T. Rowe Price's Strategic Investing Approach Has Benefited Our Results

Discipline has brought long-term rewards for clients.

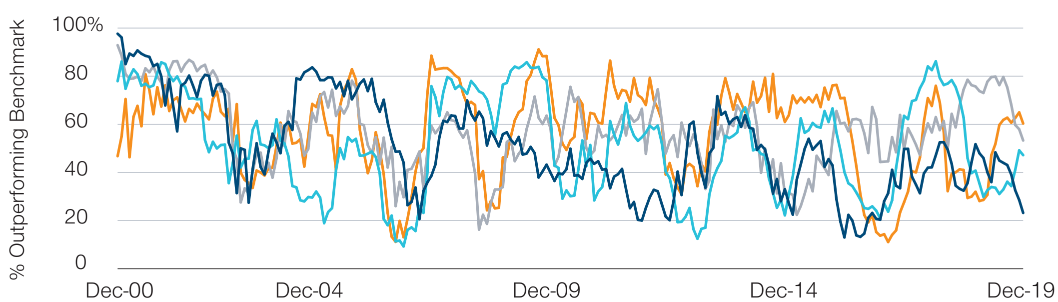
KEY INSIGHTS

- Research has shown that active manager performance can be cyclical and that some specific manager characteristics may contribute to long-term success.
- We reviewed the performance of 18 T. Rowe Price institutional diversified active U.S. equity strategies to quantify the value added by our strategic investing approach.
- We found that the vast majority of our strategies generated positive average excess returns, net of fees, over their benchmarks across multiple time periods.[1]
- We credit our success to our efforts to go beyond the numbers and get ahead of change, which we believe leads to better decisions and prudent risk management.

(Fig. 1) Rolling one-year periods ended December 31, 2019

Relative Performance Can Be Volatile Over the Short Run

Percentage of managers in eVestment Alliance database outperforming their category and style benchmarks (net of fees)



Sources: Zephyr StyleADVISOR and eVestment; data analysis by T. Rowe Price. Created with Zephyr StyleADVISOR.

Relative performance can vary widely over short-term periods due to market trends or other factors. The result is a high degree of volatility or statistical "noise."

Past performance is not a reliable indicator of future performance.

[1] Given that the U.S. equity market is generally considered the world's most efficient, transparent market, we believe it provides a strong test for management skill. See the appendix for additional information on the performance study methodology.
Not all strategies/structures presented herein are available in all jurisdictions from T. Rowe Price. The information is provided for illustrative, informational purposes only.

Evaluating managers based on quarterly or even annual results can be difficult and potentially misleading. Successful strategies often take time to bear fruit...

Most sophisticated investors are aware of the pitfalls of overreacting to short-term market trends—a habit that can lead to disappointing long-term returns. Capital markets are volatile, and investors who rush to sell or buy assets based solely on their recent performance may find they've taken on more risk than they expected.

The same principle applies to actively managed investments—those that seek to add value for clients through security selection, sector rotation, factor weighting, or other techniques. Like the markets themselves, relative performance tends to be volatile. Evaluating managers based on quarterly or even annual results can be difficult and potentially misleading. Successful strategies often take time to bear fruit, and contrarian bets are rarely rewarded immediately. Attractive growth opportunities may be prospective, not immediate, and undervalued companies may remain undervalued for months or years.

The academic literature is clear about the obvious problem that the "average" active manager faces in seeking to generate excess returns, especially net of fees and other costs. Over time, the positive and negative excess returns of active managers as a group have tended to balance out, leaving fees and other costs as a net drag on relative performance.

However, while we recognize the virtues of passive index strategies—and employ indexed components in some of our asset allocation strategies—we do believe strongly that a skilled strategic investing approach has the potential to add value for clients over longer-term time horizons.

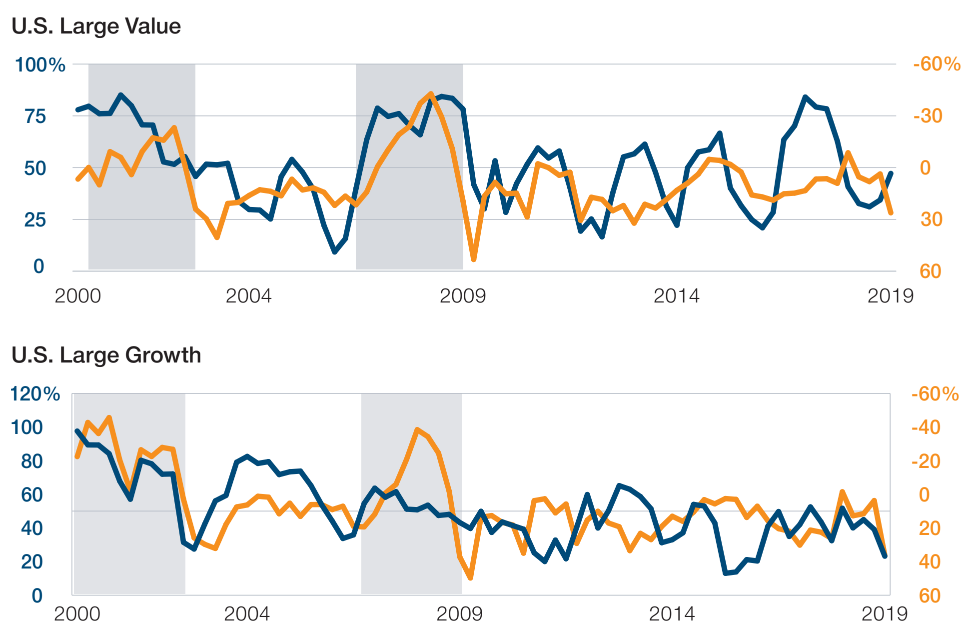
Evaluating manager performance requires investors and/or their financial advisors to distinguish between the signal and the noise—that is, to see past the many factors that may generate volatility in relative returns and paint a distorted short-term picture (either positive or negative) of manager skill.

(Fig. 2)

Rolling one-year periods ended December 31, 2019

Active Managers May Lead in Bear Markets, Lag in Bull Markets

Manager performance versus benchmark performance (net of fees)



% of U.S. Large Value Managers Outperforming Benchmark

Russell 1000 Value Index Returns (Reversed)

Bear Markets

Correlation: -0.49

% of U.S. Large Growth Managers Outperforming Benchmark

Russell 1000 Growth Index Returns (Reversed)

Bear Markets

Correlation: -0.49

Sources: Zephyr StyleADVISOR, eVestment, and Russell.[2] Data analysis by T. Rowe Price. Created with Zephyr StyleADVISOR.

Active managers, as a group, have tended to outperform in bear markets by limiting downside volatility. Market performance has been inverted in the above charts to make that point clearer.

Past performance is not a reliable indicator of future performance.

[2] London Stock Exchange Group plc and its group undertakings (collectively, the "LSE Group"). © LSE Group 2020. FTSE Russell is a trading name of certain of the LSE Group companies. Russell® is/are a trade mark(s) of the relevant LSE Group companies and is/are used by any other LSE Group company under license (see Important Information).

Active U.S. equity managers as a group have been somewhat more likely to outperform in periods when market returns have been more variable...

Relative Performance Is Noisy in the Short Term

The first point to recognize is that relative performance—equity performance, in particular—can be extremely volatile over the short run, as seen by the trends in manager rankings in four key size/style categories in the eVestment Alliance database over the past two decades (Figure 1).[3]

While aggregate relative outperformance will tend to equal aggregate underperformance over time, that may mean a relatively small number of managers outperforming a benchmark by wide margins while a large majority of managers slightly underperform—or vice versa. This balance can reverse very quickly. When return dispersion is low, manager and benchmark performance may differ by only a handful of basis points, further magnifying the volatility of relative performance rankings when return differentials widen again.

Times When Active Outperforms

Within that short-term noise, more predictable—or at least more cyclical—patterns also may be found. Research has identified several broad market environments in which active equity managers, in general, may be more likely to outperform. These include:

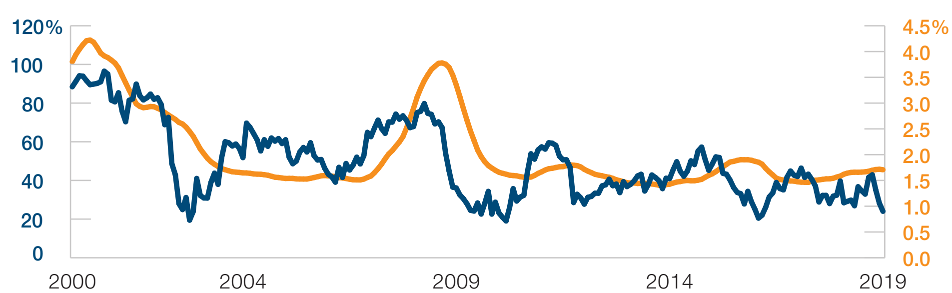
- **Bear markets:** Research suggests that active U.S. equity managers have had a relatively higher chance of outperforming when market performance is poor (Figure 2). One study has argued that this effect persisted even after differences in exposure to market risk (i.e., beta) were taken into account, suggesting that active managers have provided a certain amount of relative performance improvement in more volatile markets.[4]
- **High return dispersion:** When the correlation of returns within a benchmark is low, active managers as a whole may have more opportunities to add value through security selection or sector rotation.
- **Volatile markets:** Active U.S. equity managers as a group have been somewhat more likely to outperform in periods when market returns have been more variable (Figure 3).

Over longer time horizons, periods of extreme relative underperformance or outperformance have tended to revert toward the mean, smoothing out some of the noise that dominates quarterly and annual results. This tendency is highlighted in Figure 4, which shows relative manager performance in the same

(Fig. 3) Rolling one-year periods ended December 31, 2019

When Return Dispersion Is High, Active Managers May Have More Opportunities to Add Value

Active manager performance versus return dispersion (net of fees)



Sources: Zephyr StyleADVISOR, eVestment, and Russell (See footnote 2). Data analysis by T. Rowe Price. Created with Zephyr StyleADVISOR.

Past performance is not a reliable indicator of future performance.

[3] Based on relative performance of the strategies in their respective categories in the eVestment Alliance database, net of fees, as of December 31, 2019. Size and style categorization is by eVestment Alliance. The performance of large growth managers was measured against the Russell 1000 Growth Index, large value managers against the Russell 1000 Value Index, small growth managers against the Russell 2000 Growth Index, and small value managers against the Russell 2000 Value Index.

[4] Kosowski, "Do Mutual Funds Perform When It Matters Most? U.S. Mutual Fund Performance and Risk in Recessions and Expansions," *Quarterly Journal of Finance*, Vol. 1, No. 3, 2011.

four eVestment Alliance categories as in Figure 1, but across progressively longer rolling time periods.[5]

The influence of longer-term cyclical factors is now more visible. Over the entire 20-year time frame, the percentage of managers outperforming their benchmarks in most of the eVestment Alliance categories shown has typically fluctuated around the 50% mark.

Performance of T. Rowe Price Diversified U.S. Equity Strategies

Looking at broad historical trends can be enlightening when it comes to evaluating the performance of active managers as a group. But it doesn't tell us much about the question investors are probably most interested in: Can my manager generate positive excess returns after management fees and other costs?

For investors with longer time horizons—such as pension plan sponsors—we believe this question is best answered across multiyear periods (or even multiple market cycles) to filter out the short-term relative volatility described above. However, the standard 1-, 3-, 5-, and 10-year return histories typically shown to clients and prospective investors—and used in many industry performance studies—provide only snapshots of past performance as

(Fig. 4)

Rolling periods ended December 31, 2019

eVestment Manager Categories

U.S. Large Growth
240 Managers

U.S. Large Value
303 Managers

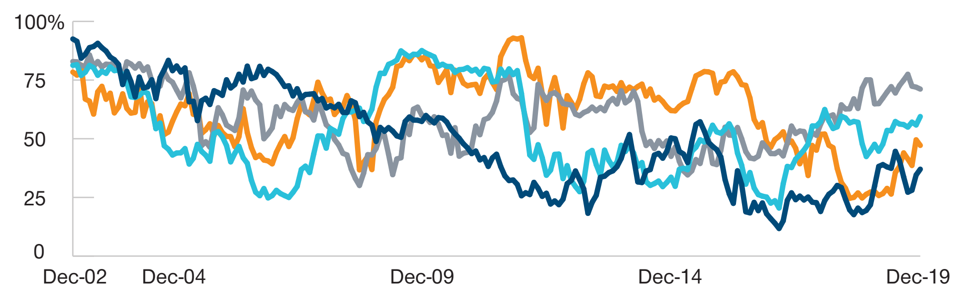
U.S. Small Growth
146 Managers

U.S. Small Value
199 Managers

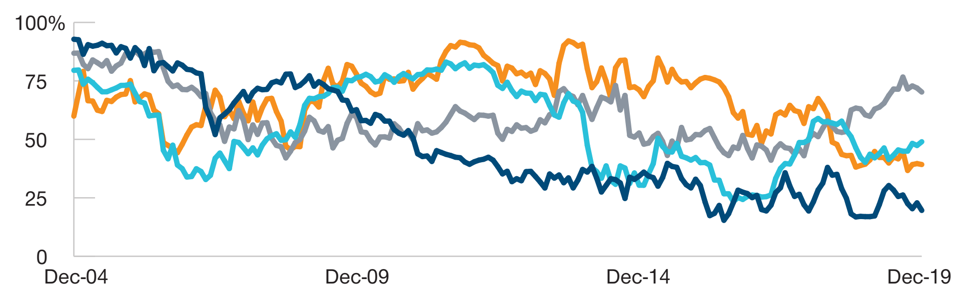
Relative Performance Has Been More Stable Over Longer Time Horizons

Percentage of managers in the eVestment Alliance database outperforming their benchmarks (net of fees)

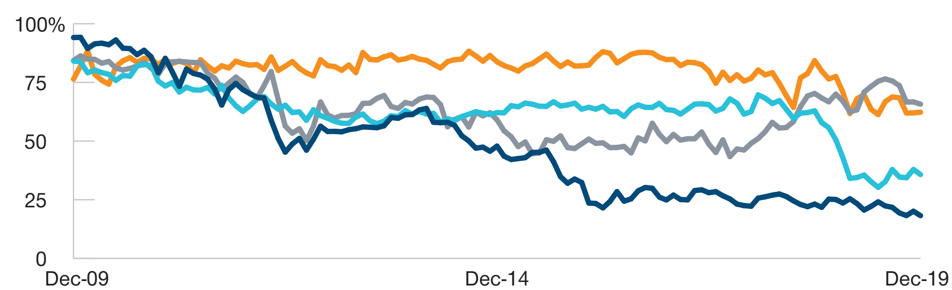
Rolling Three-Year Periods



Rolling Five-Year Periods



Rolling 10-Year Periods



These charts show how relative performance has tended to offer a more consistent picture as time periods extend, smoothing out some of the noise that dominates one-year periods.

Sources: Zephyr StyleADVISOR and eVestment. Data analysis by T. Rowe Price. Created with Zephyr StyleADVISOR.

Past performance is not a reliable indicator of future performance.

[5] Based on the same eVestment Alliance manager categories and benchmark comparisons used in Figure 1.

of a current date. To gain a clearer picture of manager skill, we believe more intense investigation is required.

As equity managers, we are primarily interested in whether our own investment process—which emphasizes bottom-up fundamental analysis, in-depth research coverage, and collaboration across size and style categories—has created long-term value for our clients. For a better understanding of this issue, we conducted a rigorous study of the performance of T. Rowe Price's institutional diversified U.S. equity strategies over the 20 years ended December 31, 2019 (or since inception for strategies that lacked a full 20-year track record).

Our study included 18 of the 24 active institutional diversified U.S. equity strategies currently advised by T. Rowe Price. In instances where a portfolio manager managed multiple strategies in the same sub-asset class and/or style (e.g., U.S. small-cap growth), we used only the strategy with the highest assets under management to avoid double counting.[6] The strategies included in our study represented approximately 78% of

(Fig.5)

The Performance Study Universe

T. Rowe Price composites, benchmarks, and inclusion dates

Composite	Designated Benchmark	Inclusion Date
U.S. Capital Appreciation Composite	S&P 500 Index	12/31/1999
U.S. Dividend Growth Equity Composite	S&P 500 Index	12/31/1999
U.S. Growth Stock Composite	Russell 1000 Growth Index	12/31/1999
U.S. Large-Cap Core Growth Equity Composite	Russell 1000 Growth Index	12/31/1999
U.S. Large-Cap Equity Income Composite	Russell 1000 Value Index	12/31/1999
U.S. Large-Cap Growth Equity Composite	Russell 1000 Growth Index	11/30/2001
U.S. Large-Cap Value Equity Composite	Russell 1000 Value Index	12/31/1999
U.S. Mid-Cap Growth Equity Composite	Russell Midcap Growth Index	12/31/1999
U.S. Mid-Cap Value Equity Composite	Russell Midcap Value Index	12/31/1999
U.S. Multi-Cap Growth Equity Composite	Russell 1000 Growth Index	4/30/2000*
U.S. Small-Cap Core Equity Composite	Russell 2000 Index	12/31/1999
U.S. Small-Cap Growth II Equity Composite	Russell 2000 Growth Index	12/31/1999
U.S. Diversified Small-Cap Value Equity Composite**	Russell 2000 Value Index	12/31/1999
U.S. Smaller Companies Equity Composite	Russell 2500 Index	7/31/2001
U.S. Structured Active Mid-Cap Growth Equity Composite	Russell Midcap Growth Index	12/31/1999
QM U.S. Small-Cap Growth Equity Composite***	Russell 2000 Growth Index	12/31/1999
U.S. Structured Research Equity Composite	S&P 500 Index	12/31/1999
U.S. Value Equity Composite	Russell 1000 Value Index	12/31/1999

For illustrative, informational purposes only. Not all strategies/structures shown are available in all jurisdictions from T. Rowe Price.

*The U.S. Multi-Cap Growth Equity Composite incepted on December 31, 1995, but was added to the study as of the date of an investment program change that broadened its objective to include investing in a diversified portfolio of U.S. growth companies. See the appendix for additional information.

**Formerly the U.S. Small-Cap Value IV Equity Composite.

***Formerly the U.S. Structured Active Small-Cap Growth Equity Composite.

Sources: T. Rowe Price, Russell (See footnote 2), and Standard & Poor's (See Important Information).

[6] Our performance study covered composites for 18 institutional diversified U.S. equity strategies that had accounts and were actively being offered by T. Rowe Price as of December 31, 2019. It excluded any dormant or previously terminated composites. Two strategies, U.S. Small-Cap Value Equity and U.S. Small-Cap Growth I Equity, were excluded from the study to avoid double counting. Four strategies also were excluded due to their extremely limited longer-term performance track records. U.S. Large-Cap Core Equity incepted in June 2009, providing only six rolling 10-year periods, making a long-term performance analysis unreliable. QM U.S. Small & Mid-Cap Core Equity and QM U.S. Value Equity both incepted at the end of February 2016 and, thus, had only a handful of completed 3-year rolling performance periods and no 5- or 10-year rolling performance periods in the time frame covered by the study. QM U.S. Large-Cap Growth Equity incepted at the end of December 2017 and, thus, had only 13-year rolling performance periods. We believe inclusion of these four strategies would have been inappropriate. Three socially responsible composites within strategies (U.S. Large-Cap Growth Socially Responsible Equity, U.S. Large-Cap Value Socially Responsible Equity, and U.S. Large-Cap Core Growth Socially Responsible Equity) also were excluded from the study. These composites consist of portfolios for clients that mandate specific stock restrictions. The portfolio manager, in turn, alters the base strategy, often substituting a different holding for the restricted security. Given that the restrictions are client dictated and that the portfolios are otherwise managed in a manner similar to the base strategy, we felt it was appropriate to exclude these strategies. More detailed information about the study methodology can be found in the appendix.

total U.S. equity assets in the domestic and global equity composites advised by the firm as of December 31, 2019. The designated benchmark for each strategy, as well as the date of its inclusion in the study, are shown in Figure 5.

For each strategy in the study, we examined performance over rolling 1-, 3-, 5-, and 10-year periods (rolled monthly) from December 31, 1999, through December 31, 2019. We then calculated excess returns (positive or negative) for each strategy for each time period relative to the appropriate benchmark—the designated style benchmark used in T. Rowe Price performance reports and disclosures. Strategy returns were calculated net of fees, based on the highest breakpoint fee for T. Rowe Price institutional U.S. equity clients.

For each strategy, we calculated active success rates (the percentage of periods in which the strategy outperformed its benchmark) and average returns relative to that benchmark for each time frame (i.e., over all rolling 1-, 3-, 5-, and 10-year periods).[7] The results are displayed in Figures 6 and 7.

Positive Results for Most T. Rowe Price Diversified U.S. Equity Strategies Over Longer Time Horizons

Rolling periods December 31, 1999, through December 31, 2019

(Fig. 6)

Active success rates: percentage of rolling periods with returns higher than benchmark (net of fees)

(Fig. 7)

Average annualized excess returns over benchmark (net of fees)

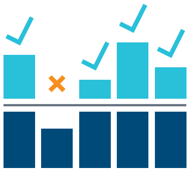
	Rolling Periods (Fig. 6)				Rolling Periods (Fig. 7)			
Composite	**1-Year**	**3-Year**	**5-Year**	**10-Year**	**1-Year**	**3-Year**	**5-Year**	**10-Year**
U.S. Capital Appreciation	57.6%	54.6%	60.8%	84.3%	4.09%	3.01%	2.67%	2.63%
U.S. Dividend Growth Equity	56.3	58.5	67.4	83.5	1.57	0.92	0.84	0.83
U.S. Growth Stock	67.7	71.7	77.9	94.2	2.41	1.77	1.52	1.18
U.S. Large-Cap Core Growth Equity	68.1	80.5	86.2	100.0	2.36	1.75	1.50	1.22
U.S. Large-Cap Equity Income	44.5	48.8	44.8	63.6	0.43	0.03	-0.11	0.21
U.S. Large-Cap Growth Equity	61.2	78.0	94.9	100.0	2.13	1.68	1.39	1.35
U.S. Large-Cap Value Equity	59.8	70.7	81.2	95.9	0.98	0.71	0.68	0.76
U.S. Mid-Cap Growth Equity	71.2	88.8	98.9	100.0	3.28	2.68	2.57	2.46
U.S. Mid-Cap Value Equity	51.5	52.2	59.1	81.8	0.59	0.55	0.47	0.65
U.S. Multi-Cap Growth Equity	69.8	77.6	83.1	100.0	2.18	1.72	1.54	1.56
U.S. Small-Cap Core Equity	69.0	76.1	85.6	100.0	2.50	1.93	1.89	2.28
U.S. Small-Cap Growth II Equity	80.8	93.2	100.0	100.0	4.79	4.11	3.77	3.76
U.S. Diversified Small-Cap Value Equity	64.6	83.9	92.3	100.0	1.65	1.76	1.67	1.86
U.S. Smaller Companies Equity	64.8	71.5	83.3	100.0	1.10	1.17	1.31	1.56
U.S. Structured Active Mid-Cap Growth Equity	57.2	66.3	74.6	78.5	1.11	0.64	0.54	0.57
QM U.S. Small-Cap Growth Equity	72.5	77.1	82.3	100.0	1.80	1.61	1.68	1.96
U.S. Structured Research Equity	78.6	83.9	90.6	100.0	0.83	0.75	0.69	0.65
U.S. Value Equity	64.2	74.1	89.0	100.0	1.80	1.22	1.27	1.49
Time-Weighted Averages All Strategies	**64.4**	**72.6**	**80.5**	**93.3**	**1.98**	**1.56**	**1.44**	**1.50**
Percent of Strategies With Positive Active Success Rates	**94.4**	**94.4**	**94.4**	**100.0**				

Periods with positive active success rates or positive average excess returns.

Sources: T. Rowe Price, Russell, and Standard & Poor's (see Important Information). Data analysis by T. Rowe Price.
For illustrative, informational purposes only. Not all strategies/structures shown are available in all jurisdictions from T. Rowe Price.

Past performance is not a reliable indicator of future performance.

[7] Excess returns for the 3-, 5-, and 10-year rolling periods were annualized.



Active Success Rates

The active success rate records the percentage of times a strategy beat its designated benchmark, net of fees and trading costs, over a specified time period (e.g., 10 years). Think of this as a measure of how often a client might review his or her regular performance reports and find that a strategy has outperformed for that time period.

We've defined a positive active success rate as a strategy beating the performance of its designated benchmark in more than half of the periods measured.

See Figure 6 for details on the specific active success rates for each strategy over 1-, 3-, 5-, and 10-year rolling time periods.

> One of the more consistent findings in the study was that the likelihood of outperformance tended to improve over longer time horizons.

Results of T. Rowe Price Performance Study

We found that for most T. Rowe Price institutional diversified U.S. equity strategies, shorter-term active success rates (over rolling one-year periods, in this case) averaged significantly higher than the 50% mark one would normally expect for the average active manager over an extended time frame—like the 20 years covered by our study. Seventeen of the 18 strategies outperformed in more than half of all one-year rolling periods, while only one strategy underperformed half the time or more.

Short-term excess returns, net of fees, also tended to be significantly more positive than for the average active manager. All 18 strategies showed positive excess returns, on average, across the one-year rolling periods covered by the study (Figure 7). Active success rates and excess return results may differ depending on a particular strategy's overall performance pattern—a strategy that outperformed its index by a large margin in a relatively small number of periods, for example, might show positive excess returns but a negative (i.e., below 50%) active success rate.

One of the more consistent findings in the study was that the likelihood of outperformance tended to improve over longer time horizons.

- While 17 of the 18 strategies had positive active success rates (i.e., higher than 50%) over rolling three-year and five-year periods, all 18 had positive 10-year active success rates.
- Eleven of the 18 strategies outperformed their benchmarks over every rolling 10-year period. Two more strategies outperformed in more than 90% of all rolling 10-year periods.
- Seventeen of the 18 strategies had positive excess returns, on average, over every time horizon studied (one, three, five, and 10 years).

Our study indicates that a majority of T. Rowe Price's institutional diversified U.S. equity strategies generated positive relative performance, net of fees and trading costs, over the past 20 years. However, there were some potential biases inherent in the study that we needed to address.

While we have provided broad-based averages, the diverse range of investment objectives represented in the study provided an opportunity for us to dig deeper than just calculating simple performance averages across all 18 strategies. The universe of smaller stocks is typically less deeply researched than the large-cap market, potentially making it easier for small-cap managers to generate excess returns by exploiting informational inefficiencies. Thus, the excess returns for the small-cap managers in the study could have biased a simple average higher, concealing relatively weak results for large-cap managers.

Performance averages could also be distorted by the fact that three of the 18 strategies did not have histories that spanned the entire 20-year study period, resulting in an extremely small number of longer-term performance periods for some strategies.[8]

As of December 31, 2019, for example, the U.S. Large-Cap Growth Equity Composite had completed only 98 rolling 10-year periods since its inception at the end of November 2001. Yet results for all 18 strategies would have equal weight in a simple average, whatever their longevity.

To correct for these potential biases, we divided the 18 strategies in the study into three capitalization categories—large-, mid-, and small-cap—based on their designated benchmarks. We then calculated average active success rates and average excess returns for each category. These averages were time weighted—that is, the results were weighted by the percentage of the total performance periods in each category that were provided by each strategy.[9] The results of our category analysis are

[8] Two strategies did not have full 20-year performance histories for the period covered by the study: U.S. Large-Cap Growth Equity and U.S. Smaller Companies Equity. A third strategy, U.S. Multi-Cap Growth Equity, did not have a full 20-year history for its current strategy objective.

[9] The time weights for each strategy are shown in the appendix (Figure A2).

100%

of diversified U.S. equity strategies had positive active success rates over rolling 10-year periods.

16 of 18

diversified U.S. equity strategies outperformed their benchmarks over at least 80% of rolling 10-year periods.

17 of 18

diversified U.S. equity strategies had positive average excess returns over every time horizon examined.

shown in Figure 8 (average active success rates) and Figure 9 (excess returns).[10]

- As one might reasonably expect, time-weighted excess returns for T. Rowe Price's small-cap managers were, on average, stronger than for large-cap managers.
- Time-weighted average results for small-cap managers were somewhat stronger (relative to mid- and large-cap managers) over longer-term periods. However, average excess returns for large- and mid-cap managers weakened slightly at three and five-year time horizons.
- Time-weighted average active success rates for T. Rowe Price large-cap managers were positive (above 50%) over all time horizons. Average excess returns were positive over all time horizons.
- Time-weighted active success rates for all three manager categories consistently increased as time horizons were extended.

Disciplined Investing for the Long Run

Although the study appears to confirm that T. Rowe Price U.S. equity managers, on average, have been able to add value net of fees and trading costs, especially over longer time horizons, the same is clearly not true for all our strategies across all time periods. Like other investment managers, we have encountered prolonged market environments that were unfriendly either to our overall philosophy or to specific size and style disciplines. A number of T. Rowe Price growth strategies, for example, underperformed in the 1990s after their managers, concerned about lofty valuations, declined to match the soaring weights for technology stocks in capitalization-weighted growth indexes.

However, underperformance turned into relative outperformance for some strategies when markets normalized and cap-weighted benchmarks were dragged lower by their heavy exposure to deflating technology stocks. That episode suggests that a disciplined investment approach can pay off over the long run. Still, the fact that cyclical market factors can have such persistent effects suggests that the performance of individual strategies also should be interpreted with caution—especially for those with track records that do not span the full 20 years covered by our study.

A Focus on Long-Term Value Creation

If, as our study suggests, it is possible for active U.S. equity managers to add value over longer time horizons, what factors might influence their degree of success? Academic research indicates there are some common characteristics associated with relative outperformance.[11]

One of the most important factors, obviously, is cost. While studies have suggested that some active managers do exhibit skill in outperforming the market before costs, that performance edge typically disappears, on average, after trading expenses and fees are subtracted.[12] Accordingly, active managers that can hold costs down would appear to have an advantage over their peers. But more substantive, investment-related factors also have been linked to strong relative performance.

These include:

- **Stock selection skill:** Some researchers have concluded that active equity managers as a group have the ability to select stocks that

[10] The capitalization categories for each strategy are shown in the appendix (Figure A2).

[11] Mutual fund net asset value data are the most commonly used by researchers examining active manager performance. Accordingly, many of the studies cited here refer to mutual fund vehicles. However, we believe the research and its conclusions are also applicable to the institutional separate account managers represented by the performance composites used in our study.

[12] Fama, French, "Luck versus Skill in the Cross-Section of Mutual Fund Returns," Journal of Finance, Vol. 65, No. 5, October 2010; Dellva, Olson, "The Relationship Between Mutual Fund Fees and Expenses and Their Effects on Performance," Financial Review, Vol. 33, No. 1, February 1998; and Kacperczyk, Sialm, Zheng, "Unobserved Actions of Mutual Funds," Review of Financial Studies, Vol. 21, No. 6, November 2008.

outperform the broad market on a before-cost basis.[13]

- **Manager tenure:** Active strategies with stable, experienced management teams that have been in place for some time appear to be more likely to outperform.[14]
- **Management structures:** Teams that feature clear lines of authority appear to outperform those with less well-defined organizational roles.[15]

To the extent T. Rowe Price's institutional diversified U.S. equity strategies were able to deliver strong long-term relative performance, net of fees, over the past two decades, we believe it reflects the strengths of our investment process in these key areas.

Fundamental analysis, backed by a well-resourced global research platform, is the core of our approach, providing a strong foundation for bottom-up stock picking. We go out into the field to get the answers we need. That means that over 430 of our investment professionals see firsthand how the companies we're investing in are performing today in order to make skilled judgments about how we think they'll perform in the future.[16] We seek to uncover more opportunities for our clients and are constantly on the lookout, analyzing the markets and the companies within them. By going on the road to meet with executives and employees, our professionals can ask the right questions to get a deeper understanding of where a company stands and where it could go in the future.

Experience has been a critical component of our success as well. Our skilled portfolio managers have deep experience—an average of 23 years in the industry and 18 years with

Positive Long-Term Average Active Success Rates and Excess Returns Within U.S. Equity Strategy Categories

(Fig. 8)

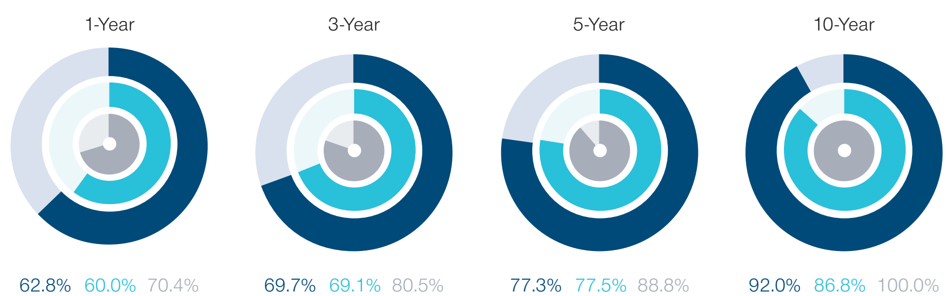
Rolling periods December 31, 1999, Through December 31, 2019

U.S. Large-Cap Average (10 strategies)

U.S. Mid-Cap Average (3 strategies)

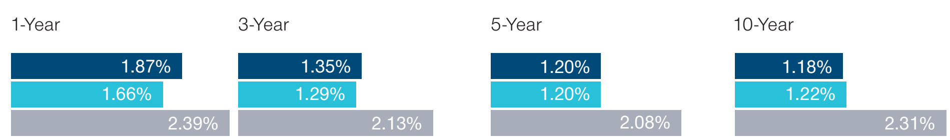
U.S. Small-Cap Average (5 strategies)

Time-weighted average active success rates



(Fig. 9)

Average annualized time-weighted excess returns (net of fees)



Sources: T. Rowe Price, Russell (See footnote 2), and Standard & Poor's. Data analysis by T. Rowe Price.

Past performance is not a reliable indicator of future performance.

[13] Grinblatt, Titman, "The Persistence of Mutual Fund Performance," *Journal of Finance*, Vol. 47, No. 5, December 1992; Culbertson, Nitzsche, O'Sullivan, "Mutual Fund Performance: Skill or Luck?" *Journal of Empirical Finance*, Vol. 15, No. 4, September 2008; Baker, Litov, Wachter, Wurgler, "Can Mutual Fund Managers Pick Stocks? Evidence From Their Trades Prior to Earnings Announcements," *Journal of Financial and Quantitative Analysis*, Vol. 45, No. 5, October 2010.

[14] Golec, "The Effects of Mutual Fund Manager Characteristics on Their Portfolio Performance, Risk and Fees," *Financial Services Review*, Vol. 5, No. 2, 1996.

[15] Luo, Qiao, "On the Team Approach to Mutual Fund Management: Observability, Incentives, and Performance," paper presented at the European Financial Management Association 2014 Annual Meeting, January 12, 2014.

[16] T. Rowe Price professional staff as of December 31, 2019. Includes 106 portfolio managers, 26 associate portfolio managers, 172 investment analysts, 42 associate analysts, 15 multi-asset specialists, 15 specialty analysts, 4 economists, 32 traders, and 22 senior managers.

(Fig. 10)

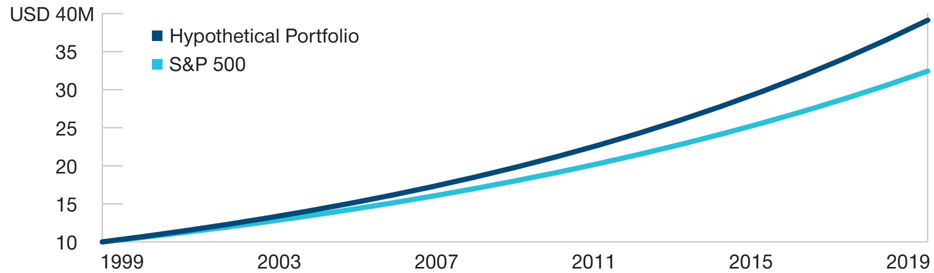
December 31, 1999, Through December 31, 2019

Hypothetical Portfolio (7.06%: S&P 500 + one percentage point)

S&P 500 Index (6.06%)

Sources: T. Rowe Price and Standard & Poor's. Data analysis by T. Rowe Price.

Hypothetical Results of a USD 10M Investment Versus the S&P 500 + One Percentage Point Over 20 Years



This contains hypothetical portfolio performance. See the Important Information section at the end for important information regarding hypothetical portfolio disclosure.

T. Rowe Price.[17] Significantly, many of our analysts go on to become portfolio managers, which we believe creates a strong foundation on behalf of our clients.

We also don't wait for change, we seek to get ahead of change for our clients. We know when to move with the crowd and when to move against it. Our people have the conviction to think independently but act collaboratively. This means we're able to respond quickly to take advantage of short-term market fluctuations, or we can also choose to hold tight.

By remaining focused on the underlying factors that support strong relative performance, T. Rowe Price will continue to seek long-term value creation for our U.S. equity clients.

The excess returns shown in Figure 9 may seem rather modest relative to the absolute returns that investors typically have been able to achieve in the U.S. equity markets over longer periods. However, even a small improvement in annualized returns can make a significant difference in ending portfolio value over longer time horizons.

Take, for example, a hypothetical equity portfolio that appreciated at a rate equal to the 6.06% annualized total return on the S&P 500 Index over the 20-year period covered by our study. A portfolio that achieved even a 100-basis-point improvement in annualized return over those same 20 years, after all fees and costs, could have increased its ending value by almost 21% (Figure 10).

[17] As of December 31, 2019.

Appendix: Study Methodolgy

We examined the performance of 18 of T. Rowe Price's current lineup of institutional diversified active U.S. equity strategies over a 20-year period beginning December 31, 1999, and ending December 31, 2019, or since their inception. The 18 institutional composites included in the study were those that had accounts and were actively being offered by T. Rowe Price as of December 31, 2019. The study excluded any dormant or previously terminated composites. Diversified strategies were defined as those that had the ability to invest across one or more U.S. equity categories, such as large-cap growth and large-cap value; mid-cap growth and mid-cap value; small-cap growth and small-cap value; or the core large-, mid-, and small-cap universes. One of the 18 strategies, U.S. Capital Appreciation, also has the ability to invest in fixed income assets but is primarily an equity portfolio and is benchmarked to the S&P 500 Index.

Our study was limited to diversified U.S. equity strategies primarily for two reasons:

- Many of T. Rowe Price's international and global equity strategies have significantly more limited performance records than our U.S. diversified equity portfolios. Combining them in the U.S. diversified equity study could have significantly skewed average performance comparisons over shorter and longer rolling time periods and between the early and later years of the study.
- U.S. equity markets are widely regarded as the world's most efficient, transparent, and intensively researched, making them particularly formidable tests of active management skill.

More specialized sector portfolios—such as T. Rowe Price's Health Sciences and Communications & Technology Strategies—were excluded from the study because the narrow, sector-specific performance benchmarks used by these strategies made direct comparisons with diversified strategies inappropriate, in our view. It is our belief that including these strategies would not have had a materially negative effect on the study's conclusions, as most T. Rowe Price sector strategies show positive excess returns against their specialized benchmarks that, in many cases, are larger than for the firm's diversified U.S. equity strategies.

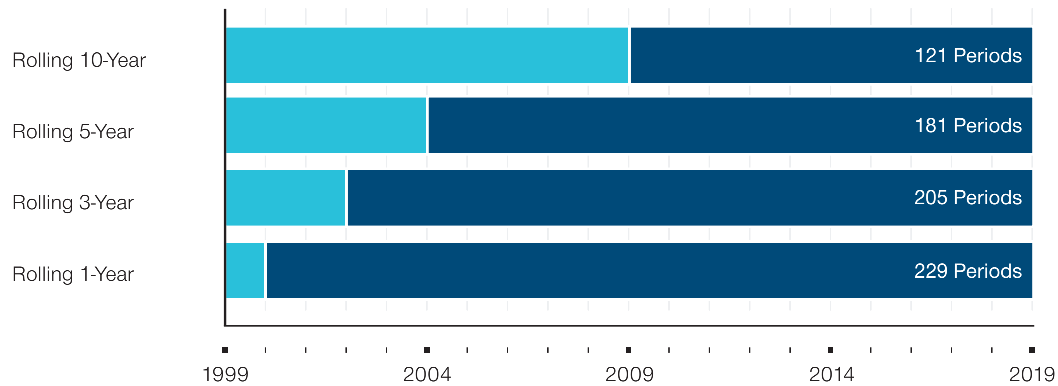
Four of T. Rowe Price's diversified U.S. equity strategies were excluded from the study due to their comparatively limited longer-term performance track records. U.S. Large-Cap Core Equity began operations in June 2009, making a 10-year performance analysis unreliable. QM U.S. Small & Mid-Cap Core Equity and QM U.S. Value Equity both incepted at the end of February 2016, and thus, had relatively few completed three-year performance periods and no 5- or 10-year performance periods within the time frames covered by the study. QM U.S. Large-Cap Growth Equity incepted at the end of December 2017, and thus, had only 13 one-year performance periods. We believe inclusion of these four strategies would have been inappropriate.

Three socially responsible composites within strategies (U.S. Large-Cap Growth Socially Responsible Equity, U.S. Large-Cap Value Socially Responsible Equity, and U.S. Large-Cap Core Growth Socially Responsible Equity) also were excluded from the study. These composites consist of portfolios for clients that mandate specific stock restrictions. The portfolio manager, in turn, alters the base strategy, often substituting a different holding for the restricted security. Given that the restrictions are client dictated and that the portfolios are otherwise managed in a manner similar to the base strategy, we felt it was appropriate to exclude these composites.

In cases where one portfolio manager managed multiple strategies in the same sub-asset class and/or style (e.g., U.S. small-cap growth), only the largest composite as measured by assets under management was included in the study to avoid double counting.

Strategies were included in the study universe as of December 31, 1999, or, for strategies without full 20-year track records for the period covered by the study, as of the date of their inception. An exception was the U.S. Multi-Cap Growth Equity Composite, which began operations on December 31, 1995, but was included in the study as of April 30, 2000. Prior to its study inclusion date, U.S. Multi-Cap Growth Equity was a specialized sector strategy focused on the U.S. service sectors. The strategy was added to the study

(Fig. A1) Rolling Time Periods in Performance Study



First Period in Each Series

Source: T. Rowe Price.

as of the date of an investment program change that broadened its objective to include investing in a diversified portfolio of U.S. growth companies.

Strategy and benchmark return data were taken from T. Rowe Price's internal performance database, which is used by T. Rowe Price to calculate returns for its quarterly, semiannual, and annual client reports; for marketing materials; and for regulatory disclosures. Benchmark returns in the T. Rowe Price database are collected from the index providers—in this case, the Standard & Poor's Corporation and Russell Investments. All study results were based on total returns including dividends reinvested. Performance was calculated net of fees, based on the highest breakpoint fee for T. Rowe Price institutional U.S. equity clients.

For each strategy in the study, T. Rowe Price analysts calculated 1-, 3-, 5-, and 10-year rolling returns, rolled monthly. Returns for the 3-, 5-, and 10-year rolling periods were annualized. To ensure these periods all covered the equivalent two-decade slice of U.S. equity market history, each rolling series began on December 31, 1999, and ended on December 31, 2019. This produced:

- 229 rolling one-year periods,
- 205 rolling three-year periods,
- 181 rolling five-year periods, and
- 121 rolling 10-year periods.[18]

For each rolling period, the returns for each strategy's current size and/or style benchmark were subtracted from the strategy return, producing an excess return. The percentage of rolling periods in each time series in which excess returns were positive was then calculated, producing an active success rate for each strategy across each time horizon. Excess returns were averaged across every rolling period in each time frame for each strategy to arrive at the results shown in Figure 7.

Firmwide performance averages were calculated overall, as well as for three capitalization categories in the study universe: U.S. large-cap strategies, U.S. mid-cap strategies, and U.S. small-cap strategies. Managers were placed in these categories based on their designated benchmarks:

- Strategies benchmarked to the S&P 500 Index, the Russell 1000 Value Index, or the Russell 1000 Growth Index were included in the U.S. large-cap category.
- Strategies benchmarked to the Russell Midcap Growth Index or the Russell Midcap Value Index were included in the U.S. mid-cap category.
- Strategies benchmarked to the Russell 2000 Index, the Russell 2500 Index, the Russell 2000 Growth Index, or the Russell 2000 Value Index were included in the U.S. small-cap category.

To adjust for the fact that a number of strategies had performance histories considerably shorter than the full 20-year period covered by the study, performance averages in each category were time weighted, meaning the results were adjusted to reflect the percentage of the total performance periods in each category that

[18] Since not all strategies had performance records covering the full 20-year study, the number of rolling periods was smaller for some strategies.

were provided by each strategy. These weights are shown in Figure A2. Overall, time weighting had minimal effect on average performance results.

Due to the relatively small sample sizes in each capitalization category (10 U.S. large-cap strategies, three U.S. mid-cap strategies, and five U.S. small-cap strategies), the results of this analysis are of limited statistical significance and should be regarded as indicative only.

(Fig. A2)

Rolling periods ended December 31, 2019

Time Weights for T. Rowe Price Strategies

Percentage of total rolling performance periods within each capitalization category

Rolling Periods	1-Year	3-Year	5-Year	10-Year
U.S. Large-Cap				
U.S. Capital Appreciation Composite	10.12%	10.13%	10.15%	10.23%
U.S. Dividend Growth Equity Composite	10.12	10.13	10.15	10.23
U.S. Growth Stock Composite	10.12	10.13	10.15	10.23
U.S. Large-Cap Core Growth Equity Composite	10.12	10.13	10.15	10.23
U.S. Large-Cap Equity Income Composite	10.12	10.13	10.15	10.23
U.S. Large-Cap Growth Equity Composite	9.10	9.00	8.86	8.28
U.S. Large-Cap Value Equity Composite	10.12	10.13	10.15	10.23
U.S. Multi-Cap Growth Equity Composite	9.94	9.94	9.93	9.89
U.S. Structured Research Equity Composite	10.12	10.13	10.15	10.23
U.S. Value Equity Composite	10.12	10.13	10.15	10.23
U.S. Mid-Cap				
U.S. Structured Active Mid-Cap Growth Equity Composite	33.33	33.33	33.33	33.33
U.S. Mid-Cap Growth Equity Composite	33.33	33.33	33.33	33.33
U.S. Mid-Cap Value Equity Composite	33.33	33.33	33.33	33.33
U.S. Small-Cap				
U.S. Small-Cap Core Equity Composite	20.34	20.38	20.43	20.65
U.S. Small-Cap Growth II Equity Composite	20.34	20.38	20.43	20.65
U.S. Diversified Small-Cap Value Equity	20.34	20.38	20.43	20.65
U.S. Smaller Companies Equity Composite	18.65	18.49	18.28	17.41
QM U.S. Small-Cap Growth Equity	20.34	20.38	20.43	20.65

Past performance is not a reliable indicator of future performance.

For illustrative, informational purposes only. Not all strategies/structures shown are available in all jurisdictions from T. Rowe Price.

Source: T. Rowe Price.

Important Information

Standardized Performance

Annualized total returns for periods ended June 30, 2020

As of 6/30/2020 Figures shown in U.S. dollars	Annualized Total Returns 1 Year	3 Years	5 Years	10 Years	Inception Date
US Capital Appreciation Composite (Gross)	**6.96**	**10.62**	**10.51**	**12.84**	**12/31/1995**
US Capital Appreciation Composite (Net)	6.43	10.07	9.96	12.28	
S&P 500 Index	7.51	10.73	10.73	13.99	
US Dividend Growth Equity Composite (Gross)	**3.66**	**10.74**	**11.15**	**14.22**	**12/31/1995**
US Dividend Growth Equity Composite (Net)	3.15	10.19	10.60	13.65	
NASDAQ US Broad Dividend Achievers Index	1.13	8.23	9.38	12.12	
S&P 500 Index	7.51	10.73	10.73	13.99	
US Growth Stock Composite (Gross)	**19.42**	**17.21**	**15.41**	**17.79**	**12/31/1995**
US Growth Stock Composite (Net)	18.83	16.64	14.84	17.21	
Russell 1000 Growth Index	23.28	18.99	15.89	17.23	
S&P 500 Index	7.51	10.73	10.73	13.99	
US Large-Cap Core Growth Equity Composite (Gross)	**20.13**	**19.76**	**16.97**	**19.03**	**12/31/1995**
US Large-Cap Core Growth Equity Composite (Net)	19.54	19.17	16.39	18.44	
Russell 1000 Growth Index	23.28	18.99	15.89	17.23	
S&P 500 Index	7.51	10.73	10.73	13.99	
Lipper Large-Cap Growth Funds Index[19]	21.75	18.37	14.60	15.91	
US Large-Cap Equity Income Composite (Gross)	**-10.70**	**1.49**	**4.81**	**9.83**	**12/31/1989**
US Large-Cap Equity Income Composite (Net)	-11.12	1.01	4.31	9.32	
Custom Benchmark—100% S&P500 to 100% RS1000V on 3/1/2018	-8.84	3.70	6.45	11.77	
Russell 1000 Value Index	-8.84	1.82	4.64	10.41	
US Large-Cap Growth Equity Composite (Gross)	**21.55**	**20.39**	**17.59**	**19.05**	**11/30/2001**
US Large-Cap Growth Equity Composite (Net)	20.95	19.80	17.01	18.46	
Russell 1000 Growth Index	23.28	18.99	15.89	17.23	
US Large-Cap Value Equity Composite (Gross)	**-10.42**	**1.38**	**5.03**	**10.82**	**3/31/1990**
US Large-Cap Value Equity Composite (Net)	-10.85	0.90	4.53	10.30	
Russell 1000 Value Index	-8.84	1.82	4.64	10.41	
S&P 500 Index	7.51	10.73	10.73	13.99	
US Mid-Cap Growth Equity Composite (Gross)	**4.65**	**12.14**	**11.53**	**15.84**	**12/31/1995**
US Mid-Cap Growth Equity Composite (Net)	4.02	11.48	10.87	15.16	
Custom Benchmark—Linked for U.S. Midcap Growth Strategy	11.91	14.76	11.60	14.88	
Russell Midcap Growth Index	11.91	14.76	11.60	15.09	

Source: T. Rowe Price.

Past performance is not a reliable indicator of future performance.

Gross performance returns are presented before management and all other fees, where applicable, but after trading expenses. Net of fees performance reflects the deduction of the highest applicable management fee that would be charged based on the fee schedule contained within this material, without the benefit of breakpoints. Gross and net performance returns reflect the reinvestment of dividends and are net of all non-reclaimable withholding taxes on dividends, interest income, and capital gains.

For any equity benchmarks shown, returns are shown with gross dividends reinvested, unless otherwise noted.

For illustrative, informational purposes only. Not all strategies/structures shown are available in all jurisdictions from T. Rowe Price.

As of 6/30/2020 Figures shown in U.S. dollars	Annualized Total Returns 1 Year	3 Years	5 Years	10 Years	Inception Date
US Mid-Cap Value Equity Composite (Gross)	**-6.32**	**1.10**	**4.74**	**10.55**	**7/31/1996**
US Mid-Cap Value Equity Composite (Net)	-6.89	0.49	4.11	9.89	
Russell Midcap Value Index	-11.81	-0.54	3.32	10.29	
US Multi-Cap Growth Equity Composite (Gross)	**25.56**	**20.85**	**17.44**	**18.49**	**12/31/1995**
US Multi-Cap Growth Equity Composite (Net)	24.89	20.19	16.81	17.85	
Russell 1000 Growth Index	23.28	18.99	15.89	17.23	
Lipper Multi-Cap Growth Funds Index[20]	20.36	17.03	13.15	15.50	
US Small-Cap Core Equity Composite (Gross)	**0.35**	**10.10**	**9.91**	**14.86**	**12/31/1995**
US Small-Cap Core Equity Composite (Net)	-0.40	9.28	9.09	14.01	
Russell 2000 Index	-6.63	2.01	4.29	10.50	
US Small-Cap Growth II Equity Composite (Gross)	**28.16**	**25.39**	**19.77**	**22.00**	**12/31/1995**
US Small-Cap Growth II Equity Composite (Net)	27.22	24.46	18.89	21.11	
Russell 2000 Growth Index	3.48	7.86	6.86	12.92	
US Diversified Small-Cap Value Equity Composite (Gross)	**-10.29**	**1.30**	**6.00**	**10.65**	**12/31/1995**
US Diversified Small-Cap Value Equity Composite (Net)	-10.97	0.54	5.21	9.83	
Russell 2000 Value Index	-17.48	-4.35	1.26	7.82	
US Smaller Companies Equity Composite (Gross)	**7.55**	**12.84**	**11.89**	**16.08**	**7/31/2001**
US Smaller Companies Equity Composite (Net)	6.75	12.00	11.06	15.22	
Russell 2500 Index	-4.70	4.08	5.41	11.46	
Russell 2500 Net 30% Index	-5.16	3.60	4.93	10.98	
US Structured Active Mid-Cap Growth Equity Composite (Gross)	**11.31**	**15.66**	**12.82**	**16.17**	**12/31/1992**
US Structured Active Mid-Cap Growth Equity Composite (Net)	10.65	14.98	12.15	15.48	
Russell Midcap Growth Index	11.91	14.76	11.60	15.09	
QM US Small-Cap Growth Equity Composite (Gross)	**2.30**	**9.64**	**9.07**	**15.66**	**4/30/1997**
QM US Small-Cap Growth Equity Composite (Net)	1.74	9.04	8.48	15.03	
Custom Benchmark—100% RS2000GR to 100% MUSCG on 10/1/2006	4.77	8.86	7.43	13.65	
US Structured Research Equity Composite (Gross)	**7.84**	**11.46**	**11.62**	**14.62**	**5/31/1999**
US Structured Research Equity Composite (Net)	7.50	11.12	11.27	14.26	
S&P 500 Index	7.51	10.73	10.73	13.99	
US Value Equity Composite (Gross)	**-6.77**	**3.40**	**5.60**	**12.03**	**12/31/1995**
US Value Equity Composite (Net)	-7.22	2.91	5.11	11.50	
Custom Benchmark—100% S&P500 to 100% RS1000V on 3/1/2018	-8.84	3.70	6.45	11.77	
Russell 1000 Value Index	-8.84	1.82	4.64	10.41	

Source: T. Rowe Price.

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For any equity benchmarks shown, returns are shown with gross dividends reinvested, unless otherwise noted.

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Additional Information on Hypothetical Portfolio (Fig. 10)

The data in Figure 10 is hypothetical in nature and is shown for illustrative, informational purposes only. It is not intended to forecast or predict future events, but rather to demonstrate T. Rowe Price's capability to manage assets in this style. It does not reflect the actual returns of any portfolio strategy and does not guarantee future results. Certain assumptions have been made for modeling purposes and are unlikely to be realized. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in modeling analysis presented have been stated or fully considered. Changes in the assumptions may have a material impact on the information presented. Data shown for the Hypothetical Portfolio is as of December 31, 2019, and represents the manager's analysis of Hypothetical Portfolio as of that date and is subject to change over time. The Hypothetical Portfolio is not actively managed and does not reflect the impact that material economic, market, or other factors may have on weighting decisions. If the weightings change, results would be different. Management fees, transaction costs, taxes, potential expenses, and the effects of inflation are not considered and would reduce returns. Actual results experienced by clients may vary significantly from the hypothetical illustrations shown. This information is not intended as a recommendation to buy or sell any particular security, and there is no guarantee that results shown will be achieved.

The gross model performance results do not reflect the deduction of investment advisory fees. Returns shown would be lower when reduced by the advisory fees and any other expenses incurred in the management of an investment advisory account. For example, an account with an assumed growth rate of 10% would realize a net of fees annualized return of 8.91% after three years, assuming a 1% management fee.

Key Risks

The following risks are materially relevant to the strategies highlighted in this material: Transactions in securities of foreign currencies may be subject to fluctuations of exchange rates, which may affect the value of an investment. Strategies are subject to the volatility inherent in equity investing, and their value may fluctuate more than strategies investing in income-oriented securities. The value approach carries the risk that the market will not recognize a security's true worth for a long time or that a security judged to be undervalued may actually be appropriately priced. There is an increased risk where a strategy has the ability to employ both growth and value approaches. Certain strategies are subject to sector concentration risk and are more susceptible to developments affecting those sectors than strategies with a broader mandate. Investment in small companies involves greater risk than is customarily associated with larger companies, since small companies often have limited product lines, markets, or financial resources.

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