



Methodology Summary: Comparing T. Rowe Price Funds With Passive Peers

This extensive study seeks to measure the value added by T. Rowe Price's strategic investing approach by comparing the performance of the firm's actively managed funds with their passive fund peers across standardized time windows, *rolled monthly*, over the past 20 years. Passive funds are those that the Morningstar Direct database identifies as index funds.¹

The study compares the individual performance of 124 actively managed T. Rowe Price mutual and exchange-traded funds (ETFs) with the average returns generated by the index funds in the relevant Morningstar category (**Passive Returns Average**) over 1-, 3-, 5-, and 10-year horizons, rolled monthly.

Total returns, including dividends reinvested, for each actively managed T. Rowe Price fund and the index funds in its Morningstar category (**Passive Peer Group**) were based on daily net asset values (NAVs)² and, thus, were net of management fees and other costs.

Study Universe

This broad study examines the performance of 124 actively managed T. Rowe Price funds (72 equity, 44 fixed income, and 8 asset allocation³) over the 20 years ended December 31, 2022, or since inception for funds without a full performance history. All told, these funds represented 70% of mutual fund assets managed by T. Rowe Price and 35% of the firm's total assets under management as of December 31, 2022.

Figures A1 and A2 (equity funds), Figures A3 and A4 (fixed income funds), and Figure A5 (asset allocation funds) in the

appendix list the T. Rowe Price funds included in the study and the categories to which Morningstar assigns them.

The oldest share class for each fund was included in the analysis to capture as much performance history as possible. In instances where a T. Rowe Price fund's share classes inceptioned on the same day, the Investor share class was selected.

Despite the study's breadth, some T. Rowe Price funds were disqualified from inclusion in the analysis for one of two reasons:

- Morningstar classified the T. Rowe Price fund as an index fund, denoting a passive investment vehicle; or
- Morningstar classified the T. Rowe Price fund in one of a few categories that did not include any index funds, indicating the lack of a Passive Peer Group.

Passive Returns Averages

The study examines whether T. Rowe Price's strategic investing approach has added value by comparing the performance of the firm's actively managed funds with the Passive Returns Average for each fund's Morningstar category.

This metric is generated for each relevant Morningstar category and comprises the equally weighted average of the returns generated by each index fund's oldest share class for a given rolling time window.

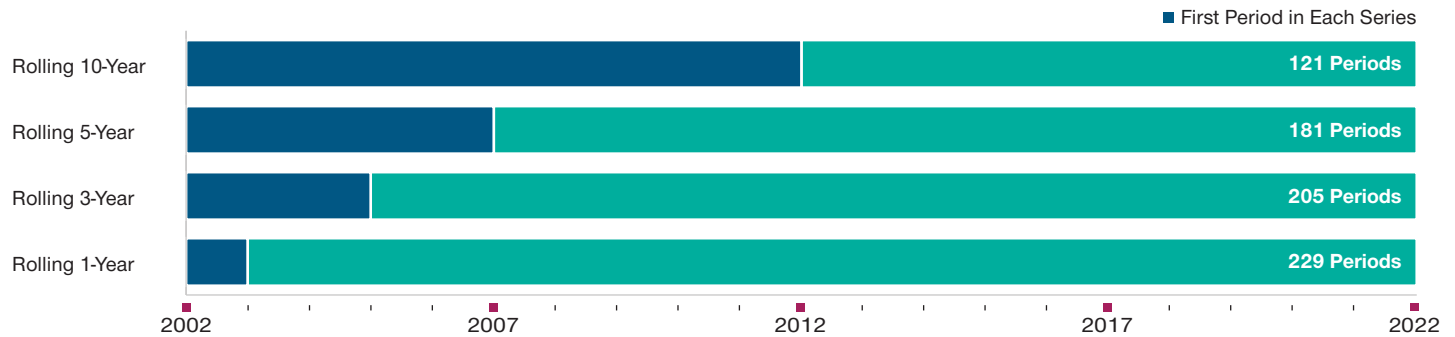
¹ Morningstar is an independent provider of fund data. The fund data used in this analysis were obtained from Morningstar Direct, a database containing comprehensive information about mutual funds and other investment products, including performance, holdings, analytics, investment characteristics, and whether a fund is actively managed or passive ("index fund"). A passive fund aims to mirror the performance of a target index. Actively managed funds strive to generate differentiated returns relative to their benchmark by making purposeful investment decisions.

² Net asset value is the value of a fund's assets minus the value of its liabilities. This metric, which is calculated daily, is often presented on a per-share basis.

³ Asset allocation funds invest in a mix of equities and fixed income securities.

Rolling Periods in Performance Study¹

(Fig. 1) Example of a fund with a full performance history



Source: T. Rowe Price.

¹For illustrative purposes. The graph depicts the number of rolling periods and their start dates for an actively managed T. Rowe Price fund with a full performance history. This applies to 44 of the 124 funds included in the study. Fewer performance periods were available for other T. Rowe Price funds, depending on their inception date, whether they ceased operation and liquidated, and when a Morningstar-designated index fund launched in their category.

In our view, this methodology acknowledges the reality that investors cannot invest directly in a benchmark, although passive investment products can provide index-like exposure.

Performance Periods

The data set comprises 1-, 3-, 5-, and 10-year returns for the T. Rowe Price funds and their corresponding Passive Returns Averages, rolled monthly. Returns for the multiyear rolling periods were annualized. Where permitted by the underlying performance data, these rolling analysis periods began on January 1, 2003, and ended on December 31, 2022.

Figure 1 shows how many different rolling periods of returns were produced in each rolling time window (one, three, five, and 10 years) when a T. Rowe Price fund and its relevant Passive Returns Average exhibited a full performance history.

If a T. Rowe Price fund included in the study incepted after December 31, 2002, its performance was tracked across standardized rolling periods from the first full month for

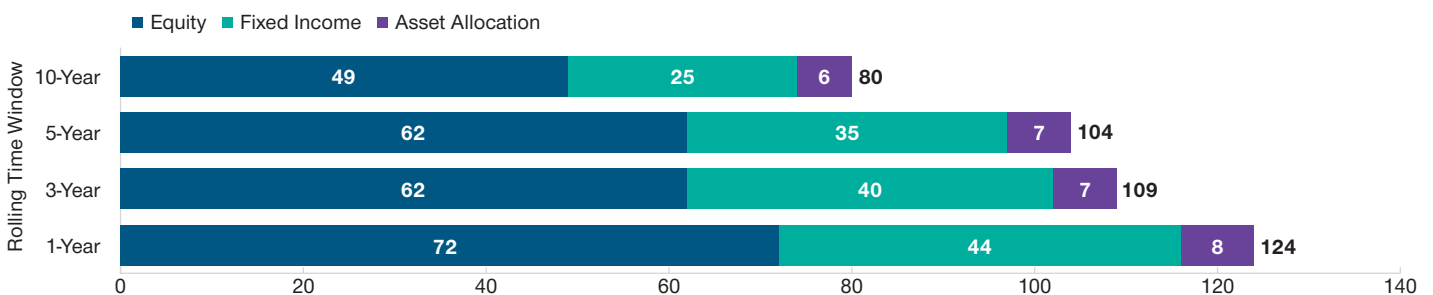
which it had a track record *and* there was an index fund in its Morningstar category.

To account for survivorship bias, we included T. Rowe Price funds and passive peers that no longer exist but operated at some point during the 20-year period covered by the study. In these instances, the rolling performance history runs from the T. Rowe Price fund's first full month after its inception until the last full month of its life—assuming its Morningstar category included an index fund for the duration of this period. Passive peer funds with a truncated performance history likewise contribute to the Passive Returns Average for the first full month to the last full month of their track records.

Figure 2 breaks out the number of T. Rowe Price funds in each asset class for the 1-, 3-, 5-, or 10-year rolling time windows. Depending on the T. Rowe Price fund's inception date and when a passive peer first emerged in its Morningstar category, some funds may lack the track record to be included in the analysis for some rolling time windows.

Number of T. Rowe Price Funds Analyzed in Each Rolling Time Window

(Fig. 2) By asset class



Rolling periods January 1, 2003, to December 31, 2022.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price. Funds are categorized by Morningstar's classifications.

Figures A1 and A2 (equity funds), Figures A3 and A4 (fixed income funds), and Figure A5 (asset allocation funds) in the appendix list the number of rolling one-year periods in which a T. Rowe Price fund has a performance record and there is a relevant Passive Returns Average for comparison. The one-year time window contains the most rolling periods for analysis—potentially as many as 229 one-year periods, rolled monthly. These data points are also proportionally indicative of how many rolling periods were analyzed in the multiyear time windows for each fund.

Performance Metrics

All study results were based on total returns, including dividends reinvested. Fund returns are based on the reported NAVs, from which management fees and operating expenses have been subtracted. In other words, the returns used in the study were based on each fund’s after-cost performance.

Excess Returns

Excess Return is the difference between a T. Rowe Price fund’s return and the relevant Passive Returns Average over a given analysis period. Figure A6 (equity funds), Figure A8 (fixed income funds), and Figure A10 (asset allocation funds) in the appendix list the average annualized Excess Returns for each T. Rowe Price fund across every applicable rolling time window.

The study also includes average Excess Returns aggregated by asset class (equity, fixed income, and asset allocation) and sub-asset class (U.S. equity, sector equity, and international equity). Because several funds had performance histories that were considerably shorter than the full 20-year period

covered by the study, these averages were time weighted to reflect the number of eligible rolling periods for each fund in a specific rolling time window (one, three, five, or 10 years) as a percentage of the aggregate number of rolling periods for all funds in its asset class and/or sub-asset class. (See Figure 3.) In other words, a fund with less history weighs less in the average than a fund with full performance history.

Active Success Rate

The **Active Success Rate** is the percentage of rolling periods in each rolling time window that a T. Rowe Price fund generated Excess Returns that were greater than zero, indicating that it outperformed the Passive Returns Average. (See Figure A7, Figure A9, and Figure A11 in the appendix.) A fund that outperformed its relevant Passive Returns Average in more than 50% of all rolling periods over a rolling time window is deemed to have achieved a “positive” Active Success Rate.

Figure 5 shows average Active Success Rates for asset and sub-asset classes. The average Active Success Rates in the table are also time weighted, based on the number of eligible rolling periods for each fund in a specific rolling time window (one, three, five, or 10 years) as a percentage of the aggregate number of rolling periods for all funds in its asset class and (for an equity fund) its sub-asset class. Figure 6 lists the percentage of funds in aggregate for each asset and sub-asset class that delivered positive Active Success Rates for a given rolling time window.

Average Annualized Excess Returns (Net of Fees) for T. Rowe Price Funds

(Fig. 3) Time-weighted averages

Asset and Sub-asset Class	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
Equity	0.96%	1.10%	1.09%	1.04%
U.S. Equity	0.60	0.77	0.81	0.77
International Equity	0.86	0.80	0.74	0.60
Sector Equity	2.18	2.60	2.53	2.54
Fixed Income	0.32	0.29	0.27	0.17
Asset Allocation	2.86	2.47	1.61	1.38
All Funds	0.90	0.95	0.89	0.85

Past performance cannot guarantee future results. See Important Information for standardized performance.

Rolling periods January 1, 2003, to December 31, 2022.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price. Funds are categorized by Morningstar’s classifications. Averages are time weighted to reflect the number of eligible rolling periods for each fund in a specific rolling time window (1, 3, 5, or 10 years) as a percentage of the aggregate number of rolling periods for all funds in its asset class and, for an equity fund, its sub-asset class.

See Figure A6 (equity funds), Figure A8 (fixed income funds), and Figure A10 (asset allocation funds) in the appendix for average annualized Excess Returns, net of fees, for each T. Rowe Price fund.

Historical Volatility

The study includes an additional risk view when comparing T. Rowe Price fixed income funds' performance with their Passive Peer Groups: **Historical Volatility**, or the dispersion (measured by standard deviation) of a fund's monthly NAV-based returns over a specific time frame.⁴

The rationale for including this risk metric in the fixed income portion of the study is twofold:

- Tracking error (the divergence of a fund's returns relative to those generated by its benchmark) is common for passive funds in this asset class and has the potential to add to their overall volatility because their holdings do not perfectly replicate those in the benchmark.
- Avoiding volatility is a key point of differentiation in this asset class, where investors often focus on capital preservation and income generation.

The analysis explores how these dynamics have expressed themselves in the performance of T. Rowe Price's fixed income funds and their respective Passive Peer Groups.

The study approaches Historical Volatility in the same way it compares the performance of T. Rowe Price's active funds with their Passive Returns Average over standard time windows that are rolled monthly. Here, the analysis considers the Historical Volatility for a T. Rowe Price fund and the equally weighted average volatility (**Passive Volatility Average**) for its Passive Peer Group over the same period.

The **Volatility Differential** is the difference between the Historical Volatility exhibited by a T. Rowe Price fund and the relevant Passive Volatility Average.

Figure A12 shows the average annualized Volatility Differential for the T. Rowe Price fixed income funds in the study across the 1-, 3-, 5-, and 10-year rolling time windows.

Figure 4 displays average Volatility Differentials for the universe of T. Rowe Price fixed income funds in the study. These asset class-level statistics are time weighted to reflect the number of eligible rolling periods for each actively managed fund as a percentage of the aggregate number of rolling periods for all the T. Rowe Price fixed income funds in a specific rolling time window (one, three, five, or 10 years).

Active Success Rates for this metric consist of the percentage of rolling periods during which each T. Rowe Price fixed income fund exhibited less volatility than its associated Passive Volatility Average. These data points can be found in Figure A13, located in the appendix. Funds that achieved a Volatility Differential below zero—indicating volatility lower than the relevant Passive Volatility Average—in more than 50% of all rolling periods were deemed to have a positive Active Success Rate over that rolling time window.

The average Active Success Rates for volatility provided in Figure 7 are time weighted, based on the number of eligible rolling periods for each fund in a specific rolling time window (one, three, five, or 10 years) as a percentage of the aggregate number of rolling periods for all the T. Rowe Price fixed income funds included in the study. Figure 8 shows the percentage of T. Rowe Price fixed income funds that achieved a positive Active Success Rate for volatility over a given rolling time window.

Average Annualized Volatility Differential for T. Rowe Price Funds

(Fig. 4) Time-weighted averages; negative values indicate lower Historical Volatility

Asset Class	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
Fixed Income	-0.30%	-0.25%	-0.32%	-0.47%

Past performance cannot guarantee future results. See Important Information for standardized performance.

Rolling periods January 1, 2003, to December 31, 2022.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price. Funds are categorized by Morningstar's classifications. The Volatility Differential is the difference in historical standard deviation of returns between the T. Rowe Price fixed income fund and the relevant Passive Volatility Average.

Averages are time weighted to reflect the number of eligible rolling periods for each fund in a specific rolling time window (1, 3, 5, or 10 years) as a percentage of the aggregate number of rolling periods for all funds in its asset class.

An annualized average Volatility Differential below zero indicates that the T. Rowe Price fixed income funds exhibited less volatility than the relevant Passive Volatility Average.

See Figure A12 in the appendix for the average annualized Volatility Differential for each T. Rowe Price fund.

⁴ In this case, Historical Volatility is the standard deviation of a fund's monthly returns over a given period. Standard deviation is a measure of the amount of variation or dispersion of a set of values. A low standard deviation indicates that the values tend to be close to the mean of the set, while a high standard deviation indicates that the values are spread out over a wider range.

Returns-Based Active Success Rates for T. Rowe Price Funds

(Figs. 5 and 6) Rolling periods January 1, 2003, to December 31, 2022

Asset and Sub-asset Class	(Fig. 5) Returns: Average Active Success Rate				(Fig. 6) Returns: Percentage of Funds With Positive Active Success Rate			
	1-Year	3-Year	5-Year	10-Year	1-Year	3-Year	5-Year	10-Year
Equity	59.2%	65.3%	69.3%	75.2%	77.8%	75.4%	77.4%	83.7%
U.S. Equity	57.2	63.1	68.1	72.9	66.7	70.4	74.1	79.2
International Equity	57.6	64.0	67.5	76.3	85.7	77.8	79.2	88.2
Sector Equity	67.0	74.1	76.3	80.3	90.9	81.8	81.8	87.5
Fixed Income	57.0	60.1	61.4	59.0	68.2	62.5	63.9	69.2
Asset Allocation	80.1	93.4	94.2	96.3	87.5	100.0	100.0	100.0
All Funds	59.9	65.7	68.7	72.7	75.0	72.3	74.0	80.0

Past performance cannot guarantee future results. See Important Information for standardized performance.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

Funds are categorized by Morningstar's classifications. Here, Active Success Rate is the percentage of rolling periods in which a T. Rowe Price equity, fixed income, or asset allocation fund posted higher returns (net of fees) than the relevant Passive Returns Average. The average Active Success Rates in these tables are time weighted to reflect the number of eligible rolling periods for each fund in a specific rolling time window (1, 3, 5, or 10 years) as a percentage of the aggregate number of rolling periods for all funds in its asset class and, for an equity fund, its sub-asset class. A positive Active Success Rate occurs when a T. Rowe Price fund posts higher returns than the relevant Passive Returns Average in more than 50% of rolling periods.

See Figure A7 (equity funds), Figure A9 (fixed income funds), and Figure A11 (asset allocation funds) in the appendix for returns-based Active Success Rates for each T. Rowe Price fund.

Volatility-Based Active Success Rates for T. Rowe Price Funds

(Figs. 7 and 8) Rolling periods January 1, 2003, to December 31, 2022

Asset Class	(Fig. 7) Volatility: Average Active Success Rate				(Fig. 8) Volatility: Percentage of Funds With Positive Active Success Rate			
	1-Year	3-Year	5-Year	10-Year	1-Year	3-Year	5-Year	10-Year
Fixed Income	65.2%	63.3%	67.5%	74.2%	68.2%	57.5%	63.9%	65.4%

Past performance cannot guarantee future results. See Important Information for standardized performance.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price. Funds are categorized by Morningstar's classifications. Here, Active Success Rate is the percentage of rolling periods in which a T. Rowe Price fixed income fund exhibited less volatility than its relevant Passive Volatility Average. The average Active Success Rates in these tables are time weighted to reflect the number of eligible rolling periods for each fund in a specific rolling time window (1, 3, 5, or 10 years) as a percentage of the aggregate number of rolling periods for all funds in its asset class. A positive Active Success Rate occurs when a T. Rowe Price fund exhibits less volatility than the relevant Passive Volatility Average in more than 50% of rolling periods.

See Figure A13 in the appendix for volatility-based Active Success Rates for each T. Rowe Price fixed income fund.

Appendix

The Equity Performance Study Universe: Mutual Funds

(Fig. A1) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
U.S. Equity			
US All-Cap Opportunities Equity	All-Cap Opportunities Fund ²	Large Growth	229
US Large-Cap Core Growth Equity	Blue Chip Growth Fund	Large Growth	229
US Structured Active Mid-Cap Growth Equity	Diversified Mid-Cap Growth Fund	Mid-Cap Growth	217
US Dividend Growth Equity	Dividend Growth Fund	Large Blend	229
US Large-Cap Equity Income	Equity Income Fund	Large Value	229
US Large-Cap Core Equity	Growth & Income Fund ³	Large Blend	207
US Growth Stock	Growth Stock Fund	Large Growth	229
US Concentrated Large-Cap Value Equity	Institutional Concentrated Large-Cap Value Fund ³	Large Value	18
US Large-Cap Core Growth Equity	Institutional Large-Cap Core Growth Fund ⁴	Large Growth	220
US Mid-Cap Growth Equity	Institutional Mid-Cap Equity Growth Fund ⁴	Mid-Cap Growth	229
US Small-Cap Core Equity	Institutional Small-Cap Stock Fund ⁴	Small Growth	229
US Structured Research Equity	Institutional U.S. Structured Research Fund ³	Large Blend	133
US Large-Cap Growth Equity	Large-Cap Growth Fund-I Class ^{4,5}	Large Growth	229
US Large-Cap Value Equity	Large-Cap Value Fund-I Class ^{4,5}	Large Value	229
US Mid-Cap Growth Equity	Mid-Cap Growth Fund	Mid-Cap Growth	229
US Mid-Cap Value Equity	Mid-Cap Value Fund	Mid-Cap Value	229
US Small-Cap Growth II Equity	New Horizons Fund	Mid-Cap Growth	229
Integrated US Small-Mid Cap Core Equity	QM U.S. Small & Mid-Cap Core Equity Fund	Mid-Cap Blend	71
Integrated US Small-Cap Growth Equity	QM U.S. Small-Cap Growth Equity Fund	Small Growth	229
Integrated US Large-Cap Value Equity	QM U.S. Value Equity Fund	Large Value	71
US Small-Cap Core Equity	Small-Cap Stock Fund	Small Growth	229
US Diversified Small-Cap Value Equity	Small-Cap Value Fund	Small Blend	229
Multi-Asset-Higher Equity	Spectrum Diversified Equity Fund ⁶	Large Blend	229
US Tax-Efficient Multi-Cap Growth Equity	Tax-Efficient Equity Fund	Large Growth	229
US Tax-Efficient Large-Cap Growth Equity	Tax-Efficient Growth Fund ³	Large Growth	68
US Structured Research Equity	U.S. Equity Research Fund	Large Blend	229
US Large-Cap Core Equity	U.S. Large-Cap Core Fund	Large Blend	151
US Value Equity	Value Fund	Large Value	229

The Equity Performance Study Universe: Mutual Funds (Cont.)

(Fig. A1) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
International Equity			
Middle East & Africa Equity	Africa & Middle East Fund	Miscellaneous Region	172
Asia Opportunities Equity	Asia Opportunities Fund	Pacific/Asia ex-Japan Stock	92
China Evolution Equity	China Evolution Equity Fund	China Region	25
Emerging Europe Equity	Emerging Europe Fund	Miscellaneous Region	229
Emerging Markets Discovery Equity	Emerging Markets Discovery Stock Fund	Diversified Emerging Markets	76
Emerging Markets Equity	Emerging Markets Stock Fund	Diversified Emerging Markets	229
Europe Equity	European Stock Fund	Europe Stock	229
Global Growth Equity	Global Growth Stock Fund	Global Large-Stock Growth	27
Global Impact Equity	Global Impact Equity Fund	Global Large-Stock Growth	10
Global Focused Growth Equity	Global Stock Fund	Global Large-Stock Growth	27
Global Value Equity	Global Value Equity Fund-I Class ^{4,7}	Global Large-Stock Value	114
Middle East & Africa Equity	Institutional Africa & Middle East Fund ³	Miscellaneous Region	133
Emerging Markets Equity	Institutional Emerging Markets Equity Fund ⁴	Diversified Emerging Markets	229
Frontier Markets Equity	Institutional Frontier Markets Equity Fund ³	Diversified Emerging Markets	55
International Core Equity	Institutional International Core Equity Fund ³	Foreign Large Blend	107
International Disciplined Equity	Institutional International Disciplined Equity Fund ⁴	Foreign Large Blend	138
International Growth Equity	Institutional International Growth Equity Fund ³	Foreign Large Growth	170
International Disciplined Equity	International Disciplined Equity Fund	Foreign Large Blend	89
International Small-Cap Equity	International Discovery Fund	Foreign Small/Mid Growth	87
International Growth Equity	International Stock Fund	Foreign Large Growth	197
International Value Equity	International Value Equity Fund	Foreign Large Value	229
Japan Equity	Japan Fund	Japan Stock	229
Latin America Equity	Latin America Fund	Latin America Stock	229
Asia ex-Japan Equity	New Asia Fund	Pacific/Asia ex-Japan Stock	229
International Core Equity	Overseas Stock Fund	Foreign Large Blend	181
Integrated QM Global Equity	QM Global Equity Fund	Global Large-Stock Blend	69
Global Real Assets Equity	Real Assets Fund	Global Large-Stock Value	138
Multi-Asset-International Equity	Spectrum International Equity Fund ⁶	Foreign Large Blend	229
Sector Equity			
Communications and Technology Equity	Communications & Technology Fund	Communications	229
Science & Technology Equity	Developing Technologies Fund ³	Technology	59
Financial Services Equity	Financial Services Fund	Financial	229
Global Consumer Equity	Global Consumer Fund	Consumer Defensive	67
Global Industrials Equity	Global Industrials Fund	Industrials	99

The Equity Performance Study Universe: Mutual Funds (Cont.)

(Fig. A1) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
Global Real Estate Equity	Global Real Estate Fund	Global Real Estate	159
Global Technology Equity	Global Technology Fund	Technology	229
Health Sciences Equity	Health Sciences Fund	Health	229
Global Natural Resources Equity	New Era Fund	Natural Resources	229
US Real Estate Equity	Real Estate Fund	Real Estate	229
Science & Technology Equity	Science & Technology Fund	Technology	229

As of December 31, 2022.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure).

Funds are categorized by Morningstar's classifications.

¹ This is the number of rolling periods for the trailing 1-year time window in which a T. Rowe Price fund has a performance record and there is a relevant Passive Returns Average for comparison. A fund with a full track record would have performance data for 229 1-year periods, rolled monthly.

² The fund's name was changed from the New America Growth Fund to the All-Cap Opportunities Fund on March 1, 2021.

³ The Growth & Income Fund merged into the U.S. Large-Cap Core Fund on March 8, 2021. The Institutional Concentrated Large-Cap Value Fund liquidated on March 19, 2009. The Institutional U.S. Structured Research Fund merged into the U.S. Equity Research Fund on November 18, 2019. The Tax-Efficient Growth Fund merged into the Tax-Efficient Multi-Cap Growth Fund on August 28, 2009. The Institutional Africa & Middle East Equity Fund liquidated on May 8, 2020. The Institutional Frontier Markets Equity Fund liquidated on April 22, 2020. The Institutional International Core Equity Fund merged into the Overseas Stock Fund on September 21, 2020. The Institutional International Growth Equity Fund merged into the International Stock Fund on October 5, 2020. The Developing Technologies Fund merged into the Science & Technology Fund on November 17, 2008. Prior to their respective mergers or liquidations, the aforementioned institutional funds had a minimum investment of USD 1 million and featured lower total expense ratios than the fund shares typically available to individual investors.

⁴ These funds have a minimum investment of USD 1 million and feature lower expense ratios than the fund shares typically available to individual investors.

⁵ Effective May 1, 2020, the Institutional Large-Cap Growth Fund was restructured into the I Class of a retail fund and renamed the Large-Cap Growth Fund. The Institutional Large-Cap Value Fund changed its name to the Large-Cap Value Fund and designated all outstanding shares as I Class as of May 1, 2020.

⁶ Effective January 4, 2021, the funds' names were changed from the Spectrum Growth Fund and the Spectrum International Fund to the Spectrum Diversified Equity Fund and the Spectrum International Equity Fund, respectively.

⁷ The Institutional Global Value Equity Fund changed its name to the Global Value Equity Fund and designated all outstanding shares as I Class as of March 1, 2020.

The Equity Performance Study Universe: ETFs*

(Fig. A2) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
US Large-Cap Core Growth Equity	Blue Chip Growth ETF	Large Growth	17
US Dividend Growth Equity	Dividend Growth ETF	Large Blend	17
US Large-Cap Equity Income	Equity Income ETF	Large Value	17
US Growth Stock	Growth Stock ETF	Large Growth	17
US Structured Research Equity	U.S. Equity Research ETF	Large Blend	7

As of December 31, 2022.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure).

Funds are categorized by Morningstar's classifications.

*These ETFs are different from traditional ETFs.

Traditional ETFs tell the public what assets they hold each day. These ETFs will not. **This may create additional risks for your investment.** For example:

- You may have to pay more money to trade the ETF's shares. These ETFs will provide less information to traders, who tend to charge more for trades when they have less information.
- The price you pay to buy ETF shares on an exchange may not match the value of the ETF's portfolio. The same is true when you sell shares. These price differences may be greater for these ETFs compared with other ETFs because these ETFs provide less information to traders.
- These additional risks may be even greater in bad or uncertain market conditions.
- These ETFs will publish on their website each day a "Proxy Portfolio" designed to help trading in shares of the ETFs. While the Proxy Portfolio includes some of the ETF's holdings, it is not the ETF's actual portfolio.

The differences between these ETFs and other ETFs may also have advantages. By keeping certain information about the ETFs secret, these ETFs may face less risk that other traders can predict or copy its investment strategy. This may improve the ETF's performance. If other traders are able to copy or predict the ETF's investment strategy, however, this may hurt the ETF's performance.

For additional information regarding the unique attributes and risks of these ETFs, see the fund's prospectus.

Please see the Important Information page for additional information about these ETFs.

¹ This is the number of rolling periods for the trailing 1-year time window in which a T. Rowe Price fund has a performance record and there is a relevant Passive Returns Average for comparison. A fund with a full track record would have performance data for 229 1-year periods, rolled monthly.

The Fixed Income Performance Study Universe: Mutual Funds

(Fig. A3) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
US Municipal Single State Bond	California Tax-Free Bond Fund	Muni California Long	171
US Investment Grade Corporate Bond	Corporate Income Fund	Corporate Bond	229
Credit Opportunities	Credit Opportunities Fund	High Yield Bond	93
Dynamic Credit	Dynamic Credit Fund	Nontraditional Bond	36
Dynamic Global Bond	Dynamic Global Bond Fund	Nontraditional Bond	84
Emerging Markets Bond	Emerging Markets Bond Fund	Emerging Markets Bond	171
Emerging Markets Corporate Bond	Emerging Markets Corporate Bond Fund	Emerging Markets Bond	116
Emerging Markets Local Currency Bond	Emerging Markets Local Currency Bond Fund	Emerging-Markets Local-Currency Bond	128
Floating Rate Bank Loan	Floating Rate Fund	Bank Loan	126
Global High Income Bond	Global High Income Bond Fund	High Yield Bond	84
Global Multi-Sector Bond	Global Multi-Sector Bond Fund	Global Bond-USD Hedged	104
US GNMA Bond	GNMA Fund	Intermediate Government	229

The Fixed Income Performance Study Universe: Mutual Funds (Cont.)

(Fig. A3) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
High Yield Bond	High Yield Fund	High Yield Bond	177
US Inflation Protected Bond	Inflation Protected Bond Fund	Inflation-Protected Bond	217
Credit Opportunities	Institutional Credit Opportunities Fund ²	High Yield Bond	38
Emerging Markets Bond	Institutional Emerging Markets Bond Fund ³	Emerging Markets Bond	171
Floating Rate Bank Loan	Institutional Floating Rate Fund ³	Bank Loan	130
Global Multi-Sector Bond	Institutional Global Multi-Sector Bond Fund ²	Global Bond	43
High Yield Bond	Institutional High Yield Fund ³	High Yield Bond	177
International Bond	Institutional International Bond Fund ²	Global Bond	126
US Long Duration Credit	Institutional Long Duration Credit Fund ³	Long-Term Bond	103
US Municipal Intermediate High Yield Bond	Intermediate Tax-Free High Yield Fund	High Yield Muni	90
International Bond	International Bond Fund	Global Bond	179
International Bond	International Bond Fund (USD Hedged)	Global Bond-USD Hedged	52
US Short-Term Inflation Focused Bond	Limited Duration Inflation Focused Bond Fund	Inflation-Protected Bond	184
US Core Bond	New Income Fund	Intermediate Core Bond	229
US Municipal Cash Management	New York Tax-Free Bond Fund	Muni New York Long	171
QM US Enhanced Aggregate Bond Index	QM U.S. Bond Index Fund ⁴	Intermediate Core Bond	229
US Short Duration Income	Short Duration Income Fund	Short-Term Bond	13
US Short-Term Bond	Short-Term Bond Fund	Short-Term Bond	229
Multi-Asset-Fixed Income	Spectrum Income Fund	Multisector Bond	67
US GNMA Bond	Summit GNMA Fund ²	Intermediate Government	125
US Municipal Long-Term Bond	Summit Municipal Income Fund	Muni National Long	172
US Municipal Intermediate-Term Bond	Summit Municipal Intermediate Fund	Muni National Intermediate	229
US Municipal High Yield Bond	Tax-Free High Yield Fund	High Yield Muni	155
US Municipal Long-Term Bond	Tax-Free Income Fund	Muni National Long	172
US Municipal Intermediate-Term Bond	Tax-Free Intermediate Bond Fund ²	Muni National Intermediate	35
US Municipal Short/Intermediate-Term Bond	Tax-Free Short-Intermediate Fund	Muni National Short	171
US Total Return Bond	Total Return Fund	Intermediate Core-Plus Bond	62
US High Yield Bond	U.S. High Yield Fund-I Class ^{3,5}	High Yield Bond	105
US Ultra Short-Term Bond	Ultra Short-Term Bond Fund	Ultrashort Bond	109

Sources: T. Rowe Price and Morningstar (see Additional Disclosure).

As of December 31, 2022.

¹ This is the number of rolling periods for the trailing 1-year time window in which a T. Rowe Price fund has a performance record and there is a relevant Passive Returns Average for comparison. A fund with a full track record would have performance data for 229 1-year periods, rolled monthly.

² The Institutional Credit Opportunities Fund was reorganized into the Credit Opportunities Fund on June 26, 2018. The Institutional Global Multi-Sector Bond Fund liquidated on April 26, 2018. The Institutional International Bond Fund merged into the International Bond Fund on November 19, 2018. The Summit GNMA Fund merged into the GNMA Fund on May 19, 2014. The Tax-Free Intermediate Bond Fund merged into the Summit Municipal Intermediate Fund on November 13, 2006. Prior to their respective mergers or liquidations, the aforementioned institutional funds had a minimum investment of USD 1 million and featured lower total expense ratios than the fund shares typically available to individual investors.

³ These funds have a minimum investment of USD 1 million and feature lower total expense ratios than the fund shares typically available to individual investors.

⁴ The fund's name was changed from QM U.S. Bond Enhanced Index Fund to QM U.S. Bond Index Fund on October 1, 2020.

⁵ The U.S. High Yield Fund commenced operations on May 19, 2017. Performance prior to that date reflects the performance of the Class A of the predecessor fund, which inceptioned on April 30, 2013.

The Fixed Income Performance Study Universe: ETFs

(Fig. A4) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	ETF Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
QM US Enhanced Aggregate Bond Index	QM U.S. Bond ETF	Intermediate Core Bond	4
US Total Return Bond	Total Return ETF	Intermediate Core-Plus Bond	4
US Ultra Short-Term Bond	Ultra Short-Term Bond ETF	Ultrashort Bond	4

As of December 31, 2022.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure).

Funds are categorized by Morningstar's classifications.

¹ This is the number of rolling periods for the trailing 1-year time window in which a T. Rowe Price fund has a performance record and there is a relevant Passive Returns Average for comparison. A fund with a full track record would have performance data for 229 1-year periods, rolled monthly.

The Asset Allocation Performance Study Universe: Mutual Funds

(Fig. A5) T. Rowe Price strategies, Morningstar categories, and number of rolling periods studied¹

Strategy	Fund Name	Morningstar Category (U.S. Funds)	No. of Rolling Periods ¹
Multi-Asset-Moderate Balanced	Balanced Fund	Allocation-50% to 70% Equity	229
US Capital Appreciation	Capital Appreciation Fund	Allocation-50% to 70% Equity	229
Global Allocation	Global Allocation Fund	Global Allocation	104
Retirement Balanced	Retirement Balanced Fund	Allocation-30% to 50% Equity	175
Multi-Asset-Target Allocation-Lower Equity	Spectrum Conservative Allocation Fund ²	Allocation-30% to 50% Equity	175
Multi-Asset-Aggressive Balanced	Spectrum Moderate Allocation Fund ²	Allocation-70% to 85% Equity	132
Multi-Asset-Aggressive Balanced	Spectrum Moderate Growth Allocation Fund ²	Allocation-50% to 70% Equity	229
Multi-Asset-Balanced-Tax Efficient	Tax-Efficient Balanced Fund ³	Allocation-30% to 50% Equity	15

Sources: T. Rowe Price and Morningstar (see Additional Disclosure).

As of December 31, 2022.

¹ The number of rolling periods studied is the aggregate number of periods across every rolling time window (1, 3, 5, and 10 years) in which a T. Rowe Price fund has a performance record and there is a relevant Passive Returns Average for comparison.

² Effective January 1, 2020, the funds' names were changed from the T. Rowe Price Personal Strategy Balanced Fund, the T. Rowe Price Personal Strategy Growth Fund, and the T. Rowe Price Personal Strategy Income Fund to the T. Rowe Price Spectrum Moderate Allocation Fund, the T. Rowe Price Spectrum Moderate Growth Allocation Fund, and the T. Rowe Price Spectrum Conservative Allocation Fund, respectively.

³ The T. Rowe Price Tax-Efficient Balanced Fund merged into the T. Rowe Price Balanced Fund on August 31, 2009.

T. Rowe Price Equity Funds vs. Passive Returns Average

(Figs. A6 and A7) Rolling periods January 1, 2003, through December 31, 2022

(Fig. A6) Average Annualized Excess Returns (Net of Fees)

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
U.S. Equity				
All-Cap Opportunities Fund	1.58%	1.32%	1.12%	0.60%
Blue Chip Growth ETF	-8.07	—	—	—
Blue Chip Growth Fund	0.08	0.40	0.43	0.35
Diversified Mid-Cap Growth Fund	0.61	1.09	1.16	1.12
Dividend Growth ETF	2.38	—	—	—
Dividend Growth Fund	0.21	0.41	0.47	0.26
Equity Income ETF	2.10	—	—	—
Equity Income Fund	-0.59	-0.71	-0.61	-0.65
Growth & Income Fund	-0.17	-0.08	0.02	-0.12
Growth Stock ETF	-9.79	—	—	—
Growth Stock Fund	0.03	0.18	0.03	-0.10
Institutional Concentrated Large-Cap Value Fund	-0.59	—	—	—
Institutional Large-Cap Core Growth Fund	0.00	0.29	0.40	0.36
Institutional Mid-Cap Equity Growth Fund	1.79	2.16	2.46	2.54
Institutional Small-Cap Stock Fund	1.64	1.74	1.63	1.69
Institutional U.S. Structured Research Fund	0.56	0.46	0.39	0.42
Large-Cap Growth Fund—I Class	1.37	1.25	1.22	1.02
Large-Cap Value Fund—I Class	0.18	0.07	0.18	0.30
Mid-Cap Growth Fund	1.29	1.74	2.04	2.09
Mid-Cap Value Fund	0.32	0.60	0.73	0.42
New Horizons Fund	3.89	4.46	4.49	4.60
QM U.S. Small & Mid-Cap Core Equity Fund	0.01	0.16	0.00	—
QM U.S. Small-Cap Growth Equity Fund	0.69	1.07	1.33	1.53
QM U.S. Value Equity Fund	-0.39	-1.67	-1.02	—
Small-Cap Stock Fund	1.20	1.34	1.23	1.23
Small-Cap Value Fund	0.52	0.64	0.53	0.19
Spectrum Diversified Equity Fund	0.03	-0.36	-0.54	-0.84
Tax-Efficient Equity Fund	0.10	-0.23	-0.52	-0.82
Tax-Efficient Growth Fund	-2.79	-2.73	-3.08	—
U.S. Equity Research ETF	-0.26	—	—	—
U.S. Equity Research Fund	0.56	0.55	0.52	0.33
U.S. Large-Cap Core Fund	-0.02	0.17	—	0.07
Value Fund	0.93	0.81	0.77	0.99

(Fig. A7) Active Success Rate

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
All-Cap Opportunities Fund	70.7%	76.6%	76.2%	87.6%
Blue Chip Growth ETF	0.0	—	—	—
Blue Chip Growth Fund	56.8	63.4	63.5	70.2
Diversified Mid-Cap Growth Fund	56.7	66.8	76.9	91.7
Dividend Growth ETF	70.6	—	—	—
Dividend Growth Fund	55.0	65.4	67.4	74.4
Equity Income ETF	76.5	—	—	—
Equity Income Fund	44.1	28.3	34.3	22.3
Growth & Income Fund	42.5	42.1	59.1	29.3
Growth Stock ETF	0.0	—	—	—
Growth Stock Fund	50.2	51.7	59.7	62.0
Institutional Concentrated Large-Cap Value Fund	27.8	—	—	—
Institutional Large-Cap Core Growth Fund	53.6	59.2	54.7	63.4
Institutional Mid-Cap Equity Growth Fund	75.1	90.7	98.3	100.0
Institutional Small-Cap Stock Fund	65.1	81.0	90.1	100.0
Institutional U.S. Structured Research Fund	73.7	85.3	84.7	100.0
Large-Cap Growth Fund—I Class	56.8	76.1	81.8	93.4
Large-Cap Value Fund—I Class	54.6	48.8	45.3	66.9
Mid-Cap Growth Fund	69.4	87.8	96.1	100.0
Mid-Cap Value Fund	52.8	53.7	61.3	65.3
New Horizons Fund	72.1	81.0	93.9	100.0
QM U.S. Small & Mid-Cap Core Equity Fund	52.1	53.2	47.8	—
QM U.S. Small-Cap Growth Equity Fund	62.4	71.7	84.5	93.4
QM U.S. Value Equity Fund	47.9	14.9	0.0	—
Small-Cap Stock Fund	61.1	74.6	83.4	100.0
Small-Cap Value Fund	57.2	67.8	58.0	48.8
Spectrum Diversified Equity Fund	49.8	34.6	36.5	25.6
Tax-Efficient Equity Fund	45.9	36.6	21.5	10.7
Tax-Efficient Growth Fund	4.4	0.0	0.0	—
U.S. Equity Research ETF	42.9	—	—	—
U.S. Equity Research Fund	70.7	85.4	88.4	100.0
U.S. Large-Cap Core Fund	46.4	48.8	63.1	67.4
Value Fund	60.7	66.8	79.0	89.3

■ Periods with positive average annualized Excess Returns (Fig. A6). Also periods with Active Success Rates greater than 50% (Fig. A7).

Past performance cannot guarantee future results. See Important Information for standardized performance.

T. Rowe Price Equity Funds vs. Passive Returns Average (Cont.)

(Figs. A6 and A7) Rolling periods January 1, 2003, through December 31, 2022

Fund	(Fig. A6) Average Annualized Excess Returns (Net of Fees)				(Fig. A7) Active Success Rate			
	Rolling Periods				Rolling Periods			
	1-Year	3-Year	5-Year	10-Year	1-Year	3-Year	5-Year	10-Year
International Equity								
Africa & Middle East Fund	0.79%	0.95%	1.76%	1.75%	53.5%	52.0%	70.2%	75.0%
Asia Opportunities Fund	3.75	5.03	5.00	—	73.9	97.1	100.0	—
China Evolution Equity Fund	8.45	9.49	—	—	76.0	100.0	—	—
Emerging Europe Fund	-0.46	-2.85	-3.93	-5.07	51.5	42.0	27.6	9.9
Emerging Markets Discovery Stock Fund	1.63	0.59	0.82	—	72.4	55.8	85.7	—
Emerging Markets Stock Fund	0.83	1.01	0.99	1.06	63.8	73.7	60.2	88.4
European Stock Fund	0.89	1.56	1.60	2.22	56.3	72.2	72.4	93.4
Global Growth Stock Fund	-3.17	6.31	—	—	51.9	100.0	—	—
Global Impact Equity Fund	19.35	—	—	—	100.0	—	—	—
Global Stock Fund	-0.03	8.66	—	—	55.6	100.0	—	—
Global Value Equity Fund—I Class	2.48	2.59	2.03	2.19	63.2	82.2	100.0	100.0
Institutional Africa & Middle East Fund	-0.78	1.51	2.43	0.45	51.1	56.0	77.6	68.0
Institutional Emerging Markets Equity Fund	0.94	1.07	1.07	1.17	65.9	72.2	60.2	90.1
Institutional Frontier Markets Equity Fund	-0.16	-0.85	-0.91	—	47.3	38.7	0.0	—
Institutional International Core Equity Fund	0.72	0.54	0.43	—	66.4	80.7	72.9	—
Institutional International Disciplined Equity Fund	1.36	1.32	1.18	1.33	66.7	78.1	75.6	100.0
Institutional International Growth Equity Fund	0.64	0.42	0.72	0.61	51.8	61.6	87.7	77.4
International Disciplined Equity Fund	-0.19	-0.38	-0.32	—	53.9	32.3	39.0	—
International Discovery Fund	5.79	3.94	3.82	—	72.4	69.8	82.1	—
International Stock Fund	0.23	0.16	0.42	0.42	46.7	59.0	77.9	67.4
International Value Equity Fund	0.41	0.46	0.22	0.35	56.3	55.1	56.4	54.5
Japan Fund	0.99	1.27	1.13	1.37	63.8	61.0	61.9	83.5
Latin America Fund	-1.33	-0.51	-0.32	0.68	43.7	45.4	46.4	79.3
New Asia Fund	3.91	3.59	3.22	2.45	60.3	88.8	97.2	100.0
Overseas Stock Fund	0.84	0.81	0.78	0.80	64.1	79.6	81.2	100.0
QM Global Equity Fund	-0.42	-0.02	0.00	—	56.5	46.7	57.1	—
Real Assets Fund	-2.49	-2.65	-2.70	-3.15	—	28.1	28.9	0.0
Spectrum International Equity Fund	0.97	1.12	1.22	1.26	58.5	75.6	85.1	93.4

■ Periods with positive average annualized Excess Returns (Fig. A6). Also periods with Active Success Rates greater than 50% (Fig. A7).
Past performance cannot guarantee future results. See Important Information for standardized performance.

T. Rowe Price Equity Funds vs. Passive Returns Average (Cont.)

(Figs. A6 and A7) Rolling periods January 1, 2003, through December 31, 2022

Fund	(Fig. A6) Average Annualized Excess Returns (Net of Fees)				(Fig. A7) Active Success Rate			
	Rolling Periods				Rolling Periods			
	1-Year	3-Year	5-Year	10-Year	1-Year	3-Year	5-Year	10-Year
Sector Equity								
Communications & Technology Fund	5.35%	8.33%	8.56%	8.51%	78.2%	93.2%	97.2%	100.0%
Developing Technologies Fund	-0.40	0.18	-1.12	—	42.4	65.7	0.0	—
Financial Services Fund	2.16	2.52	2.82	2.61	74.7	82.4	96.1	98.3
Global Consumer Fund	0.07	2.06	0.60	—	68.7	74.4	52.6	—
Global Industrials Fund	-0.33	0.69	0.52	—	50.5	45.3	56.9	—
Global Real Estate Fund	1.41	1.23	0.72	1.03	71.7	68.9	63.1	98.0
Global Technology Fund	4.27	4.26	4.21	4.57	77.3	86.3	92.8	92.6
Health Sciences Fund	5.17	4.72	4.38	4.47	86.0	99.0	100.0	100.0
New Era Fund	0.29	-0.48	-1.14	-2.48	50.2	42.0	28.2	17.4
Real Estate Fund	0.67	0.53	0.49	0.41	58.5	66.8	71.8	82.6
Science & Technology Fund	0.23	0.45	0.48	0.35	53.7	64.4	68.5	63.6

■ Periods with positive average annualized Excess Returns (Fig. A6). Also periods with Active Success Rates greater than 50% (Fig. A7).

Past performance cannot guarantee future results. See Important Information for standardized performance.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

Funds are categorized by Morningstar's classifications.

Excess Return is the difference between a T. Rowe Price fund's return and the relevant Passive Returns Average over a given analysis period.

Active Success Rate is the percentage of rolling periods in which a fund outperformed the relevant Passive Returns Average, net of fees.

T. Rowe Price Fixed Income Funds vs. Passive Returns Average

(Figs. A8 and A9) Rolling periods January 1, 2003, through December 31, 2022

(Fig. A8) Average Annualized Excess Returns (Net of Fees)

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
California Tax-Free Bond Fund	-0.01%	-0.04%	-0.04%	0.01%
Corporate Income Fund	0.55	0.45	0.38	0.27
Credit Opportunities Fund	0.51	0.66	0.84	—
Dynamic Credit Fund	0.63	0.00	—	—
Dynamic Global Bond Fund	-0.24	-0.49	-0.46	—
Emerging Markets Bond Fund	-0.51	-0.46	-0.46	-0.53
Emerging Markets Corporate Bond Fund	0.77	0.78	0.88	0.94
Emerging Markets Local Currency Bond Fund	-0.51	-0.42	-0.04	-0.05
Floating Rate Fund	1.00	1.22	1.13	0.71
Global High Income Bond Fund	0.91	0.83	1.00	—
Global Multi-Sector Bond Fund	0.54	0.74	0.66	—
GNMA Fund	-0.15	-0.20	-0.20	-0.11
High Yield Fund	1.41	1.16	1.12	1.14
Inflation Protected Bond Fund	0.03	0.05	-0.05	-0.16
Institutional Credit Opportunities Fund	-0.23	-0.47	—	—
Institutional Emerging Markets Bond Fund	0.10	0.19	0.22	0.16
Institutional Floating Rate Fund	1.42	1.59	1.52	1.12
Institutional Global Multi-Sector Bond Fund	4.35	5.75	—	—
Institutional High Yield Fund	1.50	1.24	1.20	1.23
Institutional International Bond Fund	0.67	1.23	1.57	2.66
Institutional Long Duration Credit Fund	0.39	0.55	0.48	—
Intermediate Tax-Free High Yield Fund	-0.33	-0.53	-0.56	—
International Bond Fund	0.47	1.08	1.36	1.64
International Bond Fund (USD Hedged)	0.44	0.53	0.14	—
Limited Duration Inflation Focused Bond Fund	-1.46	-1.61	-1.66	-1.58
New Income Fund	0.32	0.29	0.33	0.32
New York Tax-Free Bond Fund	-0.18	-0.36	-0.35	-0.37
QM U.S. Bond ETF	-0.20	—	—	—
QM U.S. Bond Index Fund	0.21	0.24	0.26	0.20
Short Duration Income Fund	1.03	—	—	—
Short-Term Bond Fund	-0.09	-0.11	-0.01	-0.05
Spectrum Income Fund	1.87	1.20	0.92	—
Summit GNMA Fund	0.08	0.02	-0.08	0.14

(Fig. A9) Active Success Rate

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
California Tax-Free Bond Fund	53.8%	44.9%	43.1%	61.9%
Corporate Income Fund	65.5	67.3	66.3	79.3
Credit Opportunities Fund	75.3	76.8	86.7	—
Dynamic Credit Fund	58.3	50.0	—	—
Dynamic Global Bond Fund	45.2	51.7	27.8	—
Emerging Markets Bond Fund	41.5	37.4	22.0	9.5
Emerging Markets Corporate Bond Fund	69.0	69.6	83.8	100.0
Emerging Markets Local Currency Bond Fund	42.2	46.2	43.8	55.0
Floating Rate Fund	68.3	92.2	100.0	100.0
Global High Income Bond Fund	70.2	85.0	86.1	—
Global Multi-Sector Bond Fund	50.0	72.5	60.7	—
GNMA Fund	53.7	41.5	34.3	38.0
High Yield Fund	71.2	91.5	100.0	100.0
Inflation Protected Bond Fund	50.7	47.2	34.9	15.6
Institutional Credit Opportunities Fund	52.6	35.7	—	—
Institutional Emerging Markets Bond Fund	50.3	57.1	64.2	58.7
Institutional Floating Rate Fund	85.4	97.2	100.0	100.0
Institutional Global Multi-Sector Bond Fund	83.7	100.0	—	—
Institutional High Yield Fund	70.6	93.5	100.0	100.0
Institutional International Bond Fund	54.0	72.5	100.0	100.0
Institutional Long Duration Credit Fund	55.3	55.7	70.9	—
Intermediate Tax-Free High Yield Fund	48.9	19.7	19.0	—
International Bond Fund	57.5	75.5	96.9	100.0
International Bond Fund (USD Hedged)	63.5	92.9	100.0	—
Limited Duration Inflation Focused Bond Fund	34.2	12.5	4.4	5.3
New Income Fund	59.8	72.7	83.4	85.1
New York Tax-Free Bond Fund	46.2	34.0	26.0	14.3
QM U.S. Bond ETF	0.0	—	—	—
QM U.S. Bond Index Fund	67.2	85.9	99.4	99.2
Short Duration Income Fund	100.0	—	—	—
Short-Term Bond Fund	37.6	32.2	37.0	40.5
Spectrum Income Fund	76.1	72.1	100.0	—
Summit GNMA Fund	57.6	46.5	41.6	100.0

■ Periods with positive average annualized Excess Returns (Fig. A8). Also periods with Active Success Rates greater than 50% (Fig. A9).

Past performance cannot guarantee future results. See Important Information for standardized performance.

T. Rowe Price Fixed Income Funds vs. Passive Returns Average (Cont.)

(Figs. A8 and A9) Rolling periods January 1, 2003, through December 31, 2022

Fund	(Fig. A8) Average Annualized Excess Returns (Net of Fees)				(Fig. A9) Active Success Rate			
	Rolling Periods				Rolling Periods			
	1-Year	3-Year	5-Year	10-Year	1-Year	3-Year	5-Year	10-Year
Summit Municipal Income Fund	0.18%	0.09%	0.13%	0.19%	56.4%	53.4%	63.7%	79.7%
Summit Municipal Intermediate Fund	-0.15	-0.18	-0.18	-0.11	37.6	31.7	19.3	12.4
Tax-Free High Yield Fund	0.43	0.19	0.24	0.16	61.3	62.6	69.2	76.6
Tax-Free Income Fund	-0.12	-0.27	-0.24	-0.18	45.9	32.4	27.4	25.0
Tax-Free Intermediate Bond Fund	-0.71	-0.69	—	—	28.6	0.0	—	—
Tax-Free Short-Intermediate Fund	0.51	0.59	0.56	0.59	75.4	93.9	98.4	100.0
Total Return ETF	-2.39	—	—	—	0.0	—	—	—
Total Return Fund	1.39	1.50	1.06	—	80.6	100.0	100.0	—
U.S. High Yield Fund—I Class	1.64	1.63	1.67	—	84.8	92.6	94.7	—
Ultra Short-Term Bond ETF	-0.76	—	—	—	0.0	—	—	—
Ultra Short-Term Bond Fund	0.11	0.32	0.33	0.18	50.5	77.6	100.0	100.0

■ Periods with positive average annualized Excess Returns (Fig. A8). Also periods with Active Success Rates greater than 50% (Fig. A9).

Past performance cannot guarantee future results. See Important Information for standardized performance.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

Funds are categorized by Morningstar's classifications.

Excess Return is the difference between a T. Rowe Price fund's return and the relevant Passive Returns Average over a given analysis period.

Active Success Rate is the percentage of rolling periods in which a fund outperformed the relevant Passive Returns Average, net of fees.

T. Rowe Price Asset Allocation Funds vs. Passive Returns Average

(Figs. A10 and A11) Rolling periods January 1, 2003, through December 31, 2022

Fund	(Fig. A10) Average Annualized Excess Returns (Net of Fees)				(Fig. A11) Active Success Rate			
	Rolling Periods				Rolling Periods			
	1-Year	3-Year	5-Year	10-Year	1-Year	3-Year	5-Year	10-Year
Balanced Fund	2.33%	1.57%	0.67%	0.55%	87.8%	87.3%	85.6%	90.1%
Capital Appreciation Fund	5.17	4.18	3.17	3.13	88.6	97.1	100.0	100.0
Global Allocation Fund	2.38	2.88	2.60	—	64.4	98.8	100.0	—
Retirement Balanced Fund	1.91	1.57	1.10	0.72	76.6	94.7	94.3	100.0
Spectrum Conservative Allocation Fund	2.56	2.37	2.01	1.59	74.9	98.0	99.2	100.0
Spectrum Moderate Allocation Fund	2.48	1.65	0.75	0.63	85.2	89.3	91.7	95.9
Spectrum Moderate Growth Allocation Fund	3.93	4.23	—	—	76.5	93.9	—	—
Tax-Efficient Balanced Fund	-10.33	—	—	—	0.0	—	—	—

■ Periods with positive average annualized Excess Returns (Fig. A10). Also periods with Active Success Rates greater than 50% (Fig. A11).

Past performance cannot guarantee future results. See Important Information for standardized performance.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

Funds are categorized by Morningstar's classifications.

Excess Return is the difference between a T. Rowe Price fund's return and the relevant Passive Returns Average over a given analysis period.

Active Success Rate is the percentage of rolling periods in which a fund outperformed the relevant Passive Returns Average, net of fees.

T. Rowe Price Fixed Income Funds vs. Passive Volatility Average

(Figs. A12 and A13) Rolling periods January 1, 2003, through December 31, 2022

(Fig. A12) Average Annualized Volatility Differential (Negative Numbers Indicate Lower Historical Volatility)

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
California Tax-Free Bond Fund	-0.58%	-0.45%	-0.38%	-0.32%
Corporate Income Fund	0.34	0.39	0.22	0.01
Credit Opportunities Fund	0.34	0.48	0.42	—
Dynamic Credit Fund	-2.52	-1.31	—	—
Dynamic Global Bond Fund	-4.16	-4.16	-3.69	—
Emerging Markets Bond Fund	1.51	1.14	0.81	0.47
Emerging Markets Corporate Bond Fund	-0.67	-0.76	-1.05	-1.75
Emerging Markets Local Currency Bond Fund	4.60	4.89	4.73	4.45
Floating Rate Fund	-0.48	-0.16	-0.18	0.24
Global High Income Bond Fund	0.79	1.39	1.60	—
Global Multi-Sector Bond Fund	1.07	1.74	1.78	—
GNMA Fund	-1.25	-1.31	-1.35	-1.38
High Yield Fund	-0.22	-0.18	-0.35	-0.46
Inflation Protected Bond Fund	0.23	0.15	0.06	-0.14
Institutional Credit Opportunities Fund	0.50	0.72	—	—
Institutional Emerging Markets Bond Fund	1.25	0.80	0.42	0.15
Institutional Floating Rate Fund	-0.44	-0.09	-0.13	0.32
Institutional Global Multi-Sector Bond Fund	-3.08	-3.70	—	—
Institutional High Yield Fund	-0.39	-0.30	-0.44	-0.60
Institutional International Bond Fund	-0.12	-0.14	-0.30	-0.15
Institutional Long Duration Credit Fund	0.04	0.28	0.35	—
Intermediate Tax-Free High Yield Fund	-2.41	-2.64	-2.70	—
International Bond Fund	0.04	-0.07	-0.21	-0.27
International Bond Fund (USD Hedged)	0.20	0.51	0.58	—
Limited Duration Inflation Focused Bond Fund	-2.66	-2.75	-2.77	-3.09
New Income Fund	0.04	0.10	0.05	0.03
New York Tax-Free Bond Fund	-0.94	-0.80	-0.78	-0.96
QM U.S. Bond ETF	-0.08	—	—	—
QM U.S. Bond Index Fund	-0.06	-0.09	-0.12	-0.14
Short Duration Income Fund	-0.79	—	—	—
Short-Term Bond Fund	-0.49	-0.49	-0.50	-0.50

(Fig. A13) Active Success Rate

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
California Tax-Free Bond Fund	83.0%	96.6%	85.4%	100.0%
Corporate Income Fund	28.4	24.4	27.6	40.5
Credit Opportunities Fund	53.8	30.4	4.4	—
Dynamic Credit Fund	83.3	91.7	—	—
Dynamic Global Bond Fund	100.0	100.0	100.0	—
Emerging Markets Bond Fund	17.0	11.6	8.9	3.2
Emerging Markets Corporate Bond Fund	87.9	92.4	100.0	100.0
Emerging Markets Local Currency Bond Fund	0.0	0.0	0.0	0.0
Floating Rate Fund	89.7	66.7	56.4	5.6
Global High Income Bond Fund	33.3	30.0	5.6	—
Global Multi-Sector Bond Fund	27.9	5.0	0.0	—
GNMA Fund	89.1	99.0	100.0	100.0
High Yield Fund	54.2	51.0	58.9	63.8
Inflation Protected Bond Fund	30.0	38.9	46.2	84.4
Institutional Credit Opportunities Fund	36.8	0.0	—	—
Institutional Emerging Markets Bond Fund	18.7	29.9	49.6	46.0
Institutional Floating Rate Fund	90.0	67.9	58.5	0.0
Institutional Global Multi-Sector Bond Fund	100.0	100.0	—	—
Institutional High Yield Fund	46.3	36.6	56.6	63.8
Institutional International Bond Fund	54.8	58.8	82.1	44.4
Institutional Long Duration Credit Fund	43.7	31.6	18.2	—
Intermediate Tax-Free High Yield Fund	100.0	100.0	100.0	—
International Bond Fund	47.5	44.5	64.1	80.3
International Bond Fund (USD Hedged)	38.5	10.7	0.0	—
Limited Duration Inflation Focused Bond Fund	99.5	100.0	100.0	100.0
New Income Fund	77.7	64.4	76.2	71.9
New York Tax-Free Bond Fund	100.0	100.0	100.0	100.0
QM U.S. Bond ETF	100.0	—	—	—
QM U.S. Bond Index Fund	72.5	77.1	80.7	77.7
Short Duration Income Fund	100.0	—	—	—
Short-Term Bond Fund	94.3	90.7	100.0	100.0

■ Periods with average annualized Volatility Differentials less than zero (Fig. A12). Also periods with Active Success Rates greater than 50% (Fig. A13).

Past performance cannot guarantee future results. See Important Information for standardized performance.

T. Rowe Price Fixed Income Funds vs. Passive Volatility Average (Cont.)

(Figs. A12 and A13) Rolling periods January 1, 2003, through December 31, 2022

(Fig. A12) Average Annualized Volatility Differential (Negative Numbers Indicate Lower Historical Volatility)

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
Spectrum Income Fund	-0.74%	0.02%	-0.42%	—
Summit GNMA Fund	-1.36	-1.59	-1.89	-1.96%
Summit Municipal Income Fund	-0.87	-0.72	-0.73	-0.63
Summit Municipal Intermediate Fund	-0.70	-0.74	-0.77	-0.83
Tax-Free High Yield Fund	-1.23	-1.26	-1.26	-1.28
Tax-Free Income Fund	-1.12	-1.06	-1.06	-0.96
Tax-Free Intermediate Bond Fund	-0.77	-0.92	—	—
Tax-Free Short-Intermediate Fund	0.52	0.49	0.45	0.56
Total Return ETF	-0.47	—	—	—
Total Return Fund	0.25	0.58	0.38	—
U.S. High Yield Fund—I Class	0.72	0.78	0.69	—
Ultra Short-Term Bond ETF	-0.31	—	—	—
Ultra Short-Term Bond Fund	-0.41	-0.50	-0.50	0.0

(Fig. A13) Active Success Rate

Fund	Rolling Periods			
	1-Year	3-Year	5-Year	10-Year
Spectrum Income Fund	70.1%	34.9%	100.0%	—
Summit GNMA Fund	90.4	100.0	100.0	100.0%
Summit Municipal Income Fund	92.4	85.8	99.2	100.0
Summit Municipal Intermediate Fund	95.6	100.0	100.0	100.0
Tax-Free High Yield Fund	94.2	100.0	100.0	100.0
Tax-Free Income Fund	97.7	100.0	100.0	100.0
Tax-Free Intermediate Bond Fund	100.0	100.0	—	—
Tax-Free Short-Intermediate Fund	2.9	3.4	1.6	0.0
Total Return ETF	100.0	—	—	—
Total Return Fund	54.8	10.5	0.0	—
U.S. High Yield Fund—I Class	18.1	40.7	40.4	—
Ultra Short-Term Bond ETF	100.0	—	—	—
Ultra Short-Term Bond Fund	86.2	87.1	73.8	0.0

■ Periods with average annualized Volatility Differentials less than zero (Fig. A12). Also periods with Active Success Rates greater than 50% (Fig. A13).

Past performance cannot guarantee future results. See Important Information for standardized performance.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

Funds are categorized by Morningstar's classifications.

The Volatility Differential is the difference in historical standard deviation of returns between the T. Rowe Price fixed income fund and the relevant Passive Volatility Average.

Active Success Rate is the percentage of rolling periods in which a fund exhibited less volatility than the relevant Passive Volatility Average, net of fees.

T. Rowe Price fixed income funds with a Volatility Differential below zero exhibited less volatility than the relevant Passive Volatility Average.

Standardized Performance: T. Rowe Price Equity Mutual Funds

Annualized total returns for periods ended December 31, 2022

Fund	Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
U.S. Equity							
All-Cap Opportunities Fund	9/30/1985	0.76%	-21.32%	11.22%	13.48%	15.46%	12.21%
Blue Chip Growth Fund	6/30/1993	0.69	-38.60	-0.89	5.24	11.84	9.83
Diversified Mid-Cap Growth Fund	12/31/2003	0.79	-24.63	4.16	8.59	11.97	9.51
Dividend Growth Fund	12/30/1992	0.62	-10.23	8.83	10.81	12.80	10.08
Equity Income Fund	10/31/1985	0.63	-3.28	7.19	7.17	9.82	8.51
Growth Stock Fund	4/11/1950	0.63	-40.14	-0.54	4.96	11.23	9.73
Institutional Large-Cap Core Growth Fund	9/30/2003	0.57	-38.45	-0.76	5.38	11.94	9.19
Institutional Mid-Cap Equity Growth Fund	7/31/1996	0.61	-23.17	3.21	7.42	12.46	12.21
Institutional Small-Cap Stock Fund	3/31/2000	0.66	-23.31	3.83	7.77	11.24	11.16
Large-Cap Growth Fund-I Class ²	10/31/2001	0.55	-35.18	3.67	8.35	13.85	11.34
Large-Cap Value Fund-I Class ³	3/31/2000	0.55	-4.76	7.28	7.23	10.93	9.29
Mid-Cap Growth Fund	6/30/1992	0.72	-22.52	3.44	7.36	12.07	11.81
Mid-Cap Value Fund	6/28/1996	0.77	-4.24	9.43	6.98	10.58	10.67
New Horizons Fund	6/3/1960	0.75	-37.00	2.92	9.33	13.85	13.27
QM U.S. Small & Mid-Cap Core Equity Fund	2/26/2016	0.98	-13.10	5.75	6.53	—	10.62
QM U.S. Small-Cap Growth Equity Fund	6/30/1997	0.78	-22.41	2.26	5.75	10.93	10.61
QM U.S. Value Equity Fund	2/26/2016	1.51	-3.44	7.39	6.70	—	10.47
Small-Cap Stock Fund	6/1/1956*	0.85	-23.49	3.88	7.70	10.93	10.73
Small-Cap Value Fund	6/30/1988	0.78	-18.55	4.78	5.08	9.03	10.08
Spectrum Diversified Equity Fund	6/29/1990	0.73	-18.76	5.06	6.14	9.57	9.23
Tax-Efficient Equity Fund	12/29/2000	0.76	-30.50	4.75	9.25	12.51	10.42
U.S. Equity Research Fund	11/30/1994	0.42	-18.80	7.58	9.48	12.64	9.98
U.S. Large-Cap Core Fund	6/26/2009	0.65	-15.16	7.20	9.04	12.28	12.94
Value Fund	9/30/1994	0.67	-11.39	8.36	7.77	11.37	9.67
International Equity							
Africa & Middle East Fund	9/4/2007	1.58	-5.88	5.45	2.91	5.18	2.39
Asia Opportunities Fund	5/21/2014	1.12	-19.25	-1.08	1.47	—	6.08

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. To obtain the most recent month-end performance, visit troweprice.com.

Standardized Performance: T. Rowe Price Equity Mutual Funds (Cont.)

Annualized total returns for periods ended December 31, 2022

Fund	Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
China Evolution Equity Fund	12/10/2019	1.45%	-26.49%	7.38%	—	—	9.37%
Emerging Europe Fund	8/31/2000	1.67	-83.68	-44.44	-28.11%	-16.35%	-2.41
Emerging Markets Discovery Stock Fund	9/14/2015	1.14	-15.65	-1.97	-0.21	—	5.42
Emerging Markets Stock Fund	3/31/1995	1.11	-23.36	-6.89	-3.07	1.59	8.39
European Stock Fund	2/28/1990	0.95	-21.76	0.36	2.29	4.92	7.09
Global Growth Stock Fund	10/27/2008	0.82	-29.77	4.05	6.48	9.53	12.98
Global Impact Equity Fund	3/15/2021	2.38	-24.67	—	—	—	-8.68
Global Stock Fund	12/29/1995	0.78	-28.01	6.44	9.17	12.69	10.15
Global Value Equity Fund—I Class ⁴	7/26/2012	2.09	-7.85	6.00	5.24	8.94	9.77
Institutional Emerging Markets Equity Fund	10/31/2002	1.00	-23.36	-6.89	-3.01	1.65	8.41
Institutional International Disciplined Equity Fund	7/27/2010	0.74	-10.26	-0.45	1.79	5.27	6.21
International Disciplined Equity Fund	8/22/2014	0.88	-10.57	-0.63	1.49	—	2.77
International Discovery Fund	12/30/1988	1.18	-30.34	1.25	1.31	7.38	11.00
International Stock Fund	5/9/1980	0.77	-15.74	-0.67	1.52	4.75	6.50
International Value Equity Fund	12/21/1998	0.79	-8.45	1.62	0.74	3.58	6.25
Japan Fund	12/30/1991	0.96	-27.38	-4.54	-0.68	6.89	6.12
Latin America Fund	12/29/1993	1.33	0.23	-7.67	-2.55	-2.29	9.19
New Asia Fund	9/28/1990	0.91	-22.61	-1.36	0.66	4.05	10.97
Overseas Stock Fund	12/29/2006	0.77	-15.42	1.21	1.60	4.83	2.79
QM Global Equity Fund	4/15/2016	1.75	-17.08	4.60	5.63	—	8.41
Real Assets Fund	7/28/2010	0.85	-10.26	6.48	5.02	3.86	4.44
Spectrum International Equity Fund	12/31/1996	0.89	-18.00	-0.64	0.87	4.29	6.96
Sector Equity							
Communications & Technology Fund	10/13/1993	0.75	-40.58	0.05	5.66	11.95	14.80
Financial Services Fund	9/30/1996	0.88	-10.95	8.96	8.60	12.23	8.42
Global Consumer Fund	6/27/2016	1.15	-27.34	1.36	3.75	—	6.17
Global Industrials Fund	10/24/2013	1.01	-21.59	5.38	6.12	—	7.14
Global Real Estate Fund	10/27/2008	1.22	-26.29	-3.02	0.81	3.11	7.95

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. To obtain the most recent month-end performance, visit roweprice.com.

Standardized Performance: T. Rowe Price Equity Mutual Funds (Cont.)

Annualized total returns for periods ended December 31, 2022

Fund	Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
Global Technology Fund	9/29/2000	0.86%	-55.52%	-4.91%	0.86%	13.14%	12.94%
Health Sciences Fund	12/29/1995	0.75	-12.19	8.98	11.08	15.91	15.06
New Era Fund	1/20/1969	0.70	7.22	9.36	5.08	4.37	7.83
Real Estate Fund	10/31/1997	0.77	-25.84	-1.10	1.52	5.30	8.54
Science & Technology Fund	9/30/1987	0.75	-35.21	-0.11	6.20	13.96	11.02

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. To obtain the most recent month-end performance, visit troweprice.com.

¹ As of the most recent prospectus.

² The Institutional Large-Cap Growth Fund changed its name to the Large-Cap Growth Fund and designated all outstanding shares as I Class as of May 1, 2020. Performance shown prior to May 1, 2020, reflects the performance of the fund while it was structured as the T. Rowe Price Institutional Large-Cap Growth Fund.

³ The Institutional Large-Cap Value Fund changed its name to the Large-Cap Value Fund and designated all outstanding shares as I Class as of May 1, 2020. Performance shown prior to May 1, 2020, reflects the performance of the fund while it was structured as the T. Rowe Price Institutional Large-Cap Value Fund.

⁴ The Institutional Global Value Equity Fund changed its name to the Global Value Equity Fund and designated all outstanding shares as I Class as of March 1, 2020. Performance shown prior to March 1, 2020, reflects the performance of the fund while it was structured as the T. Rowe Price Institutional Global Value Equity Fund.

*Managed by T. Rowe Price effective August 30, 1992.

The standardized performance table omits the Developing Technologies Fund, the Growth & Income Fund, the Institutional Africa & Middle East Fund, the Institutional Concentrated Large-Cap Value Fund, the Institutional Frontier Markets Equity Fund, the Institutional International Core Equity Fund, the Institutional International Growth Equity Fund, the Tax-Efficient Growth Fund, and the Institutional U.S. Structured Research Fund. Each of these funds either liquidated or merged with another fund prior to December 31, 2022.

Standardized Performance: T. Rowe Price Equity ETFs

Annualized total returns for periods ended December 31, 2022

Fund		Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
Blue Chip Growth ETF	(NAV Returns)	8/4/2020	0.57%	-37.88%	—	—	—	-7.72%
	Market Returns			-37.82	—	—	—	-7.68
Dividend Growth ETF	(NAV Returns)	8/4/2020	0.50	-10.02	—	—	—	11.09
	Market Returns			-10.16	—	—	—	11.06
Equity Income ETF	(NAV Returns)	8/4/2020	0.54	-3.25	—	—	—	16.82
	Market Returns			-3.33	—	—	—	16.79
Growth Stock ETF	(NAV Returns)	8/4/2020	0.52	-38.39	—	—	—	-7.58
	Market Returns			-38.43	—	—	—	-7.58
U.S. Equity Research ETF	(NAV Returns)	6/8/2021	0.34	-18.64	—	—	—	-4.95
	Market Returns			-18.69	—	—	—	-4.95

Performance data quoted represents past performance and does not guarantee future results; current performance may be higher or lower than performance quoted. Investment returns and principal value will fluctuate, and shares, when sold, may be worth more or less than their original cost. Market returns are based on the midpoint of the bid/ask spread as of 4 p.m. ET and do not represent returns an investor would receive if shares were traded at other times. To obtain the most recent month-end performance, visit troweprice.com.

These ETFs are different from traditional ETFs. See Figure A2, the Important Information section, and the prospectus for additional information about these ETFs.

¹ As of the most recent prospectus.

Standardized Performance: T. Rowe Price Fixed Income Funds

Annualized total returns for periods ended December 31, 2022

Fund	Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
California Tax-Free Bond Fund	9/15/1986	0.53%	-9.29%	-0.93%	1.00%	2.25%	3.55%
Corporate Income Fund	10/31/1995	0.56	-17.02	-3.87	-0.27	1.59	4.21
Credit Opportunities Fund	4/29/2014	1.10	-9.08	0.67	2.71	—	2.49
Dynamic Credit Fund	1/10/2019	1.25	0.02	2.94	—	—	3.88
Dynamic Global Bond Fund	1/22/2015	0.70	3.60	4.29	2.65	—	2.51
Emerging Markets Bond Fund	12/30/1994	0.88	-17.31	-5.50	-2.72	0.48	6.10
Emerging Markets Corporate Bond Fund	5/24/2012	0.93	-12.32	-2.69	0.49	2.25	3.24
Emerging Markets Local Currency Bond Fund	5/26/2011	0.84	-11.00	-5.73	-2.56	-2.15	-1.22
Floating Rate Fund	7/29/2011	0.75	-0.69	1.85	2.74	3.15	3.35
Global High Income Bond Fund	1/22/2015	0.87	-11.83	-1.29	1.56	—	3.80
Global Multi-Sector Bond Fund	12/15/2008	0.65	-15.60	-2.87	0.32	1.91	4.55
GNMA Fund	11/26/1985	0.56	-10.99	-3.20	-0.82	0.25	2.45
High Yield Fund	12/31/1984	0.73	-11.14	-0.64	1.69	3.70	6.45
Inflation Protected Bond Fund	10/31/2002	0.54	-12.85	0.64	1.79	0.77	3.40
Institutional Emerging Markets Bond Fund	11/30/2006	0.70	-17.39	-5.29	-2.01	1.30	4.05
Institutional Floating Rate Fund	1/31/2008	0.57	-0.60	2.13	3.07	3.53	4.53
Institutional High Yield Fund	5/31/2002	0.50	-11.19	-0.59	1.81	3.83	6.51
Institutional Long Duration Credit Fund	6/3/2013	0.45	-26.14	-4.90	-0.06	—	2.77
Intermediate Tax-Free High Yield Fund	7/24/2014	0.89	-8.92	-0.81	1.14	—	2.22
International Bond Fund	9/10/1986	0.71	-20.30	-6.22	-3.11	-1.65	2.18
International Bond Fund (USD Hedged)	9/12/2017	0.61	-12.03	-2.97	0.22	—	0.45
Limited Duration Inflation Focused Bond Fund	9/29/2006	0.49	-5.23	1.88	2.22	1.08	2.01
New Income Fund	8/31/1973	0.44	-14.34	-3.43	-0.45	0.78	3.17
New York Tax-Free Bond Fund	8/28/1986	0.53	-10.58	-1.33	0.63	1.78	3.25
QM U.S. Bond Index Fund	11/30/2000	0.23	-13.64	-2.72	-0.02	1.04	3.05
Short Duration Income Fund	12/8/2020	0.97	-5.10	—	—	—	-2.04
Short-Term Bond Fund	3/2/1984	0.43	-4.52	-0.14	1.04	0.96	2.18

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. To obtain the most recent month-end performance, visit troweprice.com.

Standardized Performance: T. Rowe Price Fixed Income Funds (Cont.)

Annualized total returns for periods ended December 31, 2022

Fund	Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
Spectrum Income Fund	6/29/1990	0.62%	-10.59%	-0.91%	1.11%	2.52%	4.83%
Summit Municipal Income Fund	10/29/1993	0.52	-11.06	-1.37	0.76	2.07	3.72
Summit Municipal Intermediate Fund	10/29/1993	0.50	-7.54	-0.67	1.02	1.77	3.11
Tax-Free High Yield Fund	3/1/1985	0.72	-13.58	-1.77	0.79	2.58	4.10
Tax-Free Income Fund	10/26/1976	0.53	-10.08	-1.02	0.92	1.98	3.47
Tax-Free Short-Intermediate Fund	12/23/1983	0.47	-3.91	-0.19	0.83	0.91	2.02
Total Return Fund	11/15/2016	0.53	-15.96	-2.93	0.16	—	0.87
U.S. High Yield Fund—I Class	4/30/2013*	0.65	-14.72	-1.38	1.41	—	4.09*
Ultra Short-Term Bond Fund	12/3/2012	0.31	-0.83	0.81	1.57	1.26	1.25

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. To obtain the most recent month-end performance, visit troweprice.com.

¹ As of the most recent prospectus.

*The fund commenced operations on May 19, 2017. Performance prior to that date reflects the performance of the Class A of the predecessor fund. Predecessor fund performance reflects its actual operating expense at the time and was not adjusted to reflect the impact of the fund's current fees. Since-inception returns are shown from the inception date of the predecessor fund, April 30, 2013.

The standardized performance table omits the Institutional Credit Opportunities Fund, the Institutional Global Multi-Sector Bond Fund, the Institutional International Bond Fund, the Summit GNMA Fund, and the Tax-Free Intermediate Bond Fund, each of which either liquidated or merged into another fund prior to December 31, 2022.

Standardized Performance: T. Rowe Price Fixed Income ETFs

Annualized total returns for periods ended December 31, 2022

Fund		Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
QM US Bond ETF	(NAV Returns)	9/28/2021	0.08%	-13.42%	—	—	—	-10.93%
	Market Returns			-13.67	—	—	—	-11.03
Total Return ETF	(NAV Returns)	9/28/2021	0.31	-15.81	—	—	—	-12.79
	Market Returns			-15.89	—	—	—	-12.74
Ultra Short-Term Bond ETF	(NAV Returns)	9/28/2021	0.17	-0.12	—	—	—	-0.33
	Market Returns			-0.12	—	—	—	-0.28

Performance data quoted represents past performance and does not guarantee future results; current performance may be higher or lower than performance quoted. Investment returns and principal value will fluctuate, and shares, when sold, may be worth more or less than their original cost. Market returns are based on the midpoint of the bid/ask spread as of 4 p.m. ET and do not represent returns an investor would receive if shares were traded at other times. To obtain the most recent month-end performance, visit troweprice.com.

ETFs are bought and sold at market prices, not NAV. Investors generally incur the cost of the spread between the prices at which shares are bought and sold. Buying and selling shares may result in brokerage commissions, which will reduce returns.

¹ As of the most recent prospectus.

Standardized Performance: T. Rowe Price Asset Allocation Funds

Annualized total returns for periods ended December 31, 2022

Fund	Inception Date	Gross Expense Ratio ¹	1 Year	3 Years	5 Years	10 Years	20 Years or Since Inception
Balanced Fund	12/31/1939*	0.61%	-17.26%	2.42%	4.29%	6.97%	7.21%
Capital Appreciation Fund	6/30/1986	0.70	-11.94	7.24	9.11	10.83	10.04
Global Allocation Fund	5/28/2013	1.02	-14.53	2.32	3.56	—	5.31
Retirement Balanced Fund	9/30/2002	0.49	-13.02	1.65	3.21	4.48	5.48
Spectrum Conservative Allocation Fund	7/29/1994	0.80	-13.64	1.09	2.90	4.93	6.16
Spectrum Moderate Allocation Fund	7/29/1994	0.88	-17.08	1.63	3.65	6.47	7.35
Spectrum Moderate Growth Allocation Fund	7/29/1994	0.89	-19.66	2.27	4.37	7.92	8.19

Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. To obtain the most recent month-end performance, visit [troweprice.com](https://www.troweprice.com).

¹As of the most recent prospectus.

*Managed by T. Rowe Price effective August 30, 1992.

The standardized performance table omits the Tax-Efficient Balanced Fund, which merged into another fund prior to December 31, 2022.

Equity: Passive Returns Average¹ by Morningstar Category

Annualized for standard time periods ended December 31, 2022

Morningstar Category (U.S. Funds)	1 Year	3 Years	5 Years	10 Years
U.S. Equity				
Large Blend	-17.41%	7.17%	8.77%	12.09%
Large Growth	-28.42	6.29	9.54	13.17
Large Value	-5.84	7.20	7.60	10.97
Mid-Cap Blend	-13.62	6.47	6.54	10.26
Mid-Cap Growth	-27.69	4.08	5.56	10.14
Mid-Cap Value	-7.53	6.98	6.70	10.64
Small Blend	-16.46	4.96	5.11	9.36
Small Growth	-27.56	2.82	4.84	9.68
International Equity				
China Region	-23.94	-2.11	-1.80	3.19
Diversified Emerging Markets	-18.49	-2.34	-1.44	1.04
Europe Stock	-16.26	0.55	1.75	4.94
Foreign Large Blend	-14.86	0.59	1.44	4.37
Foreign Large Growth	-21.92	0.85	3.00	5.17
Foreign Large Value	-8.06	0.66	1.08	3.84
Foreign Small/Mid Growth	-25.04	-11.19	-5.67	—
Global Large-Stock Blend	-17.18	4.96	5.62	8.59
Global Large-Stock Growth	-48.03	-4.60	—	—
Global Large-Stock Value	-5.21	4.45	3.84	6.89
Global Small/Mid Stock	-26.24	-0.57	1.57	4.20
Japan Stock	-8.75	1.23	0.93	6.59
Latin America Stock	3.14	-9.82	-2.17	-3.34
Miscellaneous Region	-15.19	-3.02	-2.90	-0.50
Pacific/Asia ex-Japan Stock	-12.72	-0.66	-0.77	2.85
Sector Equity				
Communications	-33.44	-1.41	0.45	4.34
Consumer Defensive	-0.69	9.00	7.74	10.93
Financial	-12.21	4.48	4.81	10.31
Global Real Estate	-24.65	-7.19	-2.21	1.54
Health	-16.78	3.55	6.53	12.56
Industrials	-14.74	5.72	5.85	11.14
Natural Resources	-7.22	12.77	7.20	5.80
Real Estate	-25.63	-2.29	1.66	4.82
Technology	-34.94	4.56	8.54	15.33

Performance data quoted represents past performance and does not guarantee future results.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

¹ The equally weighted average total return for the passive funds in a given Morningstar category.

Fixed Income: Passive Returns Average¹ by Morningstar Category

Annualized for standard time periods ended December 31, 2022

Morningstar Category (U.S. Funds)	1 Year	3 Years	5 Years	10 Years
Bank Loan	-2.56%	-0.88%	0.85%	1.76%
Corporate Bond	-15.12	-2.79	0.29	1.77
Emerging Markets Bond	-14.48	-4.32	-1.50	1.32
Emerging-Markets Local-Currency Bond	-3.34	-1.03	-0.44	-1.14
Global Bond	-15.05	-4.80	-3.22	-2.24
Global Bond-USD Hedged	-12.45	-3.23	0.11	—
High Yield Bond	-9.93	-0.41	1.69	2.87
High Yield Muni	-15.84	-2.98	0.48	2.07
Inflation-Protected Bond	-9.45	1.14	1.91	0.98
Intermediate Core Bond	-13.23	-2.89	-0.14	0.90
Intermediate Core-Plus Bond	-12.99	-3.11	-0.11	—
Intermediate Government	-11.61	-2.67	-0.20	0.52
Long-Term Bond	-25.11	-5.69	-0.91	1.94
Multisector Bond	-15.86	-3.22	0.27	—
Muni California Long	-9.78	-1.39	0.80	2.20
Muni National Intermediate	-8.81	-1.04	1.14	1.78
Muni National Long	-13.04	-2.20	0.39	1.82
Muni National Short	-2.34	-0.11	0.80	0.68
Muni New York Long	-13.01	-1.82	0.63	2.08
Nontraditional Bond	-6.01	2.39	2.59	-0.33
Short-Term Bond	-5.78	-0.66	0.96	1.17
Ultrashort Bond	0.68	0.65	1.36	1.08

Performance data quoted represents past performance and does not guarantee future results.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

¹ The equally weighted average total return for the passive funds in a given Morningstar category.

Asset Allocation: Passive Returns Average¹ by Morningstar Category

Annualized for standard time periods ended December 31, 2022

Morningstar Category (U.S. Funds)	1 Year	3 Years	5 Years	10 Years
Allocation-30% to 50% Equity	-15.66%	-0.09%	1.98%	3.70%
Allocation-50% to 70% Equity	-13.94	3.06	4.29	6.65
Allocation-70% to 85% Equity	-19.65	0.51	—	—
Global Allocation	-14.61	-1.05	1.28	3.50

Performance data quoted represents past performance and does not guarantee future results.

Sources: T. Rowe Price and Morningstar (see Additional Disclosure). All data analysis by T. Rowe Price.

¹ The equally weighted average total return for the passive funds in a given Morningstar category.

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