

T. Rowe Price

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INSIGHTFUL STRATEGIES FOR INFORMED INVESTORS



10 YEARS LATER

Learning from
the worst market
downturn in
generations. 6

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TROWEPRICE.COM

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Welcome Shareholder

Reflecting on past events can provide valuable insights for the future. With this in mind, our cover story, “10 Years Later,” explores the impact of the 2008 financial crisis, the reactions some investors had during the downturn, and key lessons that hold true today.

Among other stories, we offer guidance for estimating the cost of health care in retirement as well as tips for how women can protect themselves and their families from financial disruptions, since women face a number of gender-specific risks.

In closing, as part of a long-planned transition in our firm's management team, I will retire from T. Rowe Price at the end of 2018. It has been an honor to be part of a company so deeply committed to clients, and I wish you the best for a bright financial future.

Thank you for your confidence in T. Rowe Price.

Sincerely,

Edward C. Bernard

Edward C. Bernard
Chairman, T. Rowe Price
Investment Services

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The printing release date for the Fall 2018 issue was in late July.

PORTRAIT BY MARY F. CALVERT; PHOTOGRAPHS BY WEDNINTH; XIJIAN; GABRIELARLSON; COVER PHOTOGRAPH BY IAN MONTGOMERY/EVEEM

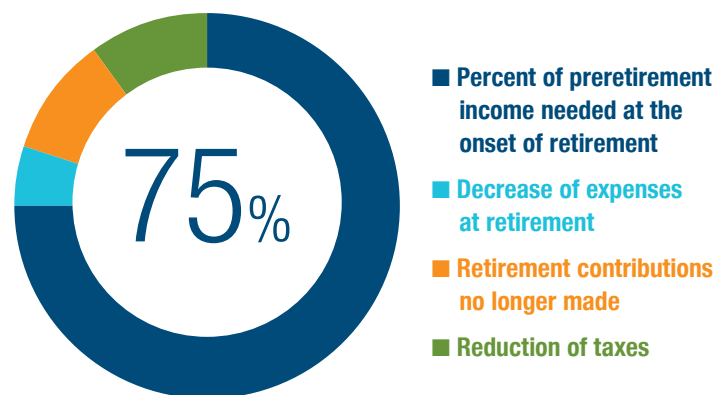
RETIREMENT PLANNING

Your Retirement Expenses

How to estimate what you might spend during your retirement years.

When thinking about your expenses in retirement, it's helpful to start with a target for what you may spend. The challenge is knowing what those expenses might be if you're many years away from retiring. One approach is to estimate your income needs in retirement as a percentage of your preretirement household income. We refer to this as an income replacement rate.

To maintain your current lifestyle during retirement, T. Rowe Price recommends planning to replace about 75% of your preretirement income.¹ Why 75%? Living expenses tend to go down in retirement. Your taxes likely will be lower, and you won't incur payroll taxes when you stop working. You also won't be saving for retirement any longer.



NEXT STEPS

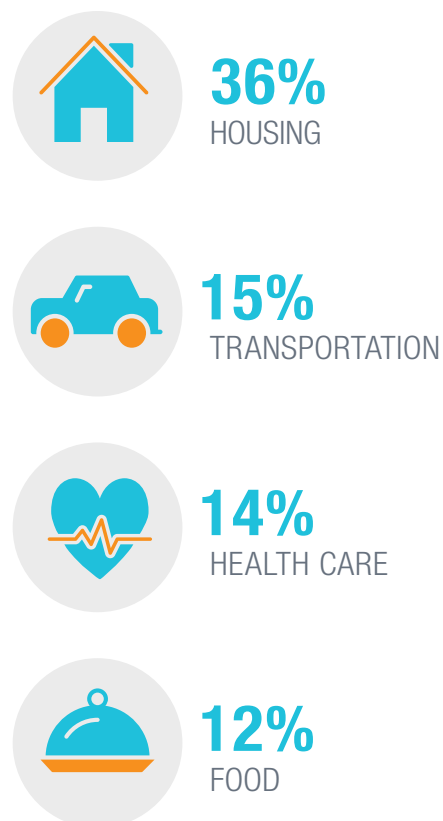
Use our FuturePath® retirement planning tool at troweprice.com/futurepath.

¹We assume household income of \$100,000–\$150,000 at retirement and a 5% spending reduction at the onset of retirement. We also assume that the household has been saving 8% of gross income (pretax). Keep in mind that while the income replacement rate estimates what you might need in retirement, there is no guarantee that an 8% savings rate will be sufficient to meet that need.

²Henderson, S. (2016, November 3). Spending Habits by Generation. Retrieved from: <https://blog.dol.gov/2016/11/03/spending-habits-by-generation>.

Moving beyond a guideline

As you draw closer to retirement, you'll want to get a more specific idea of your actual income needs. To start, consider how current retirees are spending their money. The top four expense categories for those in the silent generation (born from 1929–1945) include:²



After comparing your expenses with those of retirees, you can develop a rough retirement budget based on your personal circumstances. Taking the time now to go through this exercise can inform your retirement savings and spending plan and help you meet your retirement goals. ■



PERSONAL FINANCE

4 Financial Tips for Women

How to protect your family from financial disruptions.

Women face a number of gender-specific risks when it comes to money. In addition to the disparity in paychecks, there is a far more significant lifetime earnings gap that is most prevalent among women who take time away from their careers to raise children or to be primary caregivers for a spouse or an aging parent.

Life events and financial shocks—such as divorce, disability, unemployment, and widowhood—can wreak havoc on even the

best-laid plans. This is especially true in situations where a woman is a full-time parent or caregiver who relies on someone else to financially support the household.

80¢ vs. \$1

Women earn roughly 80 cents on the dollar compared with men, according to U.S. Census Bureau research.

Planning for the “what ifs”

■ **Emergency reserves:** “We suggest having savings that can cover three to six months of expenses in an easily accessible account. In a household with a primary earner, leaning toward the higher end—an amount that can cover six months of expenses—is a good idea,” says Judith Ward, CFP®, a senior financial planner with T. Rowe Price. Should the primary earner become unemployed, the household can weather this period of uncertainty without having to scramble to find other sources of income or consider drastic cuts in spending.

■ **Insurance:** Make sure the primary earner has enough life and disability insurance to support the family should something happen. After all, that’s the income the household is relying upon. At the

same time, consider the insurance needed to replace the contribution of an at-home spouse who doesn't earn a paycheck. There definitely would be costs associated with certain household activities if they had to be outsourced.

■ **Family finances:** In some households, there might be a division of labor. One spouse may be responsible for the day to day: paying the bills, balancing the checkbook, and managing schedules. The other spouse may be responsible for overseeing the investment and retirement accounts. It's extremely important that both spouses understand the financial position of the entire household—what is owned and what is owed. What are the household debts? What are the savings and investments intended to help achieve future goals, and how is the family tracking to meet those goals?

■ **Earning potential:** When women leave the workforce to care for children or an aging parent, they may be at home during their peak earning years. This career gap may make it difficult to reenter the workforce. Women may want to consider keeping a foot in the

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The number of years women caregivers are likely to spend out of the workforce raising children and caring for an older relative or friend.*

NEXT STEPS

Keep yourself educated on the markets, investments, and financial planning at troweprice.com/insights.

*Women and Caregiving: Facts and Figures. Retrieved from <https://www.caregiver.org/women-and-caregiving-facts-and-figures>.

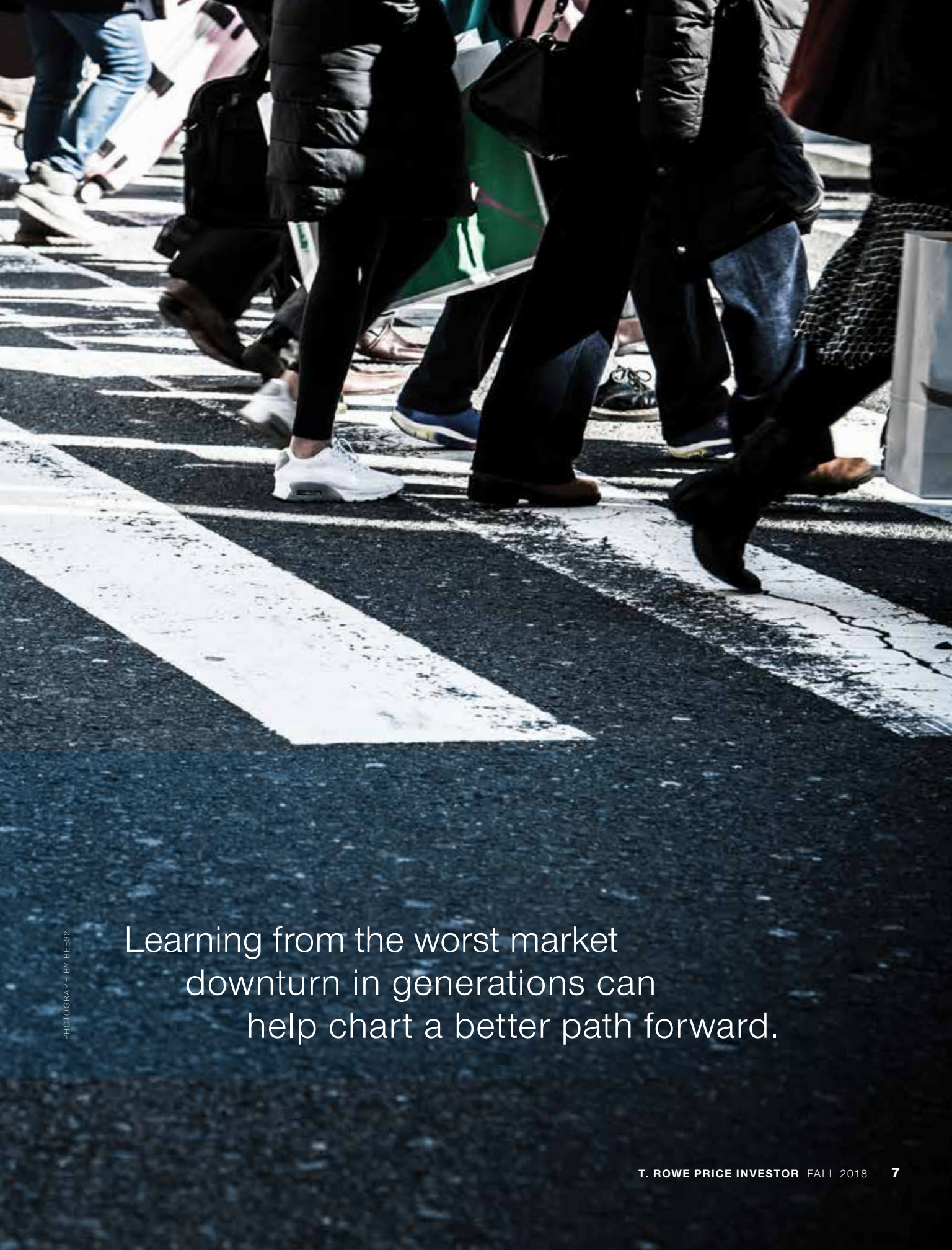
door. Part-time, contractual, or consulting work not only will contribute to the household, it will help keep their skills sharp and future hiring prospects brighter. Volunteering to maintain professional skills and engaging in supportive networks are also helpful. Additionally, continuing education to advance a future career can be extremely rewarding. If a woman finds herself in a situation where she has sole financial responsibility, she will have the confidence to make the most of potential opportunities.

“Taking these four actions can help every woman be better prepared for the unexpected—and protect her family from financial disruptions,” says Ward. And for women who have left the workforce and rely on a primary earner, these tips are essential in helping to provide greater financial peace of mind. ■



COVER STORY

10 YEARS LATER



PHOTOGRAPH BY BEE32

Learning from the worst market
downturn in generations can
help chart a better path forward.

KEY POINTS

- The 2008 financial crisis was the worst recession since the Great Depression.
- Some investors reacted to the downturn in ways that still could be holding them back today.
- Individuals who stayed focused on the fundamentals of investing have found themselves back on track.

History teaches lessons, but we only gain insights after we've worked to understand what really happened. Ten years ago, the economy was in the middle of the worst recession since the Great Depression, and equity markets were in freefall. The international banking crisis and the bankruptcy of Lehman Brothers were part of a stock market crash that would continue for several more months.

"The financial crisis offered people the opportunity to learn valuable lessons about the fundamentals of investing," says Stuart Ritter, CFP®, a senior financial planner with T. Rowe Price. "Unfortunately, some reached the wrong conclusions—which still could be holding them back from reaching their future goals."

Looking back

Investors experienced a financial one-two punch in the form of falling home prices and declining portfolio values. For some, financial lives were turned upside down, with seemingly no relief in sight. With the benefit of hindsight, we know the market

hit bottom on March 9, 2009, but in late 2008, there was little to be confident about.

The S&P 500 Index recouped losses by November 23, 2012, roughly three and a half years after the market bottom. Unfortunately, not every investor chose to ride out the downturn. In addition to locking in their losses, those who acted on their emotions still may be holding on to fear-based investment mind-sets. (See "4 Post-Financial Crisis Mind-Sets.")

Embracing the lessons

Consider the following reactions some investors may have had during the 2008 financial crisis and valuable investing lessons that have held true in the decade since the downturn:

2008 Reaction: Stocks are too risky.

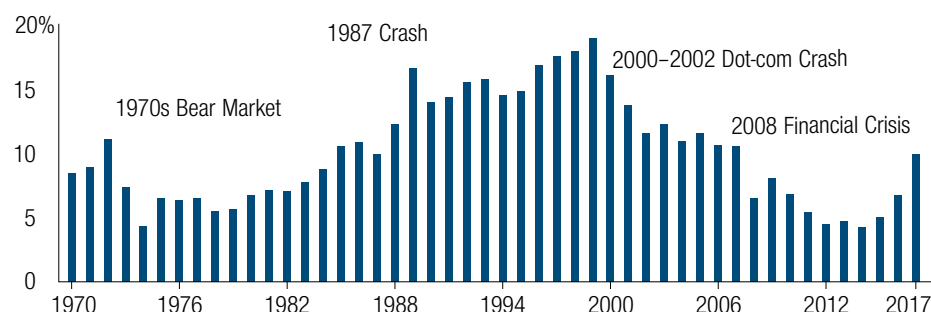
Investing Lesson: Short-term volatility doesn't negate the long-term growth potential of stocks.

Staggering declines in the S&P 500 Index shocked inexperienced and seasoned investors alike. Individuals faced a difficult choice to either remain

Steady Gains Over Time

The S&P 500 Index has never lost ground during any rolling 15-year period starting back in 1926—and, as shown in the chart, the many recent financial crises haven't changed this fact.

Annualized returns over 15-year periods ending between December 31, 1970, and December 31, 2017



Past performance cannot guarantee future results. Charts are shown for illustrative purposes only and are not indicative of any specific investment. Investors cannot invest directly in an index.

invested without knowing when the markets would go back up or to get out in an attempt to avoid further losses, but with the consequence of missing out on subsequent gains.

Investors who exited the market during the downturn still may not have recouped their losses despite record market highs 10 years later. Meanwhile, the S&P 500 has earned an average annual return of 7.6% since the market peak before the downturn.¹

It's important to remember that the markets have recovered from every downturn. In fact, stocks have produced positive returns in every rolling 15 calendar year period since 1926. (See "Steady Gains Over Time.")

2008 Reaction: Saving in stocks for retirement isn't worth it if the market will just crash again.

Investing Lesson: By steering clear of the stock market, people potentially miss more in gains than they avoid in losses.

The market decline resulting from the 2008 financial crisis effectively erased a decade's worth of gains. The markets recovered, but this only benefited those who remained invested. Individuals who sold their stock holdings, despite potentially many years until retirement, locked in their losses and missed out on the subsequent gains. "The downturn decreased people's account balances; but it was the choice to sell out of stocks that made that decrease permanent and kept retirement account balances low," explains Ritter.

The fact is, despite back-to-back crises in 2001 and 2008, the stock markets have recovered to record highs. (See "A Decade Found" on page 10.) Since just before the 2008 crisis, the inflation rate has averaged 1.8% per year, which means

4 Post-Financial Crisis Mind-Sets

All investors feel emotions, but some let those emotions influence their actions, leading them to draw the wrong conclusions from the 2008 downturn:



Too Cautious

Those who exited the markets in 2008 and are still too fearful to get back in.



Market Watching

Those who focus on what the markets are doing in the short term (and not the long-term performance of their own portfolios) and react to headlines by constantly adjusting their investments.



Enticed and Chasing

Those who think they know better now yet still keep chasing the next big thing, whether it be tech stocks, real estate, gold, or cryptocurrencies.



Complacent

Those who assume stocks are supposed to keep rising steadily and have allowed themselves to remain too heavily exposed to stocks despite a shorter time horizon and the risks of short-term volatility.

Many investors experience these mind-sets from time to time. What sets some apart is that they also know how to stick to their plan despite these emotions.

that stocks have delivered the annual growth necessary to keep retirement assets growing more than inflation.²

2008 Reaction: Day-to-day volatility matters.

Investing Lesson: Long-term results from a well-diversified and properly allocated portfolio are what really matter.

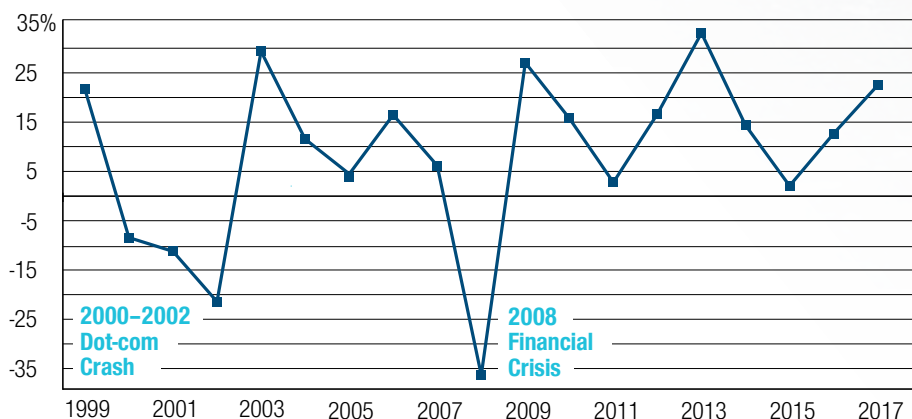
"Throughout the crisis, media headlines called out various one-day market declines as if they represented important news for all investors, as well as a trend that would continue indefinitely," recalls Ritter. "Such was the level of alarm being raised at the time."

The headlines stoked fear based on an assumption that individuals were invested entirely in, or had a high

A Decade Found

The media touted the Lost Decade in the wake of back-to-back market downturns in the early and late 2000s, but few have bothered to note that in the 10 years since the 2008 financial crisis, markets have rebounded strongly.

Annual total return for the S&P 500 Index



Past performance cannot guarantee future results.

allocation to, U.S. equities and that the day-to-day volatility was something they should react to. What these headlines omitted, however, was that properly allocated investors with significant stock portfolios would have decades to recover from any market decline. “For many people, however, what they were reading in the headlines wasn’t what was happening in their portfolios,” says Ritter. “Investors with shorter time horizons likely had exposure to bonds and even cash to help buffer the declines they experienced in their equity portfolios.”

Markets regularly cycle through periods of less and more volatility. This pattern is why maintaining an asset allocation that is appropriate for your time horizon is so important—not to mention sticking to your plan regardless of what part of the volatility cycle you find yourself in.

The fundamentals of investing

There is no doubt that the 2008 financial crisis was unsettling for many individuals. At the same time, past fears should not change a sound approach to investing. As markets do what they do, the best strategy is still the one that has helped investors weather every market crisis to date: Stick to the fundamentals.

Investors who stayed focused on the principles of sound investing—namely, an appropriate asset allocation based on time horizon and risk tolerance, along with a well-diversified portfolio—have found themselves back on track with their savings despite the worst market downturn in generations. “The real lesson to take away from the 2008 financial crisis is not that the fundamentals of investing need to change,” says Ritter. “It’s that those fundamentals really do work.” ■

NEXT STEPS

To keep updated on what’s happening in the markets, visit troweprice.com/insights.

¹S&P 500, October 9, 2007, to May 31, 2018. ²U.S. inflation, October 2007 through April 2018.

Past performance cannot guarantee future results. All investments are subject to market risk, including the possible loss of principal. Stock prices can fall because of weakness in the broad market, a particular industry, or specific holdings. All charts and tables are shown for illustrative purposes only and are not indicative of any specific investment. Investors cannot invest directly in an index.

T. Rowe Price

TAKE NOTE

Is a Roth Conversion
Right for You?

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Health Care Costs in Retirement

Understanding your options can help you better plan for future expenses.

Calculating projected living expenses is an important first step in planning for retirement. These costs include housing, food, travel, and recreation as well as health care. But predicting how much health care costs will total over the course of a retirement can be tricky.

Health conditions, costs of health care insurance, and out-of-pocket medical expenses are different for everyone, so preretirees can only estimate a range of likely expenses. “Although the

complexity can be daunting, understanding health insurance and medical costs can help you make financial plans with greater confidence,” says Roger Young, CFP®, a senior financial planner with T. Rowe Price. (See “A Wide Range of Expenses.”)

Even for individuals in good health, total expenses will vary due to the income-related differences in Medicare Part B premiums. People with higher incomes—in 2018, those with annual incomes above \$85,000—pay higher premiums. (See “Medicare Part B 2018 Premiums.”) While less than 5% of Medicare enrollees fall under this category,¹ it can be an important consideration.

Premiums for Medicare Part D, covering drug expenses, can vary by location as well as by income. The estimated national average annual premium is \$650,² and income-related adjustments can total as much as \$898 per year. Even with Part D coverage, many individuals face additional out-of-pocket expenses, such as copayments and coinsurance.

While 80% of Medicare participants do not opt for Medigap policies,³ those with the means to purchase them should strongly consider doing so. As the name suggests, these policies fill gaps in Medicare coverage. Annual Medigap premiums average about \$2,400 a year,⁴ though they differ by plan type, location, and other factors.

Out-of-pocket expenses in retirement also vary widely. Counterintuitively, people with additional private insurance, such as a Medigap policy, tend to spend a little more out of pocket than those relying on Medicare alone—perhaps because their health care needs are greater. Median annual out-of-pocket payments for those age 65 and older (excluding long-term care) were \$741 in 2014, but almost 20% of individuals spent at least \$2,000.⁵

Note that the full array of options for health care insurance in retirement is not addressed here, such as Medicare Advantage plans, Medicaid, employer-based retiree coverage, or the many exceptions to general rules around Medicare.

A Wide Range of Expenses

Projecting health care costs in retirement starts with Medicare. These and other expenses generally are as follows:

- Medicare Part A for hospital expenses. Free for most.
- Medicare Part B medical insurance. Premiums change with income.
- Medicare Part D for drug expenses. Premiums vary with location and income.
- Medicare Supplemental Insurance (private Medigap policies) for some expenses not covered by Medicare. Premiums differ by plan type and other factors.
- Out-of-pocket expenses not covered by any insurance.
- Long-term care expenses.

Medicare Part B 2018 Premiums*

Based on modified adjusted gross income (MAGI) in 2016.

Individual MAGI	Married filing jointly MAGI	Annual Part B Premium (per Person)
\$85,000 or Less	\$170,000 or Less	\$1,608
Above \$85,000; Up to \$107,000	Above \$170,000; Up to \$214,000	\$2,250
Above \$107,000; Up to \$133,500	Above \$214,000; Up to \$267,000	\$3,215
Above \$133,500; Up to \$160,000	Above \$267,000; Up to \$320,000	\$4,180
Above \$160,000	Above \$320,000	\$5,143

*These rates apply to many people, but rates can be lower for those in the lowest income range whose premiums are deducted from Social Security due to a cap based on cost-of-living adjustments. The average annual premium in that case is \$1,308.

Source: medicare.gov.

What you can expect to pay

“After totaling the cost of coverage and expenses, the bottom line is that many retirees easily could end up spending between \$5,500 and \$11,000 a year in 2018 dollars on their health care,” says Young. “This means that a couple might spend \$11,000 to \$22,000 a year.” (See “Potential Health Care Costs in Retirement” on page A4.)

Remember that these are rough estimates with a wide range of possibilities. For example, Medicare Advantage plans, not included in this discussion, combine Medicare Part B, Medigap, and sometimes Medicare Part D expenses and often can be cheaper than buying the components separately. In preparing for retirement, you should consider many factors—among them, where you live, your overall health, your family medical history, your prescription drug requirements, and any medical specialists you might need to consult. To reduce your potential health care costs, consider preventive measures. Staying active through regular exercise and

adopting a health-conscious diet, along with getting regular checkups, may help you stay healthier during your retirement years.

The high cost of medical expenses in retirement often comes as a surprise to people after they stop working. If you find that you may not be saving enough, consider increasing investments in your individual retirement account (IRA) or workplace savings plan. Health savings accounts (HSAs) offer another potential savings vehicle. “Available to individuals enrolled in high-deductible health plans, HSAs have become increasingly popular due to their tax benefits,” says Young. Since each of these options is subject to separate sets of tax, distribution, and estate rules, finding the right mix of savings vehicles requires careful planning.

Consider long-term care

In addition to the health care costs outlined above, it’s important to plan for the possibility of long-term care,

Understanding health insurance and medical costs can help you make financial plans with greater confidence.”

—ROGER YOUNG, CFP®, A SENIOR FINANCIAL PLANNER WITH T. ROWE PRICE

which encompasses in-home assistance, assisted living environments, and full nursing home care. Some individuals may never need long-term care. However, others may require multiple years of extensive and costly nursing care. This is a major financial risk, since most long-term care costs are not covered by Medicare, and Medicaid only comes into play after most of a person’s resources are exhausted.

Purchasing long-term care insurance is one way to shift this potential expense to an insurer. However, people at the low end of the wealth spectrum often can’t justify the expense of a long-term care policy, and high-net-worth individuals may be able to successfully self-insure. As a result, those with middle-class incomes are most likely to consider buying long-term care

insurance. Additionally, long-term care insurance premiums have risen sharply, and many insurers have retreated from the business. So it’s best to exercise caution before purchasing this type of coverage.

Know your choices

Choosing the options that work for you requires an investment of time. But familiarizing yourself with your choices and assessing your own health care needs can go a long way toward making the costs of health care a manageable aspect of your retirement planning. “Whether you choose to manage all these financial risks through insurance, an investment portfolio, or some combination, it’s important to make sure you’re armed with knowledge of the health care expense landscape,” says Young.

Potential Health Care Costs in Retirement*

Per person in 2018 dollars, excluding long-term care.

	Lower Earners, Median OOP	Middle of Five Income Ranges, Median OOP	Highest Earners, Top-Quintile OOP
Medicare Parts B and D Premiums	\$2,250	\$4,250	\$6,700
+ Out of Pocket (OOP)	\$750	\$750	\$2,000
+ Medigap Premium (Estimated Median)	\$2,400	\$2,400	\$2,400
= Total, Excluding Long-Term Care	\$5,400	\$7,400	\$11,100

*These are rough estimates with a wide range of possibilities as determined by a variety of factors.

Source: T. Rowe Price.



VIDEO

Planning for Medicare

Your choices can have a major impact on the services you receive and your overall costs of health care.

Nearly all Americans will participate in enrollment for Medicare when they reach age 65. T. Rowe Price engaged Dr. Jeff Bauer, a thought leader in the health care industry for 45 years, to provide general information and helpful hints to help clarify your options.

Highlights:

- Begin your planning process no later than six months before you turn age 65. The key is shopping around before you make decisions so that you'll be able to choose the options that are right for you.
- The program details, including premiums, usually change annually and can have a big impact on your health care costs, so it's important to stay up to date by visiting **Medicare.gov** periodically.
- You'll need to set aside savings to pay for health care costs beyond what Medicare and supplemental



policies will cover. Choices include—but are not limited to—Roth IRAs and health savings accounts.

- There's no “one size fits all” solution, but there are many viable ones based on individual circumstances. ■

NEXT STEPS

To view the video featuring Dr. Jeff Bauer, visit troweprice.com/planningformedicare.



Is a Roth Conversion Right for You?

Moving assets to a Roth IRA can provide more income flexibility in retirement.

There is a fairly simple financial move that can create significant advantages for many investors: converting a Traditional individual retirement account (IRA) to a Roth IRA. While it may not be the right choice for everyone, Roth conversions can provide tax diversification and help many investors increase their future financial flexibility in retirement. Every investor may want to consider gaining some exposure to Roth IRAs. For retirees, having a Roth IRA can increase their after-tax income, since qualified withdrawals from the account are income tax-free and may be made at the discretion of the investor.*

Why convert?

There are a number of benefits to owning a Roth IRA. The trade-off is that moving assets from a Traditional IRA to a Roth IRA generally requires paying taxes at the time of the account conversion rather than later, when you start taking withdrawals.

Deciding whether to convert assets to a Roth IRA depends largely on what you anticipate your future income tax bracket will be. The conversion could be especially beneficial if you expect to be in a higher tax bracket in retirement—you'll pay the taxes now at your lower current rate. That said, the move may be advantageous if you think your tax rate will stay the same and even in some cases if you expect it to decline. Having tax-free Roth assets can provide you with freedom to use that money to pay for expenses in retirement, such as a new roof or a special vacation, without increasing your annual taxable income. Conversely, if you used money from your Traditional IRA to pay for those expenses, those assets would be included in your taxable income and potentially could increase your marginal tax rate as well as your Medicare premiums.

Additionally, Roth IRAs do not have required minimum distributions (RMDs), which make them a valuable retirement and estate planning tool. If you

PHOTOGRAPH BY WEDNINTH

Deciding whether to convert assets to a Roth IRA depends in part on what you anticipate your future income tax bracket will be.

don't need to make withdrawals during retirement, you can leave those assets—and any tax-free earnings they generate—to your heirs. The amount you pass on to heirs can continue to grow tax-deferred in their Inherited Roth IRAs. Your heirs will be required to take RMDs each year, and they can always withdraw more whenever they need it. Leaving a Roth IRA to a beneficiary is one way to generate potentially tax-free income for your loved one.

The cost of conversion

Before converting, consider each of the following strategies for paying the taxes.

- Stagger the conversion. If a Roth IRA conversion would push you into a higher federal tax bracket, consider conducting multiple partial conversions over a period of a few years.
- Generally speaking, it's ideal to pay taxes on the conversion from a taxable account. This method may have the smallest tax consequences.
- If you don't have enough savings in a taxable account to pay the taxes, consider taking a tax-free

withdrawal from an existing Roth IRA. Note that for those under age 59½, only contributions can be taken tax-free. Generally, if you're age 59½ or older and have held the account for at least five years, however, you can take tax-free withdrawals of both contributions and earnings.

- If neither a taxable account nor an existing Roth IRA is available to pay the taxes, you can consider withdrawing from a Traditional IRA. One consequence is that this would result in additional taxes on the amount you withdraw to pay the conversion taxes. And if you tap in to the Traditional IRA when you're younger than age 59½, your withdrawal will be subject to a 10% early withdrawal penalty.

Converting at least some of the assets in your Traditional IRA into a Roth IRA may provide you with considerable flexibility in retirement. As with anything, there are pros and cons to converting your money. After weighing your options, you'll be positioned to make the choice that's best for your personal circumstances.

A Comparison of IRAs

Both Traditional IRAs and Roth IRAs offer unique tax advantages.

With a Traditional IRA, you have to start taking required minimum distributions (RMDs) from the account each year once you reach age 70½. Since this withdrawal amount generally is treated as ordinary income, you may be obligated to pay taxes on withdrawals. With a Roth IRA, there are no RMDs, and you can make qualified withdrawals without paying taxes.

	Traditional IRA	Roth IRA
Taxes on withdrawals	Withdrawals of pretax contributions and earnings are taxed as ordinary income	Generally, withdrawals of contributions and converted assets are tax-free. Withdrawals of investment earnings are also income tax-free if: <ul style="list-style-type: none"> ■ you've held the account for at least five years, and ■ you are age 59½ or older
Required minimum distributions (RMDs)	Must take your first RMD by April 1 of the year after the year you turn age 70½	None
Early withdrawal penalties	Withdrawals of contributions and earnings prior to age 59½ may be subject to a 10% penalty (with some exceptions)	Withdrawals of earnings that are not qualified distributions may be subject to a 10% penalty (with some exceptions). Withdrawals of converted assets may be subject to a 10% penalty (with some exceptions) before the converted account is five years old
Advantages¹	<ul style="list-style-type: none"> ■ Tax-deferred potential growth ■ Tax-deductible contributions (when applicable) 	<ul style="list-style-type: none"> ■ Tax-deferred potential growth ■ Tax-free qualified withdrawals ■ No RMDs ■ Heirs can take potentially tax-free withdrawals from Inherited Roth IRAs
Considerations	<ul style="list-style-type: none"> ■ Withdrawals of pretax contributions and earnings are taxed as ordinary income ■ RMDs begin at age 70½ 	<ul style="list-style-type: none"> ■ Contributions are not tax-deductible ■ Heirs must take RMDs
Spousal beneficiaries²	Subject to RMD rules	No RMDs
Non-spousal beneficiaries	Non-spousal beneficiaries can take distributions from an Inherited IRA before age 59½ without incurring the 10% early withdrawal penalty. They also can designate their own beneficiaries for the Inherited IRA. ■	

¹Subject to phase-out based on IRA owner's modified adjusted gross income for deductibility to a Traditional IRA or for contributions to a Roth IRA.

²If spouse elects to treat the Inherited IRA as his/her own.

NEXT STEPS

For more on the differences between Traditional IRAs and Roth IRAs, visit troweprice.com/ira.

*A qualified distribution is tax-free if taken at least five years after the year of your first Roth contribution and you've reached age 59½, become totally disabled, died, or met the requirements for a first-time home purchase.

T. Rowe Price Blue Chip Growth Fund

A fund that invests in market-leading companies poised for long-term growth.

The T. Rowe Price Blue Chip Growth Fund (TRBCX) provides an efficient way to invest in companies that enjoy strong market positions, seasoned management teams, solid fundamentals, and sustainable, above-average growth and profitability.

A solid track record

The Blue Chip Growth Fund has posted outstanding near- and long-term returns. (See “Strong Long-Term Performance.”) As with any stock fund, the Blue Chip Growth Fund is subject to market risk. Growth stocks can be volatile because these companies usually invest a high proportion of earnings in their business, and earnings disappointments often lead to sharply falling prices.



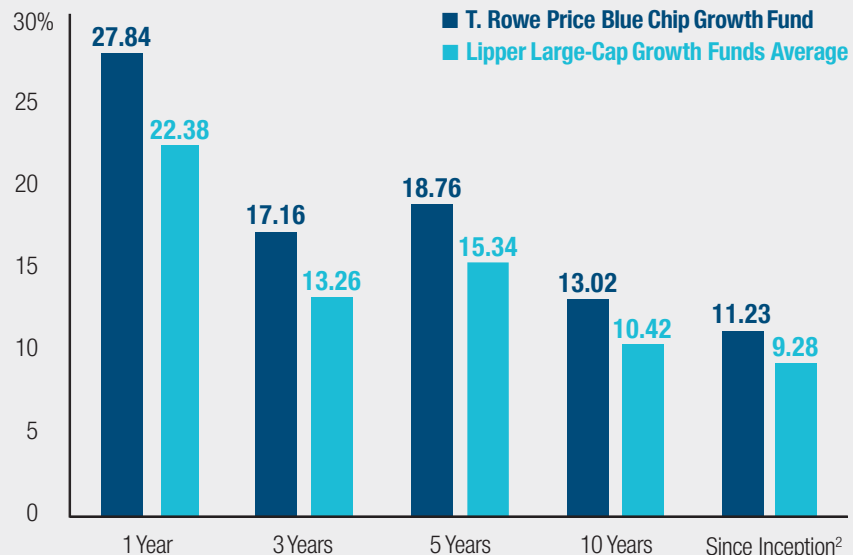
Morningstar has awarded the Blue Chip Growth Fund 5 stars for its 3-, 5-, and 10-year and overall performance.¹

Strong Long-Term Performance

The T. Rowe Price Blue Chip Growth Fund has consistently exceeded its peer group as of 6/30/18.

NEXT STEPS

Learn more about the T. Rowe Price Blue Chip Growth Fund at troweprice.com/bluechip.



Current performance may be higher or lower than the quoted past performance, which cannot guarantee future results. Share price, principal value, and return will vary, and you may have a gain or loss when you sell your shares. For the most recent month-end performance, visit troweprice.com/bcg. The fund's expense ratio as of its fiscal year ended 12/31/17 was **0.70%**. Average annual total return figures include changes in principal value, reinvested dividends, and capital gain distributions.

¹Source: Morningstar.

Morningstar rated the Blue Chip Growth Fund among 1,265, 1,265, 1,141, and 825 large growth funds for the overall rating and the 3-, 5-, and 10-year periods (as applicable) ended 6/30/18, respectively. Ratings are determined monthly and subject to change. Morningstar Ratings™ are based on risk-adjusted returns. The Overall Morningstar Rating™ for a fund is derived from a weighted average of the performance figures associated with its 3-, 5-, and 10-year (if applicable) Morningstar Rating metrics. *Of course, past performance cannot guarantee future results.* See page 17 for additional disclosures.

²Fund inception date 6/30/93.

Source for Lipper data: Lipper Inc.

EQUITIES

The Rewards of Strategic Investing

Research and experience helped drive a track record of outperformance at T. Rowe Price.

During the past 20 years, investors experienced periods of high volatility, with two strong U.S. bull markets giving way to two of the most brutal bear markets in recent memory: the collapse of the dot-com bubble in 2000 and the global financial crisis that began in 2007.

Throughout, T. Rowe Price remained committed to disciplined, active investment management. Our research shows that long-term U.S. equity clients have been rewarded.

Outperformance improved over time

An extensive study by T. Rowe Price shows that we excelled through the many market environments of the past two decades. A majority of our 18 diversified active U.S. equity mutual funds beat their benchmark across multiple time periods over 20 years or their lifetime.¹

Moreover, our outperformance tended to remain strong over time. Fifteen of the 18 funds had positive active success rates (see “Defining Active Success Rates”) over rolling three-year periods and 17 over five-year periods, while 16 were

ahead over 10-year intervals.² A notable 94% generated positive average excess returns over rolling five-year periods, and 89% over rolling 10-year periods, underlining that it frequently has been worth waiting for our strategic investing approach to pay off.

T. Rowe Price’s large-cap funds proved their worth

The study challenges the commonly held belief that it is not possible for active managers to add value in what is widely regarded as the world’s most efficient capital market. The majority of our U.S. large-cap funds beat their benchmark over all four of the time horizons examined.

Our approach to strategic investing

We attribute our success primarily to careful stock selection and in-depth fundamental research, conducted by our long-tenured investment team.



Defining Active Success Rates

The active success rate records the percentage of times a fund beat its designated benchmark, net of fees and trading costs, over a specified time period (say, 10 years). Think of this as a measure of how often a client might look at his or her monthly statement and find that a fund has outperformed for that time period.

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

We go out into the field to get the answers we need. That means that over 350 of our investment professionals see firsthand how the companies we're investing in are performing today in order to make skilled judgments about how they'll perform in the future.³

Experience has been a critical component of our success as well. Our skilled portfolio managers have deep experience—an average of 21 years in the industry and 16 years with T. Rowe Price.⁴

Independent academic research affirms our approach: Active equity managers, as a group, have been shown to have the skill to select stocks that outperform the broader market, before costs,⁵ while stable, longstanding active teams appear more likely to excel.⁶

Our own study shows that a skilled active management approach can help navigate challenging market conditions.

Looking to the long term

The factors above will remain central to our approach. We don't wait for change. We seek to get ahead of change for our clients. 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. ■

NEXT STEPS

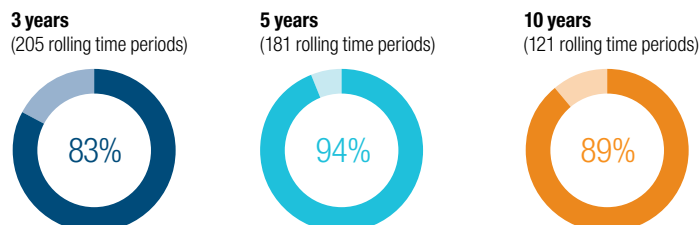
For additional information on the complete analysis, visit troweprice.com/complete-active-study.

T. Rowe Price Success Rates Over 20 Years

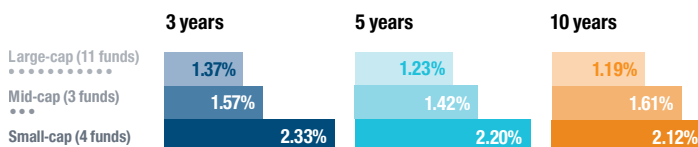
Analysis of 18 T. Rowe Price diversified active U.S. equity mutual funds over 20 years or their lifetime.

Rolling periods 12/31/1997 through 12/31/2017

Percentage of funds with positive active success rates



Annualized, time-weighted excess returns, net of fees



Sources: T. Rowe Price, Russell, and Standard & Poor's; data analysis by T. Rowe Price.

Note that past performance data throughout this material are not reliable indicators of future performance. All funds are subject to market risk, including possible loss of principal. For more information on the T. Rowe Price funds used in this study, including fund performance, please visit troweprice.com/complete-active-study.

¹The study spanned the 20 years up to the end of December 2017 for older funds or since inception for newer ones and measured performance, net of fees and trading costs. It covers 18 diversified active U.S. equity funds advised by T. Rowe Price, omitting 2 institutional funds that are clones of other funds to avoid double counting. Benchmarks included the S&P 500, Russell 1000 Growth, Russell 2000 Growth, Russell 1000 Value, Russell 2000 Value, Russell 2000, Russell Midcap Growth, and Russell Midcap Value Indexes. Russell Investment Group is the source and owner of the trademarks, service marks, and copyrights related to the Russell indexes. Russell® is a trademark of Russell Investment Group. Fund performance was measured against the designated benchmarks over rolling 12-month and 3-, 5-, and 10-year periods.

²Active success rates are the percentage of times a fund outperformed its designated benchmark in a given period.

³Investment professionals as of 12/31/2017.

⁴As of 12/31/2017.

⁵Including research by Professor Mark Grinblatt of UCLA and Professor Sheridan Titman of the University of Texas. See: "The Persistence of Mutual Fund Performance," *Journal of Finance*, Vol. 47, No. 5, December 1992.

⁶According to research by Professor Joseph Golec of the University of Connecticut. See: "The Effects of Mutual Fund Manager Characteristics on Their Portfolio Performance, Risk and Fees," *Financial Services Review*, Vol. 5, No. 2, 1996.

PERSONAL FINANCE

Enhance Your Giving

Strategies to help you meet your philanthropic goals.

Giving has been on the rise in the U.S. In 2017, individuals, estates, corporations, and foundations contributed an estimated \$410.02 billion to a wide range of charitable causes, according to data from the Giving USA Foundation.¹ The figure represents a 5.2% increase over 2016. The increase was buoyed in large part by individual giving, which rose \$14.27 billion, notes the president of The T. Rowe Price Program for Charitable Giving^{SM, 2} Dr. John Brothers. “Now, more than ever, Americans are committed to making an impact by supporting the charitable organizations closely aligned to their interests and beliefs.”

A growing number of individuals and families are using donor-advised funds (DAFs) to make their charitable gifts. DAFs are public charities that accept irrevocable gifts of cash or securities from individuals and distribute funds to qualified nonprofit organizations, based on the donor’s interest. All gifts are tax-deductible up to IRS limits, with an additional important advantage: For long-term appreciated securities, you can deduct the current value of the shares without having to pay

taxes on any capital gains. Then you can take your time to decide which charities you wish to support with your donations.³ In the meantime, the balance of your DAF account is invested. Any potential growth is tax-free, so you could have more funds available to give to your favorite causes.

Simplify your giving process

DAFs assist donors with in-kind security transfers so donors can take full advantage of any charitable tax deductions. Donors can transfer one block of stock to their DAFs and then recommend distributions to many different charities. This is much easier than trying to transfer shares of securities to individual charities. Keep in mind, however, that donor-advised funds may require an initial contribution of \$10,000 or more, although future contributions can be lower.

Foundation benefits, with less work

It’s worth noting that DAFs are more cost-efficient and less time-consuming than private foundations. DAFs also offer recognition benefits—individuals

can be cited as the donor-advisors recommending a grant, or they can have the name of their DAF account included in the grant award letter. In addition, the DAF handles all administrative tasks, such as recordkeeping, for a modest fee. You also can set up the fund to make automatic, regular grants to particular organizations of your choosing—even after your death.

Creating a personal legacy of philanthropy

You can add the names of family members to your DAF account. Many donors especially like this option because it gives them the opportunity to involve younger family members in the charitable giving process.

The simplicity and range of options offered by donor-advised funds make them ideal for cultivating a giving tradition in your family, says Brothers. “Our donors believe that strong family legacy isn’t something you pass down from generation to generation but rather something your family creates and sustains together.” ■

¹Giving USA 2018: The Annual Report on Philanthropy for the Year 2017 (current dollar values).

²The T. Rowe Price Program for Charitable Giving is an independent, nonprofit corporation and donor-advised fund founded by T. Rowe Price to assist individuals with planning and managing their charitable giving.

³You will not receive a second charitable deduction at the time a grant is made from your DAF.



You Can Give With a DAF

Through The T. Rowe Price Program for Charitable GivingSM, individuals can actively engage in philanthropy and support qualified charitable organizations throughout the United States.

The Program offers:

- **Immediate Tax Savings.** Start by making an irrevocable contribution of \$10,000 or more and receive a full tax deduction for your donation (up to allowable IRS limits) for the tax year when it's made.
- **Giving Made Easy.** Choose how and when you support charities while the Program administers your account.
- **Low Fees.** Get some of the lowest administrative fees among the largest national donor-advised funds.
- **Attractive Investment Options.** Select from six investment pools managed by the professionals at T. Rowe Price.

NEXT STEPS

Learn more about The T. Rowe Price Program for Charitable Giving at ProgramForGiving.org.



Invest for Their Future

Saving for college, graduate school, vocation training, or even K-12 public, private, or religious schools can be more attainable with the tax-advantaged benefits of a 529 college savings plan. Consider one of the three flexible 529 plans managed by T. Rowe Price:

- T. Rowe Price College Savings Plan
- Maryland College Investment Plan
- University of Alaska College Savings Plan ■

NEXT STEPS

To learn more and to use our College Savings Planner, visit troweprice.com/college.

Be sure to review any 529 college savings plan offered by your home state or your beneficiary's home state, as there may be state tax or other state benefits, such as financial aid, scholarship funds, and protection from creditors that are only available for investments in the home state's plan. Be sure to read the college savings plan's disclosure document, which includes investment objectives, risks, fees, charges and expenses, and other information you should read and consider carefully before investing.

Go Beyond

Some people are driven to go anywhere and everywhere to get a deeper understanding of our world. T. Rowe Price and National Geographic have partnered to tell the stories of some of these incredible individuals who go beyond boundaries in the name of passion, knowledge, and commitment. ■



NEXT STEPS

To learn more, visit nationalgeographic.com/gobeyond.

PHOTOGRAPHS BY BAONA: NATIONAL GEOGRAPHIC



Morningstar Recognizes T. Rowe Price Fund Excellence

Because of our disciplined approach to investing, Morningstar, a leader in independent investment research, has recognized many of our mutual funds with its highest ratings in the funds' respective categories. As of June 30, 2018, 69 of 120 of our rated funds (Investor Class only) have earned an Overall Morningstar Rating™ of 4 or 5 stars—5 stars being the highest.* *Past performance cannot guarantee future results.* ■

NEXT STEPS

Visit troweprice.com/morningstar to explore our selection of Morningstar 4- and 5-star-rated funds.

All mutual funds are subject to market risk, including possible loss of principal.

*Morningstar gives its best ratings of 4 or 5 stars to the top 32.5% of all funds (of the 32.5%, 22.5% get 4 stars and 10% get 5 stars) based on their risk-adjusted returns. The Overall Morningstar Rating™ is derived from a weighted average of the performance figures associated with a fund's 3-, 5-, and 10-year (if applicable) Morningstar Rating™ metrics.

The Morningstar Rating™ for funds, or "star rating," is calculated for funds with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star.

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Retirement Plans for the Self-Employed

If you're self-employed or own a small business, consider saving for retirement with T. Rowe Price. We offer a range of low-cost,* easy-to-administer retirement plans to meet a variety of needs.

- SEP-IRA
- SIMPLE IRA
- Individual 401(k)
- 401(k) for Small Business

Each plan offers distinct advantages. ■

NEXT STEPS

Visit troweprice.com/smallbusiness to compare our retirement plans.

*A retirement account should be considered a long-term investment. It generally has expenses and account fees, which may impact the value of the account. Early withdrawals are subject to taxes and possible penalties. For more detailed information about taxes, consult a tax attorney or an accountant for advice.

EQUITIES

Don't Miss the Best Days

Staying invested through thick and thin may be the best strategy for long-term growth.

Watching your portfolio drop in value when the market is falling can be hard. But jumping into and out of stocks attempting to avoid further losses may not be a winning strategy in the long term.

Some of the largest market rebounds come in the wake of major market downturns. These are the very moments when fear has led many individuals to remain on the sidelines. As a result, they may end up missing any gains from these big days.

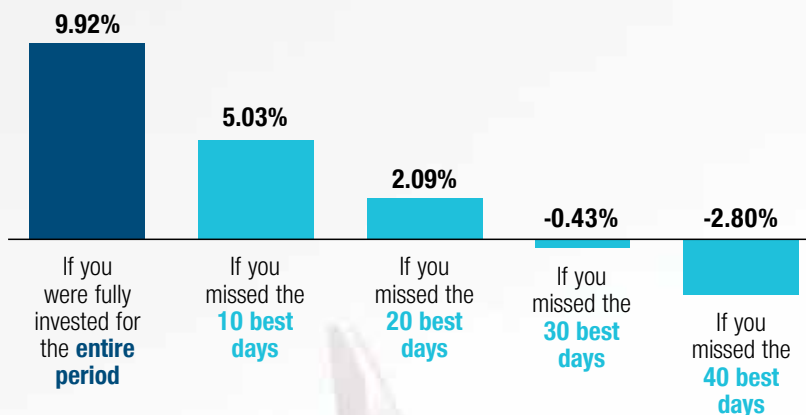
By riding out a market downturn, you may be better positioned to collect the benefits of any subsequent recovery. Also, if you set your strategy in advance, you'll be more likely to rely on your plan—not your emotions—when market volatility returns. ■

NEXT STEPS

To stay updated on the markets, visit troweprice.com/insights.

The Price of Exiting the Market

Individuals often look for relief from market uncertainty by selling investments. But being out of the market can result in lost opportunity. (12/31/2002–12/31/2017)



Data show average annualized returns based on price movements only and do not include reinvested dividends or compounding. The performance shown is that of the S&P 500 Stock Index, which measures the performance of large-capitalization companies that represent a broad spectrum of the U.S. economy. This chart is for illustrative purposes only. Investors cannot invest directly in an index. *Past performance cannot guarantee future results.*

Source: T. Rowe Price.

T. Rowe Price Funds

For detailed information on T. Rowe Price mutual funds, including investment performance, visit troweprice.com/performance.

STOCK	<i>Domestic</i>	<i>New Horizons¹</i>	<i>European Stock</i>
	Blue Chip Growth Capital Appreciation ¹ Capital Opportunity Communications & Technology ³ Diversified Mid-Cap Growth Dividend Growth Equity Income Equity Index 500 Extended Equity Market Index Financial Services Growth & Income Growth Stock Health Sciences Mid-Cap Growth ¹ Mid-Cap Value ¹ New America Growth New Era	QM U.S. Small & Mid-Cap Core Equity QM U.S. Small-Cap Growth Equity QM U.S. Value Equity Real Estate Science & Technology Small-Cap Stock ¹ Small-Cap Value Tax-Efficient Equity Total Equity Market Index U.S. Large-Cap Core Value <i>International/Global</i> Africa & Middle East Asia Opportunities Emerging Europe Emerging Markets Stock Emerging Markets Value Stock	Global Consumer Global Growth Stock Global Industrials Global Real Estate Global Stock Global Technology ¹ International Concentrated Equity International Discovery ¹ International Equity Index International Stock International Value Equity Japan Latin America New Asia Overseas Stock QM Global Equity
ASSET ALLOCATION	<i>Balanced</i>	<i>Real Assets</i>	<i>Spectrum Growth</i>
	Global Allocation Multi-Strategy Total Return Personal Strategy Balanced Personal Strategy Growth Personal Strategy Income	Retirement 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060 Retirement Balanced Retirement Income 2020 ²	Spectrum Income Spectrum International Target 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060
BOND	<i>Taxable</i>	<i>High Yield¹</i>	<i>U.S. Treasury Intermediate</i>
	Corporate Income Credit Opportunities Dynamic Global Bond Emerging Markets Bond Emerging Markets Corporate Bond Emerging Markets Local Currency Bond Floating Rate Global High Income Bond Global Multi-Sector Bond GNMA	Inflation Protected Bond International Bond International Bond (USD Hedged) Limited Duration Inflation Focused Bond New Income Short-Term Bond Total Return Ultra Short-Term Bond U.S. Bond Enhanced Index U.S. High Yield	<i>U.S. Treasury Long-Term</i> <i>Tax-Free⁴</i> CA, GA, MD, NJ, NY, VA Tax-Free Bond Intermediate Tax-Free High Yield MD Short-Term Tax-Free Bond Summit Municipal Income ² Summit Municipal Intermediate ² Tax-Free High Yield Tax-Free Income Tax-Free Short-Intermediate
MONEY MARKET	<i>Taxable</i>	<i>Summit Municipal Money Market^{2,5}</i>	
	Cash Reserves ⁵ Government Money ⁶ U.S. Treasury Money ⁶ <i>Tax-Free⁴</i> CA, MD, NY Tax-Free Money ⁵	Tax-Exempt Money ⁵	

¹Closed to new investors except for a direct rollover from a retirement plan into a T. Rowe Price IRA invested in this fund. ²\$25,000 minimum. ³Formerly Media & Telecommunications. ⁴Certain tax-free funds may not be appropriate for tax-deferred investments, including individual retirement accounts (IRAs).

⁵Retail Funds: **You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. Beginning October 14, 2016, the Fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the Fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time.**

⁶Government Funds: **You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time.**

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