

Vanguard[®]

Vanguard's principles for investing success

Switzerland

For professional investors only. Not to be given to retail investors.

The value of investments, and the income from them, may fall or rise and investors may get back less than they invested.

Successful investment management companies base their business on a core investment philosophy, and Vanguard is no different. Although we offer many specific strategies through both internally and externally managed funds, an overarching theme runs through the investment guidance we provide to clients—focus on those things within your control.

Instead, too many focus on the markets, the economy, manager ratings, or the performance of an individual security or strategy, overlooking the fundamental principles that we believe can give them the best chance of success.

These principles have been intrinsic to our company since its inception, and they are embedded in its culture. For Vanguard, they represent both the past and the future—enduring principles that guide the investment decisions we help our clients make.

| | | |
|-------------------|--|----|
| Goals | Create clear, appropriate investment goals An appropriate investment goal should be measurable and attainable. Success should not depend upon outside investment returns, nor upon impractical saving or spending requirements. | 2 |
| Balance | Develop a suitable asset allocation using broadly diversified funds A sound investment strategy starts with an asset allocation suitable for the portfolio's objective. The allocation should be built upon reasonable expectations for risk and returns, and should use diversified investments to avoid exposure to unnecessary risks. | 6 |
| Cost | Minimize cost Markets are unpredictable. Costs are forever. The lower your costs, the greater your share of an investment's return. And research suggest that lower-cost investments have tended to outperform higher-cost-alternatives. To hold onto even more of your return, manage for tax efficiency. You can't control the markets, but you can control the bite of costs and taxes. | 12 |
| Discipline | Maintain perspective and long-term discipline Investing can provoke strong emotions. In the face of market turmoil, some investors may find themselves making impulsive decisions or, conversely, becoming paralyzed, unable to implement an investment strategy or to rebalance a portfolio as needed. Discipline and perspective are the qualities that can help investors remain committed to their long-term investment programs through periods of market uncertainty. | 17 |

Goals



Create clear, appropriate investment goals

An appropriate investment goal should be measurable and attainable. Success should not depend upon outside investment returns, nor upon impractical saving or spending requirements.

Defining goals clearly and being realistic about ways to achieve them can help protect investors from common mistakes that derail their progress. Here we argue that:

- Recognizing constraints, especially those that involve risk-taking, is essential to developing an investment plan.
- A basic plan will include specific, attainable expectations about contribution rates and monitoring.
- Discouraging results often come from chasing overall market returns, an unsound strategy that can seduce investors who lack well-grounded plans for achieving their goals.
- Without a plan, investors can be tempted to build a portfolio based on transitory factors such as fund ratings—something that can amount to a “buy high, sell low” strategy.

Defining the goal and constraints

A sound investment plan—or policy statement, for institutions—begins by outlining the investor’s objective as well as any significant constraints. Defining these elements is essential because the plan needs to fit the investor. Copying other strategies can prove unwise. Because most objectives are long-term, the plan should be designed to endure through changing market environments. It should be flexible enough to adjust for unexpected events along the way. If the investor has multiple goals (for example, paying for both retirement and a child’s college expenses), each needs to be accounted for. Once the plan is in place, the investor should evaluate it at regular intervals.

Figure 1. Example of a basic framework for an investment plan

| | |
|----------------------------------|--|
| Objective | Save CHF 1,000,000 for retirement, adjusted for inflation. |
| Constraints | 30-year horizon. |
| | Moderate tolerance for market volatility and loss; no tolerance for nontraditional risks. ¹ |
| | Current portfolio value: CHF 50,000. |
| | Monthly net income of CHF 4,000; monthly expenses of CHF 3,000. |
| | Consider the effect of taxes on returns. |
| Saving or spending target | Willing to contribute CHF 5,000 in the first year. |
| | Intention to raise the contribution by CHF 500 per year, to a maximum of CHF 10,000 annually. |
| Asset allocation target | 70% allocated to diversified equity funds; 30% allocated to diversified bond funds. |
| | Allocations to global investments as appropriate. |
| Rebalancing methodology | Rebalance annually. |
| Monitoring and evaluation | Periodically evaluate current portfolio value relative to savings target, return expectations and long-term objective. |
| | Adjust as needed. |

This example is completely hypothetical. It does not represent any real investor and should not be taken as a guide. Depending on an actual investor’s circumstances, such a plan or investment policy statement could be expanded or consolidated. For example, many financial advisors or institutions may find value in outlining the investment strategy, i.e., specifying whether tactical asset allocation will be employed, whether actively or passively managed funds will be used, and the like.

Source: Vanguard.

¹ There are many definitions of risk, including the traditional definitions (volatility, loss, and shortfall) and some nontraditional ones (liquidity, manager, and leverage). Investment professionals commonly define risk as the volatility inherent to a given asset or investment strategy. For more on the various risk metrics used in the financial industry, see Ambrosio (2007).

Most investment goals are straightforward—saving for retirement, preserving assets, funding a pension plan, or meeting a university’s spending requirements, for example. Constraints, on the other hand, can be either simple or complex, depending on the investor and the situation. The primary constraint in meeting any objective is the investor’s tolerance for market risk. Importantly, risk and potential return are generally related, in that the desire for greater return will require taking on greater exposure to market risk.

The investment time horizon is another key constraint. For example, a university endowment with a theoretically infinite horizon might take some risks that would be unwise for an investor looking to fund a child’s college education. Other constraints can include exposure to taxes, liquidity requirements, legal issues, or unique factors such as a desire to avoid certain investments entirely. Because constraints may change over time, they should be closely monitored.

The danger of lacking a plan

Without a plan, investors often build their portfolios bottom-up, focusing on picking individual investments rather than on how the portfolio as a whole is serving the objective. Another way to characterize this process is “fund collecting”: These investors are drawn to evaluate a particular fund and if it seems attractive, they buy it, often without thinking about how or where it may fit within the overall allocation.

While paying close attention to each investment may seem logical, this process can lead to a collection of holdings that doesn’t serve the investor’s ultimate needs. As a result, the portfolio may end up concentrated in a certain market sector, or it may have so many holdings that portfolio oversight becomes difficult. Most often, investors are led into such imbalances by common, avoidable mistakes such as performance-chasing, market-timing or reacting to market ‘noise’.

The key take-away

The best way to work toward an investment goal is to start by defining it clearly, take a level-headed look at the means of getting there, and then create a detailed, specific plan. Being realistic is essential to this process: Investors need to recognize their constraints and understand the level of risk they are able to accept.

They also need to be realistic about the markets, because research has shown that pinning one's hopes on outsize market returns—or on finding some investment that will outperform the markets—is not the most likely road to success.

Balance



Develop a suitable asset allocation using broadly diversified funds

A sound investment strategy starts with an asset allocation suitable for the portfolio's objective. The allocation should be built upon reasonable expectations for risk and returns, and should use diversified investments to avoid exposure to unnecessary risks.

Both asset allocation and diversification are rooted in the idea of balance. Because all investments involve risk, investors must manage the balance between risk and potential reward through the choice of portfolio holdings. Here we argue that:

- A diversified portfolio's proportions of equities, bonds, and other investment types determine most of its return as well as its volatility.
- Attempting to escape volatility and near-term losses by minimizing equity investments can expose investors to other types of risk, including the risks of failing to outpace inflation or falling short of an objective.
- Realistic return assumptions—not hopes—are essential in choosing an allocation.
- Leadership among market segments changes constantly and rapidly, so investors must diversify both to mitigate losses and to participate in gains.

The importance of asset allocation

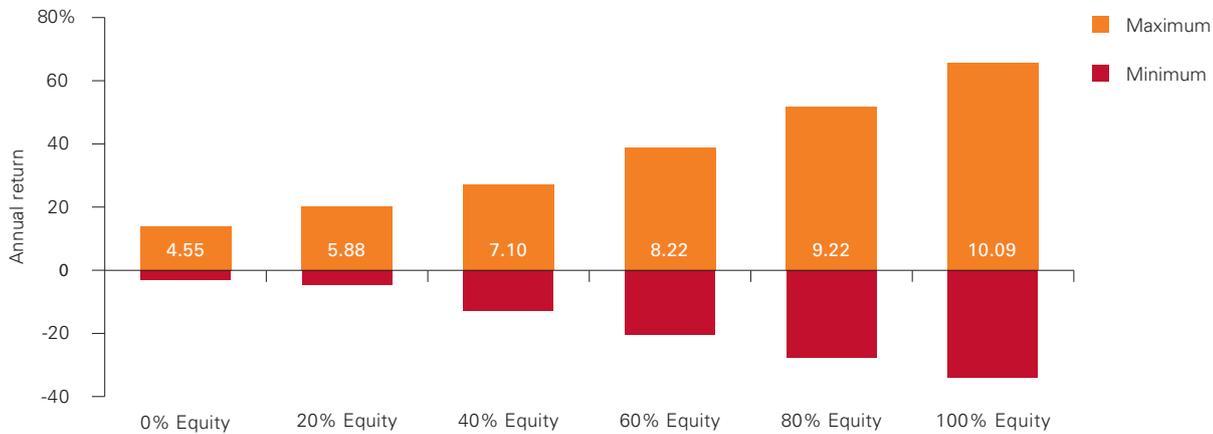
When building a portfolio to meet a specific objective, it is critical to select a combination of assets that offers the best chance for meeting that objective, subject to the investor's constraints.² Assuming that the investor uses broadly diversified holdings, the mixture of those assets will determine both the returns and the variability of returns for the aggregate portfolio.

This has been well documented in theory and in practice. For example, in a paper confirming the seminal 1986 study by Brinson, Hood, and Beebower, Wallick et al. (2012) showed that the asset allocation decision was responsible for the majority of a diversified portfolio's return patterns over time across 4 countries – the United States, Canada, the United Kingdom, and Australia.

In Figure 2, we show a simple example of this relationship using two asset classes—Swiss equities and Swiss bonds—to demonstrate the impact of asset allocation on both returns and the variability of returns. The middle numbers in the chart show the average yearly return since 1985 for various combinations of equities and bonds. The bars represent the best and worst one-year returns. Although the returns shown would not be expected in any given year, it does illustrate the relationship between risk and return and the increased risk of loss that has accompanied the higher average long-term returns of more equity-centric portfolios.

² For asset allocation to be a driving force of an outcome, one must implement the allocation using vehicles that approximate the return of market indices. This is because market indices are commonly used in identifying the risk and return characteristics of asset classes and portfolios. Using a vehicle other than one that attempts to replicate a market index will deliver a result that may differ from the index result, potentially leading to outcomes different from those assumed in the asset allocation process. To make the point with an extreme example: Using a single stock to represent the equity allocation in a portfolio would likely lead to very different outcomes from either a diversified basket of stocks or any other single stock.

Figure 2. Risk defines the spectrum of returns



Notes: Equities are represented by the MSCI Switzerland Index and bonds are represented by Citigroup WGBI Switzerland Jan.1985 – Dec.1998; Barclays Swiss Franc Aggregate Jan.1999 and thereafter. All data are in CHF to December 31, 2013.

Equities are risky—and so is avoiding them

Equities are inherently more volatile than investments such as bonds or cash instruments. This is because equity owners are the first to realize losses stemming from business risk, while bond owners are the last. In addition, bond holders are contractually promised a stated payment, while equity holders own a claim on future earnings. But the level of those earnings, and how the company will use them, are beyond the investor's control. Investors thus must be enticed to participate in a company's uncertain future, and the "carrot" that entices them is higher expected or potential return over time.

Figure 2 also demonstrates the short-term risk of owning equities. Even a portfolio with only 60% its assets in equities would have lost more than 20% of its overall value in at least one year. Why not simply minimize the possibility of loss and finance all goals using low-risk investments? Because the attempt to escape market volatility associated with equity investments by investing in more stable, but lower-returning assets such as government bills can expose a portfolio to other, longer-term risks.

One such risk is "opportunity cost," more commonly known as shortfall risk. Because the portfolio lacks investments that carry higher potential return, it may not achieve growth sufficient to finance ambitious goals over the long term. Or it may require a

level of saving that is unrealistic, given more immediate demands on the investor's income or cash flow. Another risk is inflation: The portfolio may not grow as fast as prices rise, so that the investor loses purchasing power over time. For longer-term goals, inflation can be particularly damaging, as its effects compound over long time horizons. Therefore, a client concerned with growing their portfolio in excess of inflation may consider a higher allocation to equities. For example, Bennyhoff (2009) showed that over a 30-year horizon, an average inflation rate of 3% would reduce a portfolio's purchasing power by more than 50%.³ For investors with longer time horizons, inflation risks may actually outweigh market risks, often necessitating a sizable allocation to investments such as equities.

Use reasonable assumptions in choosing an allocation

Just as important as the combination of assets that are used to construct a portfolio are the assumptions that are used to arrive at the asset allocation decision. By this we mean using realistic expectations for both returns and volatility of returns. Using long-term historical data may serve as a guide, but investors must keep in mind that markets are volatile and it is unrealistic to use static return assumptions. History does not repeat and the market conditions at a particular point in time can have an important influence on an investor's returns. For example, over the period studied since 1985, Swiss equities returned an average of 10.1% annually and Swiss bonds 4.6% (based on the same market benchmarks used in Figure 2). For this 29-year period, a 60%-equity, 40%-bond portfolio rebalanced annually would have returned 8.2% a year on average if it matched the markets' return.

But looking at a shorter span, the picture changes. For example, from 1995 through 2013, Swiss equities returned an average of 8.4% a year, while bonds returned 4.4%. Over this period, the 60% equity and 40% bond portfolio rebalanced periodically would have generated an average annual return of 7.2%, slightly more than 1% less than the longer-term average. Contrast those periods with the period from 2005 through 2013, when Swiss equities provided a 3.1% average return and Swiss bonds 3.5%; then the same balanced portfolio would have averaged 3.5% a year.

³ While equities have historically done a good job growing a portfolio in excess of inflation over time, investors more concerned with inflation over shorter horizons may want to consider something with a more direct relationship to inflation such as inflation linked bonds (i.e. linkers).

In practice, investors will always need to decide how to apply historical experiences to current market expectations. For example, as reported in Vanguard's Economic and Investment Outlook (2013), returns over the next decade may look very different from the examples above as a result of current market conditions. Particularly for bonds, the analysis provided in the paper suggests that returns may be lower than what many investors have grown accustomed to. The implication is that investors may need to adjust their asset allocation assumptions and contribution/spending plans to meet a future objective that could previously have seemed easily achievable based on historical values alone.

Diversify to manage risk

Diversification is a powerful strategy for managing traditional risks.⁴ Diversifying across asset classes reduces a portfolio's exposure to the risks common to an entire class. Diversifying within an asset class reduces exposure to risks associated with a particular company, sector, or segment.

In practice, diversification is a rigorously tested application of common sense: Markets will often behave differently from each other – sometimes marginally, sometimes greatly – at any given time. Owning a portfolio with at least some exposure to many or all key market components ensures the investor of some participation in stronger areas while also mitigating the impact of weaker areas. See for example Figure 3, where we show annual returns for a variety of asset and sub-asset classes. The details of Figure 3 don't matter so much as its colourful patchwork, which shows how randomly leadership can shift among markets and market segments.

Performance leadership is quick to change, and a portfolio that diversifies across markets is less vulnerable to the impact of significant swings in performance by any one segment. This is why we believe that most investors are best served by significant allocations to investments that represent broad markets such as Swiss equities, Swiss bonds, global equities, and global bonds.⁵

⁴ Diversification carries no guarantees, of course, and it specifically may not mitigate the kinds of risks associated with illiquid assets, counterparty exposure, leverage or fraud.

⁵ We believe that if global bonds are to play an enduring role in a diversified portfolio, the currency exposure should be hedged. For additional perspective, including an analysis of the impact of currency on the return characteristics of global bonds, see Philips et al. (2012) and Westaway and Thomas (2013).

Figure 3. Market segments display seemingly random patterns of performance and return variability

Annual returns for various investment categories ranked by performance, best to worst: 2004–2013

| 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------|--------|--------|--------|---------|--------|--------|---------|--------|--------|
| 15.81% | 55.94% | 22.80% | 29.64% | 4.18% | 73.87% | 14.12% | 4.87% | 18.91% | 29.15% |
| 14.69% | 35.76% | 18.77% | 6.77% | 3.96% | 40.58% | 9.10% | 4.68% | 16.12% | 24.83% |
| 14.40% | 34.61% | 16.64% | 2.43% | -34.10% | 34.49% | 7.48% | -4.23% | 15.65% | 23.93% |
| 9.65% | 34.54% | 12.55% | 2.09% | -43.29% | 29.99% | 4.18% | -4.62% | 14.46% | 23.90% |
| 6.29% | 27.84% | 11.60% | -0.29% | -43.45% | 25.71% | 3.60% | -4.83% | 14.17% | 23.59% |
| 4.24% | 27.19% | 8.88% | -1.63% | -44.44% | 24.03% | 3.56% | -5.75% | 14.00% | 23.52% |
| 4.05% | 26.06% | 6.95% | -2.36% | -45.10% | 22.97% | 1.76% | -7.08% | 13.97% | -0.55% |
| 3.77% | 2.98% | 0.13% | -3.46% | -47.08% | 6.95% | -0.24% | -8.41% | 5.19% | -1.14% |
| 2.25% | 1.69% | -0.10% | -6.21% | -55.98% | 4.46% | -1.02% | -17.91% | 4.46% | -5.04% |

Top-performing asset class

Bottom-performing asset class

| | | |
|------------------|------------------------|-----------------------|
| Small-cap equity | Emerging market equity | Mid-cap equity |
| Swiss bonds | Value equity | Large-cap equity |
| Growth equity | Swiss equity | Global Bonds (hedged) |

Notes: Large-cap equity: MSCI World Small-cap Index, Mid-cap equity: MSCI World Mid-cap Index, Small-cap equity: MSCI World Small-cap Index, Value equity: MSCI World Value Index, Growth equity: MSCI World Growth Index, Swiss equity: MSCI Switzerland Index, Emerging market equity: MSCI Emerging Markets Index, Swiss Bonds: Barclays Swiss Franc Aggregate Index, Global Bonds (hedged): Hedged Barclays Global Aggregate Index.

The key take-away

Asset allocation and diversification are powerful tools for achieving an investment goal. A portfolio’s allocation among asset classes will determine a large proportion of its return—and also the majority of its volatility risk. Broad diversification reduces a portfolio’s exposure to specific risks while providing opportunity to benefit from the markets’ current leaders.

Cost



Minimize cost

You can't control the markets, but you can control the bite of costs and taxes. The lower your costs, the greater your share of an investment's return. In addition, research suggests that lower-cost investments have tended to outperform higher-cost alternatives. To hold onto even more of your return, manage for tax efficiency. It is essential to consider cost when choosing investments and we argue that:

- Higher costs can significantly depress a portfolio's growth over long periods.
- Costs create an inevitable gap between what the markets return and what investors actually earn—but keeping expenses down can help to narrow that gap⁶.
- Lower-cost mutual funds have tended to perform better than higher-cost funds over time.
- Low-cost indexed investments can be a useful tool for cost control.

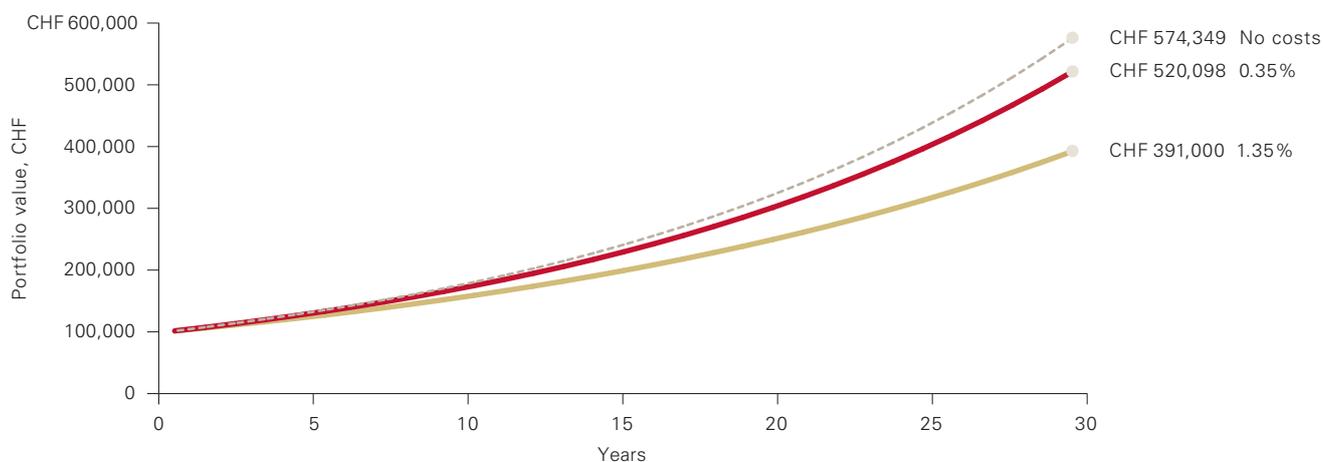
⁶ For more information on the relationship between cost and return, see Westaway et al, 2013.

Why cost matters

Minimizing cost is a critical part of every investor's toolkit. This is because in investing, there is no reason to assume that you get more if you pay more. Instead, every cent paid for management fees or trading commissions is simply a cent less earning potential return. The key point is that—unlike the markets—costs are largely controllable.

Figure 4 illustrates how strongly costs can affect long-term portfolio growth. It depicts the impact of expenses over a 30-year horizon in which a hypothetical portfolio with a starting value of CHF 100,000 grows an average of 6% annually. In the low-cost scenario, the investor pays 0.35% of assets every year, whereas in the high-cost scenario, the investor pays 1.35%, or the approximate asset-weighted average expense ratios of index and active mutual funds available for sale in Switzerland as of December 31, 2013. The potential impact on the portfolio balances over three decades is striking—a difference of over CHF 129,098 (interestingly, more than the portfolio's starting value) between the low-cost and high-cost scenarios.

Figure 4. The long-term impact of investment costs on portfolio balances



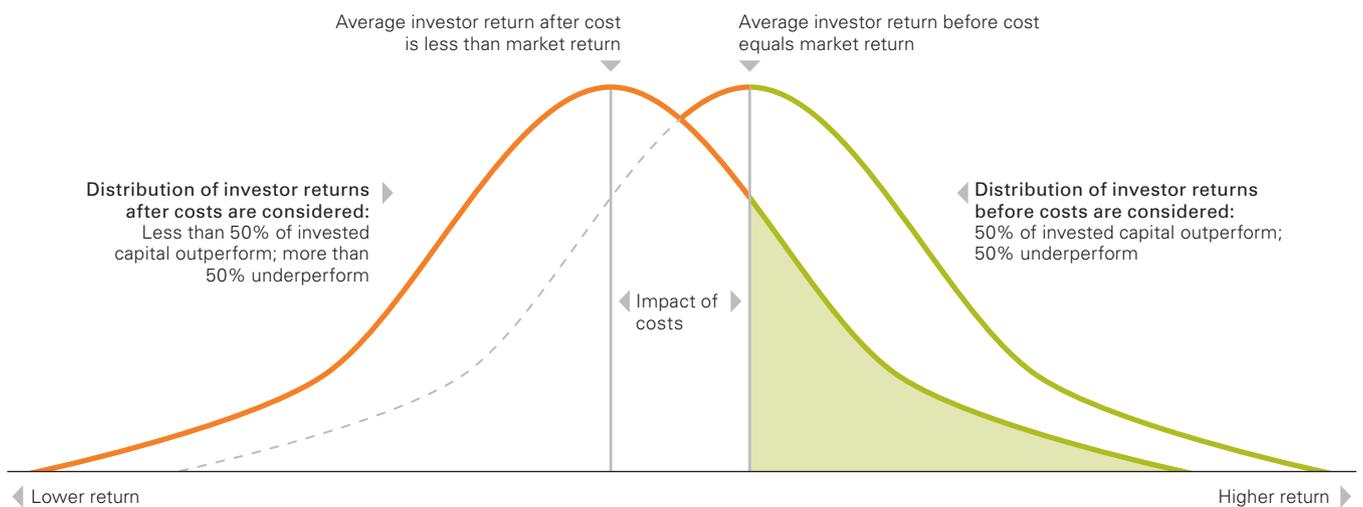
Note: The portfolio balances shown are hypothetical and do not reflect any particular investment. The final account balances do not reflect any taxes or penalties that might be due upon distribution.

Source: Vanguard.

Figure 5 looks at the impact of costs in another way – by illustrating how they cause an investor’s aggregate return to trail the overall market return. It shows a bell-shaped distribution of returns, from lowest to highest, with the average return marked by a vertical line. In any market, the average return for all investors before costs is, by definition, equal to the market return. Once various costs are accounted for, however, the distribution of returns realised by investors moves to the left, because their aggregate return is now less than the market’s. The actual return for all investors combined is thus the market return reduced by all costs paid. One important implication of this is that, after costs, fewer investors are able to outperform the markets (occupying the green area in Figure 5).

Figure 5. The long-term impact of investment costs on portfolio balances

Hypothetical distributions of market returns before and after costs



Note: These distributions are theoretical and do not reflect any set of actual returns.

Source: Vanguard.

Reduce cost to help improve return

There are two ways to shift an investor's after-cost return to the right, toward the green region. The first is to earn higher returns than the average investor by finding a winning manager or a winning investment strategy (an 'alpha' or 'skill-based' approach).

Unfortunately, research shows that this is easier said than done (Westaway et al. 2013). The second way is to minimise expenses. Figure 6 highlights six studies evaluating the impact of costs on performance. The common thread among them is that higher costs lead to worse performance for the investor.

Figure 6. Higher costs make for unhappy news: Studies document effects on performance

| | |
|------|--|
| 1996 | Martin J. Gruber, in a study on growth in the mutual fund industry, found that high fees were associated with inferior performance, and also that better-performing managers tended not to raise fees to reflect their success. After ranking funds by their after-expense returns, Gruber reported that the worst performers had the highest average expense ratio and that the return differences between the worst and best funds exceeded the fee differences. |
| 1997 | Mark Carhart followed with a seminal study on performance persistence in which he examined all of the diversified equity mutual funds in existence between 1962 and 1993. Carhart showed that expenses proportionally reduce fund performance. |
| 2002 | Financial Research Corporation evaluated the predictive value of various fund metrics, including past performance, Morningstar rating, alpha, and beta, as well as expenses. The study found that a fund's expense ratio was the most reliable predictor of its future performance, with low-cost funds delivering above-average performance in all of the periods examined. |
| 2010 | Christopher B. Phillips and Francis M. Kinniry Jr. showed that using a US fund's Morningstar rating as a guide to future performance was less reliable than using the fund's expense ratio. Practically speaking, a fund's expense ratio is a valuable guide (although of course not a certain one), because the expense ratio is one of the few characteristics that is known in advance. |
| 2011 | Daniel W. Wallick and colleagues evaluated the associations between a US fund's performance and its size, age, turnover, and expense ratio. They found that the expense ratio was a significant factor associated with future alpha (return above that of a market index). |
| 2013 | Peter Westaway and colleagues document that costs matter in the universe of funds available to Swiss investors. They find a higher fund total expense ratio is associated with lower excess returns over prospectus benchmarks. |

Indexing can help minimise costs

If – all things being equal – low costs are associated with better performance, then costs should play a large role in the choice of investments. Index funds and index exchange-traded funds (ETFs) tend to have costs among the lowest in the investment fund industry. As a result, indexed investment strategies can actually give investors the opportunity to outperform higher-cost active managers – even though an index fund simply seeks to track a market benchmark, not to exceed it. Although some actively managed funds have low costs, as a group they tend to have higher expenses. This is because of the research required to select securities for purchase and the generally higher portfolio turnover associated with trying to beat a benchmark.⁷

Tax-management strategies can enhance after-tax returns

Taxes are another potentially significant cost. For many investors, it may be possible to reduce the impact by allocating investments strategically among taxable and tax-advantaged accounts. The objective of this “asset location” approach is to hold relatively tax-efficient investments, such as broad-market equity index funds or ETFs, in taxable accounts while keeping tax-inefficient investments, such as taxable bonds, in retirement accounts.

The key take-away

Investors cannot control the markets, but they can often control what they pay to invest. And that can make an enormous difference over time. The lower your costs, the greater your share of an investment’s return, and the greater the potential impact of compounding.

Research also suggests that lower-cost investments have tended to outperform higher-cost alternatives.

⁷ Turnover, or the buying and selling of securities within a fund, results in transaction costs such as commissions, bid-offer spreads, and opportunity cost. These costs, which are incurred by every fund, are not spelled out for investors but do detract from net returns. For example, a fund with abnormally high turnover would be likely to incur large trading costs. All else equal, the impact of these costs would reduce total returns realised by the investors in the fund.

Discipline



Maintain perspective and long-term discipline

Investing can provoke strong emotions. In the face of market turmoil, some investors may find themselves making impulsive decisions or, conversely, becoming paralyzed, unable to implement an investment strategy or to rebalance a portfolio as needed. Discipline and perspective are the qualities that can help investors remain committed to their long-term investment programs through periods of market uncertainty.

Here we review the benefits of a disciplined approach to investing and the cost of allowing emotional impulse to undermine it. We argue that:

- Enforcing an asset allocation through periodic rebalancing can help manage a portfolio's risk.
- Spontaneous departures from such an allocation can be costly.
- Attempts to outguess the market rarely pay.
- Chasing winners often leads to a disappointment.
- Simply contributing more money toward an investment goal can be a surprisingly powerful tool.

The case for discipline

Although the asset allocation decision is one of the cornerstones for achieving an objective, it only works if the allocation is adhered to over time and through varying market environments. Periodic rebalancing will be necessary to bring the portfolio back into line with the allocation designed for the objective. In a 2010 paper, Jaconetti, Kinniry, and Zilbering concluded that for most broadly diversified portfolios, the asset allocation should be checked annually or semiannually, and the portfolio should be rebalanced if it has deviated more than 5 percentage points from the target.

Of course, deviations resulting from market movements offer an opportunity to revalidate the targeted asset allocation. However, abandoning an investment policy simply because of these movements can harm progress toward an objective. Figure 7 shows how an investor's risk exposure can grow unintentionally when a portfolio is left

Figure 7. Changes in equity exposure for a rebalanced portfolio and a "drifting portfolio," January 2003–December 2013



Notes: Equities are represented by the MSCI All Country World Index and bonds are represented by the hedged Barclays Global Aggregate Index. All data are in Euros to December 31, 2013.

Source: Vanguard calculations, using data from Thompson Reuters Datastream, Inc.

to drift during a bull market. It compares the equity exposures of two portfolios—one that is never rebalanced and one that is rebalanced twice a year—over changing market environments since 2003. Both of these hypothetical portfolios start at 60% equities, 40% bonds, but four years later the “drifting” portfolio has moved to over 70% equity. That much equity exposure might seem appealing during a bull market, but by late 2007 the portfolio would have faced significantly greater downside risk as the financial crisis began.

Ignore the temptation to alter allocations

In volatile markets, with very visible winners and losers, market-timing is another dangerous temptation. The appeal of market-timing—altering a portfolio’s asset allocation in response to short-term market developments—is strong. This is because of hindsight: An analysis of past returns indicates that taking advantage of market shifts could result in substantial rewards. However, the opportunities that are clear in retrospect are rarely visible in prospect.

Indeed, Vanguard research has shown that while it is possible for a market-timing strategy to add value from time to time, on average these strategies have not consistently produced returns exceeding market benchmarks (Stockton and Shtekhman, 2010). Vanguard is not alone in this finding. Empirical research conducted in both academia and the financial industry has repeatedly shown that the average professional investor persistently fails to time the market successfully.

As Figure 8 shows, the failure of market-timing strategies has not been limited to mutual funds. Investment newsletters, pension funds, investment clubs, and professional market-timers have also failed to demonstrate consistent success. Why is success so elusive? In a word – uncertainty. In reasonably efficient financial markets, the short-term direction of asset prices is close to random. In addition, prices can change abruptly, and the cost of mistiming a market move can be disastrous.

These are groups found to have failed, on average, to successfully time the markets, along with the researchers responsible for the findings. (All the studies are listed in the References.)

Figure 8. Casualties of market-timing

| | | |
|----------------------------|-----------------------|------|
| Asset allocation funds | Becker et al. | 1999 |
| Investment clubs | Barber and Odean | 2000 |
| Pension funds | Coggin and Hunter | 1983 |
| Investment newsletters | Graham and Harvey | 1996 |
| Mutual funds | Chang and Lewellen | 1984 |
| | Henriksson and Merton | 1981 |
| | Kon | 1983 |
| | Treynor and Mazuy | 1966 |
| Professional market timers | Chance and Hemler | 2001 |

Saving/spending more important than market performance

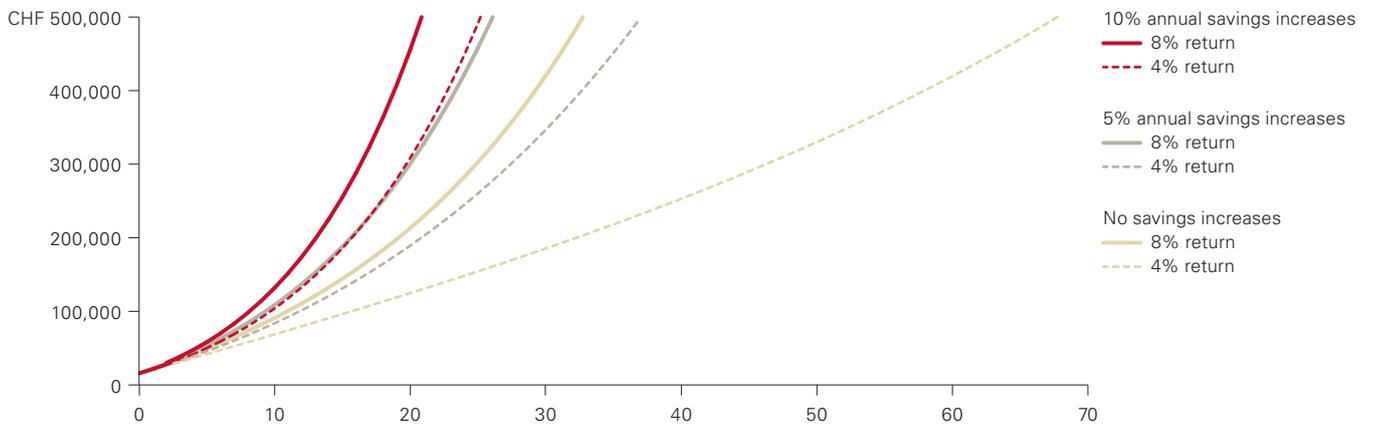
Increasing the savings rate can have a substantial impact on wealth accumulation (Bruno and Zilbering, 2011). To meet any objective, one must rely on the interaction of the portfolio's initial assets, the contribution or spending rate over time, the asset allocation, and the return environment over the duration of the objective. Because the future market return is unknowable and uncontrollable, investors should instead focus on the factors that are within their control, such as asset allocation and the amount contributed to or spent from the portfolio over time.⁸

Figure 9 shows a simple example of the power of increasing contribution rates to meet a given objective. For this example we have an investor who has a goal of CHF 500,000 (in today's Swiss Francs adjusted for inflation), invests CHF 10,000 to start, and – in the baseline case – contributes CHF 5,000 each year (without adjusting for inflation). The example shows varying rates of market return.

The first set of two scenarios assumes that the contribution level is steady, with the investor relying more heavily on the markets to achieve the target. Simply increasing the contribution by 5% each year (CHF 5,250 in year two, CHF 5,513 in year three, etc.) or 10% per year significantly shortens the time needed to meet the CHF 500,000 objective. Note that getting an 8% return while increasing savings by 5% a year

⁸ It is also essential to control costs – another cornerstone of Vanguard's investment philosophy. The time horizon may or may not be within the investor's control.

Figure 9. Increasing the savings rate can dramatically improve results



Notes: This hypothetical example does not represent the return on any actual investment. The calculations assume a starting balance of CHF 10,000, an objective of CHF 500,000, a contribution of CHF 5,000 in the first year, and an annual inflation rate of 2%. Contributions are not adjusted for inflation, but the portfolio balance and the portfolio objective are adjusted for inflation at each year end.

produces almost the same result as getting a 4% return while boosting savings by 10% a year. In real-world terms, the big difference in those two scenarios is risk. An investor pursuing an 8% long-term return would most likely be forced to take on much more market risk than someone looking for 4%.

This reinforces the idea that a higher contribution rate can be a more powerful and reliable contributor to wealth accumulation than trying for higher returns by increasing the risk exposures in a portfolio.

The key take-away

Because investing evokes emotion, even sophisticated investors should arm themselves with a long-term perspective and a disciplined approach. Abandoning a planned investment strategy can be costly, and research has shown that some of the most significant derailleurs are behavioral: the failure to rebalance, the allure of market-timing, and the temptation to chase performance.

Far more dependable than the markets is a program of steady saving. Making regular contributions to a portfolio, and increasing them over time, can have a surprisingly powerful impact on long-term results.

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