

US Mutual Fund Performance Update

A tough year for Core & Growth, but Value funds continued to shine

38% outperformed in 2023, roughly in line with avg.

38% of large cap active funds outperformed their Russell benchmark in 2023, with the avg. fund underperforming by 1.6ppt. Although fewer funds beat their benchmark this year than last year (47% outperformed in 2022), a 38% hit rate is still roughly in line with the historical average. Value funds were the strongest style with a 57% hit rate, outperforming for a fourth consecutive year. Meanwhile, Core and Growth funds lagged (only 1/3 outperformed), likely challenged by narrow market breadth. Unsurprisingly, the top Core funds tended to be overweight mega-cap Tech and long-term growth (see our holdings update). Long-only quant funds (typically have a Value bias) also struggled this year, with only one in five funds ahead of the Russell 1000 (vs. >50% in 2022).

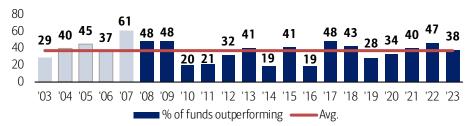
Small cap funds lagged large, a reversal from recent years

Small cap active funds struggled in 2023, with only 36% outperforming, much lower than the last few years (72% hit rate in 2022; 85% hit rate in 2021), and only the third year since 2015 that small cap funds posted a lower hit rate than large cap funds. Mid cap funds had an even tougher year, with only 22% ahead of their benchmark (vs. >60% in 2021 and 2022). Like in large caps, SMID Value funds sported much higher hit rates than both Core and Growth funds – small cap Value funds were best performing size/style in 2023 (60% hit rate).

Active landscape likely to improve in 2024

Narrow market breadth created a challenging backdrop for active funds in 2023, particularly for Core and Growth managers. Less than 30% of stocks outperformed the S&P 500, the lowest annual breadth in our data history since 1987 (see our Perf. Monitor). However, breadth has recently started to improve, with 60% of stocks outperforming since November. If the rally continues to broaden, active funds will have greater odds of selecting winners in 2024. We expect more idiosyncratic opportunities next year given elevated valuation dispersion and increased public market inefficiencies (see our Quant Year Ahead), which should create a more supportive environment for stock pickers.

Exhibit 1: 38% of large cap funds outperformed in 2023, roughly in line with average (37%) % of large cap active funds outperforming the Russell benchmark*



Source: BofA US Equity & US Quant Strategy, Lipper. *% of funds outperforming the benchmark is based on Russell 1000 benchmark for all funds prior to 2015 and the fund's respective benchmark (R1000 for Core funds, R1000 Value for Value funds and R1000 Growth for Growth funds) in 2015 and onward. Gray bars are the result of a backtest and subject to a survivorship bias.

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Table 1: December 2023 performance ouartile

Large-cap active fund performance

	Core		Growth		Value	
Best	8.6		9.1		7.6	
Worst	1.4		2.4		2.5	
Quartile	Low	High	Low	High	Low	High
Q 1	4.9	8.6	4.9	9.1	5.5	7.6
Q 2	4.4	4.9	4.3	4.9	5.0	5.5
Q 3	4.0	4.4	4.0	4.3	4.3	5.0
Q 4	1.4	4.0	2.4	4.0	2.5	4.3

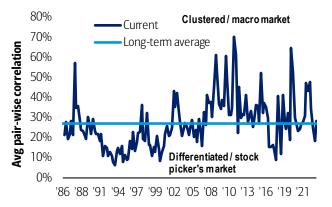
Source: BofA US Equity & Quant Strategy, Lipper Analytical Services. Past performance is not necessarily a guide to future performance.

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Active opportunity set

Exhibit 2: Pair-wise correlation in the S&P 500 is roughly in line with the historical average

Average pair-wise stock correlations based on 90-day periods, daily frequency

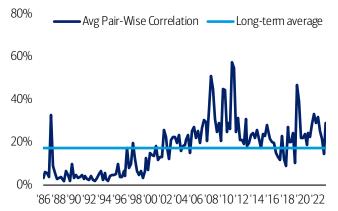


Source: BofA US Equity & Quantitative Strategy, FactSet

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Exhibit 4: Pair-wise correlation in the Russell 2000 jumped above average

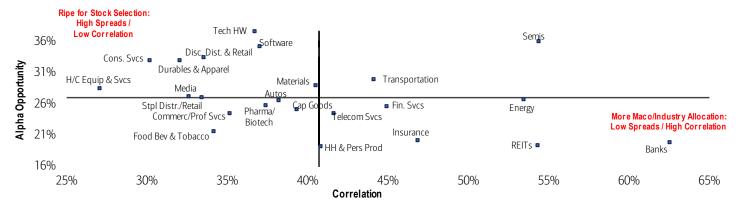
Average pair-wise stock correlations based on 90-day periods, daily frequency



Source: BofA US Equity & Quant Strategy, FactSet. Based on the Russell 2000 Universe. BofA GLOBAL RESEARCH

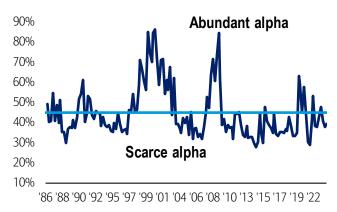
Exhibit 6: Pick your battles: correlations vs. dispersion by sector

Historical Intra-stock correlation vs. performance spread (3Q86 to 4Q23)



Source: FactSet, BofA US Equity & US Quant Strategy

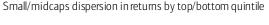
Exhibit 3: Alpha opportunity set for S&P 500 slightly below average Large cap dispersion in returns by top/bottom quintile

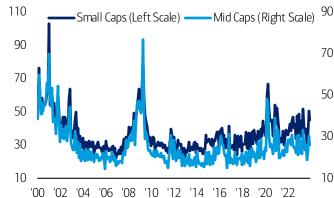


Source: BofA US Equity & Quantitative Strategy, FactSet

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Exhibit 5: Alpha opportunities in small caps are above average





Source: BofA US Equity & Quantitative Strategy, FactSet Small caps based on the Russell 2000. Midcaps based on the Russell Midcap.

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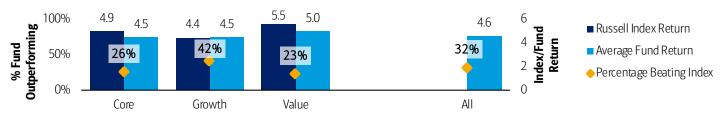


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Large-cap active manager vs Russell 1000

Exhibit 7: December 2023 performance - 32% of funds outperformed

Large-cap active managers' performance vs Russell 1000 benchmarks

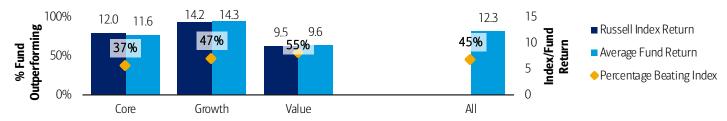


Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 8: 4Q 2023 performance - 45% of funds outperformed

Large-cap active managers' performance vs Russell 1000 benchmarks

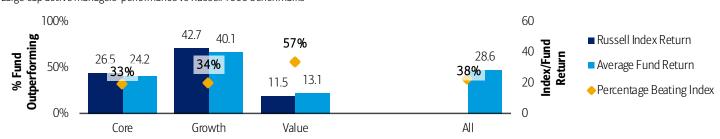


Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 9: 2023 performance - 38% of funds outperformed

Large-cap active managers' performance vs Russell 1000 benchmarks



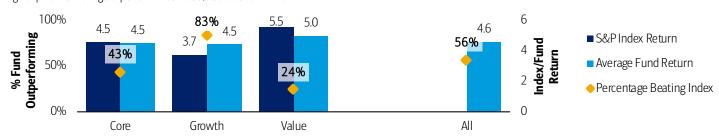
Note: Manager data and index returns are through December 31, 2023. Source: Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Large-cap active manager vs S&P 500

Exhibit 10: December 2023 performance – 56% of funds outperformed

Large-cap active managers' performance vs S&P 500 benchmarks



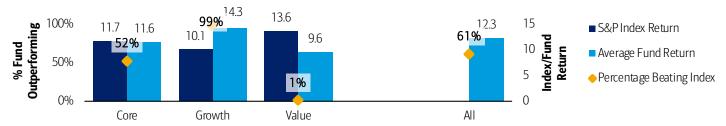
Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 11: 4Q 2023 performance - 61% of funds outperformed

Large-cap active managers' performance vs S&P 500 benchmarks

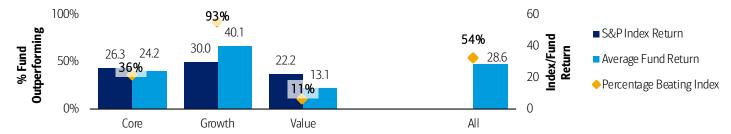


Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 12: 2023 performance - 54% of funds outperformed

Large-cap active managers' performance vs S&P 500 benchmarks

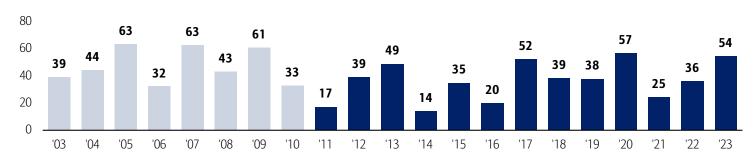


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Exhibit 13: 41% of funds outperform the S&P benchmark on average

% of large cap active funds outperforming the S&P benchmark



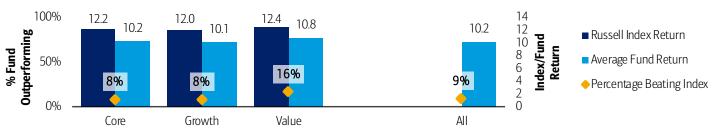
Source: BofA US Equity & US Quant Strategy, Lipper. Gray bars are the result of a backtest and subject to a survivorship bias

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Small cap active manager vs Russell 2000

Exhibit 14: December 2023 performance – 9% of funds outperformed

Small-cap active managers' performance vs Russell 2000 benchmarks



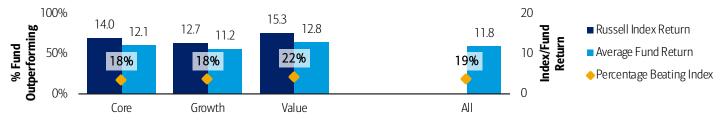
Note: Manager data and index returns are through December 31, 2023. **Source**: Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 15: 4Q 2023 performance - 19% of funds outperformed

Small-cap active managers' performance vs Russell 2000 benchmarks

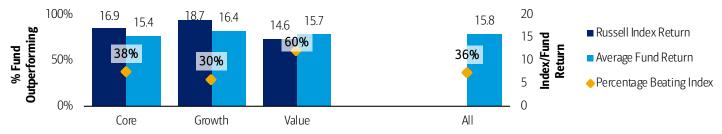


Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 16: 2023 performance - 36% of funds outperformed

Small-cap active managers' performance vs Russell 2000 benchmarks

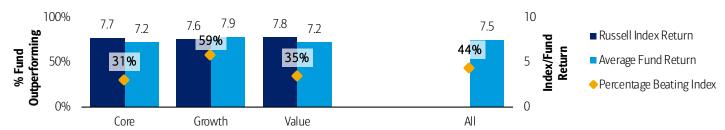


Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

Mid-cap active manager vs Russell Midcap

Exhibit 17: December 2023 performance - 44% of funds outperformed

Mid-cap active managers' performance vs Russell Midcap benchmarks

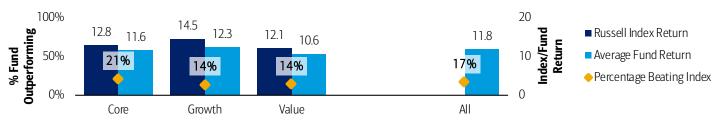


Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 18: 4Q 2023 performance - 17% of funds outperformed

Mid-cap active managers' performance vs Russell Midcap benchmarks



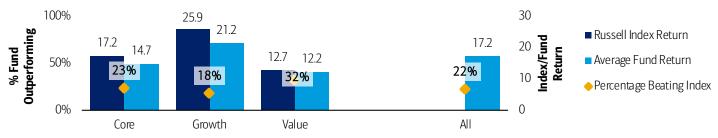
Note: Manager data and index returns are through December 31, 2023. **Source:** Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 19: 2023 performance - 22% of funds outperformed

Mid-cap active managers' performance vs Russell Midcap benchmarks



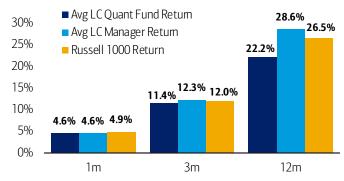
Note: Manager data and index returns are through December 31, 2023. Source: Lipper Analytical Services; BofA US Equity & Quant Strategy. Past performance is not necessarily a guide to future performance.

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Quant Fund Manager Performance

Exhibit 20: Large-cap quant funds were +22% in 2023, trailing the Russell $1000\,$

Large-cap quant funds' performance vs Russell 1000 benchmarks (as of December 2023)

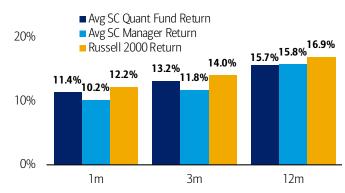


Source: Lipper, BofA US Equity & US Quant Strategy. Past performance is not necessarily a guide to future performance.

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Exhibit 21: Small-cap quant funds were +16% in 2023, lagging the Russell 2000 $\,$

Small-cap quant funds' performance vs Russell 2000 benchmarks (as of December 2023)



Source: Lipper, BofA US Equity & US Quant Strategy. Past performance is not necessarily a guide to future performance.

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