T. Rowe Price
REPORT
INSIGHTS ON INVESTING AND FINANCIAL TOPICS

ISSUE NO. 144 SUMMER 2019

Global Growth Should Improve If Trade Disputes Don't Get Worse

There's been a dramatic sea change in monetary expectations with the U.S. Federal Reserve now seen as likely to cut rates.

KEY INSIGHTS

- **While challenges to global economic expansion are evident in slower earnings growth, the risk of a recession in major markets appears limited.**
- **Widening trade disputes and populist politics have created notable downside risks, which could endanger hopes for an earnings reacceleration in late 2019.**
- **Falling bond yields signal a sea change in monetary expectations since the beginning of the year, with the Federal Reserve now seen as likely to cut interest rates.**
- **Secular disruption continues to favor growth and the technology sector, but investors are becoming more cautious and some established firms are fighting back.**

Heading into the second half of 2019, senior T. Rowe Price investment leaders remain cautiously positive about global economies and financial markets but warn that political risks—in particular, escalating trade disputes—could trigger renewed volatility and further impede growth.

To a certain extent, market behavior in the first half of 2019 seemed to reflect two contradictory perceptions, argues Robert Sharps, chief investment officer (CIO) and head of investments:

- Falling bond yields and an inverted U.S. Treasury yield curve—a situation in which longer-term yields move below short-term interest rates—appeared to signal growing economic pessimism.
- On the other hand, the relatively strong equity gains seen in the U.S. and many emerging markets in the early months of 2019 seemed to suggest hopes for an earnings reacceleration later in the year.

On the positive side, market expectations for monetary policy shifted dramatically in the first half. Investors now lean toward the view that the U.S. Federal Reserve is more likely to cut interest rates rather than raise them further, says Mark Vaselkiv, CIO, fixed income.

On the negative side, hopes for a U.S.-China trade deal deteriorated in May, and the Trump administration briefly threatened to impose tariffs on Mexican goods. Trade fears contributed to persistent strength in the U.S. dollar, keeping emerging market (EM) currencies under pressure, notes Justin Thomson, CIO, equity.

"A lot depends on a resolution of the trade war and on the emergence of green shoots of improving global economic and earnings growth," Mr. Sharps says. "If we get those things, we could see the U.S. equity market make new highs. If not, expectations for 2020 clearly will need to come down."

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Slower growth

Concerns about the strength of U.S. and global economic growth returned in the second quarter of 2019. The stellar U.S. earnings gains seen in 2018 abruptly stalled (See Figure 1).

While the consensus earnings forecast is for a reacceleration later in the year, to get that result "you will have to see economies begin to improve, particularly outside the U.S.," Mr. Sharps says.

However, the global economic outlook remains subdued, according to Mr. Thomson:

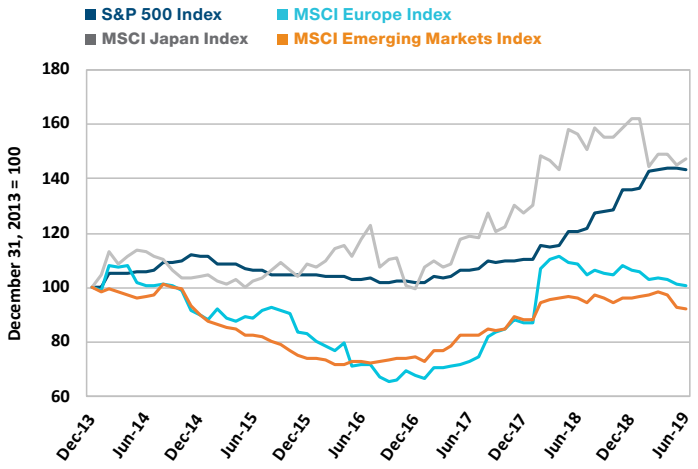
- Most developed economies are growing below their potential, and earnings momentum has turned negative in both Europe and Japan.
- In the emerging markets, the strong U.S. dollar effectively is a form of monetary tightening—unwelcome in economies still in the early stages of recovery.
- The trade war is having a corrosive effect on business confidence and capital spending, particularly in export-heavy economies such as Germany, Japan, South Korea, and Taiwan.

Despite these headwinds, the risks of a U.S. or global economic downturn still appear limited. "I don't see any major imbalances that would suggest a recession is imminent or even likely," Mr. Sharps says.

The strength of the Chinese economy remains a key variable. Slow growth in late 2018 led Beijing to ease credit and boost spending, but the results may not have been as positive as Chinese policymakers desired.

Figure 1 Global Earnings Growth Has Stalled

Cumulative Growth in Earnings per Share, by Region



Sources: Standard & Poor's, MSCI, and T. Rowe Price calculations using data from FactSet Research Systems Inc. **Additional disclosures on page 24.**

Robert W. Sharps

Mark Vaselkiv

Justin Thomson

"If there is one thing that would make us change our generally cautious stance [on global growth], it would be if China increases stimulus again," Mr. Thomson says.

Trade risks

A series of events in May—including fresh tariff hikes by the United States and China; U.S. sanctions against Huawei, a major Chinese telecommunications firm; and the Trump administration's threat to impose tariffs on Mexico—helped reignite fears of an escalating trade war.

Although the U.S. and Mexico reached a deal in June that appeared to avoid tariffs, these and other geopolitical events contributed to a surge in perceived economic policy uncertainty, particularly in China but also in the United States and Europe (See Figure 2).

A trade deal between the United States and China is still within reach, but neither country may feel a need to compromise quickly:

- With President Donald Trump facing reelection in 2020, he may want to put off any agreement until next year, Mr. Sharps suggests.
- Political incentives also might favor delay on the Chinese side, Mr. Vaselkiv says. Denying President Trump a trade success could damage his reelection prospects, allowing Beijing to negotiate with his successor.
- Mr. Thomson warns that the trade war is metastasizing into a technology war. This could make settlement harder, as both countries may believe that critical technology advantages are at stake.

While the direct impact of tariffs on economics and earnings growth appears manageable now, the secondary effects on business confidence, capital spending, and hiring could diminish hopes for a second-half earnings rebound, Mr. Sharps warns. "I don't think that's likely, but it certainly is a possible outcome."

Trade may be the most significant political risk that investors face, but it's not the only one. Recent elections in Europe have shown that populist anger remains a potent political force.

Europe's moderate political parties took "an absolute drubbing" in European Union Parliamentary elections in May, Mr. Thomson notes. The outcome could encourage Italy's populist coalition to continue pushing fiscal reflation, resulting in wider yield spreads between Italian debt and German bunds.

In the United Kingdom, a heated leadership contest following Prime Minister Theresa May's resignation could intensify pressure for a "no deal" Brexit, with major negative implications for the UK and other European economies.

Growth fears

The first half of 2019 ushered in a dramatic shift in market expectations for U.S. Federal Reserve policy. By late May, futures markets were pricing in as many as three Fed rate cuts by the end of 2020 (See Figure 3).

A deepening inversion in the U.S. Treasury yield curve signals growing market confidence that the Fed's next policy move will be downward, Mr. Vaselkiv says. "Fixed income investors in essence are daring and insisting that the Fed cut rates."

But with policy rates still at historically low levels and the 10-year Treasury note yielding 2.0% at the end of June, Fed policymakers have limited room to maneuver, he adds.

"We would not be surprised to see a 25-basis-point cut at some point later in the year to try to calm down the current volatility," Mr. Vaselkiv says. "But if the Fed goes with a 50-basis-point cut, I think that could really spook the markets because that would say, 'Wow, things are worse than anticipated.'"

If the Fed has limited room to cut rates, the European Central Bank (ECB) and the Bank of Japan (BoJ) appear to have virtually none, Mr. Thomson says. The ECB's overnight deposit rate already is negative, while the BoJ is continuing to hold interest rates out to 10 years effectively at zero.

"The glass-half-full view would be that all of this is highly stimulative," Mr. Thomson says. "The glass-half-empty interpretation would be that [the ECB and the BoJ] have run out of bullets."

Political attitudes toward the major technology platform companies also are changing, due to rising concerns about market power, data privacy, and false or misleading content. Such complaints have not yet generated serious legislative efforts...

Fighting disruption

Technological innovation, changing consumer preferences, and revolutionary new business models continue to disrupt established industries. This process has contributed to a stark disparity in the fortunes of the growth and value equity styles (See Figure 4).

Nothing in the first half of 2019 suggested that disruption is slowing down, Mr. Sharps says. However, the narrative may have shifted:

- Investors appear more aware of the risks in financing business plans that push profitability into the distant future. This could be seen in the relatively weak demand for the initial public offerings of the two leading ride-share companies.

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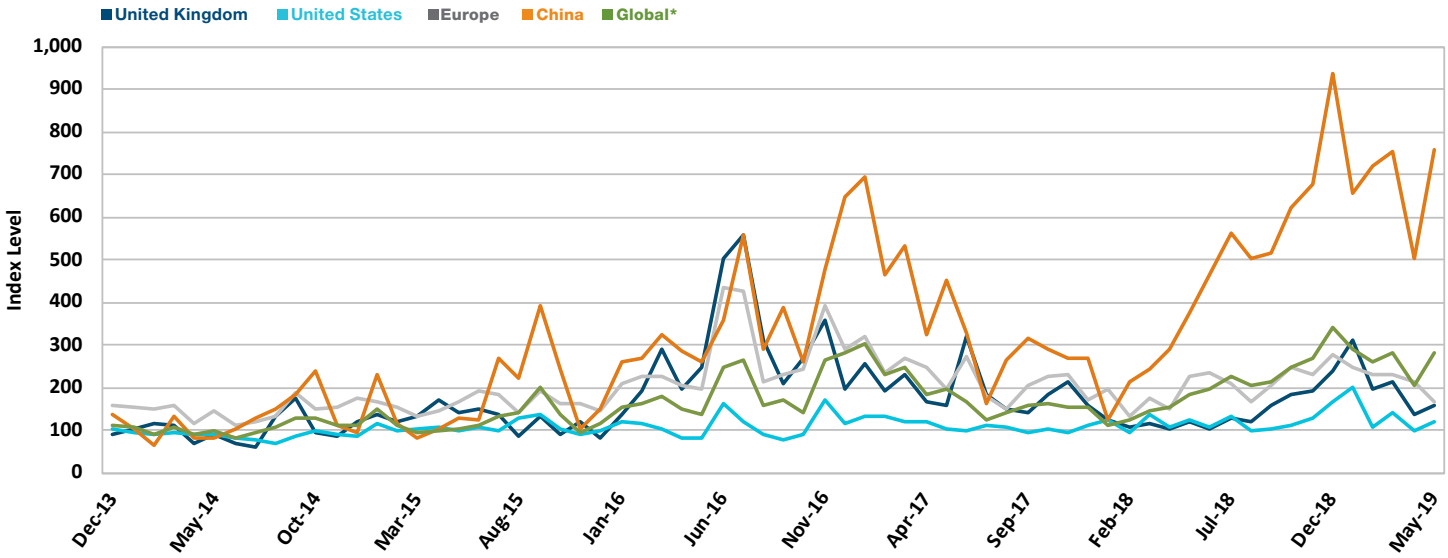
Figure 2 Trade Tensions Fuel Uncertainty

Economic Policy Uncertainty Indices



*Global index through April 30, 2019. Source: Economic Policy Uncertainty, policyuncertainty.com. ©2012 by Economic Policy Uncertainty.

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- Established firms are using their financial strength and brand positions to fight back. Mr. Sharps noted that Disney recently announced major investments in its own streaming video service to compete with Netflix.

Political attitudes toward the major technology platform companies also are changing, due to rising concerns about market power, data privacy, and false or misleading content. Such complaints have not yet generated serious legislative efforts to restrict the major technology platforms. But the issue bears watching.

"I think you need to be open to the fact that the regulatory regime could change at some point in time," Mr. Sharps says.

Strategic investing

Positive economic growth, low inflation, and accommodative monetary policies should support financial asset prices in the second half of 2019. However, the escalating trade war creates substantial risks.

For U.S. equities, much depends on whether earnings growth resumes later in the year. But if trade uncertainty drags down sentiment, Mr. Sharps says, "I don't see a lot of mitigating upside catalysts" that could diminish those negative effects.

The outlook for international equities also is tied to earnings, but second-half prospects appear weak. "Save for a stronger Chinese stimulus, I expect the earnings impulse will continue to be negative," Mr. Thomson says.

For bond investors, slow but positive economic growth, limited inflation pressures, and friendly central banks should create a supportive environment in the second half, Mr. Vaselkiv says.

Positive economic growth, low inflation, and accommodative monetary policies should support financial asset prices in the second half of 2019. However, the escalating trade war creates substantial risks.

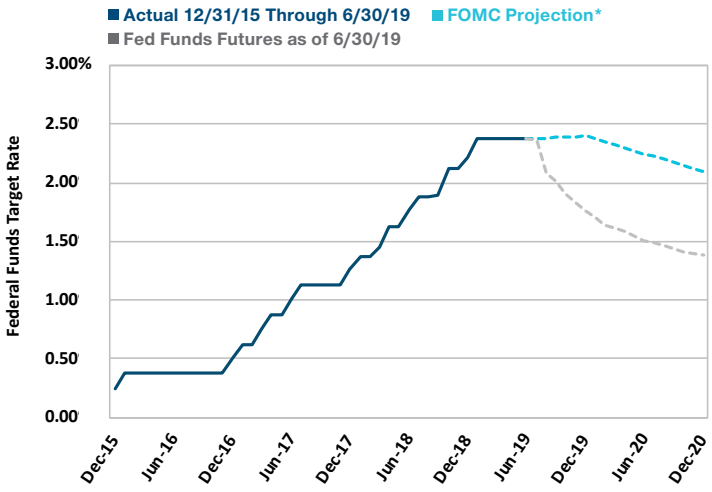
However, trade tensions and U.S. dollar strength suggest a relatively cautious approach to emerging markets debt. "At this point in the cycle, perhaps U.S. high yield should be considered a little bit more defensive," he says.

For most investors, keeping a disciplined long-term perspective is the best approach, Mr. Sharps concludes. "This is no time to be a hero," he says. "But it is a good time to be diversified and to have your shopping list ready in case things go on sale." ■

Diversification cannot assure a profit or protect against loss in a declining market. All investments are subject to market risk, including the possible loss of principal. Non-U.S. securities are subject to the unique risks of international investing, including currency fluctuation and political and economic risks. Emerging markets tend to have economic structures that are less diverse and less mature and political systems that are less stable than those of developed countries. Past performance cannot guarantee future results.

Figure 3 Investors Expect a Fed Rate Cut

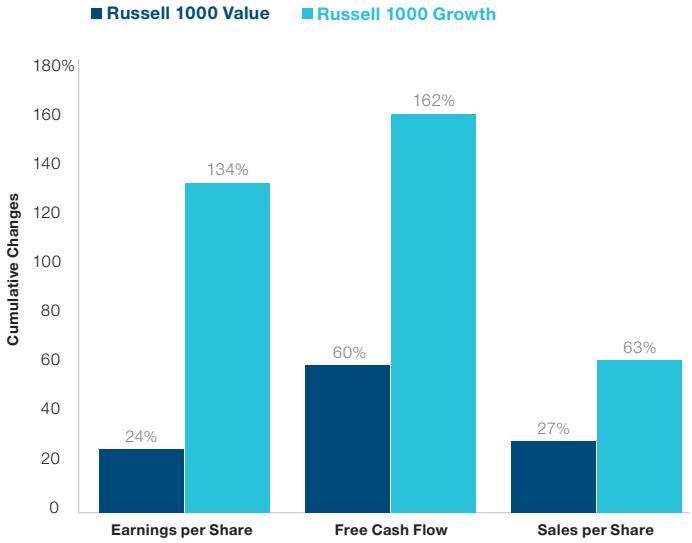
Futures Markets Versus FOMC Projections



*Median of participants' forecasts in the March 20, 2019, Federal Open Market Committee Summary of Economic Projections. Sources: Federal Reserve Board, Haver Analytics, and T. Rowe Price analysis using data from FactSet Research Systems Inc. All rights reserved.

Figure 4 Disruption Tilts the Fundamentals Toward Growth

Cumulative Changes, June 30, 2007, Through June 30, 2019



Sources: Russell and T. Rowe Price analysis using data from FactSet Research Systems Inc. All rights reserved. **Additional disclosures on page 24.**

U.S. ECONOMY

Trade Uncertainties, Flattened Yield Curve Once Again Give Rise To Recession Fears

Yet the labor market, profit margins, and inflation don't signal a recession soon.

BY **ALAN LEVENSON**,
T. ROWE PRICE CHIEF
U.S. ECONOMIST

Sentiment about the U.S. economy has swung significantly during the first half of this year.

Amid concerns about an overly aggressive Fed, a government shutdown, mounting trade tensions, and Brexit fears, financial markets sold off sharply at the end of last year and the economy hit an air pocket. Measures of private sector confidence fell sharply, consumer spending and housing demand retrenched significantly, if briefly, and business capital spending stalled.

The U.S. Federal Reserve responded by moderating anticipated rate hikes, spurring a rebound in stock and corporate bond markets. The end of the shutdown, signs of steadying activity in Europe, and policy support in China helped sustain the brightening mood. And as winter ended, consumer and capital spending rebounded.

Yet soon after the green shoots of steadier growth emerged, concerns about the expansion heated up again in May and June. The Treasury market's flat yield curve has been drawing attention to the historical accuracy of that slowdown signal; heightened trade tensions once again have been menacing business confidence and expansion plans; and a step-down in employment growth has raised the specter of a substantive pullback due to trade uncertainties.

We don't discount the historical 16-month lead time between sustained flattenings of the yield curve (when yields on 10-year Treasuries are at roughly the same levels of shorter-dated ones) and the onset of recessions. Yet this time flattening has been preceded by less Fed tightening than in the past. And with long-term rates falling—rather than rising—there's less economic restriction.

Employment

The slowdown in employment growth that began in February also bears watching; in the past it has been a marker of transition to late-stage expansion, with 18–24 months to the next recession. For now, the pullback is concentrated in trade-dependent industries: manufacturing, freight transportation, and warehousing. And overall employment growth is still fast enough to sustain gradual downward pressure on the unemployment rate.

Moreover, it is important to note that there has not been a rise in layoffs during this employment-growth slowdown; the forced headcount reductions typical on the eve of recession are not yet in evidence.

To be sure, trade uncertainties are likely to persist. The path to a renegotiated U.S.-China trade relationship will be long, bumpy, and full of unanticipated turns. In the near term, we expect a tariff rate of at least 10% to be applied to at least some of the $300 billion of imports from China not yet subject to tariffs.

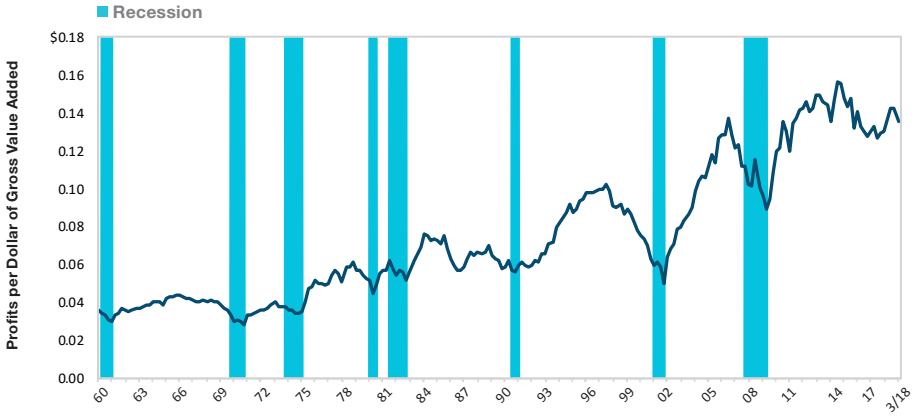
Still, elevated corporate profit margins have given businesses the ability to absorb tariff-driven cost increases and maintain employment and investment plans. Margins are no longer expanding, but neither are they under sustained cost-side pressure, which historically indicates mounting cyclical fragility and a one- to two-year runway to the next recession.

Finally, low consumer inflation may give the Fed scope to hold its policy rates at its current, relatively moderate levels, or even to cut rates to offset the uncertainty shock emanating from U.S. trade policy.

In sum, cyclical fragilities may well emerge over the next six to 12 months, but a recession is not imminent—and the Fed will aim to slow its onset. ■

Figure 1 Profitability of Nonfinancial Corporations

Profit Margins Typically Peak in Advance of Recessions



Sources: Bureau of Economic Analysis and Haver Analytics.

CASH MANAGEMENT

Aligning Allocations With Cash Needs Is Often Overlooked

We recommend that investors tier their short-term allocations based on expected future withdrawals.

BY **JOSEPH K. LYNAGH**, PORTFOLIO MANAGER AND HEAD OF CASH MANAGEMENT TEAM, AND **WHITNEY H. REID**, PORTFOLIO SPECIALIST

Joseph K. Lynagh

Whitney H. Reid

KEY INSIGHTS

- **We believe many investors may be overlooking opportunities to improve yields and/or enhance liquidity in their cash or short-term allocations.**
- **In our view, investors should consider two key factors when structuring short-term allocations: their anticipated future cash needs and their tolerance for risk.**
- **Our recommended approach is for investors to tier or align their short-term allocations based on the expected time frames for their future cash withdrawals.**

For most individual investors, it makes sense to include a highly liquid short-term allocation in their portfolio to meet near-term cash needs, provide a reserve against unexpected loss of income, or take advantage of attractively priced investment opportunities as they arise.

Highly liquid assets may be invested in a variety of short-term vehicles, including bank savings accounts and certificates of deposit or such investment products as money market mutual funds and low-duration fixed income funds.

While individuals should review their portfolios periodically to determine whether their longer-term allocations are still aligned with their objectives, we believe many investors may be overlooking their cash or short-term allocations. As a result, they may be missing potential opportunities to improve yields and/or enhance liquidity.

In our view, two key factors should be considered when structuring short-term allocations: anticipated cash needs and risk tolerance.

How much risk the investor is willing or able to take should be determined by their expected short-term cash needs or their desired buffer against unexpected financial setbacks. An investor saving for a down payment on their first house, for example, is likely to have a shorter time horizon and a lower tolerance for risk than an investor saving for retirement.

Our recommended approach to short-term liquidity management is to tier or align the assets in your short-term allocation based on the anticipated time frames for future withdrawals. Investment tiering is a simple, yet powerful, concept and can be applied to many different situations. Figure 1 outlines the basic concept as well as some of the investment vehicles typically used in each tier.

Tier one

Funds to meet an investor's immediate cash needs would fall into tier one. This bucket should include an investor's most liquid vehicles, assets that he or she could reasonably expect to access at any time.

Many investors rely on bank checking, money market, or savings accounts to hold their most liquid funds.

How much risk the investor is willing or able to take should be determined by their expected short-term cash needs or their desired buffer against unexpected financial setbacks.

While these accounts are insured (up to $ 250,000) by the Federal Deposit Insurance Corporation (FDIC) against the risk of bank failure, and their principal values do not fluctuate as interest rates rise or fall, the interest they accrue typically is significantly lower than the yields on such longer-term bank instruments as certificates of deposit (CDs). Moreover, bank depositors may need to maintain high minimum balances to keep the account open.

Money market mutual funds are a popular alternative to bank accounts as vehicles for liquid cash reserves.

In general, there are three types of money market mutual funds available to individual investors—U.S. Treasury, government, and retail prime funds. In our view, money market mutual funds offer the greatest level of flexibility and the highest level of principal protection and liquidity among the available short-term investment products.

While money market mutual funds do not guarantee an investor's deposit like an FDIC-insured bank account or CD, U.S. Treasury and government money market funds are required to invest at least 99.5% of their assets in fixed income securities backed by the full faith and credit of the U.S. government.

Tier two

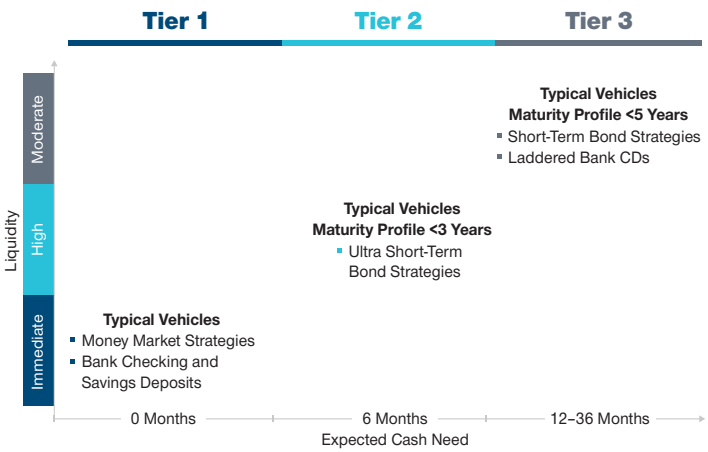
Funds for near-term cash requirements—which we would define as cash needed within the ensuing six to 12 months—make up tier two of a short-term allocation. Tier-two investments also may include money market mutual funds, but more typically they are invested in such low-duration fixed income vehicles as ultra short-term and short-term bond funds.

Short-term bond funds are professionally managed fixed income portfolios that invest in a broadly diversified set of fixed and floating rate bonds. These holdings may include government debt, securitized debt, or corporate bonds. The T. Rowe Price Ultra Short-Term Bond Fund typically invests in securities with maturities of six months to one year, while the T. Rowe Price Short-Term Bond Fund typically invests in maturities between 1.5 and 2.3 years.

Compared with money market mutual funds, ultra short-term and short-term bond funds offer investors high to moderate levels of liquidity, plus the potential to obtain higher yields and performance with the addition of interest rate risk and credit risk.

Figure 1 Creating a Tiered Liquidity Structure

Investment Tiering Is a Simple, Yet Powerful, Concept



Source: T. Rowe Price.

> ...investing directly in laddered fixed income assets can generate relatively attractive yields.

Tier three

Longer-term liquidity needs (cash required beyond the next 12 months but before the end of the next 36 months) could be funded by assets in tier three. Typical tier-three vehicles could include bank CDs or short-term bond funds.

Bank CDs generally offer competitive rates, but they also require investors to set aside or lock up their savings for a specified period. If the investor's cash needs change, early withdrawals typically are subject to a penalty. Investors can seek to reduce that risk by investing in multiple CDs with different maturities. "Laddering" CDs in this way may help improve liquidity but also could reduce the average yield on the investor's tier-three assets.

Like ultra short-term bond funds, short-term bond funds can combine high to moderate levels of liquidity with moderate levels of principal risk. The somewhat longer duration of these funds potentially can improve yields while adding only a modest degree of additional interest rate risk to principal compared with ultra short-term bond strategies.

Laddered portfolios

Some investors prefer to manage and own their fixed income investments by creating laddered portfolios of short-term securities, such as Treasury bills. As with bank CDs, these portfolios can be structured to include different maturities, providing liquid access to cash over different periods. Funds not needed immediately can be rolled from maturing securities into newly purchased ones.

If done properly, investing directly in laddered fixed income assets can generate relatively attractive yields. However, like investing in individual stocks, investing in individual fixed income securities may require a degree of skill on the part of both individual investors and their brokers.

Constructing and maintaining laddered portfolios also may require a significant time commitment to research and monitor securities.

Figure 2 on page 8 compares average yield and duration (a measure of sensitivity to interest rate risk) for each of the short-term vehicles discussed above.

As highlighted in the chart, money market accounts offer relatively high liquidity and typically provide higher yields than bank checking and savings accounts.

While two-year bank CDs typically feature competitive yields, on average, relative to such low-duration vehicles as money

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market funds, they also require investors to lock up their funds for those same two years or face early withdrawal penalties.

Although three-month Treasury bills provided somewhat higher yields compared with money market accounts, directly investing in individual fixed income securities poses its own challenges—as noted above—and we believe should be reserved for more experienced investors.

In our view, ultra short-term bond funds provided the most attractive yield and duration combination among the alternatives shown in Figure 2 as of June 30, 2019.

With the Federal Reserve indicating that it does not expect to raise interest rates for the remainder of 2019 and the Treasury yield curve (the spread between shorter- and longer-term interest rates) flat or even inverted out to 10 years at the end of June, this may be a good time for individual investors to review their cash and short-term allocations to see if they are still appropriate given their financial needs and objectives. Investment tiering is a simple but powerful concept that investors can use to align their assets with their expected cash needs.

In our view, individual investors are most likely to benefit from short-term allocations that combine relatively low fees, competitive yields, high levels of liquidity, and limited exposure to interest rate risk. We believe most investors would do well to avoid illiquid vehicles or lengthy lockup periods, especially if there is a significant possibility that their financial situations and/or cash needs may change in the near future. ■

Risks—Retail Money Market Mutual 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. 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.

In our view, individual investors are most likely to benefit from short-term allocations that combine relatively low fees, competitive yields, high levels of liquidity, and limited exposure to interest rate risk.

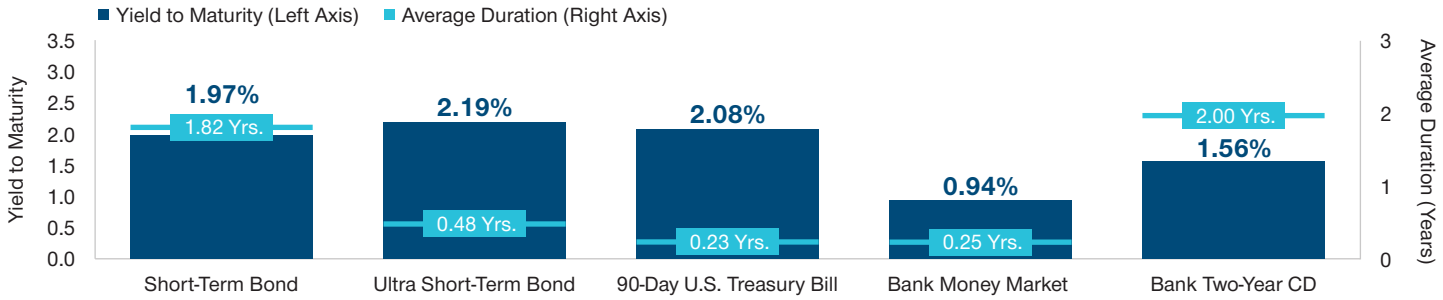
Government Money Market Mutual Funds: You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation 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.

While U.S. government-backed securities generally are considered to be among the highest credit quality, they are subject to market risk. The primary source of risk is the possibility of rising interest rates, which generally cause bond prices, and a bond fund's share price, to fall.

Ultra short-term bond funds and short-term bond funds are subject to credit risk, liquidity risk, call risk, and interest rate risk. As interest rates rise, bond prices generally fall. The funds involve more risk than a money market mutual fund and are not subject to the same diversification and maturity standards. The net asset value will fluctuate, and investing in these products could result in the loss of principal.

Figure 2 Comparing Short-Term Investment Vehicles

Yield to Maturity and Duration,[1] as of June 30, 2019



Indices used: Short-Term Bond: Bloomberg Barclays 1–3 Yr. U.S. Gov't./Credit Bond Index; Ultra Short-Term Bond: Bloomberg Barclays Short-Term Gov't./Corporate Index; 90-Day U.S. Treasury Bill: ICE BofAML U.S. 3-Month Treasury Bill Index; Bank Money Market and Bank Two-Year CD: averages for non-jumbo accounts (<$100,000) as reported by the FDIC. [1]Duration measures sensitivity to interest rate changes. The duration of the bank CD is the lockup period. Sources: Bloomberg Index Services Limited, ICE BofAML, and FDIC. **Additional disclosures on page 24.**

EMERGING MARKETS

Challenging Doubters: Developing Markets' Diverse Debt Offerings

Versus its stereotype, emerging market debt can offer defensive opportunities.

BY **BEN ROBINS**, PORTFOLIO SPECIALIST

KEY POINTS

- **Emerging markets (EM) debt can continue to perform going forward after a strong start to 2019. Its diversity and growth mean that many concerns are no longer valid.**
- **Emerging markets offer many defensive opportunities that have performed similar to developed market sectors during periods of volatility.**
- **Positive reforms and fundamentals mean that many areas of EM show favorable growth outlooks with less risk of policy error sell-offs.**

Emerging markets (EM) got off to a strong start in 2019, and we are confident that developing market debt still offers many long-term investment opportunities. However, many investors continue to question the rebound and the longer-term outlook for the asset class based on a misconception that it is a high-risk and high-beta investment.

We believe some of the more common investor questions either are no longer valid or only tell part of the story.

High risk?

Contradicting the stereotype of a volatile, higher-beta asset class, many regions and sectors of EM debt offer defensive opportunities that can outperform other asset classes during periods of risk aversion. The breadth of opportunities in EM debt is one of its key strengths.

This is not to suggest volatility is not a concern. Rather, it means investors need to do their homework and identify sectors and regions with lower-beta track records if looking for defensive assets. Many areas of EM debt have behaved more defensively than some developed market (DM) counterparts. With many potential sources of volatility still lingering in the current outlook, investors can actively seek out certain areas of EM rather than solely look at DM safe havens.

EM corporates stand out as a defensive sector due to their strong fundamentals. Asia credit, which has grown substantially in recent years, has performed more in line with DM investment-grade debt, for example, than other higher-volatility EM sectors.[1] The defensive sectors of EM also offer opportunities to diversify portfolios away from DM regions with the most concerning growth outlooks and large debt accumulations.

EM also is becoming less correlated to some of the higher-risk sectors of DM. Traditionally, U.S. high yield and EM debt have displayed a degree of correlation due to an overlap of investors seeking higher yields than investment-grade DM debt.[2] However, this correlation has fallen in the past year and is below long-term averages.

We believe this trend demonstrates the increasingly idiosyncratic behavior of EM debt. Therefore, investors may achieve more consistent performance by locating segments and specific names within EM that offer strong fundamentals, rather than focusing primarily on wider market tone.

EM debt offers one of the most attractive opportunities for investors to gain exposure to these still strong fundamentals. Compared with

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Figure 1 Emerging Markets Debt Reduces Risks

EM Diversity Helps Overcome Many Common Concerns

RISK	REALITY
Heightened Volatility	EM contains defensive sectors and opportunities.
Global Economic Uncertainty	Positive reforms mean many countries poised for strong growth.
Policy Error	Active approach can help avoid sell-offs or identify when to reenter.

Source: T. Rowe Price.

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EM equity, hard-currency sovereign bonds have produced absolute returns double that of EM equities over the past 25 years.[3]

Policy error risk?

While negative surprises in political or monetary policy can impact both EM and DM investing, an active approach can help avoid sudden sell-offs. The positive reforms in many EM countries mean that most are no longer just one or two bad decisions away from a crisis. Bottom-up, on-the-ground research can identify countries that are committed to consistent, market-friendly policy directions and to reducing investors' exposure to policy error—helping to avoid those that are slipping in the wrong direction.

Even when significant sell-offs do hit certain EM countries, we don't believe this constitutes a systemic risk to the wider asset class. For example, Turkey and Argentina dominated the headlines for much of 2018 as markets quickly lost confidence in the ability, or the will, of policymakers in each country to manage their currencies and fiscal accounts. Some investors pulled out of EM at the height of these crises as they sought safety in more familiar core DM assets.

However, this contagion-driven sell-off was short-lived and created better long-term opportunities. An active, disciplined approach can reveal lower-beta corners of EM, such as selecting Chinese state-owned enterprises that are likely to be less affected by sell-offs elsewhere. Furthermore, sudden downturns can create opportunities to go against the grain and buy cheap assets. By uncovering when to reenter a distressed credit or sector, investors can improve their potential for long-term gains.

Global outlook risks?

The growth of EM as an asset class in recent years means that investors can find a wealth of investment opportunities in different global economic environments. While we do recognize that strong growth is important for the prospects of EM, this must be kept in perspective as we see several reasons for continued optimism:

...sudden downturns can create opportunities to go against the grain and buy cheap assets. By uncovering when to reenter a distressed credit or sector, investors can improve their potential for long-term gains.

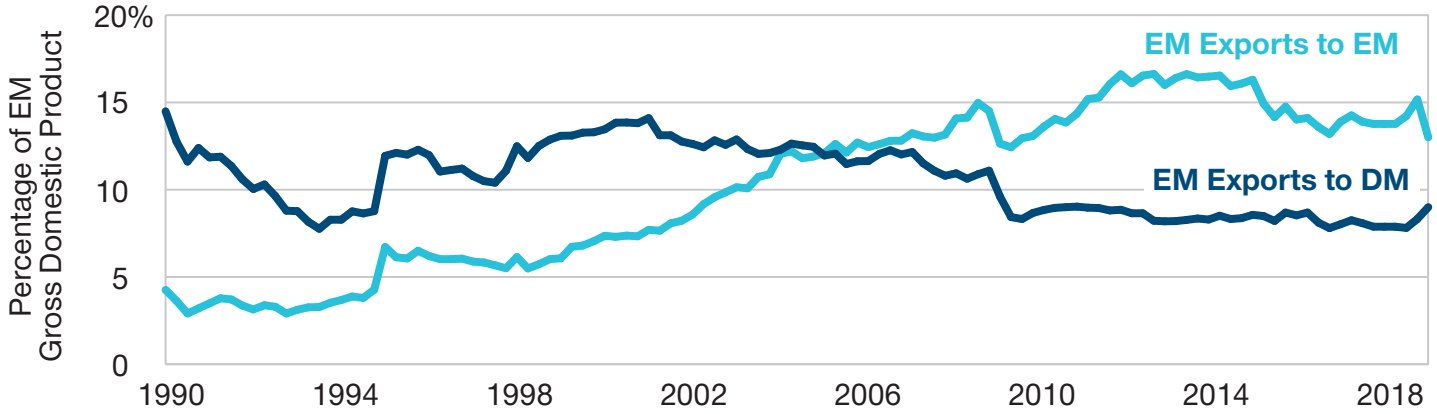
- First, many EM countries enjoy favorable economic growth rates supportive of fundamentals. Investors need to cast aside any preconceptions of EM being a single investment opportunity and take the time to look at individual EM sectors and regions to find attractive investments.

  Currently, we are confident that many areas of EM can perform even if China or major DM economies cannot resurrect their growth rates. Countries that have committed to positive fiscal and political reforms can continue to thrive. Many EM economies display a growing middle class that is underpinning domestic demand. Consequently, EM is no longer just an export-driven investment reliant on DM, or even Chinese, economic growth. EM economies are trading with other EMs now more than they are with DMs.

- Second, EM credit is on a strong footing. Corporate fundamentals remain favorable despite global growth concerns. The emerging market corporate default rate is at its cyclical lows. Issuers have relatively low debt levels, and companies have been able to extend bond maturities and buffer balance sheets

Figure 2 Emerging Markets Less Reliant on Developed Markets

EM Exports to DM Economies Versus to EM Economies, 1990–2018



Sources: Goldman Sachs Global Investment Research and Haver Analytics.

What we're watching next

Upcoming U.S. Federal Reserve policy meetings and the ongoing U.S.-China trade are important areas to watch in the coming weeks and months. Should we not see a resolution to the trade dispute, growth outlooks in both countries could weaken further, which would negatively impact sentiment across much of EM. However, markets are expecting the U.S. Federal Reserve to cut interest rates in the coming months. This could open potential opportunities in EM, particularly in select local currency bonds as the U.S. dollar would likely depreciate.

- Growth concerns in key global markets could also become tailwinds as central banks appear to be shifting to more accommodative policies. While a slowdown in China will impact some EM economies, China's willingness to ramp up stimulus measures should provide a floor to growth levels. Similarly, the U.S. Federal Reserve changed its messaging in early 2019, and we now expect a sustained pause in interest rate hikes. Meanwhile, the European Central Bank is reacting to slowing growth by maintaining its low interest rates and overall accommodative stance.

  These central bank shifts could suppress core DM yields, which would lend further support to EM assets. Therefore, investors should regard the global economic uncertainty as potentially opening an opportunity rather than as just a downside.

Wait for sustained inflows?

History shows that EM has consistently rebounded and rebounded quickly following downturns. Some EM investors were still licking their wounds after a difficult 2018, and one could be forgiven for thinking that it could take some time before investors gain confidence again to fuel a sustained recovery. However, EM debt's track record following periods of negative returns has been for sharp upturns leading to sustained periods of positive returns.

Therefore, the strong start to 2019 should not have come as a surprise. In our opinion, when future downturns hit EM, investors should be prepared to benefit from rebounds rather than waiting for performance to improve first. Based on both history and the strong fundamentals, we believe EM offers ample opportunity for sustained strong performance. ■

[1]*Asia Investment Grade: J.P. Morgan Asia Credit Index Diversified, Z-spread; U.S. Investment Grade: Bloomberg Barclays U.S. Aggregate Corporate Investment Grade Index, Option-Adjusted Spread; Euro Investment Grade: Bloomberg Barclays Euro-Aggregate Index, Option-Adjusted Spread.*

[2]*Source: J.P. Morgan. Data analysis by T. Rowe Price. J.P. Morgan. Information has been obtained from sources believed to be reliable, but J.P. Morgan does not warrant its completeness or accuracy. The index is used with permission. The index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright © 2019, J.P. Morgan Chase & Co. All rights reserved.*

> **History shows that EM has consistently rebounded and rebounded quickly following downturns....Therefore, the strong start to 2019 should not have come as a surprise. In our opinion, when future downturns hit EM, investors should be prepared to benefit from rebounds...**

[3]*As of December 31, 2018. Sources: J.P. Morgan and MSCI. Data analysis by T. Rowe Price. J.P. Morgan (see footnote above). MSCI EM debt is based on the J.P. Morgan EMBI Global Index. EM equity is based on the MSCI Emerging Markets Index.* **Additional disclosures on page 24.**

Past performance is not a reliable indicator of future performance. *All investments are subject to market risk, including the possible loss of principal. Bonds are subject to interest rate risk, the decline in bond prices that usually accompanies a rise in interest rates, and credit risk, the chance that any fund holding could have its credit rating downgraded or that a bond issuer will default (fail to make timely payments of interest or principal), potentially reducing the fund's income level and share price. Investments in emerging markets are subject to abrupt and severe price declines and should be regarded as speculative. The economic and political structures of developing nations, in most cases, do not compare favorably with the United States or other developed countries in terms of wealth and stability, and their financial markets often lack liquidity. Some countries also have legacies of hyperinflation, currency devaluations, and governmental interference in markets. All charts and tables are shown for illustrative purposes only.*

Sources: J.P. Morgan and MSCI. Data analysis by T. Rowe Price. J.P. Morgan (see footnote above). MSCI EM debt is based on the J.P. Morgan EMBI Global Index. EM equity is based on the MSCI Emerging Markets Index. **Additional disclosures on page 24**.

INTERVIEW

U.S. Large-Cap Core: A Concentrated, Best-Ideas Fund

Lately focusing on opportunities in financials, industrials, and energy.

Last year ended with U.S. stocks almost in a bear market, but they staged a remarkable rebound over the first half of this year. In this interview, Jeff Rottinghaus, manager of the U.S. Large-Cap Core Fund since its inception in 2009, discusses the volatile investment landscape, his current strategy, and his unique process for establishing a concentrated portfolio of high-conviction, best-ideas stocks.

Q. What is your approach to managing this concentrated portfolio?

A. We focus on high-quality companies with strong business models and management teams that have opportunities to increase their market share or have barriers to entry in their business that help them grow organically in a variety of market environments. To do that, we rely heavily on our research analysts' highest-conviction, best ideas to build a portfolio of 50 to 70 stocks that helps provide attractive risk-adjusted returns over time. We believe the strength of our research process and our analysts' experience provide a competitive advantage.

Q. What's the process you use?

A. We employ a four-part process to vet every potential investment. We analyze a company's fundamentals—its capital allocation process and pricing power—and determine if it faces the threat of disruption. We want to understand the strategy and how the company creates value over time. Then we assess management's ability to create value. We want to know if that playbook has been used before and if it has been successful. We also want to understand the compensation incentives. We then conduct a top-down view of the industry and its relative attractiveness compared with other industries. Finally, we assess a company's valuation in a broad context, examining its cash flow profile and addressable market as well.

Q. What is the risk/reward profile of your strategy?

A. Our process generally has resulted in a higher-quality portfolio than the overall market, with higher returns on invested capital and on equity. We also tend to have relatively high position sizes in individual companies. There are times when this type of portfolio will perform well relative to the benchmark and times when it will lag. We have tended to do better in modestly growing markets or in a down market; our goal is to outperform our benchmark over the long term.

Q. How do you manage risk?

A. Because this is a concentrated portfolio, it can experience greater volatility than a more broadly diversified portfolio. We manage risk by focusing only on our highest-conviction ideas coupled with prudent portfolio diversification. We also use monitoring systems and procedures to ensure the investment process is keeping within the strategy's objectives. At the individual stock level, we examine two types of risk. Fundamental risk—is the company likely to hit earnings and free cash flow estimates? And then we look at valuation risk. We also meet quarterly with our quantitative group, which conducts a risk analysis of the portfolio in terms of its structure or exposure to such things as interest rates or broader economic developments.

> **Eventually, the market is going to demand some progress on earnings and free cash flow growth.**

Q. How was the portfolio positioned as of June 2019?

A. Information technology (IT) represents our largest absolute weighting but is our biggest underweight position relative to the S&P 500 Index, largely due to underweight positions in Apple and software companies. In this sector, we favor companies with durable business models that address large and growing markets, including electronic payment processing businesses and providers of social connectivity. We also favor companies benefiting from secular demand for public cloud computing services. Our largest exposure is to IT services, but recently we have found opportunity in more cyclical parts of technology, such as Applied Materials and Micron Technology.

Health care is our second-largest sector and an overweight position. Although this sector has suffered from controversial political proposals, it provides the best combination of solid fundamentals and acceptable valuation. It also has a secular tailwind from an aging population. We favor companies that take advantage of such long-term industry trends as cost-saving distribution methods and highly innovative and effective therapies. Our primary exposure is in the health-care equipment and supplies industry, where we have been long-term owners of Becton, Dickinson & Company, Danaher, and Medtronic.

One of our largest overweight positions is in utilities, a sector that has performed well and usually benefits from a stable interest rate environment and economic uncertainty. Two utilities the portfolio has owned for several years are NextEra Energy, the largest renewable energy producer in North America, and American WaterWorks, the largest private water utility in the United States.

Financials is a large weighting, but we trimmed our exposure over the past year. Bank stocks are relatively cheap, but we are more cautious now as the credit cycle is about as good as it gets, and banks tend to do better in a rising rate environment, which we don't expect. Some of our top holdings include high-quality banks, including JPMorgan Chase and USBancorp.

Last, energy has suffered with the sharp decline in oil prices. But there are opportunities among low-cost oil and gas producers, mainly operating in the Permian Basin. We are also finding attractive value in some industrial cyclicals that investors have shunned, such as Boeing and General Electric.

Figure 1 U.S. Large-Cap Core Fund*

Diversification Within the Sector**

Sector	% Net Assets
Information Technology	18.55
Health Care	16.35
Financials	13.54
Industrials and Business Services	9.32
Communication Services	9.13
Consumer Discretionary	8.98
Consumer Staples	5.90
Materials	5.05
Utilities	4.91
Energy	3.03
Real Estate	1.34
Reserves and Others	3.90

Top 10 Holdings

Issuer Name	% Net Assets
Microsoft	3.9
Amazon.com	3.6
Alphabet	3.6
Visa	2.5
Johnson & Johnson	2.5
Medtronic	2.2
JPMorgan Chase	2.2
Pfizer	2.2
Danaher	2.1
Facebook	2.1
Top 10 Issuers % of TNA* **	**26.9%**

*As of June 30, 2019. **Numbers may not add up to 100% due to rounding. T. Rowe Price uses the current MSCI/S&P Global Industry Classification Standard (GICS) for sector and industry reporting. T. Rowe Price will adhere to all updates to GICS for prospective reporting. ***TNA stands for total net assets. The information shown does not reflect any exchange-traded funds that may be held in the portfolio. Source: T. Rowe Price.

Q. What's your view of the current investment environment?

A. The main catalyst for the U.S. stock market's strong early advance this year was the 180-degree pivot by the Federal Reserve on rates. The year started with the expectation that the Fed would raise rates, and now the expectation is that it will cut rates this year—a dramatic shift.

However, the expectation that trade tensions with China would be resolved has faded, prompting the market pullback this spring. Amid such uncertainty on trade, companies may cut back on capital investment and confidence is undermined. Volatility will likely persist until we get more clarity on the U.S.-China trade situation, and now possibly with Mexico as well. The trade issue could remain a headwind for some time. The market's early advance was propelled by price/earnings multiple expansion, but that's not likely to continue with renewed trade concerns.

We've also seen a significant deceleration in corporate earnings and expectations due to rising labor costs and the fading benefits of the 2017 U.S. tax cut. After surging in 2018, earnings were estimated to rise about 10% to 11% this year. Now it's 4%, and we expect earnings to be flat or down 1% to 2% for the year. Eventually, the market is going to demand some progress on earnings and free cash flow growth. Despite the spring market setback, stock valuations are generally not cheap, but there still are attractive opportunities in financials, cyclical industrials, and energy.

As the presidential election campaigns gain momentum, political headline risk may become more of a concern. All this comes against the backdrop of deceleration in the global economy and U.S. industrial production. Meanwhile, the yield curve has inverted with very short-term rates recently higher than 10-year Treasury rates. An inverted yield curve over a six-month period almost always is a harbinger of an economic slowdown. If the Fed cuts rates, that would help. But even if we don't get a slowdown, this may be signaling that something is wrong and stock multiples need to decline regardless. For investors, this means that lower expectations should be in order. ■

All investments are subject to market risk, including possible loss of principal. Since the fund invests in both growth and value stocks, its share price can be affected by the risks associated with each type of investment. The value approach to investing carries the risk that the market will not recognize their intrinsic value for a long time or that a stock judged to be undervalued may actually be appropriately priced. In addition, the relatively small number of holdings in which the fund invests could cause it to be more volatile than comparable funds with a more diversified portfolio.

TAX EFFICIENCY

Investing For Growth Includes Being Aware Of Tax Implications

Tax-efficient equity investing can reduce the tax drag on returns.

BY **DONALD J. PETERS**, MANAGER, TAX-EFFICIENT EQUITY FUND

Mutual funds provide investors a convenient, low-cost approach to creating a professionally managed, well-diversified portfolio. At the same time, taxable investors must pay taxes on the dividend and capital gain distributions that both equity and bond funds may make each year, based on the interest and dividends they earn on their investments and any capital gains realized from their sales.

Some funds may be able to avoid or minimize capital gain distributions if they are carrying losses on sales of securities in prior years that can be used to offset gains earned in current or future years (also known as tax loss carryforward). And a mutual fund's tax efficiency is less relevant when it is held in a tax-advantaged account, such as an individual retirement account (IRA) or a 401(k) plan, because taxes on distributions are deferred until the money is withdrawn in later years.

An analysis by Morningstar shows that, on average, tax payments on distributions trimmed the average annual return for large-cap growth funds by more than two percentage points over the one-, three-, and five-year periods ended December 31, 2018, based on the highest income and capital gains tax rate in effect at the time of each distribution.*

For some, that potential reduction in return may seem like a small price to pay over shorter time periods, but it can produce an enormous difference when compounded over long time periods.

While the 2017 tax act lowered income tax rates for many investors (but also eliminated certain deductions), taxes over time have taken an increasing bite out of investors' returns. The current maximum rate on qualified dividends and long-term capital gains is 23.8%, and the top marginal rate for non-qualified ordinary income is 40.8% (including the 3.8% net investment income tax).

Moreover, an increasing amount of fund assets is held in taxable accounts. As of the end of 2018, 43% of mutual fund assets under management in the United States was held in taxable accounts, according to the Investment Company Institute.

Equity fund investors can minimize the tax drag on their portfolio and improve their after-tax return potential by using a tax-efficient investment approach that employs different strategies and tactics.

Asset allocation

Investors should focus on asset allocation as a first step in building an effective investment portfolio. This includes an assessment of your time horizon, risk tolerance, and other factors to determine a mix of stocks and bonds that maximizes your opportunity to meet your financial goals.

Once you've determined an asset allocation that is appropriate for you, then you should consider asset location—the optimal placement of your assets into taxable and tax-advantaged accounts, such as IRAs and other retirement plans. The right asset location strategy (also known as tax diversification) could make a portfolio more tax-efficient and potentially improve long-term returns.

Generally, investors should use tax-advantaged accounts for higher income-oriented assets, such as taxable bonds and bond funds, high dividend-paying stocks or stock funds focusing on such securities, and real estate investment trusts. Because ordinary income is generally taxed at a higher rate than long-term capital gains, it is better earned in a tax-advantaged account. This may also apply to equity funds with relatively high turnover rates, generating capital gain distributions.

> **Tax-efficient funds are managed to minimize annual distributions and tend to have lower turnover rates than traditional actively managed equity funds. The longer time that investors have to compound their returns without paying taxes on large distributions each year, the better off they should be.**

Alternatively, a taxable account is usually best suited for holding individual stocks over long periods of time, such tax-advantaged securities as municipal bonds, certain types of index funds, and actively managed equity mutual funds that tend to have relatively low turnover, low yields, and a growth-oriented investment approach.

Most equity portfolio managers are measured and compensated based on pretax returns. As a result, they tend to have higher turnover rates that may generate more capital gain distributions, creating potentially significant taxable events for shareholders. Over time, this could create a large difference between the pretax performance of a tax-blind investment approach and what an investor earns after taxes.

After-tax focus

A tax-efficient equity strategy is more focused on after-tax than on pretax returns compared with equity funds generally. Tax-efficient funds are managed to minimize annual distributions and tend to have lower turnover rates than traditional actively managed equity funds. The longer time that investors have to compound their returns without paying taxes on large distributions each year, the better off they should be.

One of the primary ways a portfolio manager can employ tax efficiency is to invest for longer time horizons than others.

For example, the trailing 12-month turnover rate for the T. Rowe Price Tax-Efficient Equity Fund as of December 31, 2018, was 11%, implying a 9.1-year-long ownership period for the average fund holding. By comparison, the 2018 average portfolio turnover rate for actively managed U.S. large-cap growth funds, according to data from Morningstar Direct, was 43%, implying a holding period of about two years.*

Given Tax-Efficient Equity Fund's long-term horizon, it's almost inevitable that the companies in which it invests will encounter periods of adversity. But the fund's approach is to let its winners run, rather than realize gains, unless a company's long-term outlook has fundamentally deteriorated.

The fund's 11% turnover rate in 2018 was extraordinarily low for any actively managed fund. It is notable that this turnover rate also includes extra trading for loss recognition, which is done to reduce the capital gains that are distributed to shareholders.

By contrast, it's very unusual for a fund that focuses on pretax returns to steadily harvest losses to minimize distributions. In down markets, however, the turnover rate of a tax-efficient fund, as well as other equity funds, can be higher than normal as more losses will exist in the portfolio.

This process of tax loss harvesting is critical because it can improve after-tax returns over time, as accumulated losses can be used to offset gains that are later realized in the portfolio. However, the strategy is not risk-free. If the stock that is sold outperforms the stock with which it was replaced, then that was a poor tax shield and probably a losing trade.

...tax loss harvesting is critical because it can improve after-tax returns over time, as accumulated losses can be used to offset gains that are later realized in the portfolio.

A longer investment time horizon and a low portfolio turnover rate are essential for maintaining a high tax efficiency ratio, which is calculated by dividing a portfolio's after-tax return by its pretax return. The 96.18% since-inception, tax efficiency ratio of the Tax-Efficient Equity Fund, for example, indicates that the fund has made minimal taxable distributions from its opening on December 29, 2000, through March 2019.

While avoiding all taxes is virtually impossible, investors can make some important portfolio decisions to adopt a more tax-efficient investing strategy that should help reduce the tax bill from investing. ■

Past performance is no guarantee of future results. Stock prices can fall because of weakness in the broad market, a particular industry, or specific holdings. Funds that invest in growth stocks are subject to the volatility inherent in common stock investing, and their share price may fluctuate more than that of a fund investing in income-oriented stocks. A retirement account should be considered a long-term investment. Early withdrawals are subject to taxes and possible penalties. For more detailed information about taxes, consult a tax attorney or accountant for advice.

Figure 1 A Lower Portfolio Turnover Rate Can Improve Tax Efficiency

Annual Turnover Rates, 2008 Through 2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
T. Rowe Price Tax-Efficient Equity Fund	32%	60%	41%	27%	30%	20%	18%	11%	18%	17%	11%
Morningstar Large Growth Category Average	100	110	91	74	73	72	70	69	62	58	43

Sources: Morningstar and T. Rowe Price.

LAST WORD

Sandwich Generation Strain Affects Their Children

Kids whose parents are dual caregivers wish they taught them more about money.

The stress of the sandwich generation—parents caring for both their kids and aging family members—trickles down to their children with a negative impact on their and their children's money habits, according to T. Rowe Price's 11th annual Parents, Kids & Money Survey.*

The survey, conducted in January of this year, found that dual caregivers are more reluctant to discuss money matters with their children and miss chances to talk to them about money. And the kids wish these parents would teach them more about money.

"There's no question that balancing care for two generations simultaneously can be difficult," says Stuart Ritter, CFP®, a senior financial planner at T. Rowe Price, who also is a father of three children. "Members of the sandwich generation are in a tough situation, and one of the best things they can do to support their kids is share with them the challenges that are affecting the family's money and time.

"But parents who are dual caregivers turn out to be less likely to teach their kids about money or support them in other ways."

Some findings

- More than a third of parents of kids ages 8–14 are dual caregivers, and that can be expensive—with most spending at least $1,000 a month and a third spending $3,000 or more.
- This causes financial strain, with these parents twice as likely to report carrying credit card debt of $5,000 or more, compared with parents not caring for aging relatives. They are more than three times as likely to have pulled money from retirement savings and more than six times as likely to have withdrawn from college savings.
- Dual caregivers are more than four times as likely to have no idea on what their kids spend their allowances and more than twice as likely to miss chances to talk with their children about money.
- Their kids are three times as likely to say their parents don't make enough time for them and much more likely to say they wish their parents taught them more about money.

Conversations

Mr. Ritter says that it is important for parents—and particularly those in the sandwich generation—to talk to their kids about money. "Having money conversations can be a powerful way to increase their understanding of valuable financial lessons," he says. "Talk to them about financial trade-offs you're making. "This transparency can position them to better handle financial challenges."

He notes that T. Rowe Price created a website, MoneyConfidentKids.com,** which provides free online games for kids and tips for parents, focused on such financial concepts as goal setting, spending versus saving, inflation, asset allocation, and investment diversification. ■

**The 11th annual T. Rowe Price Parents, Kids & Money Survey, conducted by Research Now, aimed to understand the basic financial knowledge, attitudes, and behaviors of both parents of kids ages 8 to 14 and their kids ages 8 to 14. The survey was fielded from January 17, 2019, through January 23, 2019, with a sample size of 1,005 parents and 1,005 kids ages 8 to 14. The margin of error is +/-3.1 percentage points. All statistical testing among subgroups (e.g., those who had financial education versus those who did not) is conducted at a 95% confidence level. Reporting includes only findings that are statistically significant at this level.*

***MONEY CONFIDENT KIDS is a registered trademark of T. Rowe Price Group, Inc.*

> **Members of the sandwich generation are in a tough situation, and one of the best things they can do to support their kids is share with them the challenges...**

Figure 1 Kids Experience the Sandwich Generation's Strain

35%

Of parents with 8- to 14-year-old kids care for both them and an aging parent or relative, and in 68% of these situations the elderly relative lives with them.

65%

Of dual caregivers spend at least $1,000 a month on caring for an aging parent or relative, and almost half of them spend more than $3,000 a month.

59%

Of kids of dual caregivers agree with the statement, "My parents do not make enough time for me"—almost three times the rate of kids of parents who aren't dual caregivers.

Source: T. Rowe Price's 11th Annual Parents, Kids & Money Survey, January 17, 2019, through January 23, 2019.

Global Markets Rise as Central Banks Turn Increasingly Dovish

June 30, 2019

KEY POINTS

- Stocks recover from a sharp pullback in May stemming from increased trade tensions.
- Equities advanced amid expectations for a Federal Reserve rate cut and more European Central Bank stimulus measures.
- While a U.S.-China trade deal remains elusive, both parties agreed at the end of June to resume negotiations.

EQUITY REVIEW

U.S. Shares Outperform, Led by Large-Caps

Most Wilshire 5000 sectors advanced. Financials performed best, but information technology and consumer discretionary stocks also outperformed. The real estate and health care sectors lagged. The energy sector was the only segment with negative returns, as oil prices slipped during the quarter.

Developed European stock markets rose broadly. UK shares lagged with a roughly 1% gain in dollar terms. Prime Minister Theresa May resigned on June 7 as a result of her inability to get Parliament to accept the Brexit deal she reached with the European Union. Australia and Singapore led the Asian region with returns of around 7%. Shares in Hong Kong and Japan rose only about 1%.

Stocks in emerging markets underperformed stocks in developed markets. In Asia, Chinese shares fell more than 3%. In emerging Europe, Russian shares soared more than 17%, helped by a mid-June central bank interest rate cut. Turkish shares lagged the region with a 3% gain. Latin American markets were mixed. Brazilian shares advanced 7% in dollar terms. Mexican shares rose slightly more than 1%, but markets in Chile, Colombia, and Peru declined.

Figure 1 U.S. and International Stock Market Performance

Total Returns for Periods Ended June 30, 2019

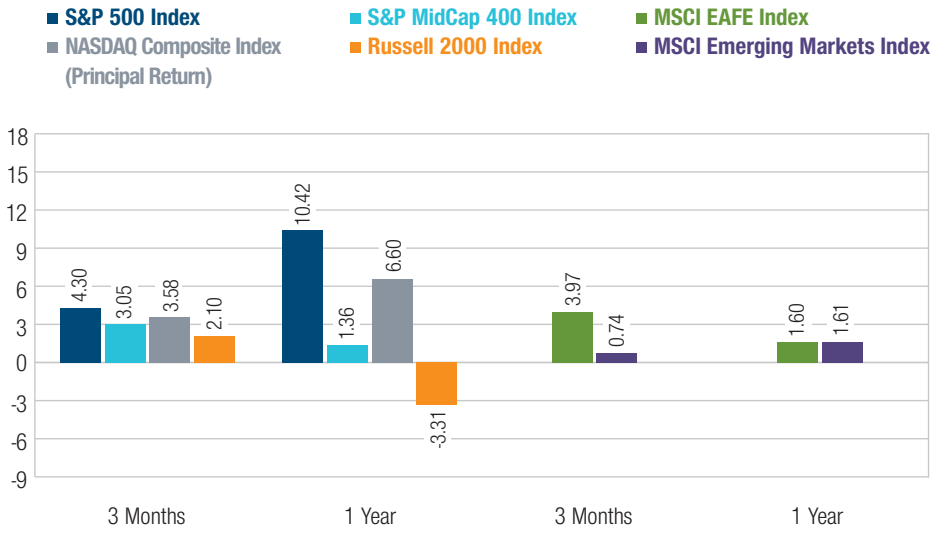
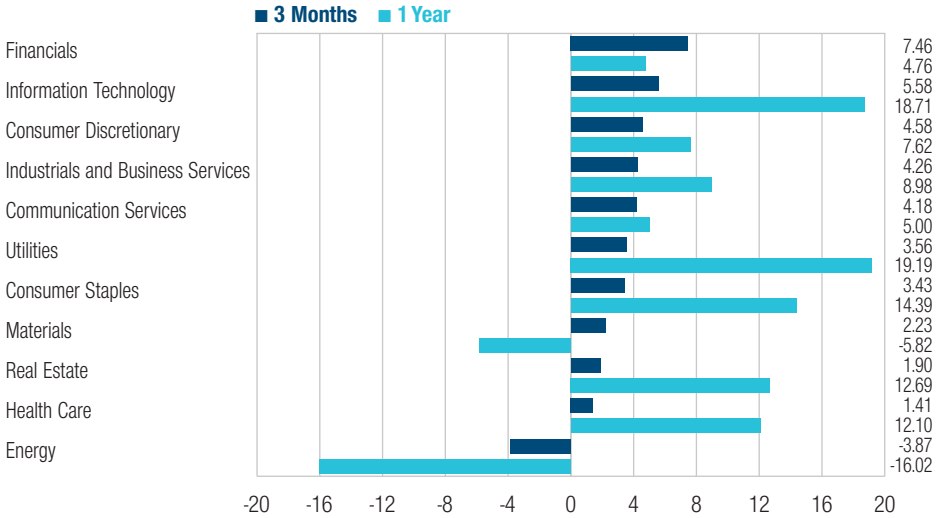


Figure 2 Performance of Wilshire 5000 Series

Total Returns for Periods Ended June 30, 2019



Ranked by highest to lowest quarterly returns.

FIXED INCOME REVIEW

Global Bonds Rise as Yields Decline Amid Dovish Central Bank Signals

Domestic bonds produced strong second-quarter returns. The Federal Reserve kept short-term interest rates unchanged, but in June, policymakers indicated that they "will act as appropriate to sustain the expansion," implying a willingness to cut rates if needed.

In the investment-grade bond universe, longer-term Treasuries and corporate bonds fared best as longer term rates declined. Mortgage-backed securities lagged with smaller gains, as falling long-term rates led to increasing mortgage prepayments and refinancing activity. Municipal bonds produced positive returns but underperformed taxable bonds. High yield bonds slightly underperformed investment-grade issues.

Bonds in developed non-U.S. countries produced strong returns in local terms, as weakening economic growth and dovish signals from some central banks sent longer-term interest rates in several countries notably lower. A weaker dollar versus various currencies enhanced returns in U.S. dollar terms.

Bonds in emerging markets fared better than bonds issued in developed countries. Local currency bonds outperformed dollar-denominated issues, thanks to strength in various currencies. The Turkish lira slipped more than 2%, however, as inflation remained elevated, and investors were cautious due to Turkish tensions with the U.S.

Figure 3 U.S. and International Bond Market Performance

Total Returns for Periods Ended June 30, 2019

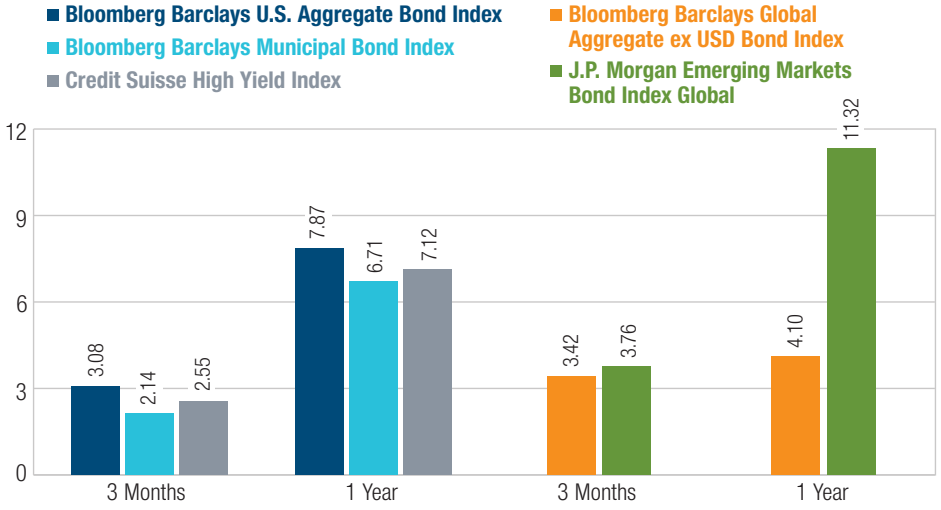
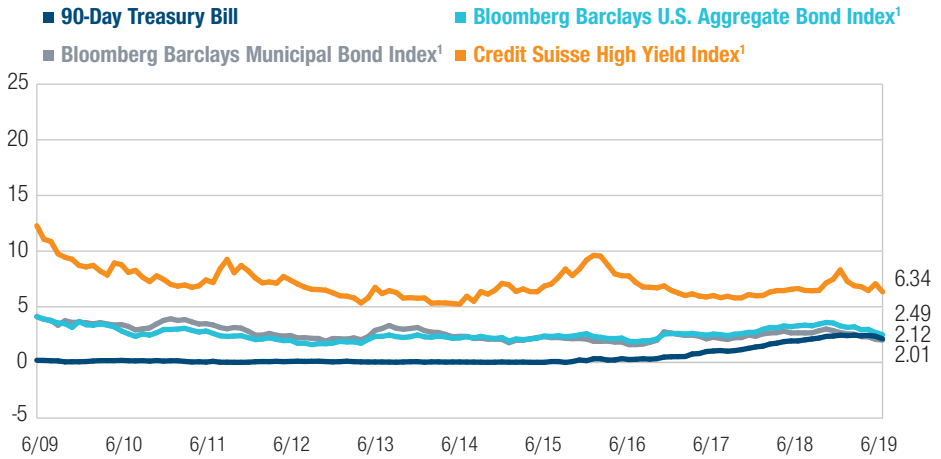


Figure 4 Trends in Interest Rates

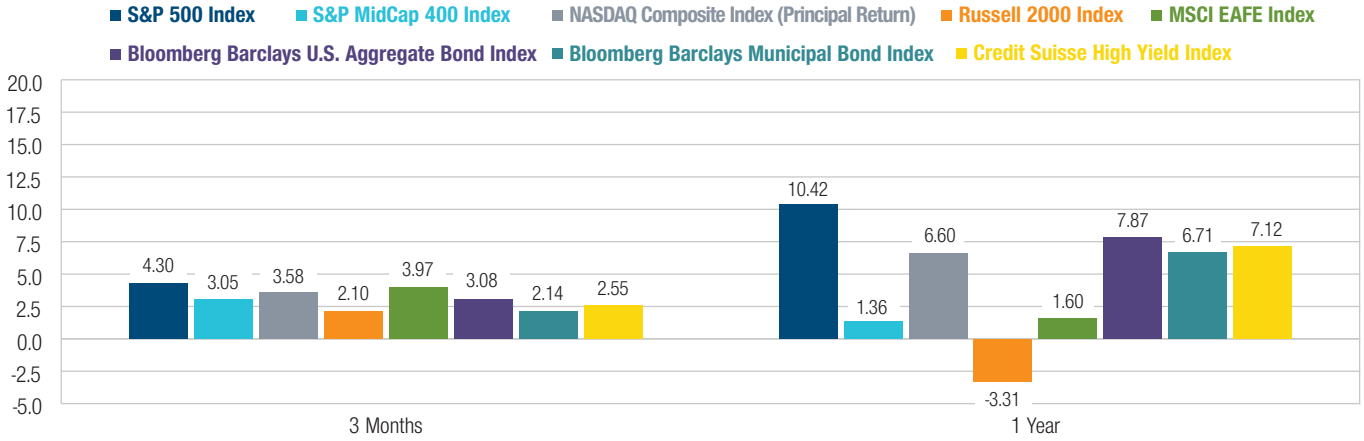
As of June 30, 2019



[1]Yield-to-worst

Figure 5 Stock and Bond Market Performance

Total Returns for Periods Ended June 30, 2019



Unlike stocks, U.S. government bonds are guaranteed as to the timely payment of interest and principal.

The performance information presented here includes changes in principal value, reinvested dividends, and capital gain distributions. *Current performance may be higher or lower than the quoted past performance, which cannot guarantee future results. Share price, principal value, yield, and return will vary, and you may have a gain or loss when you sell your shares. To obtain the most recent month-end performance, call us at 1-800-225-5132 or visit our website. Call 1-800-225-5132 to request a prospectus or summary prospectus; each includes investment objectives, risks, fees, expenses, and other information that you should read and consider carefully before investing.* Funds are placed in alphabetical order in each category. To learn more about each fund's objective and risk/reward potential, visit **troweprice.com/mutualfunds**.

Figure 6 Stock Funds

Domestic	Ticker symbol	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
Blue Chip Growth	TRBCX	4.04%	10.34%	21.72%	14.92%	17.48%	6/30/93	**0.70%**	12/31/2018
Capital Appreciation[2]	PRWCX	4.92	15.20	11.93	10.29	12.90	6/30/86	**0.72**	12/31/2018
Communications & Technology[3]	PRMTX	5.20	12.68	19.78	14.69	19.70	10/13/93	**0.78**	12/31/2018
Diversified Mid-Cap Growth	PRDMX	7.10	17.19	17.75	12.57	16.25	12/31/03	**0.83**	12/31/2018
Dividend Growth	PRDGX	6.10	16.73	13.94	11.49	14.28	12/30/92	**0.64**	12/31/2018
Equity Income	PRFDX	4.29	5.50	10.86	6.58	12.17	10/31/85	**0.64**	12/31/2018
Equity Index 500	PREIX	4.26	10.20	13.95	10.46	14.41	3/30/90	**0.20**	12/31/2018
Extended Equity Market Index	PEXMX	2.95	1.58	12.93	7.62	14.54	1/30/98	**0.35**	12/31/2018
Financial Services	PRISX	6.41	2.48	16.57	9.43	12.58	9/30/96	**0.87**	12/31/2018
Growth & Income	PRGIX	5.35	12.58	12.92	10.68	13.90	12/21/82	**0.65**	12/31/2018
Growth Stock	PRGFX	3.79	8.31	19.74	13.63	16.59	4/11/50	**0.66**	12/31/2018
Health Sciences	PRHSX	1.73	10.39	14.22	12.95	20.23	12/29/95	**0.77**	12/31/2018
Mid-Cap Growth[2]	RPMGX	6.93	15.93	16.75	12.88	16.98	6/30/92	**0.75**	12/31/2018
Mid-Cap Value[2]	TRMCX	1.22	-2.92	7.82	6.27	12.80	6/28/96	**0.78**	12/31/2018
New America Growth	PRWAX	5.35	11.90	20.67	14.34	16.33	9/30/85	**0.79**	12/31/2018
New Era	PRNEX	0.89	-6.15	3.93	-3.03	4.45	1/20/69	**0.69**	12/31/2018
New Horizons[2]	PRNHX	8.02	18.02	24.02	15.66	20.79	6/3/60	**0.77**	12/31/2018
QM U.S. Small-Cap Growth Equity	PRDSX	5.34	6.84	15.48	10.64	17.04	6/30/97	**0.80**	12/31/2018
QM U.S. Small & Mid-Cap Core Equity	TQSMX	4.65	4.02	12.19	–	14.29	2/26/16	**1.22**	12/31/2018
QM U.S. Value Equity	TQMVX	2.60	2.65	9.74	–	11.73	2/26/16	**1.95**	12/31/2018
Real Assets	PRAFX	1.14	1.45	4.34	0.61	3.49	7/28/10	**0.81**	12/31/2018
Real Estate	TRREX	-0.02	5.87	2.36	6.31	14.58	10/31/97	**0.78**	12/31/2018
Science & Technology	PRSCX	2.52	5.17	20.74	15.76	17.25	9/30/87	**0.79**	12/31/2018
Small-Cap Stock[2]	OTCFX	5.67	10.64	16.45	10.27	16.54	6/1/56	**0.89**	12/31/2018
Small-Cap Value	PRSVX	4.52	0.02	12.37	7.27	13.30	6/30/88	**0.85**	12/31/2018
Tax-Efficient Equity[4]	PREFX						12/29/00	**0.81**	2/28/2019
Returns before taxes		6.23	14.56	19.06	13.46	16.13			
Returns after taxes on distributions		–	14.22	18.64	12.96	15.80			
Returns after taxes on distributions and sale of fund shares		–	8.80	15.00	10.67	13.67			
Total Equity Market Index	POMIX	4.15	8.82	13.80	9.97	14.51	1/30/98	**0.30**	12/31/2018
U.S. Equity Research[5]	PRCOX	4.33	10.21	14.86	10.98	14.47	11/30/94	**0.54**	6/1/2019
U.S. Large-Cap Core	TRULX	5.32	12.41	12.75	11.03	14.40	6/26/09	**0.76**	12/31/2018
Value	TRVLX	4.65	8.95	11.26	7.49	13.81	9/30/94	**0.79**	12/31/2018

The expense ratios shown are the gross expense ratios as of the most recent prospectus. Please see the prospectus for additional information.

[1] If a fund has less than 10 years of performance history, its since-inception return is shown.

[2] Closed to new investors except for a direct rollover from a retirement plan into a T. Rowe Price IRA invested in this fund.

[3] Formerly the T. Rowe Price Media & Telecommunications Fund.

[4] The returns presented reflect the return before taxes; the return after taxes on dividends and capital gain distributions; and the return after taxes on dividends, capital gain distributions, and gains (or losses) from redemptions of shares held for 1-, 5-, and 10-year periods, as applicable. After-tax returns reflect the highest federal income tax rate but exclude state and local taxes. The after-tax returns reflect the rates applicable to ordinary and qualified dividends and capital gains effective in 2003. During periods when a fund incurs a loss, the post-liquidation after-tax return may exceed the fund's other returns because the loss generates a tax benefit that is factored into the result. An investor's actual after-tax return will likely differ from those shown and depend on his or her tax situation. Past before- and after-tax returns do not necessarily indicate future performance.

[5] Formerly the T. Rowe Price Capital Opportunity Fund.

Figure 7 Benchmarks

Domestic Stock	3 months	1 year	3 years	5 years	10 years
S&P 500 Index	4.30%	10.42%	14.19%	10.71%	14.70%
S&P MidCap 400 Index	3.05	1.36	10.90	8.02	14.64
NASDAQ Composite Index (Principal Return)	3.58	6.60	18.24	12.68	15.87
Russell 2000 Index	2.10	-3.31	12.30	7.06	13.45
Lipper Indexes					
Large-Cap Core Funds	4.06	9.08	13.56	9.37	13.28
Equity Income Funds	3.75	8.93	10.64	7.58	12.46
Small-Cap Core Funds	2.68	-1.56	11.49	6.80	13.09

Figure 8 Stock Funds

International/Global	Ticker symbol	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
Africa & Middle East	TRAMX	4.07%	3.09%	9.29%	1.20%	6.96%	9/4/07	**1.52%**	10/31/2018
Asia Opportunities	TRAOX	-1.27	1.45	13.10	8.40	8.88	5/21/14	**1.32**	10/31/2018
Emerging Europe	TREMX	9.51	10.19	11.71	-1.81	3.76	8/31/00	**1.62**	10/31/2018
Emerging Markets Discovery Stock[6]	PRIJX	2.62	8.73	14.34	–	11.66	9/14/15	**1.90**	10/31/2018
Emerging Markets Stock[2]	PRMSX	1.76	3.34	12.05	5.36	7.30	3/31/95	**1.22**	10/31/2018
European Stock	PRESX	5.88	4.32	8.10	1.25	8.33	2/28/90	**0.97**	10/31/2018
Global Consumer	PGLOX	3.22	6.82	8.76	–	10.30	6/27/16	**2.37**	12/31/2018
Global Growth Stock	RPGEX	3.17	7.87	15.91	9.63	12.20	10/27/08	**0.92**	3/1/2019
Global Industrials	RPGIX	5.68	9.43	12.19	6.80	7.28	10/24/13	**1.99**	12/31/2018
Global Real Estate	TRGRX	0.35	6.41	3.10	4.08	10.40	10/27/08	**1.12**	12/31/2018
Global Stock	PRGSX	2.91	7.43	18.40	11.98	13.37	12/29/95	**0.82**	10/31/2018
Global Technology[2]	PRGTX	3.05	5.68	21.70	17.93	21.29	9/29/00	**0.91**	12/31/2018
International Disciplined Equity[7]	PRCNX	2.52	3.61	7.25	–	3.18	8/22/14	**1.22**	10/31/2018
International Discovery[2]	PRIDX	2.88	-6.72	11.21	6.66	11.32	12/30/88	**1.20**	10/31/2018
International Equity Index	PIEQX	3.18	0.04	8.62	2.09	6.73	11/30/00	**0.46**	10/31/2018
International Stock	PRITX	3.31	2.60	9.82	4.13	8.28	5/9/80	**0.81**	10/31/2018
International Value Equity[8]	TRIGX	2.06	-4.26	4.39	-0.89	5.72	12/21/98	**0.81**	10/31/2018
Japan	PRJPX	1.53	-4.52	10.75	8.68	9.48	12/30/91	**0.96**	10/31/2018
Latin America	PRLAX	6.55	25.72	11.25	1.50	3.18	12/29/93	**1.32**	10/31/2018
New Asia	PRASX	-0.39	0.19	10.85	5.21	9.08	9/28/90	**0.93**	10/31/2018
Overseas Stock	TROSX	1.96	-3.02	8.61	2.18	7.41	12/29/06	**0.81**	10/31/2018
QM Global Equity	TQGEX	4.08	7.27	11.46	–	10.75	4/15/16	**2.24**	12/31/2018

Figure 9 Benchmarks

International/Global Stock	3 months	1 year	3 years	5 years	10 years
MSCI EAFE Index	3.97%	1.60%	9.65%	2.74%	7.40%
Lipper Averages					
Emerging Markets Funds	1.80	1.28	9.13	1.78	5.91
International Large-Cap Core Funds	3.10	-0.85	7.95	0.68	5.88
International Large-Cap Growth Funds	4.72	3.08	9.38	3.16	7.30
International Small/Mid-Cap Growth Funds	3.34	-5.30	8.75	3.80	9.95

[6] Formerly the T. Rowe Price Emerging Markets Value Stock Fund.
[7] Formerly the T. Rowe Price International Concentrated Equity Fund.
[8] Formerly the T. Rowe Price International Growth & Income Fund.

All mutual funds are subject to market risk, including possible loss of principal. Funds that invest overseas generally carry more risk than funds that invest strictly in U.S. assets due to factors such as currency risk, geographic risk, and emerging markets risk. Funds that invest in fixed income securities are subject to credit risk and liquidity risk, with high yield securities having a greater risk of default than higher-quality securities. Such funds are also subject to the risk that a rise in interest rates will cause the price of a fixed rate debt security to fall. During periods of extremely low or negative interest rates, some funds may not be able to maintain a positive yield.

MSCI index returns are shown with gross dividends reinvested.

Figure 10 Bond Funds

Domestic Tax-Free[9]	Ticker symbol	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
California Tax-Free Bond	PRXCX	2.24%	5.85%	2.03%	3.77%	5.13%	9/15/86	**0.54%**	2/28/2019
Georgia Tax-Free Bond	GTFBX	2.07	5.74	1.78	3.31	4.43	3/31/93	**0.59**	2/28/2019
Intermediate Tax-Free High Yield	PRIHX	2.08	5.55	2.75	–	3.88	7/24/14	**1.08**	7/1/2019
Maryland Short-Term Tax-Free Bond	PRMDX	0.73	2.48	0.84	0.85	0.97	1/29/93	**0.65**	2/28/2019
Maryland Tax-Free Bond	MDXBX	2.03	5.70	2.30	3.50	4.70	3/31/87	**0.48**	2/28/2019
New Jersey Tax-Free Bond	NJTFX	2.16	6.02	2.36	3.70	4.73	4/30/91	**0.58**	2/28/2019
New York Tax-Free Bond	PRNYX	2.05	5.50	1.97	3.52	4.61	8/28/86	**0.54**	2/28/2019
Summit Municipal Income	PRINX	2.43	6.07	2.37	3.89	5.31	10/29/93	**0.53**	3/1/2019
Summit Municipal Intermediate	PRSMX	1.97	6.05	1.98	2.95	3.95	10/29/93	**0.52**	3/1/2019
Tax-Free High Yield	PRFHX	2.74	6.22	3.12	4.79	6.95	3/1/85	**0.72**	7/1/2019
Tax-Free Income	PRTAX	2.25	5.74	2.21	3.54	4.79	10/26/76	**0.54**	2/28/2019
Tax-Free Short-Intermediate	PRFSX	1.13	3.62	1.21	1.33	2.09	12/23/83	**0.52**	2/28/2019
Virginia Tax-Free Bond	PRVAX	1.99	5.34	2.02	3.40	4.47	4/30/91	**0.51**	2/28/2019

Figure 11 Bond Funds

Domestic Taxable	Ticker symbol	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
Corporate Income	PRPIX	3.82%	9.62%	3.28%	3.59%	6.19%	10/31/95	**0.61%**	5/31/2018
Credit Opportunities	PRCPX	2.77	7.69	8.09	2.78	3.07	4/29/14	**1.49**	5/31/2018
Floating Rate	PRFRX	1.81	4.16	4.30	3.38	3.77	7/29/11	**0.78**	5/31/2018
GNMA[10]	PRGMX	1.67	4.85	1.53	1.85	2.96	11/26/85	**0.60**	5/31/2018
High Yield[2]	PRHYX	3.13	7.60	6.97	4.10	8.59	12/31/84	**0.73**	5/31/2018
Inflation Protected Bond	PRIPX	2.95	4.98	1.83	1.51	3.31	10/31/02	**0.58**	10/1/2018
Limited Duration Inflation Focused Bond	TRBFX	1.87	3.51	1.44	0.74	1.34	9/29/06	**0.49**	10/1/2018
New Income	PRCIX	3.13	7.71	2.42	2.78	4.08	8/31/73	**0.56**	5/31/2018
Short-Term Bond	PRWBX	1.51	4.30	1.90	1.51	1.96	3/2/84	**0.47**	5/31/2018
Total Return	PTTFX	2.97	7.83	–	–	4.33	11/15/16	**1.50**	5/31/2018
Ultra Short-Term Bond	TRBUX	1.13	3.27	2.21	1.66	1.36	12/3/12	**0.42**	7/1/2019
U.S. Bond Enhanced Index	PBDIX	2.98	7.76	2.35	2.95	3.86	11/30/00	**0.30**	10/31/2018
U.S. High Yield[11]	TUHYX	2.38	6.47	–	–	4.55	5/19/17	**1.13**	5/31/2018
U.S. Treasury Intermediate[10]	PRTIX	3.14	8.10	1.08	2.18	3.07	9/29/89	**0.52**	10/1/2018
U.S. Treasury Long-Term[10]	PRULX	5.69	11.90	0.96	5.08	5.93	9/29/89	**0.48**	10/1/2018

Figure 12 Benchmarks

Bond	3 months	1 year	3 years	5 years	10 years
Bloomberg Barclays U.S. Aggregate Bond Index	3.08%	7.87%	2.31%	2.95%	3.90%
Bloomberg Barclays Municipal Bond Index	2.14	6.71	2.55	3.64	4.72
Credit Suisse High Yield Index	2.55	7.12	7.55	4.55	9.06
Lipper Averages					
Short Investment Grade Debt Funds	1.41	4.04	2.06	1.55	2.43
Core Bond Funds	2.99	7.35	2.37	2.62	4.25
GNMA Funds	1.96	5.37	1.35	1.73	2.85
High Yield Funds	2.41	6.54	6.50	3.61	7.96
Short Municipal Debt Funds	0.83	2.56	1.12	1.01	1.32
Intermediate Municipal Debt Funds	1.92	5.63	1.87	2.67	3.74
General & Insured Municipal Debt Funds	2.27	6.13	2.31	3.49	4.81

[9] Some income from the tax-free funds may be subject to state and local taxes and the federal alternative minimum tax.

[10] The market value of shares is not guaranteed by the U.S. government.

[11] The T. Rowe Price U.S. High Yield Fund (Fund) commenced operations on May 19, 2017. At that time, the Fund received all of the assets and liabilities of the Henderson High Yield Opportunities Fund (the Predecessor Fund) and adopted its performance and accounting history. The Fund and the Predecessor Fund have substantially similar investment objectives and strategies. The Predecessor Fund was managed by the same portfolio manager as the Fund.

Figure 13 Bond Funds

International/Global	Ticker symbol	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
Dynamic Credit	RPIDX	1.73%	–	–	–	3.65%	1/10/19	**1.92%**	1/10/2019
Dynamic Global Bond[12]	RPIEX	1.27	1.53%	0.45%	–	1.77	1/22/15	**0.66**	5/1/2019
Emerging Markets Bond	PREMX	3.33	10.08	4.74	4.14%	7.13	12/30/94	**0.91**	12/31/2018
Emerging Markets Corporate Bond	TRECX	3.34	11.23	5.96	4.40	5.54	5/24/12	**1.40**	12/31/2018
Emerging Markets Local Currency Bond	PRELX	5.60	8.60	4.38	-0.68	-0.06	5/26/11	**0.95**	12/31/2018
Global High Income Bond	RPIHX	2.89	9.10	7.36	–	6.75	1/22/15	**1.05**	12/31/2018
Global Multi-Sector Bond	PRSNX	3.18	8.63	4.68	3.79	5.62	12/15/08	**0.72**	5/31/2018
International Bond	RPIBX	3.63	5.00	1.45	0.06	2.16	9/10/86	**0.67**	12/31/2018
International Bond (USD Hedged)	TNIBX	2.96	8.39	---	---	5.31	9/12/17	**0.67**	12/31/2018

Figure 14 Benchmarks

International/Global Bond	3 months	1 year	3 years	5 years	10 years
Bloomberg Barclays Global Aggregate ex USD Bond Index	3.42%	4.10%	0.97%	-0.12%	2.10%
J.P. Morgan Emerging Markets Bond Index Global	3.76	11.32	4.65	4.47	7.41
Lipper Averages					
Emerging Market Hard Currency Debt Funds	3.92	10.10	4.99	2.84	6.26
International Income Funds	2.85	5.52	2.44	0.93	3.55

Figure 15 Money Market Funds

Tax-Free[9]	Ticker symbol	7-day yield	7-day unsubsidized yield[13]	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
California Tax-Free Money◊	PCTXX	0.94%	0.66%	0.24%	0.88%	0.51%	0.31%	0.16%	9/15/86	**0.96%**	2/28/2019
Maryland Tax-Free Money◊	TMDXX	1.42	1.20	0.32	1.15	0.64	0.39	0.20	3/30/01	**0.83**	2/28/2019
New York Tax-Free Money◊	NYTXX	1.31	1.09	0.28	1.00	0.58	0.35	0.18	8/28/86	**0.91**	2/28/2019
Summit Municipal Money Market◊	TRSXX	1.30	1.30	0.32	1.17	0.71	0.43	0.22	10/29/93	**0.45**	10/31/2018
Tax-Exempt Money◊	PTEXX	1.33	1.31	0.32	1.19	0.72	0.44	0.23	4/8/81	**0.55**	2/28/2019
Taxable											
Cash Reserves◊[14]	TSCXX	2.08%	2.08%	0.53%	2.03%	1.18%	0.71%	0.36%	10/29/93	**0.45%**	10/31/2018
Government Money‡[15]	PRRXX	2.07	2.07	0.52	1.93	1.01	0.61	0.31	1/26/76	**0.44**	5/31/2018
U.S. Treasury Money‡	PRTXX	2.06	2.06	0.52	1.92	1.00	0.61	0.31	6/28/82	**0.43**	5/31/2018

[12] Formerly the T. Rowe Price Global Unconstrained Bond Fund.

[13] In an effort to maintain a zero or positive net yield for the fund, T. Rowe Price may voluntarily waive all or a portion of the management fee it is entitled to receive from the fund. This voluntary waiver would be in addition to any contractual expense ratio limitation in effect for the fund and may be amended or terminated at any time without prior notice. This fee waiver would have the effect of increasing the fund's 7-day yield. Please see the prospectus for more details.

[14] Formerly the T. Rowe Price Summit Cash Reserves Fund.

[15] Formerly the T. Rowe Price Prime Reserve Fund.

Money Market Funds:

◊*Retail 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.*

‡*Government 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.*

Figure 16 Asset Allocation Funds

Asset Allocation	Ticker symbol	3 months	1 year	3 years	5 years	10 years or since inception[1]	Inception date	Expense ratio	Expense ratio as of date
Balanced	RPBAX	3.35%	6.66%	9.76%	6.39%	9.99%	12/31/39	**0.61%**	12/31/2018
Global Allocation	RPGAX	3.34	5.01	8.62	5.25	6.27	5/28/13	**1.09**	10/31/2018
Multi-Strategy Total Return	TMSRX	1.36	1.36	–	–	0.25	2/23/18	**1.93**	10/31/2018
Personal Strategy Balanced	TRPBX	3.39	6.68	9.67	6.28	10.08	7/29/94	**0.86**	5/31/2018
Personal Strategy Growth	TRSGX	3.55	6.41	11.80	7.28	11.76	7/29/94	**0.88**	5/31/2018
Personal Strategy Income	PRSIX	3.03	6.53	7.42	5.06	8.07	7/29/94	**0.78**	5/31/2018
Retirement 2005	TRRFX	3.12	6.62	6.22	4.41	7.55	2/27/04	**0.54**	5/31/2018
Retirement 2010	TRRAX	3.22	6.72	6.77	4.74	8.26	9/30/02	**0.54**	5/31/2018
Retirement 2015	TRRGX	3.28	6.60	7.64	5.21	9.16	2/27/04	**0.57**	5/31/2018
Retirement 2020	TRRBX	3.39	6.66	8.75	5.79	10.01	9/30/02	**0.61**	5/31/2018
Retirement 2025	TRRHX	3.48	6.56	9.67	6.26	10.70	2/27/04	**0.64**	5/31/2018
Retirement 2030	TRRCX	3.61	6.47	10.51	6.69	11.30	9/30/02	**0.67**	5/31/2018
Retirement 2035	TRRJX	3.65	6.27	11.14	6.97	11.69	2/27/04	**0.70**	5/31/2018
Retirement 2040	TRRDX	3.69	6.20	11.69	7.21	11.93	9/30/02	**0.72**	5/31/2018
Retirement 2045	TRRKX	3.64	6.06	11.83	7.29	11.97	5/31/05	**0.72**	5/31/2018
Retirement 2050	TRRMX	3.71	6.11	11.84	7.30	11.97	12/29/06	**0.72**	5/31/2018
Retirement 2055	TRRNX	3.66	6.08	11.82	7.29	11.97	12/29/06	**0.72**	5/31/2018
Retirement 2060	TRRLX	3.71	6.06	11.83	7.29	7.28	6/23/14	**0.72**	5/31/2018
Retirement Balanced	TRRIX	3.00	6.20	6.21	4.25	6.92	9/30/02	**0.52**	5/31/2018
Retirement Income 2020	TRLAX	3.34	6.47	–	–	6.51	5/25/17	**1.23**	12/31/2018
Spectrum Growth	PRSGX	3.80	5.11	13.13	7.91	12.69	6/29/90	**0.77**	12/31/2018
Spectrum Income	RPSIX	3.10	6.94	4.38	3.30	5.96	6/29/90	**0.62**	12/31/2018
Spectrum International	PSILX	2.77	0.15	8.46	2.73	7.78	12/31/96	**0.90**	12/31/2018
Target 2005	TRARX	3.10	6.65	5.88	4.19	5.31	8/20/13	**1.19**	1/1/2019
Target 2010	TRROX	3.10	6.64	6.07	4.29	5.48	8/20/13	**0.81**	1/1/2019
Target 2015	TRRTX	3.21	6.69	6.51	4.50	5.80	8/20/13	**0.60**	1/1/2019
Target 2020	TRRUX	3.22	6.44	7.26	4.89	6.33	8/20/13	**0.63**	1/1/2019
Target 2025	TRRVX	3.31	6.37	8.04	5.33	6.91	8/20/13	**0.69**	1/1/2019
Target 2030	TRRWX	3.40	6.40	8.93	5.83	7.57	8/20/13	**0.75**	1/1/2019
Target 2035	RPGRX	3.51	6.44	9.69	6.26	8.13	8/20/13	**0.86**	1/1/2019
Target 2040	TRHRX	3.60	6.37	10.38	6.60	8.55	8/20/13	**0.92**	1/1/2019
Target 2045	RPTFX	3.68	6.36	10.90	6.84	8.87	8/20/13	**1.03**	1/1/2019
Target 2050	TRFOX	3.71	6.23	11.36	7.04	9.14	8/20/13	**1.12**	1/1/2019
Target 2055	TRFFX	3.66	6.06	11.67	7.19	9.30	8/20/13	**1.44**	1/1/2019
Target 2060	TRTFX	3.71	6.04	11.75	7.24	7.23	6/23/14	**2.99**	1/1/2019

Indexes included in this update track the following: S&P 500–500 large-company U.S. stocks; S&P MidCap 400–stocks of 400 mid-size U.S. companies; NASDAQ Composite (principal only)–U.S. stocks traded in the over-the-counter market; Russell 2000–stocks of 2,000 small U.S. companies; MSCI EAFE–stocks of about 1,000 companies in Europe, Australasia, and the Far East; MSCI Emerging Markets–more than 850 stocks traded in over 20 emerging markets; Bloomberg Barclays U.S. Aggregate Bond–investment-grade corporate and government bonds; Bloomberg Barclays Municipal Bond–tax-free investment-grade U.S. bonds; Credit Suisse High Yield–noninvestment-grade corporate U.S. bonds; Bloomberg Barclays Global Aggregate ex USD Bond–investment-grade government, corporate, agency, and mortgage-related bonds in markets outside the U.S.; J.P. Morgan Emerging Markets Bond–Global–U.S. dollar-denominated Brady Bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities; Lipper averages–all funds in each investment objective category; and Lipper indexes–equally weighted indexes of typically the 30 largest mutual funds within their respective investment objective categories. It is not possible to invest directly in an index.

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