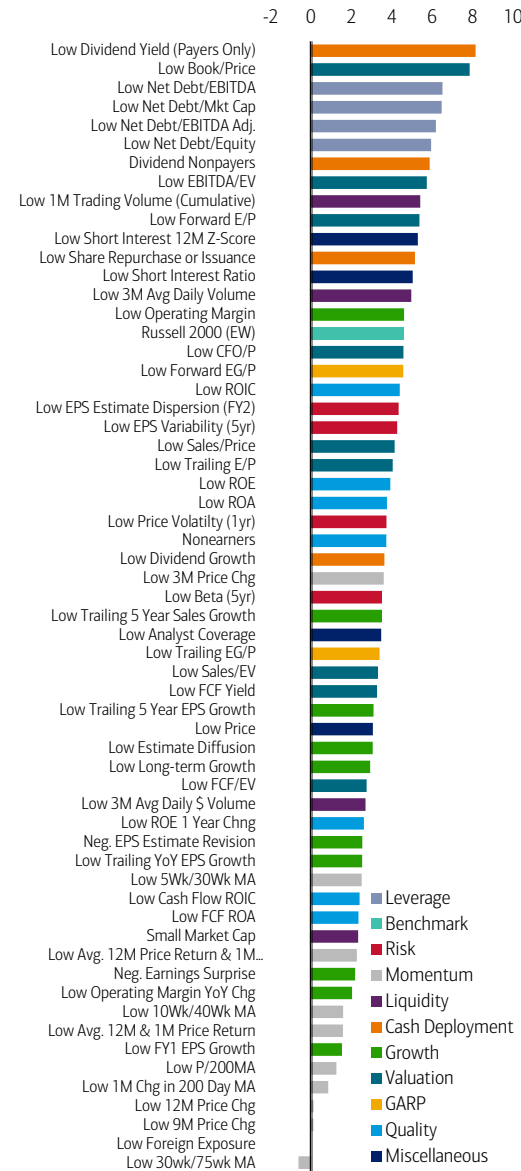


Source: FactSet, BofA US Equity & US Quant Strategy

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Exhibit 25: Q5 total returns (%) – 1m (2/29/24)

Best: Low Dividend Yield (Payers only) **Worst:** Low 30wk/75wk MA

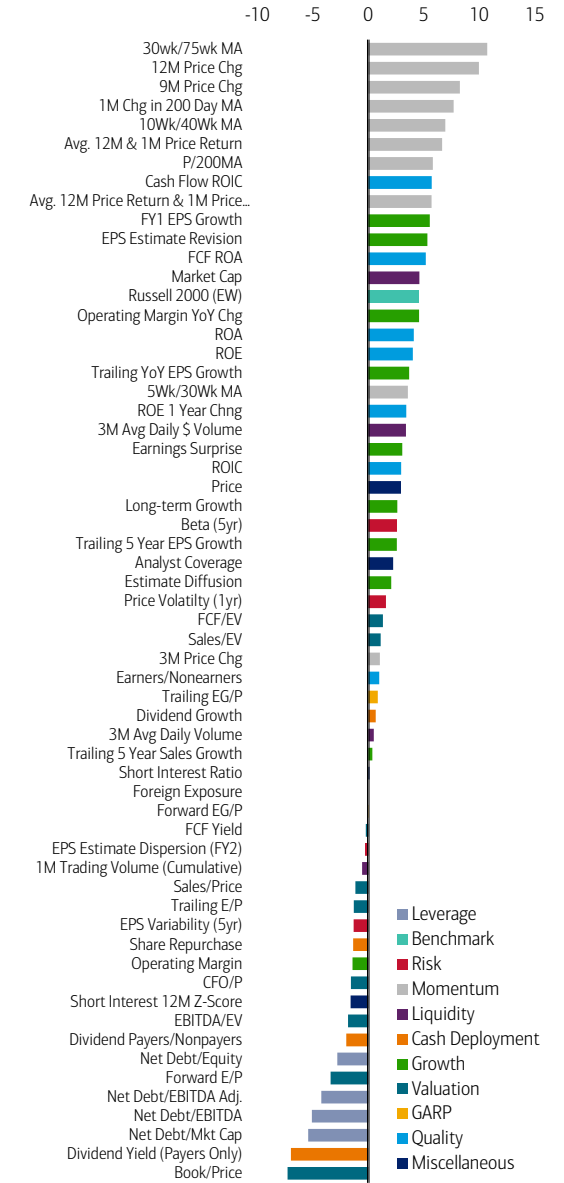


Source: FactSet, BofA US Equity & US Quant Strategy

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Exhibit 26: Q1-Q5 total returns (%) – 1m (2/29/24)

Best: 30wk/75wk MA **Worst:** Book/Price



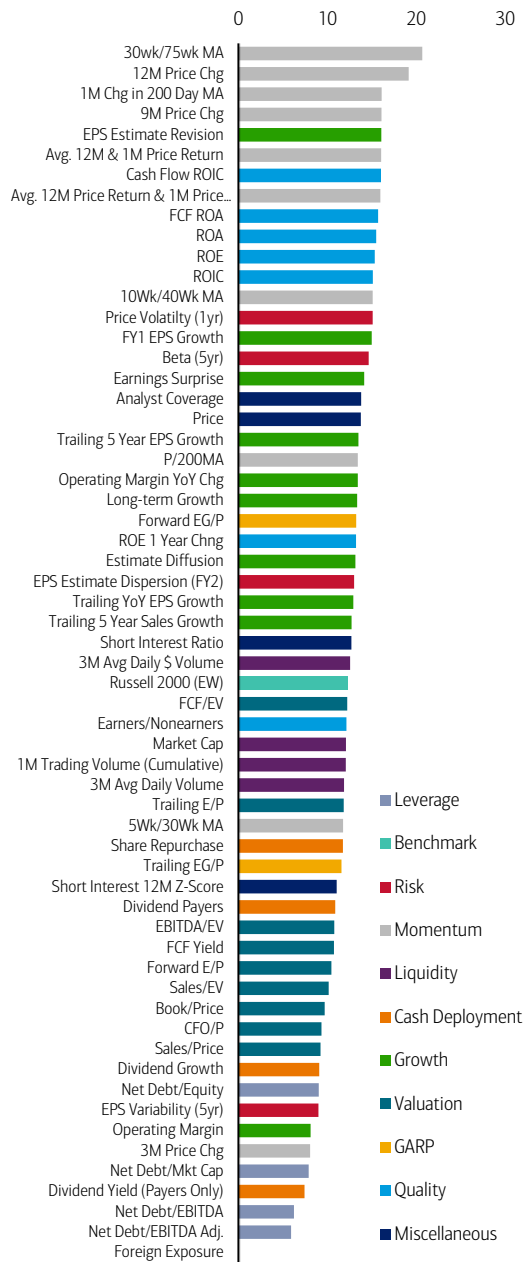
Source: FactSet, BofA US Equity & US Quant Strategy

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3m factor performance

Exhibit 27: Q1 total returns (%) – 3m (2/29/24)

Best: 30wk/75wk MA **Worst:** Foreign Exposure



Source: FactSet, BofA US Equity & US Quant Strategy

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Exhibit 28: Q5 total returns (%) – 3m (2/29/24)

Best: Low Dividend Yield (Payers Only) **Worst:** Low Foreign Exposure

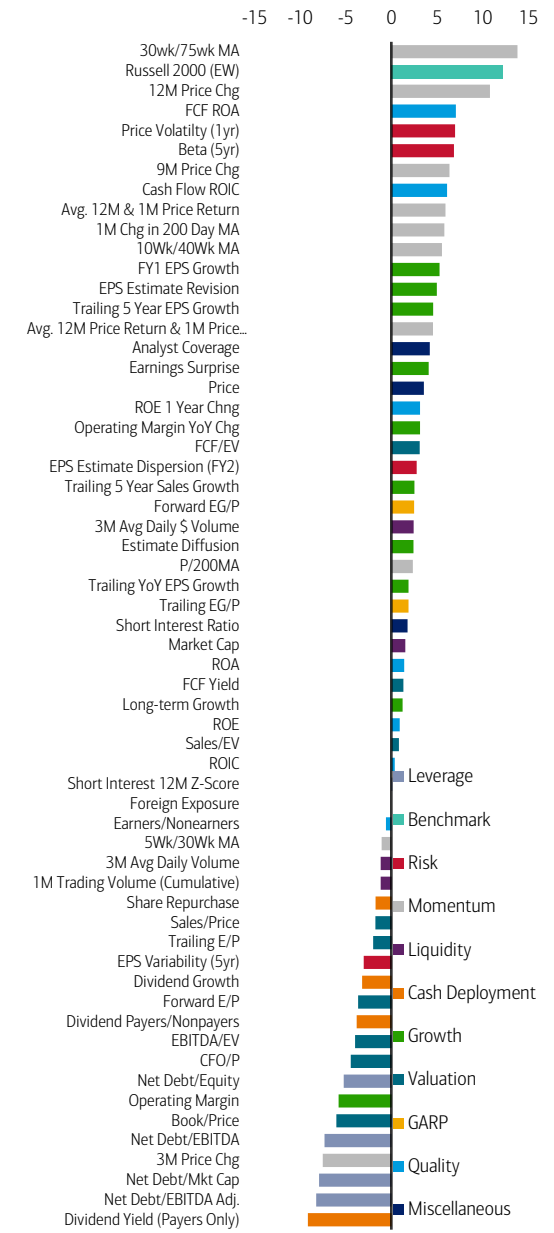


Source: FactSet, BofA US Equity & US Quant Strategy

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Exhibit 29: Q1-Q5 total returns (%) – 3m (2/29/24)

Best: 30wk/75wk MA **Worst:** Dividend Yield (Payers Only)



Source: FactSet, BofA US Equity & US Quant Strategy

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YTD factor performance

Exhibit 30: Q1 total returns (%) – YTD (2/29/24)
Best: Avg. 30wk/75wk MA **Worst:** Net Debt/Mkt Cap

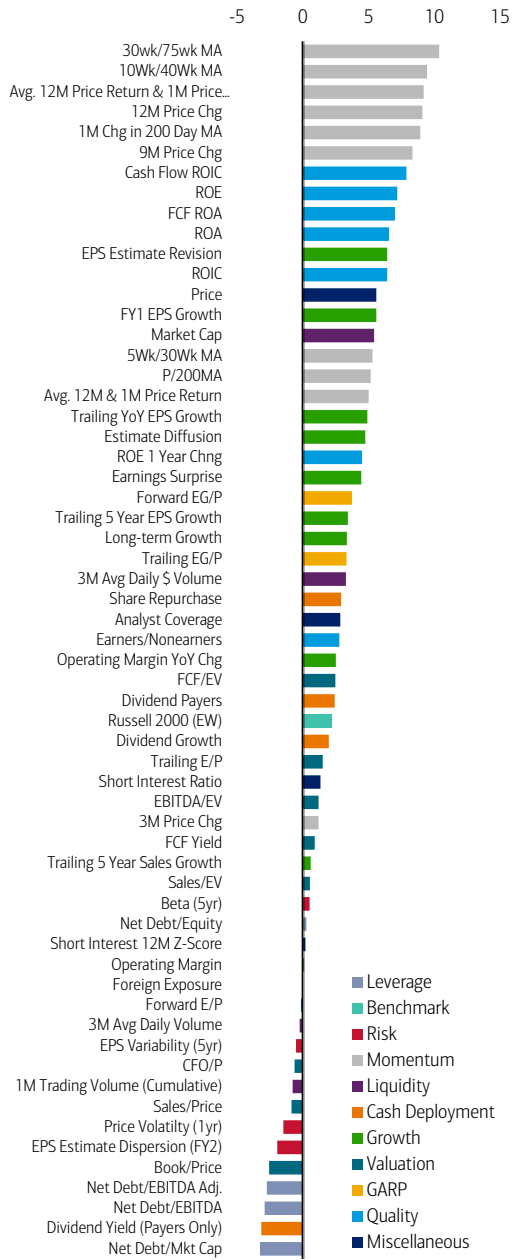


Exhibit 31: Q5 total returns (%) – YTD (2/29/24)
Best: Low Dividend Yield (Payers Only) **Worst:** Low 30wk/75wk

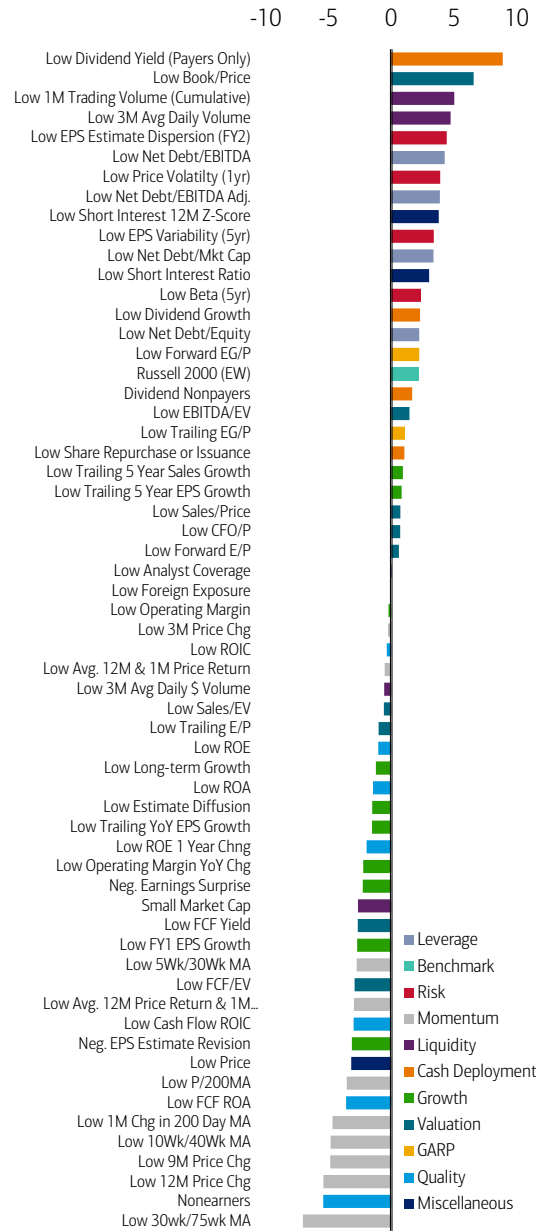
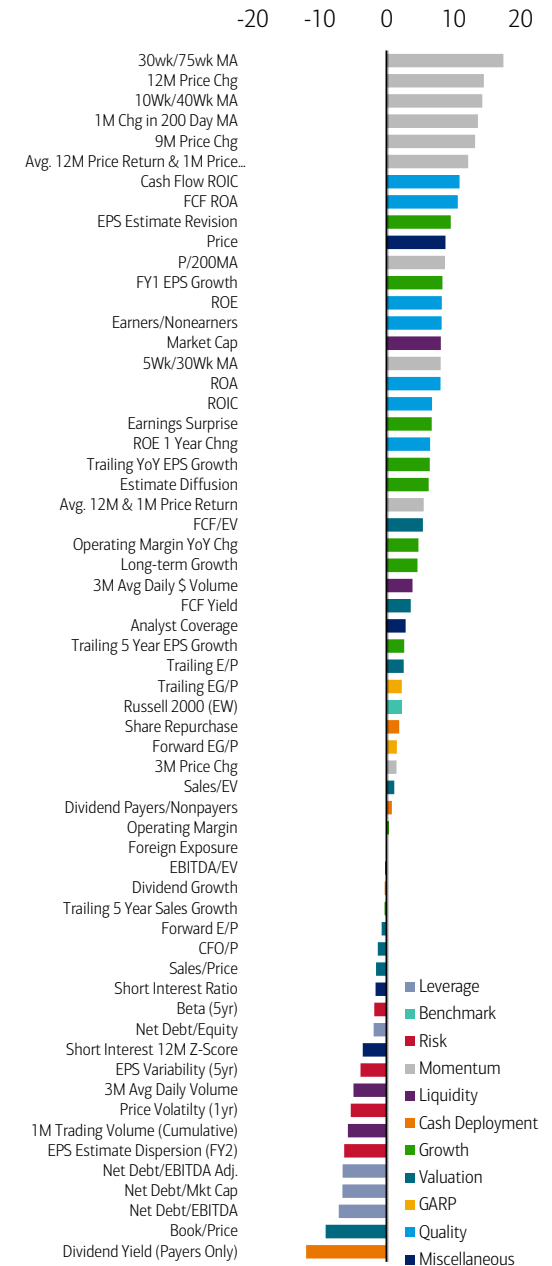


Exhibit 32: Q1-Q5 total returns (%) – YTD (2/29/24)
Best: 30wk/75wk **Worst:** Dividend Yield (Payers Only)



12m factor performance

Exhibit 33: Q1 total returns (%) – 12m (2/29/24)

Best: Cash Flow ROIC **Worst:** Net Debt/EBITDA

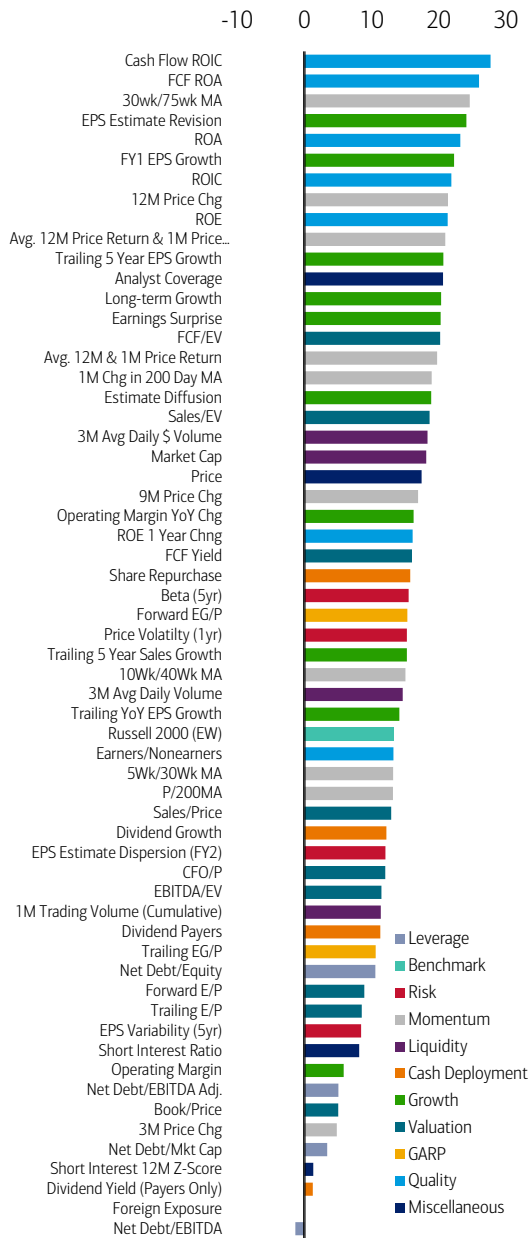


Exhibit 34: Q5 total returns (%) – 12m (2/29/24)

Best: Low Dividend Yield (Payers Only) **Worst:** Low Foreign Exposure

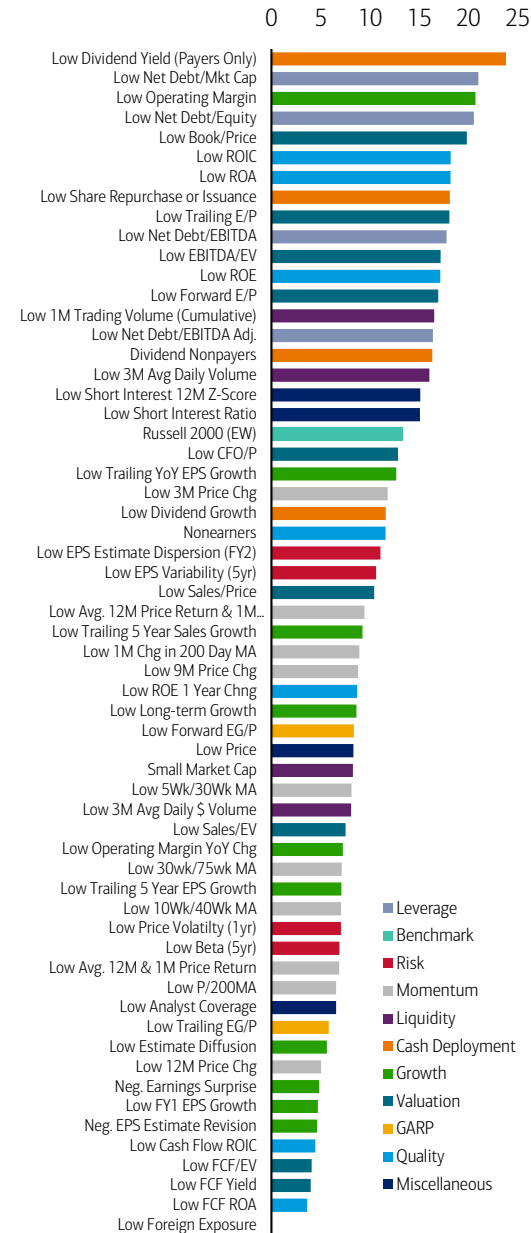
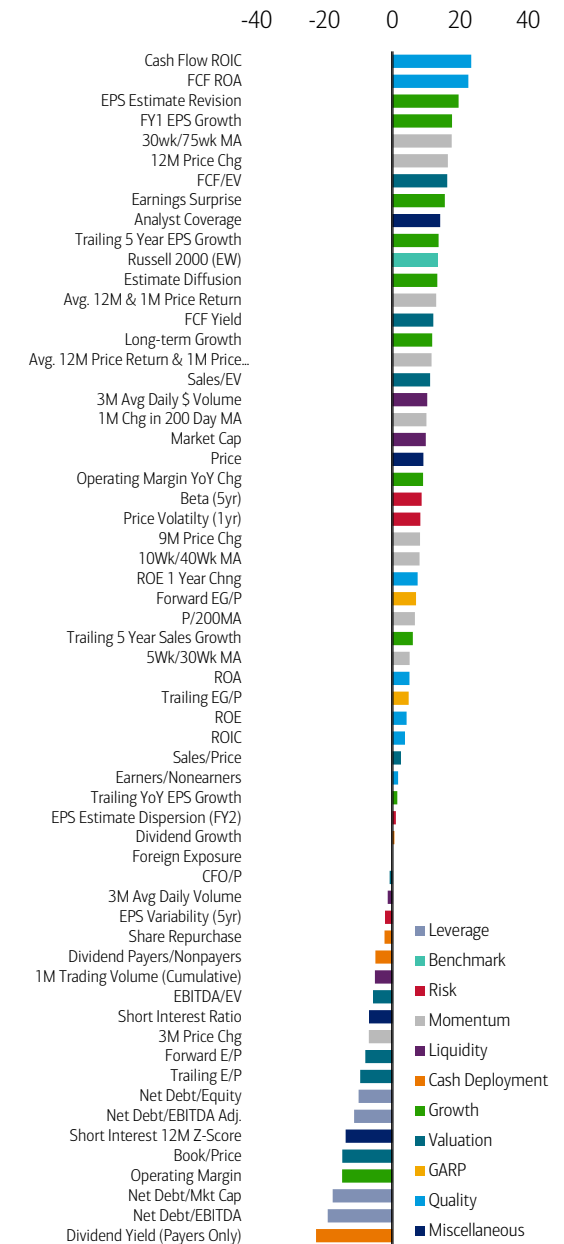


Exhibit 35: Q1-Q5 total returns (%) – 12m (2/29/24)

Best: Cash Flow ROIC **Worst:** Dividend Yield (Payers Only)



Source: FactSet, BofA US Equity & US Quant Strategy

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Source: FactSet, BofA US Equity & US Quant Strategy

BofA GLOBAL RESEARCH

Source: FactSet, BofA US Equity & US Quant Strategy

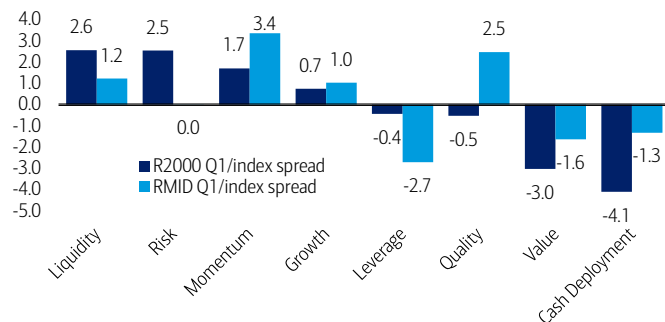
BofA GLOBAL RESEARCH

Small & mid factor group performance

1 Month (1M)

Exhibit 36: On a 1M basis, Liquidity was the top-performing long-factor for small caps while Cash Development was the worst-performing factor.

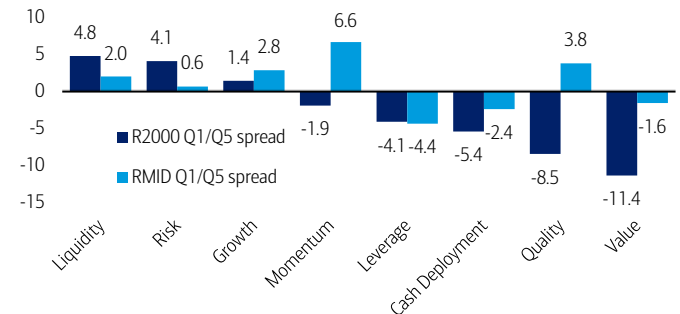
February long-factor total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024



Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
BofA GLOBAL RESEARCH

Exhibit 37: Liquidity also saw the most positive long-short spreads in small caps (vs Momentum in mid caps) on a 1M basis

February top-bottom quintile total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024

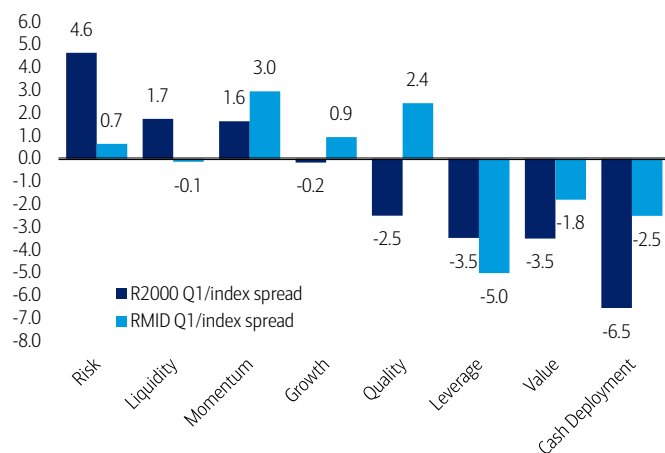


Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
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3 Months (3M)

Exhibit 38: On a 3M basis, Risk was the top-performing long-factor group for SMID caps, while Cash Development had the most negative spreads for small caps

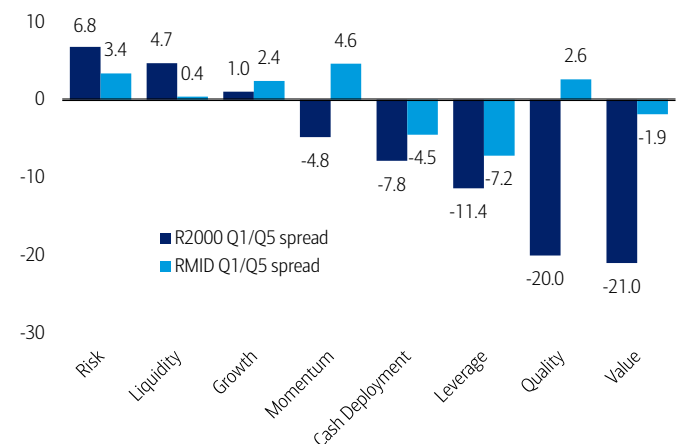
Three-month long-factor total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024



Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
BofA GLOBAL RESEARCH

Exhibit 39: On a 3M basis, Risk was the top-performing long-short factor group for small caps, while Value had the most negative spreads

Three-month top-bottom quintile total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024

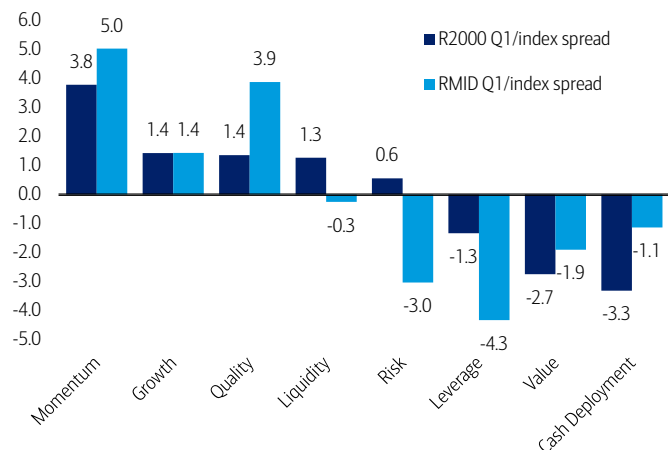


Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
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Year to Date (YTD)

Exhibit 40: On a YTD basis, Momentum was the top-performing long- factor group for SMID caps, while Cash Development had the most negative spreads for small caps

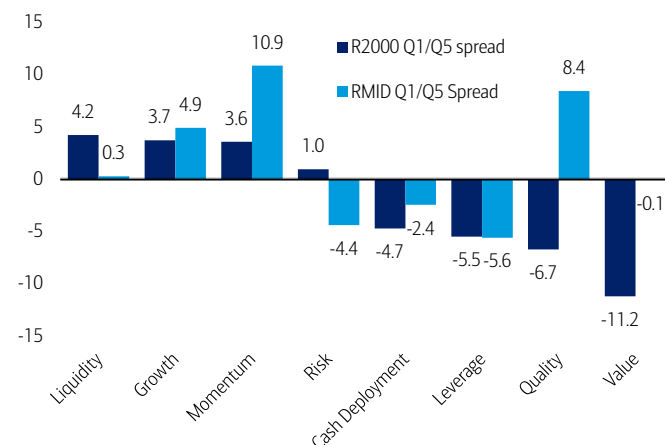
YTD long- factor total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024



Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
BofA GLOBAL RESEARCH

Exhibit 41: On a YTD basis, Liquidity was the top-performing long-short factor group for small caps, while Value was the worst

YTD top-bottom quintile total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024

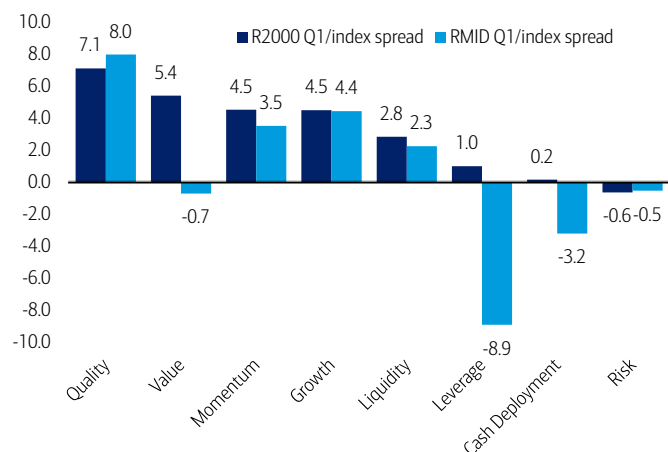


Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
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12 Months (12M)

Exhibit 42: On a 12M basis, Quality was the top-performing long- factor group for SMID caps, while Risk had the most negative spreads for small caps

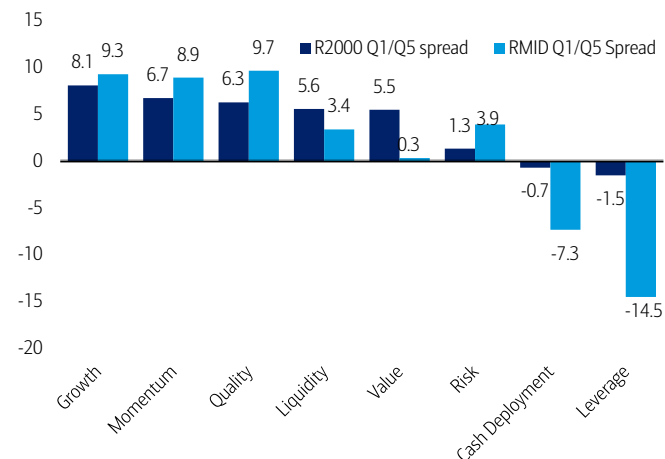
Twelve-month long- factor total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024



Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
BofA GLOBAL RESEARCH

Exhibit 43: On a 12M basis, Growth was the top-performing long-short factor for small caps, while Leverage was the worst

Twelve-month top-bottom quintile total return performance (in ppt) by factor group within the Russell 2000 (dark blue bars) and Russell Midcap (light blue bars), as of 2/29/2024



Source: FactSet financial data and analytics, BofA US Equity & US Quant Strategy
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Methodology

The universe for this report is the Russell 2000 and Russell Midcap, excluding stocks priced under \$1. The universe and the factors are rebalanced monthly using month-end data. FactSet is used as the source of all data. A factor's return is calculated as the equal-weighted total return of the top quintile of stocks within the universe by that factor for Quintile 1 (Q1), the equal-weighted total return of the bottom quintile of stocks within the universe by that factor for Quintile 5 (Q5), and the equal-weighted total return of the top quintile minus the bottom quintile for the Q1-Q5 spread. We also show the total return of the equal-weighted Russell 2000 (for small caps) and Russell Midcap (for mid-caps) as the benchmark return. Performance results do not reflect actual transactions, and no assurances can be given about future performance.

Factor Definitions

Valuation Factors

Book/Price (Q1=highest): Common equity per share divided by price.

EBITDA/EV (Q1=highest): LTM (last 12 months) earnings before interest, taxes, depreciation and amortization divided by Enterprise Value (market cap + preferred stock + short term debt + long term debt + minority interest – cash). Financials are excluded.

Free Cash Flow Yield (Q1=highest): (LTM cash flow from operations – LTM capital expenditures) divided by market cap. Financials and Equity REITs are excluded.

Free Cash Flow/EV (Q1=highest): (LTM cash flow from operations – LTM capital expenditures) divided by Enterprise Value (market cap + preferred stock + short-term debt + long-term debt + minority interest – cash). Financials and Equity REITs are excluded.

Cash Flow/Price (CFO/P) (Q1=highest): LTM cash flow from operations divided by price. Financials and Equity REITs are excluded.

Forward E/P (Q1=highest): I/B/E/S FY1 EPS divided by price. FFO is used instead of EPS for Equity REITs.

Trailing E/P (Q1=highest): LTM EPS excluding extraordinary items divided by price. FFO is used instead of EPS for Equity REITs.

Sales/Price (Q1=highest): LTM sales per share divided by price. Financials are excluded.

Sales/EV (Q1=highest): LTM sales divided by enterprise value (market cap + preferred stock + short-term debt + long-term debt + minority interest – cash). Financials are excluded.

GARP (Growth at a Reasonable Price) Factors

Trailing EG/P (inverse of PEG) (Q1=highest): I/B/E/S long-term growth rate estimate divided by Trailing Earnings/Price.

Forward EG/P (inverse of PEG) (Q1=highest): I/B/E/S long-term growth rate estimate divided by Forward Earnings/Price.

Quality Factors

Return on Equity (ROE) (Q1=highest): LTM net income before extraordinary items divided by the one-year average of total stockholders' equity. Equity REITs are excluded.

ROE 1 year change (Q1=highest): 12 month change in ROE. Equity REITs are excluded.

Return on Assets (ROA) (Q1=highest): LTM net income before extraordinary items divided by the one-year average of total assets. Equity REITs are excluded.



Cash Flow ROIC (Cash flow return on invested capital) (Q1=highest): LTM cash flow from operations divided by invested capital (average common equity + average preferred equity + average long-term debt + average minority accumulated interest). Financials and Equity REITs are excluded.

Return on Invested Capital (ROIC) (Q1=highest): LTM net income before extraordinary items divided by the one-year average of total invested capital. Equity REITs are excluded.

Free Cash Flow Return on Assets (FCF ROA) (Q1=highest): (LTM cash flow from operations – LTM capital expenditures) divided by one-year average assets. Financials and Equity REITs are excluded.

Earners/Non-earners (Q1=earners, Q5=non-earners): Earners are stocks that have a positive forward (FY1) P/E; Non-earners are stocks with a negative forward (FY1) P/E. FFO is considered instead of EPS for Equity REITs.

Momentum Factors

Price to 200-Day Moving Average (Q1=highest): Ratio of the month-end closing price to the average closing price over the last 200 days.

1 Month Change in the 200-Day Moving Average (Q1=highest): The 1-month change in the 200-day moving average.

5-week/30-week Moving Average (Q1=highest): The ratio of the average daily closing price over the last five weeks vs. that over 30 weeks.

10-week/40-week Moving Average (Q1=highest): The ratio of the average daily closing price over the last ten weeks vs. that over 40 weeks.

30-week/75-week Moving Average (Q1=highest): The ratio of the average daily closing price over the last 30 weeks vs. that over 75 weeks.

12-Month Price Change (Q1=highest): The change in the current price from 12 months ago.

9-Month Price Change (Q1=highest): The change in the current price from 9 months ago.

3-Month Price Change (Q1=highest): The change in the current price from 3 months ago.

Average 12-month Price Return & 1-month Price Return: (Q1=highest): Equal-weighted rank of stocks by (1) highest the price return over the last 12 months; and (2) the highest price return over the last one month.

Average 12-month Price Return & 1-month Price Reversal (Q1=highest): Equal-weighted rank of stocks by (1) the highest price return over the last 12 months; and (2) the lowest price return over the last one month.

Growth Factors

IBES Mean LT Growth (Q1=highest): The mean estimate of I/B/E/S forecasted long-term growth rates.

EPS Estimate Revision (Q1=highest): The difference between the I/B/E/S FY1 EPS estimate that that of three months ago divided by the absolute value of the I/B/E/S FY1 EPS estimate as of three months ago. FFO is used instead of EPS for Equity REITs.

Estimate Diffusion (Q1=highest): Calculated using a three-month weighted-average of the change in the number of up estimates minus the down estimates divided by the total numbers of estimates for FY1. The most recent change in estimates received a weighting of 50%, the change from two months earlier was weighted at 30%, and the change from three months ago was allocated 20%. A company had to have at least two analysts covering it. FFO is used instead of EPS for Equity REITs.

Earnings Surprise (Q1=highest): The standardized unexpected earnings (SUE) score as determined by I/B/E/S, which is calculated by subtracting the mean earnings estimate by the actual reported earnings and then dividing that figure by the standard deviation of estimates. A company must have at least two analysts covering it to be included. FFO is used instead of EPS for Equity REITs.

Sales Growth Trailing 5 Year (Q1=highest): 5-year growth rate of trailing annual sales.

EPS Growth Trailing 5 Year (Q1=highest): 5-year growth rate of trailing annual diluted EPS. FFO is used instead of EPS for Equity REITs.

YoY Change in Trailing EPS (Q1=highest): Change in LTM EPS before extraordinary items from 4 quarters earlier LTM EPS before extraordinary items. FFO is used instead of EPS for Equity REITs.

FY1 EPS Growth (Q1=highest): Change in the FY1 EPS estimate versus the prior year actual (FY0) EPS. FFO is used instead of EPS for Equity REITs.

Operating Margin (Q1=highest): LTM operating income divided by LTM sales. Financials and Equity REITs are excluded.

Operating Margin Expansion (Q1=highest): 12-month change in operating margin. Financials and Equity REITs are excluded.

Risk Factors

EPS Variability (5-year) (Q1=highest): The degree of variability in quarterly EPS over the past five years. FFO is used instead of EPS for Equity REITs.

EPS Estimate Dispersion (FY2) (Q1=highest): The coefficient of variation among I/B/E/S FY2 EPS estimates (standard deviation of estimates divided by mean estimate). A stock must have at least two estimates available to be considered. FFO is used instead of EPS for Equity REITs.

Price Volatility (1yr) (Q1=highest): The standard deviation of the daily price change measured during the last year.

Beta (5yr) (Q1=highest): The regression coefficient from regressing monthly price returns against the returns of the S&P 500 over 60 months. Beta is a measure of non-diversifiable risk.

Liquidity Factors

3-Month Average Daily Volume (Q1=highest): The average daily trading volume over the prior three months.

3-Month Average Daily Dollar Volume (Q1=highest): The average daily trading dollar volume (volume times price) over the prior three months.

1-Month Trading Volume (Cumulative) (Q1=highest): The cumulative trading volume over the past month.

Market Cap (Q1=highest): The month-end market capitalization.

Leverage Factors

Net Debt/Equity (Q1=highest): The total debt minus cash & short-term investments divided by total common equity. Financials are excluded.

Net Debt/Market Cap (Q1=highest): The total debt minus cash & short-term investments divided by total market capitalization. Financials are excluded.

Net Debt/EBITDA (Q1=highest): The total debt minus cash & short-term investments divided by operating EBITDA. Financials and companies with negative EBITDA are excluded.



Net Debt/EBITDA Adjusted (Q1=highest): The total debt minus cash & short-term investments divided by adjusted EBITDA (operating EBITDA + Unusual Expenses). Financials and companies with negative adjusted EBITDA are excluded.

Cash Deployment Factors

Dividend Growth (Q1=highest): The year-over-year growth between trailing four-quarter total common dividends as of the latest month-end and trailing four-quarter total common dividends as of 12 months ago.

Dividend Payers/Non-payer (Q1=Payers, Q5=Non-payers): Stocks that pay a dividend (based on the trailing 12-month dividend yield) are considered payers; stocks that don't pay a dividend are considered non-payers.

Dividend Yield (Payers only) (Q1=highest): Indicated dividend rate dividend by price. Companies that do not pay a dividend are excluded.

Share Repurchase (Q1=largest decrease in shares): Year-over-year change in shares outstanding.

Miscellaneous Factors

Price (Q1=highest): The month-end closing price.

Analyst Coverage (Q1=highest): The number of available I/B/E/S FY1 earnings estimates submitted by analysts.

Short Interest Ratio (Days to Cover) (Q1=highest): The number of shares held short divided by the average daily trading volume. It can be interpreted as the number of days it would take short sellers to cover the short position.

Short Interest 12M z-score (Q1=highest): The z-score of the most recent number of shares shorted vs. the last 12 months history.

Foreign Exposure (Q1=highest): The ratio of foreign sales to total sales.

US Regime Indicator methodology

Inputs for the US regime indicator include the following eight macroeconomic or top-down variables:

- **Earnings Revision ratio:** Calculated as [the ratio](#) (see our 1 January 2018 report) between the number of companies in the S&P 500 for which Thomson Financial consensus earnings estimates have been raised versus those that have been lowered. A rising ratio indicates an improving economic cycle.
- **ISM PMI:** ISM PMI Institute for Supply Management Manufacturing Purchasing Managers Index, represented as the Z-Score. The ISM Manufacturing Index monitors economic activity as reported by 300 supply management professionals. The reading of the index above (below) 50 indicated economic expansion (contraction).
- **Inflation:** The 12-month change in the BofA Inflation Composite (see methodology further below), represented as the Z-Score. Rising inflation indicates improving economic conditions.
- **GDP Forecast:** The next 12-month US GDP growth forecast from the Federal Reserve Bank of Philadelphia Survey, represented as the Z-Score.
- **Leading Economic Indicators index:** The 12-month change in the Conference Board US Leading Index of Ten Economic Indicators, represented as a Z-Score. A rising Z-Score indicates improving economic conditions.
- **US Capacity Utilization:** The 12-month change in US capacity utilization, represented as the Z-score. The capacity utilization rate indicates the percentage of

total economic capacity currently utilized. Rising capacity utilization implies improving economic conditions. Rising capacity utilization suggests more expanding economic cycle and potentially rising inflationary pressure.

- **10-year US Treasury Bond Yield:** The 12-month change in the bond yield, represented as the Z-Score. Rising yields indicate improving economic conditions.
- **High Yield corporate bond credit spread:** The 12-month change in the US High Yield credit spread of the ICE BofA US High Yield Index, represented as a Z-score. Falling spreads indicate improving economic conditions.

Note on back-testing

The analysis of certain indicators in this report is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the hypothetical back-tested performance of a particular strategy over the time period indicated. In future periods, market and economic conditions will differ and the same strategy will not necessarily produce the same results. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. In fact, there are frequently sharp differences between back-tested returns and the actual results realized in the actual management of a portfolio. Back-tested performance results are created by applying an investment strategy or methodology to historical data and attempts to give an indication as to how a strategy might have performed during a certain period in the past if the product had been in existence during such time. Back-tested results have inherent limitations including the fact that they are calculated with the full benefit of hindsight, which allows the security selection methodology to be adjusted to maximize the returns. Further, the results shown do not reflect actual trading or the impact that material economic and market factors might have had on a portfolio manager's decision-making under actual circumstances. Back-tested returns do not reflect advisory fees, trading costs, or other fees or expenses.

Disclosures

Important Disclosures

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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