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Single-fund investment options: Portfolio construction simplified for investors

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Executive summary. Single-fund investments, also known as all-in-one funds, provide a simple, “one-stop” method for portfolio construction. These funds offer investors a diversified approach—while transferring the complexities of portfolio construction to the fund’s investment manager. Choosing a single-fund investment to execute an asset allocation strategy can also help investors avoid common behaviors that can reduce future returns or unknowingly increase the risk of the portfolio.

All-in-one funds have increased in popularity over the past few decades and appeal to a broad range of investors—from participants looking for a convenient way to save for retirement in employer-sponsored plans to retirees seeking a simpler way to manage spending needs.

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This paper provides an overview of these single-fund investment options. We discuss some of the key benefits for the investor, such as predetermined asset allocation and automatic rebalancing, diversification, and convenience. We also discuss a main drawback of these funds: the inability of investors with both taxable and tax-advantaged accounts to strategically select which investments to hold in which type of accounts to maximize the overall portfolio's tax efficiency.

All-in-one funds provide a comprehensive investment approach in one mutual fund. These funds typically offer broad diversification both across asset classes (such as stocks and bonds) and within asset classes (using criteria such as market capitalization, style, or credit quality). This level of diversification is not unique to all-in-one funds; certainly an investor can achieve similar diversification by selectively holding multiple funds, such as broad-market stock and bond funds, in proportions aligned with his or her desired asset allocation. Neither approach is right or wrong; each is simply a different way to build a portfolio. Some investors may want the simplicity of a single-fund investment approach, while others may prefer a strategy that's more "do-it-yourself."

Single-fund investment options generally fall into two categories:

- *Target-date funds:* These funds set their initial asset allocations based on a projected retirement year and gradually shift to a more conservative allocation as that date approaches. The final allocation at the target date is intended to see the investor through retirement.

Target-date funds require the fewest decisions from the investor. The trade-off for this simplicity is a portfolio that reflects only one variable specific to the investor: his or her prospective retirement date. Such a portfolio may not meet a

given investor's goals as well as one that reflects multiple variables, such as spending needs and risk tolerance.

- *Static allocation funds:* These funds maintain a defined asset allocation for the life of the investment. They are typically offered in sets of funds with investment styles ranging from aggressive to conservative, with the investor determining which portfolio is appropriate for his or her circumstances at any given time. Balanced funds that hold a static mix of asset classes, such as stocks, bonds, and cash, including funds that are managed to remain within a target allocation range among the asset classes, are generally included in this category.

Static allocation funds require more involvement by the investor because these funds' asset allocations do not change automatically with the investor's time horizon. Once an investor assesses his or her risk tolerance (by completing a predefined questionnaire, for example), and reconfirms that assessment at least periodically, a static allocation fund may be more appropriate than a target-date fund, because the portfolio is matched to the investor's personal risk tolerance and time horizon. If a general time-horizon-based asset allocation is desired, however, then a target-date fund may be a better fit.

Either type of fund can effectively help individuals invest for the long term. Deciding which type is preferable comes down to the investor's desired level of engagement.

Keep in mind, as well, that risks exist with all-in-one funds. Investments in all-in-one funds are subject to the risks of their underlying funds. The year in the fund name of a target-date fund refers to the approximate year (the target date) when an investor in the fund would retire and leave the work force. The fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in a target-date fund is not guaranteed at any time, including on or after the target date.

Benefits of simplified investing: Fewer decisions may mean better decisions

Among the key benefits of single-fund investments are the convenience of a predefined asset allocation policy and risk control through automatic rebalancing and diversification. The fundamental simplicity of using a single fund to execute an investment strategy can help investors avoid common behaviors that can reduce future returns or unknowingly increase the portfolio's risk.

Single-fund investments can help individuals overcome one of the greatest obstacles in developing a long-term investment program—committing oneself to actually creating a plan and then implementing it properly. Many studies on investor behavior, including Vanguard's own research (Mottola and Utkus, 2003), have shown that having to choose from a multitude of investment options may intimidate investors to the point that they don't make any decision at all or simply choose to spread their assets across many investments with no strategic thought behind the decision.

Addressing a common misperception

One common misperception is that an investor cannot be adequately diversified by investing in only one mutual fund. Many investors believe that all-in-one or balanced funds are designed for investors who lack investment expertise or are "beginners." They believe that complexity breeds successful investment outcomes. Holding multiple funds across different asset classes may provide diversification; however, this complexity may end up supporting some investors' failure to appropriately rebalance their portfolios, perhaps as a result of chasing performance or trying to time the markets (we discuss this further in the next section). If successfully moving between various investment styles, sectors, and securities were easy, we would expect professional active managers to be more successful at beating their passive benchmarks (Donaldson and Ambrosio, 2008). Spreading assets across many different funds—requiring monitoring of stock, bond, and other types of assets—can increase the time, complexity, and possibly the cost of managing an investment portfolio.

For those who have difficulty reconciling the "don't put all your eggs in one basket" philosophy with investing in only one fund, consider an all-in-one fund that seeks to track the performance of a U.S. balanced benchmark, with 60% of assets invested in the broad U.S. stock market and 40% of assets in the investment-grade U.S. bond market. An investor in such a fund can achieve very broad domestic diversification—exposure to the approximately 3,500 stocks and 8,200 investment-grade bonds that represent the entire U.S. stock and bond markets.¹ In addition, all-in-one funds that invest in international stocks could provide further diversification.

Notes on risk: All investments are subject to risk. Past performance is no guarantee of future results. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. Diversification does not ensure a profit or protect against a loss in a declining market. Investments in bonds are subject to interest rate, credit, and inflation risk. Foreign investing involves additional risks, including currency fluctuations and political uncertainty.

¹ U.S. stock and bond markets represented, respectively, by the MSCI US Broad Market Index and the Barclays Capital U.S. Aggregate Float Adjusted Bond Index, as of December 31, 2010.

Broad diversification across and within asset classes

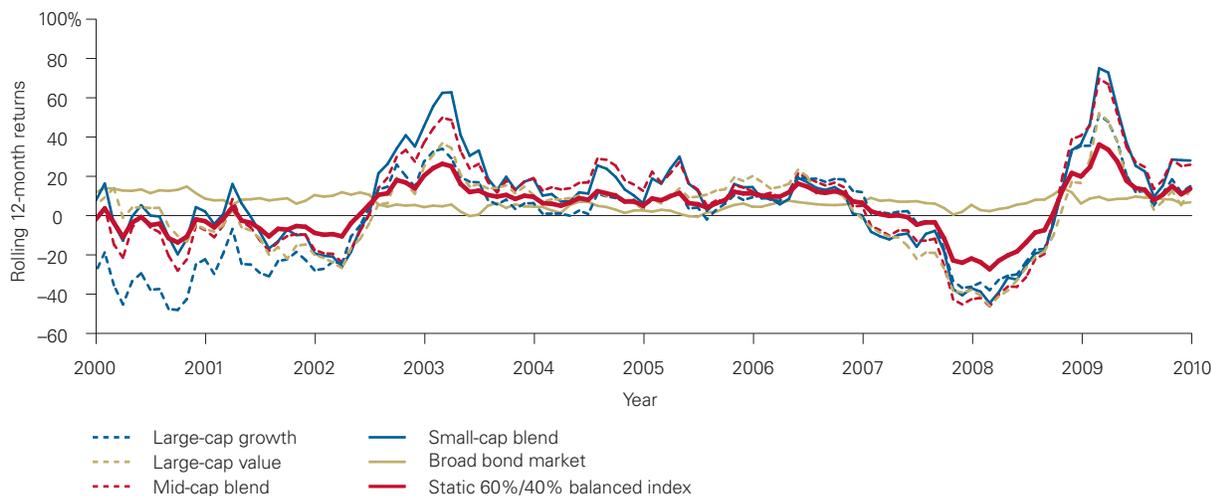
The importance of determining an appropriate strategic asset allocation for one’s financial circumstances is well documented (Davis, Kinniry, and Sheay, 2007). This does not necessarily mean, however, that investors effectively set and adhere to an appropriate asset allocation, particularly in times of volatile markets. With a single-fund portfolio, once the investor has selected the asset allocation or target-date fund that best matches his or her goals and preferences, the portfolio-rebalancing decision-making is done. The fund is designed to stay close to the objective allocation—whether that be a specific static asset allocation or, in the case of a target-date fund, an allocation that becomes more conservative as the time horizon shortens.

In addition, a broadly diversified all-in-one fund ensures diversification across many market segments. This is important, because exposure

to all parts of the stock and bond markets can help mitigate the risk associated with investing in a particular market, sector, or company. As we will discuss, an all-in-one fund can help guard against the tendency for some investors to chase returns by moving into and out of the best- and worst-performing market segments based upon recent past performance.

It is also well-documented that volatile, or momentum-driven, markets often influence some investors to abandon their carefully considered asset allocations. Instead of holding fast, they either overweight the top-performing market segments or move out of underperforming investments during market downturns, despite empirical research showing that the average professional investor is persistently unable to effectively time the market (Davis et al., 2007).

Figure 1. A balanced index scenario versus component indexes: Rolling 12-month returns for ten years ended December 31, 2010.



Notes: Market components are represented by the following indexes: Large-cap growth—MSCI US Large Cap 300 Growth Index; Large-cap value—MSCI US Large Cap 300 Value Index; Mid-cap blend—MSCI US Mid Cap 450 Index; Small-cap blend—MSCI US Small Cap 1750 Index; Broad bond market—Barclays Capital U.S. Aggregate Bond Index; 60% stocks/40% bonds balanced index—21% MSCI US Large Cap Value Index, 21% MSCI US Large Cap Growth Index, 12% MSCI US Mid Cap 450 Index, 6% MSCI US Small Cap 1750 Index, and 40% Barclays Capital U.S. Aggregate Bond Index, rebalanced monthly.

Sources: Vanguard and Morningstar, Inc.

Individual markets and asset classes often behave differently from each other at any given time. Even within asset classes, differences in risk occur because of variations in equity style and market capitalization (for stocks) or duration and credit quality (for bonds). Figure 1 provides the return-pattern scenario of a single balanced index that invested 60% of assets in the broad U.S. stock market and 40% of assets in the investment-grade U.S. bond market, compared with the broad U.S. bond market and the more-volatile individual segments of the broad U.S. stock market.

Considering the volatility in the various equity and bond market sub-asset classes, investors may be more prone to make transactions in an attempt to capitalize on short-term differences in performance when they can readily see those differences—in other words, in a portfolio constructed of individual investments. On the other hand, investors holding a broadly diversified single-fund portfolio may be more likely to stick to a diversified strategy throughout volatile markets.

Attempting to capitalize on the volatility in different market segments can preclude investors from realizing the market’s full return potential, as it is extremely difficult to time the highs and lows of the individual market segments. Investor behavior and its impact on the returns an investor actually realizes relative to an investment’s performance over a specific time can be evaluated by comparing different return metrics, such as an investment’s *time-weighted return* (the return reported by market index providers and fund companies) and investors’ actual returns (returns that adjust investment performance for the timing of purchases and sales)—see the accompanying box, “A closer look at different return metrics,” on page 6.

Figure 2 illustrates the disparity between the average annualized time-weighted and investor returns achieved over the ten years ended December 31, 2010, for various equity and bond styles and two balanced fund categories. This type of result can be time-period-specific.

Figure 2. Investor returns may differ markedly from time-weighted returns: Ten years ended December 31, 2010.

Equity funds			
	Value	Blend	Growth
Large-cap	3.07%	1.64%	0.30%
	1.97%	1.21%	-1.19%
	Differential	-1.10%	-0.43%
Mid-cap	7.07%	5.83%	2.96%
	4.17%	5.03%	1.78%
	Differential	-2.90%	-0.80%
Small-cap	9.40%	7.18%	3.88%
	7.39%	6.17%	2.01%
	Differential	-2.01%	-1.01%
Bond funds			
	U.S. government	Corporate	
Short	3.74%	3.85%	
	2.49%	2.63%	
	Differential	-1.25%	-1.22%
Intermediate	4.81%	5.37%	
	3.54%	3.91%	
	Differential	-1.27%	-1.46%
Long	6.76%	7.30%	
	4.38%	5.23%	
	Differential	-2.38%	-2.07%
Balanced funds			
	Conservative allocation	Moderate allocation	
	3.93%	3.35%	
	3.39%	2.62%	
	Differential	-0.54%	-0.73%

■ Time-weighted average annualized return
■ Investor average annualized return

Notes: Morningstar Investor Return™ assumes that the growth of a fund’s total net assets for a given period is driven by market returns and investor cash flow. To calculate investor return, a fund’s change in assets for the period is discounted by the return of the fund to isolate how much of the asset growth was driven by cash flow. A proprietary model, similar to an internal rate of return calculation, is then used to calculate a constant growth rate that links the beginning total net assets and periodic cash flows to the ending total net assets.

Source: Morningstar, Inc.

A closer look at different return metrics

A common metric for reporting investment returns is *total return*, commonly defined as the percentage change, over a specified period, in a mutual fund's net asset value, with the ending net asset value adjusted to account for the reinvestment of all distributions of dividends and capital gains. This is known as a time-weighted return, and is often reported by indexes and mutual fund companies to measure the compounded growth of an investment over a specific time horizon. For example, fund performance may be cited over one, three, and five years, assuming one initial investment and the reinvestment of dividends and capital gains during the period. This return measure does not account for the effect of investor cash flows throughout the measurement period.

Figure 3. Hypothetical comparison of time-weighted and dollar-weighted returns

Year	Investor cash flows	Fund return	Investor portfolio
	Initial investment		\$25,000
Year 1		14%	\$28,500
	Additional investment		+\$25,000
	Year-end portfolio balance		\$53,500
Year 2		-5%	\$50,825
Year 3		12%	\$56,924
	Additional investment		+\$25,000
	Year-end portfolio balance		\$81,924
Year 4		-7%	\$76,189
	Time-weighted annualized return	3.1%	
	Dollar-weighted annualized return		0.6%

Notes: This hypothetical illustration does not represent the return on any particular investment. The final account balance does not reflect any taxes or penalties that may be due upon distribution. Withdrawals from a traditional IRA before age 59 ½ are subject to a 10% federal penalty tax unless an exception applies.

Source: Vanguard calculations using hypothetical returns.

The *investor return*, or dollar-weighted return, can differ from the fund's time-weighted return. The investor return considers the timing and dollar amount of cash inflows and outflows, and investment performance.

The hypothetical example in **Figure 3** illustrates the two return methodologies, showing how exclusive use of a mutual fund's time-weighted return can be misleading for an investor trying to reconcile how much he or she has actually earned. In this example, over the course of four years the investor invests a total of \$75,000 in a fund: two investments of \$25,000 each at the beginning and end of the first year; and a final investment of \$25,000 at the end of the third year (the fund experienced negative returns in both the second and fourth years, so the investor declined to invest in those years).

As a result of two years of positive returns and two years of negative returns, the fund turned in a time-weighted annualized return of 3.1% for the period.

The scenario plays out a bit differently, however, for the hypothetical investor. The investor experiences the same two years of positive returns and two years of negative returns; however, a smaller portion of the portfolio was invested during the years that posted positive returns, because of the timing of the investments. The investor thus finishes the period with \$76,189 and an annualized investor return for the period of 0.6%. Despite the fund's 3.1% average annual return, the investor realizes much less because of the timing of the investments over the course of four years. This scenario can also turn out the other way around—the investor return can exceed the time-weighted return if the timing of cash flows avoids market declines or captures a period of positive returns.

The best way to interpret this data is to look at the differential between returns for the equity-only or bond-only funds, on the one hand, with returns for the balanced categories, on the other hand. For instance, the average differential between the two returns among all the equity styles is about 1.4 percentage points; for the bond styles the difference is about 1.2 percentage points. The differentials between the time-weighted and investor returns for the conservative- and moderate-allocation² categories of balanced funds are much smaller than those for the equity-only or bond-only funds. The balanced categories would seem to make investors less susceptible to performance chasing because each particular segment would not be separately visible within an investor's portfolio, as these smaller differentials indicate less cash flow movement during times of extreme market volatility.

Benefits of automatic rebalancing

Over time, various asset classes can produce different returns. If left untouched, the weight of higher-returning assets will increase, causing a portfolio's actual asset allocation to drift from an investor's original target allocation. This drift may unknowingly subject the investor to more (or less) risk than he or she originally intended. To recapture the portfolio's original risk and return characteristics, the portfolio must be periodically rebalanced to its original asset allocation (Jaconetti, Kinniry, and Zilbering, 2010).

Similar to the process of selecting a portfolio's target asset allocation, a rebalancing strategy involves a trade-off between risk and return. Consider a portfolio with a target asset allocation of 60% stocks/40% bonds that is never rebalanced. Because stocks have historically outperformed bonds, the portfolio's stock allocation gradually

drifts upward. **Figure 4**, on page 8, shows that, for the period 1926–2010, a hypothetical 60% stock/40% bond portfolio that was never rebalanced would have drifted to higher equity allocations over time, with an average weighting of 84% stocks for the entire period. Furthermore, during this time, the maximum stock allocation peaked at 99%. Because of its increased equity exposure, the never-rebalanced portfolio experienced a somewhat higher return for the overall period (an average annualized return of 9.2%, versus 8.6% for the rebalanced portfolio), but it was exposed to higher risk (the standard deviation on the never-rebalanced portfolio was 14.4%, versus 12.1% for the monthly rebalanced portfolio). This divergence from the target allocation would have been particularly noticeable in 2008: A 60% stock/40% bond portfolio returned –22.0% for the calendar year, while a 98% stock portfolio (based on the equity weighting of the hypothetical portfolio that was never rebalanced at the beginning of 2008) returned –36.2% for the same period.

Historically, significant rebalancing opportunities have occurred after extreme market events. Understandably, it is especially difficult for investors to consider rebalancing their portfolios during or after a period of poor investment performance coupled with a high degree of uncertainty regarding the future. The thought of selling their best-performing asset classes and committing those resources to the worst-performing asset classes seems counterintuitive.

All-in-one funds can help an investor maintain a targeted asset allocation, without having to continuously monitor and rebalance the portfolio. Through continuous cash-flow management, the portfolio manager regularly rebalances the fund, returning the portfolio to its targeted allocation.

2 These portfolios seek to provide both capital appreciation and income by investing in three major asset classes: stocks, bonds, and cash. Conservative-allocation portfolios typically have 20% to 50% of assets in stocks and 50% to 80% of assets in bonds and cash. Moderate-allocation portfolios typically have 50% to 70% of assets in stocks and 30% to 50% of assets in bonds and cash. Source: Morningstar, Inc.

Figure 4. Comparing results of monthly rebalancing versus never rebalancing for hypothetical 60% stock/40% bond portfolio: 1926–2010

1926–2010	Rebalanced monthly	Never rebalanced
Maximum stock weighting	68%	99%
Minimum stock weighting	51%	36%
Average stock weighting	60%	84%
Final stock weighting	62%	98%
Average annualized return	8.6%	9.2%
Annualized standard deviation	12.1%	14.4%

Notes: Performance data shown here represent past performance, which is not a guarantee of future results. Investment returns will fluctuate. This hypothetical illustration does not represent the return on any particular investment. Stocks are represented by the Standard & Poor's 90 from 1926 through March 3, 1957; the S&P 500 Index from March 4, 1957, through 1974; the Wilshire 5000 Composite Index from January 1, 1975, through April 22, 2005; and the MSCI US Broad Market Index from April 23, 2005, through December 31, 2010. Bonds are represented by the S&P High Grade Corporate Index from 1926 through 1968; the Citigroup High Grade Index from 1969 through 1972; the Lehman Long-Term AA Corporate Index from 1973 through 1975; and the Barclays Capital U.S. Aggregate Bond Index from 1976 through 2010. This analysis assumes no additional contributions, withdrawals, or taxes. It also assumes that dividend payments were reinvested in equities and that interest payments were reinvested in bonds.

Source: Vanguard.

A trade-off: Losing the opportunity for more tax-efficient portfolio construction

Single-fund investment options offer many benefits, but if an investor's portfolio consists of both taxable and tax-advantaged accounts and the goal is to maximize the portfolio's after-tax return, then a single-fund approach may be inferior to one in which the portfolio invests in underlying component funds that are placed in accounts appropriate to the funds' relative tax efficiency. In this case, the investor should assess the trade-off of the simplicity of an all-in-one fund with the opportunity to construct a more tax-efficient portfolio.

Over the long term, managing a portfolio's asset allocation is much more important than managing exclusively for taxes. However, awareness of tax efficiency is integral to creating and managing a portfolio. Vanguard research has shown that, of all the expenses investors pay, taxes can potentially take the biggest bite out of total returns (Donaldson and Kinniry, 2008). Investors should thus certainly consider tax efficiency when deciding among

Must an all-in-one fund be an all-or-nothing choice?

Holding a single-fund option in a portfolio does not preclude an investor from holding other funds as well. All-in-one funds can be incorporated into a broader portfolio construction framework, but the presence of other funds increases the complexity of the portfolio's overall management.³

For example, an investor saving for retirement might allocate the majority of his or her assets in an employer-sponsored plan to a target-date fund. The investor might also have a strong desire for flexibility, to accommodate his or her individualized beliefs and investment preferences. Although this investor might wish to exert more control over the individual investment selections by adding holdings in addition to the all-in-one fund, this approach adds complexity, including the need for cash-flow management and rebalancing.

The bottom line is that all-in-one funds can be appropriate for many investors, helping to meet a wide variety of needs such as retirement or college. While these funds can serve as a prudent investment strategy for an entire portfolio, they can also provide a strong foundation for a customized portfolio, if the investor is willing to spend additional time making ongoing portfolio management decisions.

³ See Young (2011), for an assessment of the impact of target-date funds on defined contribution (DC) plans and of the way these funds are being used by participants, based on an analysis of recordkeeping data from 2,100 DC plans and 3.4 million participant accounts maintained by Vanguard. The paper focuses on two types of investors: "pure" investors holding a single target-date fund, often as a result of the plan's default designation; and "mixed" investors, who elected to combine a target-date fund with other plan options of their own choosing.

individual investments, whether those include stock, bond, or balanced funds, or other investment vehicles. Asset allocation policy (strategic or tactical), management style (active or passive, for a broad or narrow market, for example), and underlying investments (taxable or municipal bonds) can vary widely among single-fund investment options, and these factors directly affect the investor's after-tax return. All-in-one funds in which the equity components seek to track broad-market indexes, for instance, are by nature more tax-efficient than similar funds that hold actively managed stock funds. Typically, however, single-fund investments gain their bond exposure through taxable bonds. Although this is not an issue for tax-advantaged accounts (such as traditional or Roth IRAs), it is a significant consideration for taxable account holdings.

For investors who hold both taxable and tax-advantaged accounts and seek to maximize the portfolio's overall tax efficiency, personalizing the portfolio by following a proper "asset location" framework (and managing the portfolio over time) can help maximize wealth accumulation over the long term. The asset location decision involves deciding whether to hold an investment in a taxable or a tax-advantaged account. The objective of asset location is to hold tax-efficient investments (such as broad-market index funds/exchange-traded funds, and tax-managed funds) in taxable accounts and tax-inefficient investments (such as taxable bonds and actively managed stock funds) in tax-advantaged accounts.⁴ Asset location becomes more meaningful when tax-advantaged and taxable accounts are weighted about equally in a portfolio. It is also a more relevant consideration for investors with long time horizons, since the primary benefit of the asset location decision is the deferral (or elimination) of taxes for as long as possible.

For those who hold a combination of taxable and tax-advantaged accounts, all-in-one funds do not allow investors to take advantage of asset location as efficiently, or to strategically realize losses in specific market segments when it might be beneficial. Creating and maintaining such an "unbundled" portfolio of individual investments representing various asset classes provides this sort of flexibility, but it also means the investor is responsible for constructing the original portfolio and for its ongoing management.

Investors who believe they may be subject to behavioral tendencies that can lead to unproductive portfolio transactions, such as performance-chasing and market-timing, or investors who are only halfheartedly committed to a rebalancing strategy will most likely dilute the additional benefits of improving after-tax returns through appropriate asset location. Some investors may consider hiring an investment advisor to handle the portfolio management responsibilities and help them avoid counterproductive tendencies; however, the benefits of this decision should be closely weighed against the additional advisory management costs.

Conclusion

Investors can approach portfolio construction in several ways, including self-managing a portfolio or hiring a professional investment advisor. For those investors who lack the time, willingness, or aptitude to handle ongoing portfolio management responsibilities, yet recognize the importance of asset allocation and risk-control techniques such as diversification and rebalancing, all-in-one funds provide a simple alternative. These funds are designed to offer broad diversification across and within asset classes, based either on a target time horizon or a predetermined static allocation.

4 For further discussion on asset location, see Jaconetti (2007).

These single-fund options can also help remove some of the hurdles associated with portfolio management, such as the inclination of some investors to engage in performance-chasing or market-timing. Each fund also follows a strict rebalancing strategy to help reduce the portfolio's exposure to increased risk. A main drawback of these funds, however, is the limited opportunity for investors to better construct the portfolio to maximize tax efficiency.

All-in-one funds can be appropriate for many investors, helping to meet a wide variety of needs, such as retirement or college, and they can be an excellent foundation on which to build a portfolio. Thus, deciding which strategy is a better fit comes down to the investor's desired level of engagement in the portfolio's construction and ongoing management.

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