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Immediate Lessi Than 1 Year

Mid-Term 4-10 Years

Retirement Savings •

College Savings •

Charitable Giving \$

Wedding costs

Student Loans

• Start-up

· Buying a Home

Short-Term 1-3 Years

Long-Term 10+ Years

BERNSTEIN

Wealth Transfer

## How to Use This Book

This book aims to explain key financial-planning issues and quantify the potential outcomes of strategies you might use to achieve your goals. Our goal is to help you make decisions you can feel good about, whether you're starting with \$50,000, \$500,000, \$5 million, or \$50 million—and whether you're a novice investor, quite sophisticated, or somewhere in between.

You can read from front to back—or you can dip into this book after scanning the Table of Contents or the list of Frequently Asked Questions for the particular problems you are facing today. That's why we organized this book in relatively short sections that can stand on their own, with links to related topics or useful background material, as well as a Glossary.

Each of the four big sections—Your Situation, Your Family, Your Community and World, and Your Investments—includes several types of content. There are essays that explain our approach to financial planning and investing, as well as estate-planning basics and insurance basics. There are case studies of people facing crucial planning challenges: The Young Professional, The Inheritor, The Entrepreneurs, and The Corporate Executive.

We also review key strategies and challenges: making the most of 401(k)s, when to mortgage, when to pay down debt, company stock, executive compensation, education savings plans, life insurance, taxefficient wealth strategies, and inherited IRAs.

Lastly, checklists can help you navigate key financial issues with regard to marriage, a first child, and the sudden acquisition of wealth.

We hope you find it useful.

If you have questions, please contact your Bernstein Advisor.

Bernstein does not provide tax, legal, or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions.

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## It's Your Goals That Count

"I'm a 30-year-old lawyer at a big firm, and I've finally paid off my student loans. Now I have to save for my wedding and buy a house. How much should I be saving for retirement—and at what age should I retire? Would I be okay if I left my firm for a less grueling in-house job?"

"I'm a 45-year-old engineer. My parents recently died, leaving me and my sister \$5 million each. I wasn't expecting so much! Could I upgrade my lifestyle and leave my job, so I can devote myself to bringing clean energy to underdeveloped communities in remote places?"

<sup>14</sup>My husband and I recently received a \$34 million offer for the company we built from scratch together. If we accepted a deal like that, could we buy a bigger, nicer house and live comfortably for the next few years, while we're getting our next business venture up and running? We're both 40 now. How much should we save for retirement—if we ever decide to stop working—and how much can we give to charity and to the kids? <sup>17</sup>

### We hear stories and questions like these all the time.

No matter how you came into your money, being the steward of your wealth can be daunting. The decisions you make now and over the years to come will affect whether you secure the financial independence you desire and attain your other goals.

Everyone is different, so chances are your goals for building and spending your wealth are different from those of your business partners, colleagues, friends, and family. No one's circumstances and goals fit neatly into a one-size-fits-all mold. Your priorities may include enhancing your lifestyle, funding your next business venture, funding the education or future financial security of your children or other family members, funding your own future financial independence, or making the world a better place with charitable gifts, political contributions, or social-impact investments.

Whatever your goals, the financial planning challenges you face are likely to differ from those that your parents faced when they were your age.

The investment landscape is certainly very different: At the time of this writing, bond yields were near all-time lows and global growth was expected to be slower than it was a generation ago.

Also, the increase in average life spans means that your planning horizon is very long—perhaps six decades or more. A lot can change over such an extended time frame, both in the markets and in your own life.

Whether you are 25 or 45, you may not yet know how many dependents you may ultimately have, what your lifestyle will be, or how your career will develop. This uncertainty can make planning more difficult for you than for someone who, say, sold a business or inherited money near retirement age, when his or her personal and family needs were well-defined.

We can help you sort through the issues. This book explains our planning framework for younger investors and strategies to consider. It also provides overviews of financial topics that may be relevant to you, from managing company stock to insurance, estate-planning basics, and tax-efficient charitable-giving strategies.

#### **Taxes Matter**

Your goal should be the best after-tax outcome. Because taxes can make a huge difference to the income you keep each year and the wealth you can accumulate, we incorporate tax considerations into all aspects of our planning advice and investment strategies.

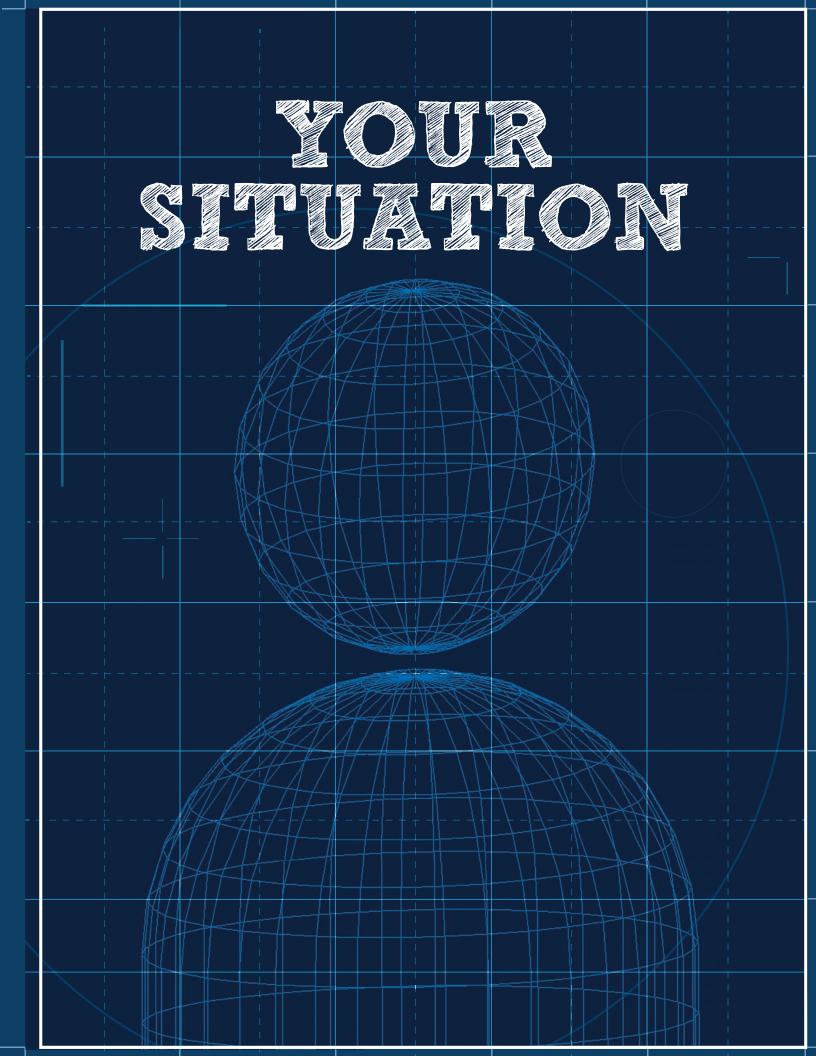
Thus, tax considerations come up again and again throughout this book: in discussions of retirement plans, education savings, charitable strategies, and wealth transfer within families. We provide an overview of wealth transfer strategies within the Your Family section. For more detail on investment-related income-tax strategies, see *The Bernstein Income Tax Playbook*, Bernstein, 2014.

#### **Get Started!**

This book is just the beginning. Some of these strategies are governed by complex tax rules, and the discussions may not touch on every aspect relevant to your situation; you should check with your tax and legal advisors before adopting any of these strategies.

Most people need planning that is tailored to their unique needs and situations. We hope that you'll consider Bernstein for help in customizing your financial plan.

We'd be happy to work with your tax and legal advisors to answer your questions. ■



## **Your Personal Planning Challenge**

Financial planning would be easy if you could know just two things: where your life is headed, and how the markets will perform.

That's quite an "if."

You can Google search what life was like for someone like you in the past, or how the markets have performed. But you can't Google search what will happen in the decades to come—and you can't Google search a financial plan customized to your particular circumstances and goals.

What should you do? If you are 25—or even 45—you still have many potential years of work ahead of you, and you can't know how well your career or business ventures will turn out, or how to plan for them, given your own particular circumstances and goals.

You also can't predict your spending needs. If your next decade proves lucrative, you may become accustomed to a more comfortable or luxurious lifestyle that you will be reluctant to change. If you are less successful than you now hope, your lifestyle may be more modest.

This uncertainty makes long-term planning difficult—but as a younger investor you have the advantage of flexibility.

And if you are young and able to work, your capital is greater than the sum of your various financial accounts and real assets, minus your debt: You also have human capital—the ability to generate financial capital that you can invest, which has significant implications for how you should invest.

### What to Do First

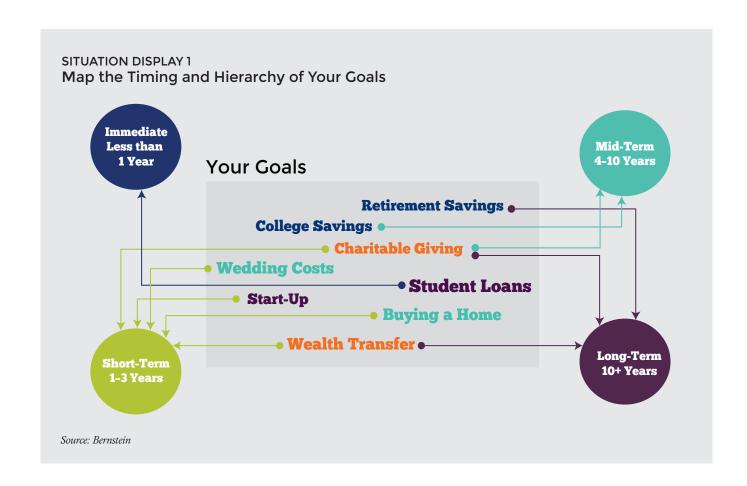
If you have just received a large or unexpected chunk of money, you may want to indulge yourself. Perhaps there's a luxury sports car you've been eyeing, or an African safari you're longing to take.

There are also mandatory expenses—such as paying any taxes due. Other less-than-exciting uses are optional, such as paying off student loans and other debt. You have to figure out whether doing this makes sense for you, given your longer-term goals.

But no matter how you acquired your wealth, it can be difficult to think through your goals, let alone figure out how to achieve them. Just as you need a way to search and organize everything you store in the cloud, you need to map your goals.

Here's a simple guide to mapping out the timing and hierarchy of the broad range of goals that may matter to you (*Situation Display 1*).

Take the time to consider carefully your priorities and where they fall on the timeline, at least for now. Chances are, your priorities will change over time, and you will have to revise your timeline in the years to come.



## **Human Capital and Financial Capital**

Ask a recent college graduate with significant student debt what her most important asset is. She'll probably say her bank account or her car. She would be wrong.

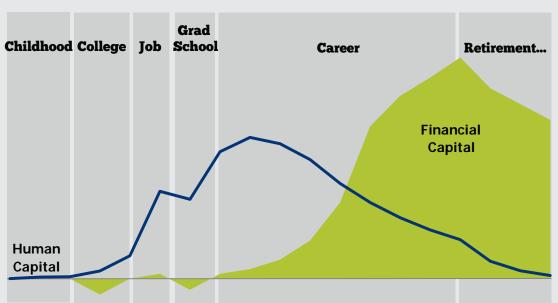
In the absence of a sizable early inheritance or help from her parents, the recent graduate's greatest asset is her human capital: her ability to work and generate future savings that she can invest in financial assets. If she's 25, she may have 40 years or more of employment and saving ahead.

Despite the varieties of human talent, you had no human capital when you were born. Your human capital grew because you, your family, and your community invested in your education (*Situation Display 2*).

It will continue to grow (in terms of annual savings capacity) with work experience, on-the-job training, and perhaps a return to graduate school, but its cumulative value will decline with the number of years of working and saving ahead. When your human capital declines, you may have much more financial capital. Sometimes, your financial and human capital will grow together. More often, one will rise as the other falls.

Human capital matters because it affects your ability to take investment risk. If our recent graduate has a steady job and contributes from every paycheck into her employer's 401(k) plan, her human capital has a steady bond-like character that increases her ability to take investment risk.





Financial capital is defined as cumulative financial assets; human capital is defined as capacity to generate financial capital over the rest of your life; individual lives may vary.

Source: Bernstein

The money she invests in her first year in the company retirement plan—say, \$4,000, plus a \$2,000 employer match—is likely to be only 2.5% of her total lifetime contribution, if her contributions don't grow—and even less, if they do. As a result, she should invest most of her money in return-seeking investments, such as stocks, if she can tolerate the volatility that would bring. That will begin to build her financial capital.

Of course, some people with ample human capital have contingent income—for example, a 25-year-old freelance software developer. Because his income is lumpy (he may make a lot of money for some months, and little or none in others), his savings are likely to be lumpy and uncertain, too. The contingent worker cannot view his savings as bond-like: They are much more like equities.

The contingent worker, like a salaried employee, needs to save for the future and invest for growth, but he generally shouldn't take as much risk as the salaried employee in his long-term savings accounts. He also needs to invest part of his income in more conservative, liquid assets such as cash and short-term bonds that he can tap to pay the rent or mortgage and other basic living expenses between receiving lumpy payments.

Human capital plays a key role in your long-term planning. As we work with clients to develop a financial plan, we first consider how much human capital they have and how they can convert it to financial capital. Next, we develop a plan that works with their likely path of human capital to achieve their long-term goals.

## **Your Target Financial Capital**

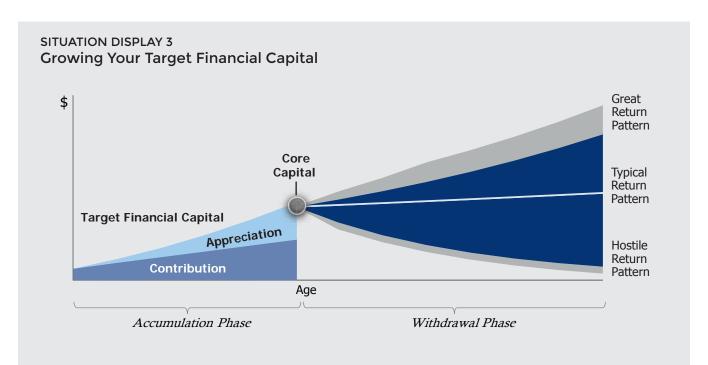
One key element of your long-term plan should be securing your own basic spending needs in the future, after you stop working. While that time may seem too far off to contemplate, we strongly suggest that you make sure that you will have your basic future expenses covered before you commit to other priorities.

Our investment-planning framework aims to ensure that you are on track to secure and sustain what we call your target financial capital: the money you invest to grow over decades (during the accumulation phase) so that you can be highly confident that you will have the resources you require to cover your annual spending needs in the future (during the withdrawal phase).

When you're young and you're working and saving for your future retirement (or financial independence from paid work), the focus is about growing your financial capital. As the left side of *Situation Display 3* shows, you

may have some savings today, perhaps in a 401(k) and/ or a taxable account. That amount will grow over time as you save from current income and earn an investment return on your cumulative savings. Over time, this financial capital will build until you retire (or work and save less).

At retirement, represented by the gray dot, the assets you've accumulated will begin to support your spending for the rest of your life. We call this your required core capital. While your target financial capital aims to fund spending in retirement when you retire—and you may not know when that will be—your required core capital funds spending in retirement after you actually retire. You want to be highly confident that your required core capital will be enough to support the lifestyle you want for as long as you live, even if capital-market returns are poor, and you live a long time.



Target financial capital is based on the growth of a portfolio, plus cumulative additional savings, until retirement, assuming a confidence level that glides up as human capital declines, so that at retirement it is expected to support sustainable future spending after taxes and inflation. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix. Source: Bernstein

If you have a clear picture of what future spending level you desire, we can quantify how much target financial capital you will need to achieve it and advise you on how to get there.

If you don't have a clear picture of what may seem unimaginably far in the future, we can help you quantify how much target financial capital your current plan is likely to create and how much spending it would support.

In either case, this exercise should illuminate the choices you have in determining your own journey.

We are not trying to make you save as much as possible. You need to balance saving for the future with your current needs and desires. You may want to buy a vacation home, give money to family or charity, pay for the kids' education or a wedding, invest in a new business venture, or give up your high-salary job to pursue your dream of being, perhaps, a poet or a yoga teacher.

Knowing that you have taken care of your target financial capital will allow you to proceed without fear to spend other money on those goals. Discovering that your target financial capital is not secure, on the other hand, may prompt you to reassess your priorities. Either way, our goal is to quantify what you need to reach your goals so that you can make well-informed choices.

In helping clients to determine their target financial capital, we focus on several key questions:

- How much do you want to spend from this portfolio to support your lifestyle down the road?
- When do you expect to begin this spending?
- How much investment risk are you willing to take?
- How confident must you be that you'll succeed?

Based on those inputs, we use our Wealth Forecasting System to forecast 10,000 possible capital-market scenarios to identify a plan that would support your desired spending level, even in hostile markets.

This is an iterative process. We typically show clients many potential asset mixes for the wealth accumulation phase and the withdrawal phase to help them find allocations that will meet their goals without creating a greater risk of large, temporary losses than they could tolerate.

We also examine various trade-offs: increasing versus decreasing contributions in the accumulation phase, retiring sooner versus later, and cutting versus adding to annual spending in the withdrawal phase. Clients can choose the combination of requirements that gives them confidence that they will have the money they need to spend down the road—even if market returns are poor.

## **Setting Your Target**

It may be difficult to imagine now what your spending needs will be in 20 or 40 years, let alone how much required core capital you'll need to support them.

Let's say you're 30 years old, you're spending \$200,000 a year after taxes, you own your home, and you expect your children to be independent when you stop working. You might decide that you'll want the same annual spending, adjusted for inflation, 30 years from now, when you start spending from the portfolio.

At that point, you'll be 60. As long as you are in reasonably good health, you should assume that you'll need to spend from the portfolio for 35 years or more.

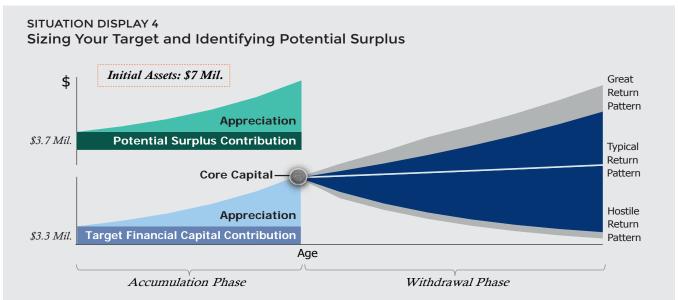
A growth portfolio generally makes sense prior to retirement, but a more conservative allocation generally makes sense later on. Based on these parameters—and after exploring various alternatives—we'd find that you will need approximately \$7 million (in today's dollars) in required core capital to support your spending goals in retirement with 90% confidence.

Now, let's say you just inherited \$7 million or sold a company for that much. Should you invest it all to support your future spending needs?

Of course not! While markets go down as well as up over short time periods, it's reasonable to expect a well-diversified portfolio to grow over the course of a decade—let alone over three decades.

If you invest today in a moderate growth portfolio, with 60% in globally diversified stocks and 40% in municipal bonds, we would suggest that you need \$3.3 million of target financial capital to achieve the \$7 million in required core capital you'll need in 30 years, based on our calculations and assuming that you have ample human capital (*Situation Display 4*). So if you have \$7 million on hand, and you need only \$3.3 million in target financial capital, you have \$3.7 million in potential surplus capital that you could devote to other priorities.

If you have "only" \$3.3 million on hand, you're also highly likely to be able to support the same future spending, although you won't have potential surplus capital to spend today. Even if you have far less than \$3.3 million today to invest to support this future spending, you're likely to be well on your way to achieving your target financial capital because you have 30 more years of saving and investing to build your target financial capital before you enter the withdrawal phase for this portfolio.



Target financial capital is based on the growth of a \$3.3 million portfolio with no withdrawals from age 30 until retirement at age 60, assuming a confidence level that glides up as human capital declines, so that at retirement it is expected to support sustainable future spending of \$200,000 per year, after taxes and inflation. All financial assets in excess of this target financial capital are "potential surplus capital." Allocation is 60% stocks/40% bonds in the accumulation phase and 40% stocks/60% bonds in the retirement phase.

Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. **Data do not represent past** performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix. Source: Bernstein

## Checklist for the Suddenly Wealthy

Whether you've sold a business or inherited substantial wealth, suddenly coming into a large sum of money can be exciting but overwhelming. Here are a few things to take care of.

☐ Set aside funds to pay any tax due: income tax on the business sale or perhaps state inheritance tax.	☐ Identify your potential surplus capital, if any.			
☐ Adjust your estimated tax payments to cover expected distributions, if you inherit an IRA or become a trust beneficiary.	☐ Set aside money to start another company, if you think one is in your future. You won't want to miss an opportunity to start a new venture because you tied up too much capital in illiquid investments or assets.			
■ Buy a toy to reward yourself. If you are worried that you're spending too much, ask for help in estimating what you can truly afford.	☐ Consider estate-planning strategies that can take advantage of valuation discounts on private stock before selling your company.			
☐ Set aside enough target financial capital to satisfy your expected long-term spending needs; if you don't have enough capital to do so now, set aside enough to kick-start your target financial capital.	☐ Consider charitable gifts to offset income taxes incurred from the sale of a company. The charitable gift must be made in the same calendar year of the sale to offset taxes due.			
☐ Pay off high-interest debt, if any.	☐ Consider front-loading your child's			
☐ <b>Review your insurance needs.</b> You may want to add an umbrella insurance policy	<b>college-savings plan.</b> The longer the funds can grow tax-deferred, the better.			
to your home or auto insurance policies to protect yourself from litigation. (Deep pockets attract lawsuits.) If you're selling your business and won't be staying on as an employee,	☐ <b>Hire a lawyer</b> for help writing or revising your will and perhaps creating trusts; take care of the other basic estate documents.			
you may need to buy health insurance. On the other hand, you may no longer need as much life and disability insurance if your policies were meant to cover your income and secure your target financial capital.	□ Hire an accountant. Your financial books need to be clean because wealthier families tend to attract greater attention from the IRS, and the more money you have, the more costly a mistake on your taxes can be.			

## **Trading Off Risk and Return**

Of course, investing 60% in globally diversified stocks and 40% in municipal bonds is just one asset-allocation choice among many. You could put all your money in bonds, all your money in stocks, or various other mixes of the two. You can also diversify more broadly. Each choice has significant implications for how much capital you need to invest to support a given spending rate.

We delve into asset allocation in more detail within the Your Investments section of this book. In general, however, bond-heavy allocations generate lower returns than stock-heavy allocations, so you need less target financial capital if you invest in a stock-heavy allocation.

However, stock-heavy portfolios are much riskier than bond-heavy portfolios: There's a higher probability that their value will decline 20% or more from peak to trough, before perhaps recovering. In our experience, most investors can tolerate a peak-to-trough loss of some size, but there's a threshold loss—often 20%—that prompts them to consider selling at a market bottom.

Some people can live with a one-in-two chance of a 20% peak-to-trough loss. Others can't stand the thought of more than a one-in-10 chance. And still others may find even larger peak-to-trough losses tolerable.

Risk tolerance is a highly individual matter that may reflect your personality and the source of your funds. The better you understand your own risk tolerance, the more likely you are to establish a financial plan that will not expose you to more (or less) risk than you could stand. The last thing you want to do is adopt an asset allocation that is riskier than you can tolerate, incur a large loss, and then sell at the bottom to establish a lower-risk portfolio that is highly unlikely to generate the returns needed to recoup the loss.

That said, there are a few objective factors to consider when setting your asset allocation, which suggest that younger people, as a rule, can take more risk than older people—because time is on the younger investor's side:

**Your human capital.** If you have a steady job, your future ability to save can be thought of as a relatively safe, bond-like asset, which increases your ability to take risk with your financial assets. All else equal, the more years of work you have ahead of you, the greater your human capital is likely to be, relative to your financial capital, and the more investment risk you can take. (See Human Capital and Financial Capital.)

**Your financial capital.** If you have very little financial capital but expect to have significantly more in the future from years of work or a wealth transfer, you can generally take more risk. If you expect to have \$5 million in 20 years, it really won't make much difference to your long-term wealth if you lose the \$5,000 you now have. (Of course, it also won't make much difference to your long-term wealth if you get terrific returns on that \$5,000 in the next year or two.)

As your financial capital accumulates, you benefit more from strong returns—but have more to lose, too. If you have \$5 million now, and you don't expect to obtain any more capital aside from portfolio returns, a 20% portfolio return would increase your capital to \$6 million—and a (20)% return would reduce it to \$4 million. At \$6 million, the portfolio would support a lot more spending!

**Your time horizon.** Up to a point, it generally makes sense to seek more return and take more risk with money you won't need for many years or decades to come than for money you'll need in a few months or years. (See Time Frame Matters.) If you're not going to start spending from your target financial capital for 30 years, you can take more risk than if you're going to start spending from it in two years.

Are you accumulating capital or withdrawing it? Generally speaking, you can take more risk when you're in the accumulation phase than if you are in the withdrawal phase. In the accumulation phase, you can benefit from market drops by investing more at low prices. By contrast, money you withdraw for spending at market bottoms won't be there to participate in a subsequent rebound. Withdrawals during a deep, sustained rebound can significantly erode principal.

## **How Confident Must You Be?**

Some people want to plan with a very high level of confidence even at an early age, treating their human capital as if it is depleted. In general, however, we think there's little point in requiring excessive confidence early on, since as your life unfolds, you'll gain greater certainty about your wealth and spending needs, and may change your plan as a result, perhaps repeatedly.

We have a framework for determining the confidence you need in your plan that takes into account your human capital and how close you are to retirement. Broadly speaking, we think of planning as charting a route to your destination.

If markets are poor in the accumulation phase, there are plenty of things you can do to get back en route to reach your target financial capital—and plenty of time to do them. You could save more, either by cutting spending or by obtaining a higher-paying job, and you could take more risk in pursuit of higher returns, for example by increasing your exposure to stocks.

Because people typically have many ways to get back to target in the accumulation phase—and their destination

itself may change—a plan that would allow you to save enough in typical capital markets might be sufficient early in life (*Situation Display 5*). As you age and your human capital (ability to generate financial capital to invest) declines, you will need to rely more on your portfolio's ability to generate return. The closer you are to your retirement, the more precise your plan should be and the more confidence you'll want to have in it.

But in the withdrawal phase you are already at or near your destination. If market returns are poor, there's relatively little you can do to restore your core capital, aside from cutting spending and increasing portfolio risk. If you start withdrawing from the portfolio at 50, you may be able to return to work at 55, but that option is likely to diminish as you get older and have been out of the labor force for many years.

Furthermore, the money you withdraw for spending during a market slump can seriously deplete your capital. Thus, we generally urge clients to adopt a plan with 90% confidence that their core capital will support their desired spending for life.

## SITUATION DISPLAY 5 You Need a Less Precise Plan When Your Destination Isn't Set

#### **Young Investor**



## **Mature Investor**



## **Wealth Forecasting: A Key Element**

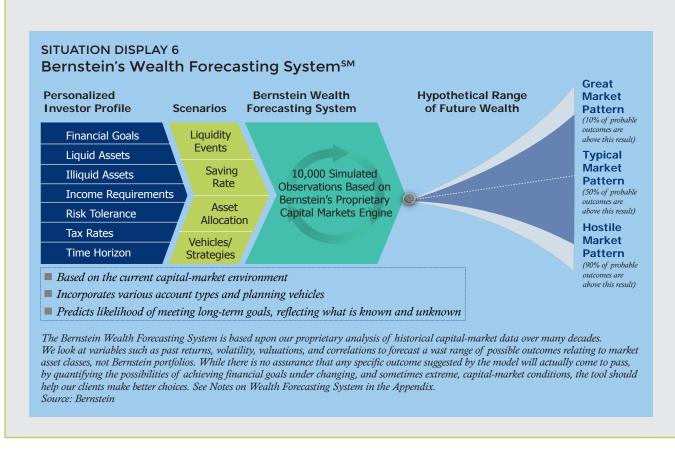
Investment-planning decisions can have ramifications over decades. Retirement plans may involve 40 or more years of saving—and another 30 to 40 years of spending. Education plans can cover up to 18 years of saving and at least four years of spending.

To make prudent decisions about the distant future, investors need a way to estimate the long-term results of potential strategies. Bernstein uses its Wealth Forecasting System to make such estimates (*Situation Display 6*).

Our methodology does not supply answers. It provides perspective on probable outcomes, enabling investors to make well-informed decisions about various strategies.

We start each analysis with the investor's profile and timeline to achieve his or her goals. For college savings goals, we typically assume funds begin to be drawn at age 18. For lifetime spending goals, we use mortality tables to approximate an investor's lifetime¹ to determine how long funds need to last to support spending. Then we build scenarios around the decisions that the investor is weighing. We use our Capital Markets Engine (CME) to project the range of likely outcomes.

Our CME is a quantitative model that simulates 10,000 plausible paths for inflation and a wide range of investment assets. It takes account of the linkages within and among the capital markets, as well as their unpredictability. Our return forecasts



We add three years to most clients' expected life spans because wealthy people tend to live longer than the general population. We can also adjust for a known risk factor, such as an inherited disease.

## **Wealth Forecasting: A Key Element**

derive from observable historical patterns in financial metrics, asset-specific factors, and the potential impact of inflation, deflation, and taxes.

#### Paths from Where?

If we're trying to model sustainable spending from a portfolio starting immediately, we use the CME to simulate 10,000 plausible paths starting from today's conditions. After all, it's not plausible that inflation will be 20% tomorrow if it's 1% today.

But when we are trying to estimate sustainable spending from a portfolio starting 50 years in the future—perhaps when a 20-year-old expects to retire—today's conditions are barely relevant. In such cases, we use the CME to determine the range of long-term normal asset-class returns. We define "normal" as an environment in which all asset classes are fairly priced and in equilibrium with one

another. Typically, it is close to a very long-term historical average.

Our estimates of normal returns begin with an efficient market perspective but include sufficient variability to account for future extreme events.

Most relatively young investors expect to begin spending from target financial capital somewhere between now and 50 years hence. For these investors, we use a weighted average of current and normal conditions to model future sustainable spending levels.

Thus, for someone who planned to start spending in five years, current conditions would have more impact in our model than for someone planning to start spending in 30 years, where normal conditions would have a much greater model weight.

## Sources of Wealth

How you obtained your wealth may also influence how you think about your target financial capital. To illustrate this, we have built three case studies that draw on our experiences with clients over the years.

First we'll meet Priya, a highly paid young professional. She has ample human capital but little financial capital. This case, **The Young Professional**, most simply illustrates the concept of target financial capital.

Next is Ian, **The Inheritor**, who now has ample financial capital and wants to use his human capital for social impact rather than for a financial reward: He wants to dedicate his time and energy to a cause he believes in.

Finally, we'll visit Eric and Eleanor, **The Entrepreneurs**, a couple whose wealth will come from selling their business. They have ample financial and human capital.

These are extreme cases. Your situation may be woven of strands from more than one of these case studies. Some corporate executives, professionals, and entrepreneurs inherit money; some corporate executives become entrepreneurs; and some entrepreneurs become executives.

## Case Study The Young Professional

Priya is 30 years old, a fourth-year associate at a top law firm, and engaged to be married to a musician. She earns an annual salary of \$215,000 and expects a bonus of about \$40,000.

Priya loves what she's doing now, but she's not sure how long she will continue to love it. She's afraid that she'll burn out if she has to keep working late into the night and on weekends for years to come. While her boss has praised her work at times, Priya doesn't have a clue if she'll ever make partner.

Priya has been saving like crazy to pay off her student loans and has contributed in each of the last four years to her firm's 401(k) retirement savings plan. Her account has a \$40,000 balance. Her primary goals are to:

- Save enough over the next three years to pay for her wedding and make a down payment on a new home;
- Assess what kind of lifestyle she'll be able to afford in the fourth year, given her need to save;
- Assess how long she has to work at her firm before taking a less grueling (and less well-paid) in-house job at a company; and
- Estimate her future spending capacity, given that her fiancé may never earn or save as much as she does. They do not plan to have children.

Other than her 401(k) account, Priya's sole asset is her human capital, or earnings power. She rents her apartment, doesn't own or need a car, and has very little in cash in the bank for emergencies. However, she has eliminated the large liability that until recently dominated her balance sheet: her student loan. This is the first year that Priya expects to be able to increase her long-term savings, and she wants guidance on how to invest.

First things first. Priya needs to pay for her wedding next year, and would like to purchase a new home fairly soon thereafter. She and her fiancé plan to save methodically over the next three years to achieve these goals. On her advisor's recommendation, she is investing these funds in a mix of cash and short-duration bonds, so that the money is readily available and not subject to market risk.

Priya knows that she needs to save more to her firm's 401(k). This year, she will increase her 401(k) contributions to the maximum, \$18,000 pretax. She receives an employer match of 3% of salary, or another \$6,450. [See Making the Most of a 401(k).] In four years, when she's finished paying for the wedding and has bought a new home, she plans to save 10% a year in a taxable account.

Because Priya is young and has barely started her career, she has a very long working future ahead of her: perhaps three or four decades. A lot can happen over that time span! While her human capital is substantial, Priya was hard-pressed to estimate how much financial capital she will need to amass by retirement.

Priya chose a few possible scenarios to explore:

- Staying at her big law firm versus getting an in-house position at a company in four years;
- Saving even more each year;
- Asset-allocation options for her savings; and
- Working until age 55, 60, 65, and 70.

#### If She Stays at Her Firm

First, Priya and her advisor assumed that she would stay at her current job or a comparable job indefinitely. Making partner would greatly increase her compensation, but to be conservative they assumed that her total compensation (salary plus bonus) tops out at \$390,000 when she is a ninth-year associate, five years from now. Her compensation would then grow only with inflation.

After talking with her advisor, Priya decides to aim for \$130,000 in annual spending from her retirement accounts, adjusted for inflation. Will her increased 401(k) contributions and future after-tax savings get her there? she asked.

Until now, her 401(k) account investments have been conservatively invested, with 30% in stocks and 70% in bonds, because Priya knew little about investing and didn't want to risk all her savings. Her advisor showed her the likely outcomes

## Case Study The Young Professional

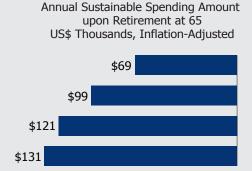
of four simple asset allocations (*Situation Display 7*), assuming that she leaves the \$40,000 balance in her 401(k) to grow untouched and contributes the maximum each year (\$18,000 initially, increasing to \$24,000 by the time she reaches 50), her employer continues to match the first 3% of salary she contributes, and she also saves 10% of her annual compensation in a taxable account.

With the conservative asset allocation, Priya could be confident of spending \$99,000 a year, adjusted for inflation, from her retirement accounts after retiring at age 65. In contrast, if she invests only in bonds, she could be confident that her retirement funds would support only \$69,000 in annual spending. A growth-oriented asset allocation, by contrast, would support spending \$131,000 a year from the account, achieving her \$130,000 goal.

Of course, the growth allocation, with 80% in stocks, is significantly riskier, as the right side of Situation Display 7 shows. If Priya stays with her current conservative asset allocation, we estimate that there's only a 5% chance that the value of her portfolio would ever drop 20% from peak to trough. If she chooses the growth-oriented allocation, the odds of such a big temporary loss would rise to 66%. Priya should be prepared to experience meaningful swings in the value of her savings if she adopts the growth allocation.

Priya decided that she was comfortable taking more risk in her retirement savings while she was working but that she'd want a more conservative mix after she retires, perhaps a moderate portfolio, with 60% in stocks. Would that allow her to spend close to \$130,000 in retirement? she asked.

## SITUATION DISPLAY 7 Growth Allocation Boosts Potential Spending and Risk





Based on the growth of an initial portfolio of \$40,000 in a 401(k) plus maximum annual contributions to the 401(k), along with an employer matching contribution of 3% of salary, as well as saving an additional 10% of gross total compensation in a taxable account beginning in four years until retirement, assuming a confidence level that glides up as human capital declines, so that at retirement it will support a sustainable future spending rate after taxes and inflation. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. 100% risk-mitigating allocation is all bonds; conservative allocation is 30% stocks/70% bonds; moderate allocation is 60% stocks/40% bonds; growth allocation is 80% stocks/20% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxable bonds in retirement accounts.

Probability of a 20% peak-to-trough decline in pretax, pre-cash-flow cumulative returns within the next 20 years. Because the Wealth Forecasting System uses annual capital-market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

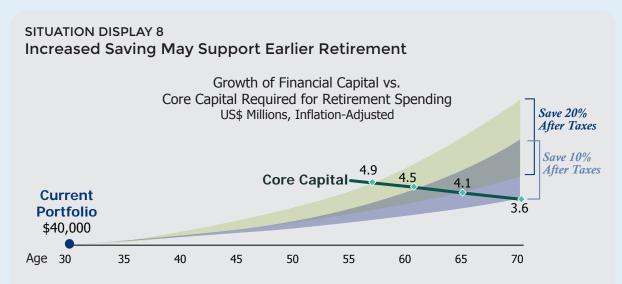
## Case Study The Young Professional

Only if she saved more outside her 401(k), her advisor replied. The blue area in *Situation Display 8* shows the range in the potential growth of Priya's account balance under market conditions ranging from good to poor, assuming that she sticks with her initial savings plan. The dark teal line represents the amount of core capital that Priya would need if she retired at various ages.

In typical markets, represented by the middle gray area, Priya's portfolio would grow to the core capital required to support \$130,000 in annual retirement spending by the time she is 65. However, if markets turn out to be great, she could retire earlier, at about 60. If markets turn out to be poor, she would need to work longer, into her seventies, to afford the same lifestyle.

Priya thought that she could probably save an additional 10% of her total annual compensation after taxes. How would that affect when she might be able to retire? she asked. The yellow area in Situation Display 8 shows that our projected range of outcomes shifts up and widens, relative to the blue area. If Priya increased her savings, she could retire at age 60 and spend \$130,000 from her retirement funds, if markets are typical.

Priya was comforted by this analysis. Even with conservative assumptions about her future earnings, she could improve the odds of achieving her retirement goals. But all that rests on staying in her current job or similar job. What if she leaves her firm in three years to work for a company's legal department?



Target financial capital is invested in a growth allocation; it is based on the growth of an initial portfolio of \$40,000 in a 401(k) plus maximum annual contributions to the 401(k), along with an employer matching contribution of 3% of salary, as well as saving an additional 10% or 20% of gross total compensation in a taxable account beginning in four years until retirement.

Core capital calculated at 90% level of confidence; assumes a moderate allocation and desired spending of \$130,000 annually after taxes and inflation. Growth allocation is 80% stocks/20% bonds. Moderate allocation is 60% stocks/40% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxable bonds in retirement accounts. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

### If She Changes Jobs

Situation Display 9 summarizes the impact of retirement age, annual after-tax savings, and career tracks for Priya, assuming that she invests in a growth allocation during her working years and a moderate allocation in retirement.

If Priya stays at her current firm, she could save an additional 10% of annual compensation after taxes and retire at age 65 to spend \$132,000 a year, or save an additional 20% (not 10%) after taxes and potentially retire at 60.

If she takes a less well-paid in-house position four years from now, earning \$330,000 a year, inflation-adjusted, she would need to defer retirement to achieve the same retirement spending target, or lower her retirement spending target. She would be able to spend \$121,000 a year if

she saved 10% of her salary after taxes and retired at age 65.

Based on this analysis, Priya adopted a growth allocation for her retirement savings and decided to contribute the maximum to her firm's 401(k) plan. She also committed herself to saving at least another 10% of her total compensation each year after her wedding and home purchase. No matter what, she promised herself, she would watch how market returns affected her plan.

The decision to move in-house was still a few years away. Priya will revisit that decision when she knows more about her prospects for making partner and the quality of her work life if she stays at her firm.

For more on retirement savings, see The Power of Tax-Deferred Savings and Making the Most of a 401(k).

## SITUATION DISPLAY 9 Sustainable Spending by Retirement Age and Savings Level

After-Tax	Stay at Big Law Firm		Go In-House	
Savings Rate	10%	20%	10%	20%
Retire at 55	\$58,000	\$89,000	\$53,000	\$80,000
Retire at 60	87,000	132,000	80,000	118,000
Retire at 65	132,000	198,000	121,000	178,000
Retire at 70	198,000	294,000	181,000	264,000

Based on the growth of an initial portfolio of \$40,000 in a 401(k) plus maximum annual contributions to the 401(k), along with an employer matching contribution of 3% of salary, as well as saving an additional 10% or 20% of gross total compensation in a taxable account beginning in four years until retirement; assumes a growth allocation until retirement, assuming a confidence level that glides up as human capital declines, so that at retirement it is expected to support a sustainable future spending rate, after taxes and inflation, from a portfolio with a moderate allocation. "Big Law" total compensation maxes out at \$390,000 per year, inflation-adjusted, by year 5; "In-House" total compensation maxes out at \$330,000 per year, inflation-adjusted, by year 3. Growth allocation is 80% stocks/20% bonds. Moderate allocation is 60% stocks/40% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxable bonds in retirement accounts. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.



#### How much cash should I hold in case I lose my job or have an emergency?

If you're single or the sole earner in your household, we generally recommend holding six to 12 months of expenses in liquid, low-risk assets in case you lose your job or have an emergency. If you and your partner are both working and earning enough to cover your family's expenses, three to six months may be sufficient. Holding much more in cash will be a drag on your portfolio's growth and could lose value to inflation.

Also, consider disability insurance: It can be relatively inexpensive if you buy it through your employer's benefit plan and can provide income if you are unable to work because of illness or disability.

If you lose your job, your employer may offer severance and COBRA for health insurance. Apply for unemployment benefits immediately. It takes time to evaluate whether you qualify, and there is a deferral period before receiving the first check.

It's also a good idea to consider easy changes to your budget when times are lean. What are the discretionary parts of your monthly living expenses that you can cut in a pinch? Your priorities should be mortgage payments, health insurance, and necessary living expenses.

#### I'm required to defer a portion of my bonus and can defer more. How do I decide?

Non-qualified deferred compensation plans are attractive because they allow you to defer a portion of your pay into an account that is invested and can grow for many years, before taxes. We approximate the value of tax deferral at 1.6% per year, which could be very valuable if your deferral horizon is long.

Important considerations include:

- **Investment options.** Some plans allow you to invest only in company stock; others provide a broadly diversified portfolio of securities, while others offer only low-risk assets such as Treasury bonds.
- **Vesting period.** Some plans have a vesting period; if you leave the company during this time, you may forfeit the unvested portion.
- **Future income taxes.** If you defer income taxes today and your personal income-tax rates are lower when you receive the compensation in the future, you will benefit from tax deferral. If tax rates go up or your personal effective tax increases, deferring income is less beneficial.
- Credit risk. Non-qualified plans are not protected by any government agency, and there's a risk that if your employer goes bankrupt, you'll never get your deferred income.

For more information on deferred compensation, see *Executive Decisions*, Bernstein, 2011.

## Case Study The Inheritor

Ian is a 45-year-old engineer who lives in the Midwest. He has recently inherited a substantial sum from his parents. The size of his inheritance came as a pleasant surprise: Ian and his sister each received a trust worth \$5 million.

Until now, Ian has lived carefully. He has saved diligently in his 401(k) defined-contribution retirement plan and in a taxable portfolio over the past 22 years, amassing a total portfolio that has grown, through shrewd investments, to \$2.9 million.

Ian views his inheritance as a windfall that could allow him to upgrade his lifestyle and live his dream: leaving his rather tedious job to devote his time and professional expertise as a volunteer bringing clean energy to remote and underdeveloped communities.

Ian and his financial advisor have determined that he can support about \$75,000 of his desired annual spending requirement of \$275,000 from his savings. He would like to see if he can:

- Quit his job and donate his time and human capital to the clean energy cause; and
- Support the cause financially.

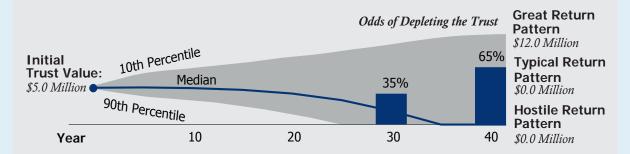
#### **Trust Issues**

The trustee (Ian's uncle) has authority to distribute the trust's income and principal to Ian during Ian's lifetime, but the trust documents indicate that the trustee should try to ensure that distributions do not jeopardize the trust's sustainability. Since Ian does not expect to have children, the trust is likely to pass to his niece and nephew as remainder beneficiaries when Ian dies. The trustee wants to plan for the niece and nephew to receive a fair and equitable amount. Given the trust's long time horizon, the trustee has invested it to provide moderate growth, with a 60/40 stock/bond mix.

How much can the trust safely distribute each year? Ian would like to enhance his lifestyle by receiving an annual distribution of \$200,000 (pretax) from the trust, grown with inflation, to bring his total investment income to \$275,000. Both he and his uncle initially thought that distributing 4% of the initial value each year (\$200,000 of \$5 million)

## SITUATION DISPLAY 10 Trust Will Run Out of Money if Distributions Are Excessive

Range of Nominal Wealth Values



Assumes that the trust's initial \$5 million contribution is invested in a 60/40 stock/bond mix, the top marginal federal income tax rate and a 6.5% state tax rate, and annual distributions of \$200,000, inflation-adjusted.

Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals.

Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. **Data do not represent past performance and are not a promise of actual future results or a range of future results.** See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

## Case Study The Inheritor

might be reasonable, but they weren't sure of the long-term implications for the trust or the remainder beneficiaries.

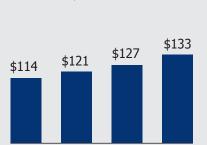
The gray area in *Situation Display 10* shows an array of outcomes in market conditions ranging from hostile to great. The middle line represents the median projected result.

Under median market conditions, the trust would still have assets after 30 years, but if market returns are poor, the trust is likely to run out of money by year 25. In fact, there's a 35% chance that these distributions would deplete the trust within 30 years and a 65% chance that they would deplete it within 40 years, well within Ian's expected life span. The \$200,000 annual distribution may be sustainable over 10- and 20-year horizons, but it is not sustainable over 25 to 40 years, under poor market conditions. Ian's niece and nephew may very well get nothing.

What distribution would be sustainable? We tested various scenarios. An annual distribution of \$127,000 or about 2.5% of the initial trust value would be sustainable over Ian's life expectancy, assuming that the portfolio retains its 60/40 stock/bond mix, as the left side of *Situation Display 11* shows. In poor markets, there's a very high probability that the trust would not be depleted. In typical markets, there would be \$10.4 million remaining (\$3.1 million in inflation-adjusted terms) for the remainder beneficiaries, as the right side of the display shows.

If Ian's uncle increased the allocation to returnseeking assets in the trust, spending could be improved to \$133,000, or about 2.7% of the initial trust value. As important, the trust would generate an additional \$2.8 million (\$800,000 in inflation-adjusted terms) for the remainder beneficiaries in typical markets, we project.

## SITUATION DISPLAY 11 Quantifying Sustainable Spending from a \$5 Million Trust Sustainable Spending Rates Median Remainder Value

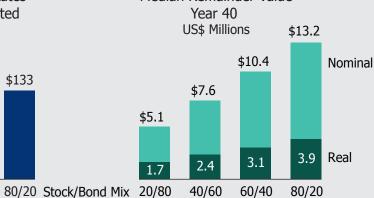


60/40

40/60

Pretax, Inflation-Adjusted

**US\$** Thousands



Sustainable spending rate is defined as the amount that the trust can distribute on an annual basis, adjusted for inflation, over the mortality-adjusted life span of the current beneficiary. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals.

Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. **Data do not represent past performance and are not a promise of actual future results or a range of future results.** See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

20/80

# Case Study The Inheritor

These initial distribution rates fall below 3%, the rule-of-thumb rate that many professional trustees have typically said might be maintained sustainably for many decades. But 3% may now be too high because expected returns for stocks and bonds are likely to be lower in the decades ahead than in decades past, and inflation is likely to rise from low levels, in our view.

Ian won't hit his targeted annual spending of \$275,000. Nonetheless, he was pleased that the trust, when added to his own savings, would allow him to boost his spending to just over \$200,000, enhance his lifestyle, and ensure that the trustee was fair to the remainder beneficiaries.

Ian and his uncle decided that, for now, Ian should contribute to the clean-energy cause by donating his time and expertise, rather than money. His time and expertise are in themselves substantial gifts that may reduce his ability to return to work in the future at a comparable salary.

Ian and his uncle also agreed to monitor the value of the trust over time. If markets are favorable, they could consider raising the annual distribution so that Ian could enhance his lifestyle or give money to the clean-energy cause.

## The Inherited IRA

Inherited individual retirement accounts (IRAs) can be difficult to understand. The IRA rules are vast and complex; you will probably need to consult with tax or estate attorneys and accountants if you inherit such an account. You will need to provide the age of the decedent at death and provide a copy of the executed beneficiary designation form. In general, the nature of your relationship to the deceased IRA owner will determine your options.

If you were the spouse, you have several options. Frequently (but not always), it will make most sense to do a tax-free rollover of the IRA into your own IRA, which will be subject to required minimum distributions (RMDs) based on your own age, rather than the deceased spouse's age. In general, you should expect distributions from the IRA, including RMDs, to be taxable income to you. You may wish to consider converting the IRA to a Roth IRA.

If you are a non-spouse designated beneficiary, your options are more limited. While you typically won't be subject to early-withdrawal penalties, you should generally expect any distributions from the IRA to be taxable income to you. If any federal estate taxes were paid with respect to the IRA by the decedent's estate, there may be an income-tax deduction that your advisors should investigate.

In most cases, you should be able to continue the inherited IRA, but you will typically have to take RMDs calculated over your own expected lifetime, as determined by your age in the year after the original owner died.

You can choose to take more than the minimum required. In fact, you may withdraw the entire inherited IRA if you wish. This will generate a large income-tax bill because you will realize all the taxable income in one year, but it could be beneficial if you need to spend the money immediately or if you wish to invest it in ways you can't invest an IRA (such as your closely held business).

Tax deferral is generally beneficial. The longer you can stretch out distributions, the more the IRA assets will continue to grow in a tax-advantaged environment. As a result, if all else is equal, you want to take only the lowest required distributions—the RMDs—because that will result in the greatest wealth accumulation over time.

That is why planners generally want to make sure that the IRA won't become subject to the five-year rule. When applicable, this rule requires you as beneficiary to withdraw all the IRA assets by the end of the fifth calendar year after the year the original owner died, which doesn't permit much tax deferral.

If there are trusts involved or multiple beneficiaries, then inheriting an IRA can become even more complicated.

## Case Study The Entrepreneurs

Eric and Eleanor are married and live in Los Angeles with their three young children. They have built a technology-related company from the ground up, for which they received a \$34 million offer last year.

The couple recently retained an investment bank to explore alternatives for selling the company. If they sell, they are unlikely to retire. They are only 40, they loved creating their first business, and they are excited by the prospect of starting a new one.

### The couple has the following primary goals:

- Purchase a new home for \$4 million
- Set aside \$1 million in seed capital for a new venture or two
- Cover family spending needs of \$30,000 per month after taxes for the next five to seven years while they get the next venture started
- Fund their children's college education
- Build financial capital for their retirement

#### They also have two secondary goals:

- Donate to their children's school and charity
- Transfer some wealth to their children

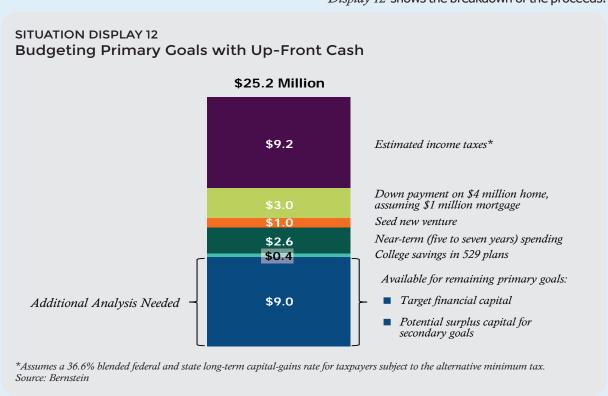
#### **How Much Does Each Goal Need?**

Eric and Eleanor have many goals, with varying time horizons. How much should they put aside for each goal? How should they invest it? The unsolicited offer included an up-front cash payment of \$25.2 million, one-year escrow of \$2.8 million, and three-year earnouts totaling \$6 million; they expect deferred payments if they sell.

Their advisor suggested that they use the up-front cash to fund their primary goals and the deferred payments to fund their secondary goals. Hence, deferred payments are not included in this analysis.

Their accountant estimated that \$25.2 million in up-front cash from a sale would result in about \$9.2 million federal and state income tax payable next spring. Eric and Eleanor would need to keep this cash liquid and available to pay the tax bill.

What about their other immediate goals: a new home, new venture, college savings, near-term spending, and retirement spending? *Situation Display 12* shows the breakdown of the proceeds.



## Case Study The Entrepreneurs

The \$16 million after-tax initial sale proceeds would pay for a \$3 million down payment on a new home (assuming that they take out a \$1 million mortgage) and a \$1 million investment in their new venture, and leave \$12 million for their other primary goals.

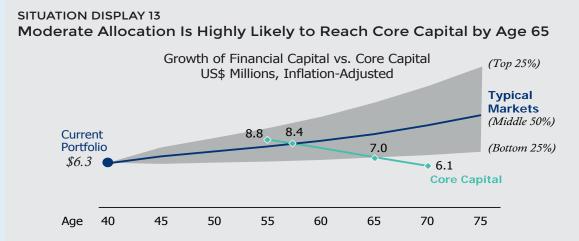
Eric and Eleanor want to maintain their current annual living expenses of \$360,000 after taxes for up to seven years while they focus on their new venture. Our analysis suggested that they could be highly confident that \$2.6 million invested in a balanced conservative portfolio (with about 30% in stocks and 70% in bonds) would support that spending for seven years, after inflation.

To pay for college for three children, Eric and Eleanor could each dedicate five years of annual exclusion gifts of \$14,000 to front-load 529 education savings accounts for each child. That's \$420,000 in total. The 529 accounts would start with an equity-oriented asset mix and glide to a more

conservative mix by the time the children go to college. That leaves \$9 million to fund their retirement. Eric and Eleanor both intend to continue working until age 65. They also expect that their combined after-tax salaries will cover their spending needs eight years after they start the new business.

What about their retirement spending needs? After accounting for all expenses that now run through the business and would continue post-sale, plus dwindling spending on the children after college, Eric and Eleanor estimate that in retirement they'll need \$240,000 a year in today's dollars.

Like many risk-takers in their own business, Eric and Eleanor wanted to take less risk in their investments. We calculated that their target financial capital was \$7.9 million, assuming a conservative risk profile for their investments post-sale and inflation-adjusted spending of \$240,000 a year from the portfolio when they reach 65.



Current portfolio attains core capital at age 65 with 75% confidence. Financial capital is based on the growth of \$6.3 million portfolio with no withdrawals until retirement, invested in a moderate allocation.

Core capital calculated at 90% level of confidence, assumes a moderate allocation and desired spending of \$240,000 annually after taxes and inflation. Moderate allocation is 51% stocks/35% bonds/14% diversifiers (real assets and hedge funds). Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term in-state municipals. Assumes top marginal federal income tax rates and a 13.3% state income tax rate. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

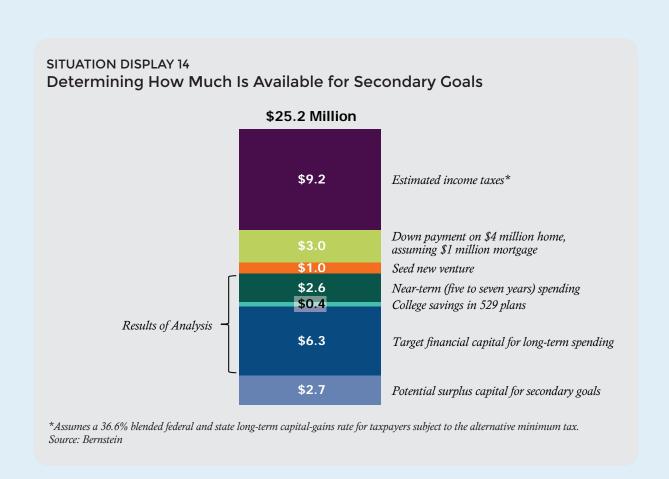
## Case Study The Entrepreneurs

We also calculated that if they instead invested \$6.3 million in a moderate, balanced allocation, they could be highly confident of having the \$7 million they would need to retire at age 65, as shown in the core capital line in *Situation Display 13*.

That would still leave \$2.7 million for their secondary goals: gifts to children and charity (*Situation Display 14*). Eric and Eleanor decided the moderate allocation suited their risk tolerance and would best support their goals.

Eric and Eleanor also concluded that they could take an offer of similar size, and perhaps slightly lower than the offer they received last year, because it would meet all their immediate goals and leave them with adequate money to seed a new venture. If they end up getting deferred payments from the sale and their new venture is successful, they could make additional gifts in the years to come.

For more on Eric and Eleanor's financial decisions, see The Entrepreneurs' Wealth Transfer and The Entrepreneurs' Charitable Gifts. For an overview of the asset allocations for their various buckets, see Three Portfolios for Three Time Horizons.





## I received several offers with different terms for my company. How do I decide which is best?

There are many ways to structure a deal. Here are the more common strategies:

Cash is straightforward and comes with very little market risk.

**Stock** in the acquirer is riskier; it merely relocates the concentration risk you had before the transaction into a new stock that you cannot control. However, the upside potential may be quite large, particularly if the buyer is a private company that you think has high odds for a successful initial public offering.

**Earnouts** give you some cash up front and make you earn the rest, as a (usually senior) employee of the company for several years. We recommend focusing your planning on whether the up-front cash will meet your goals. Think of the deferred earnout payments as possible icing on the cake. Buyer and seller often part ways before the earnout period is over.

Leveraged recapitalizations are more complex. A private equity firm typically puts up some money and borrows against the assets of the business to pay the seller. The seller generally continues working at the company, retaining an ownership stake in the business that could be sold for cash in a later initial public offering or other deal. Again, we recommend that you focus your long-term financial planning on the up-front proceeds, rather than on contingent payments that may not be realized.

## What are the advantages of qualified small business stock? Does my stock qualify?

There are significant US income tax preferences for some transactions with qualified small business (QSB) stock. Gains realized on the sale of QSB stock can be rolled over on a tax-deferred basis into the stock of another QSB. In some circumstances, gains on QSB stock can be excluded from taxation. In other circumstances, losses on the sale of QSB can be treated as an ordinary loss, rather than a capital loss.

In general, the requirements to qualify for QSB-related benefits include:

- The business must be a C corporation;
- The corporation must have less than \$50 million of gross assets and use 80% of its assets in an active business;
- The business cannot be a service organization, such as a law, accounting, or financial services firm; and
- The taxpayer's stock must have been purchased at original issue or received as compensation for services performed for the company.

There are significant additional requirements related to QSB status and the related tax preferences. Consult with your attorney.

## The Power of Tax-Deferred Savings

Many young workers have most of their wealth invested in their employer's retirement savings plan, such as a 401(k). Investments in these plans grow tax-deferred; eventually, you will pay tax on the distributions.

At the top marginal rate, each \$1,000 saved pretax to a retirement account would be worth about \$600 saved after taxes. Over time, that difference can be huge.

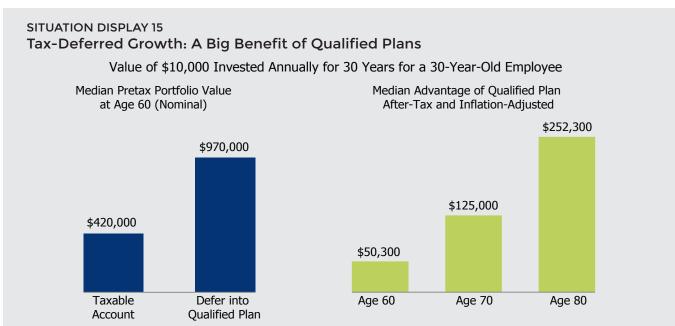
Tax-deferred growth is a very powerful benefit. The left side of *Situation Display 15* compares the impact of investing pretax dollars and saving in a taxable portfolio for a 30-year-old employee in the top bracket with the choice of saving \$10,000 a year pretax for 30 years in an employer 401(k) plan, or investing about \$6,000 a year after taxes. Either way, 60% of the portfolio is invested in globally diversified equities and 40% in fixed income. The tax-deferred portfolio invests in taxable bonds; the taxable portfolio invests in municipals.

We estimate that when the employee retires at age 60, the \$300,000 total contributed to the qualified plan would grow to nearly \$1 million in typical markets; and the \$180,000 in the taxable account, to \$420,000.

But that's not the end of the comparison. Because he didn't pay income tax on the salary deferred into the plan, he would owe income tax at ordinary rates on every dollar withdrawn in retirement. By comparison, for the taxable account, the only potential unpaid income tax due is related to any unrealized capital gains.

Even after correcting for income taxes and comparing the accounts on an after-tax basis, he would be far better off investing in the qualified plan, as the right side of Situation Display 15 shows. We estimate that by the time he retires at age 60, the median after-tax advantage of the qualified plan would be \$50,300 in inflation-adjusted dollars; by age 80, the advantage would grow to \$252,300.

We estimate that the tax deferral benefit adds about 1.6% a year to the value of qualified plans—a significant benefit. In general, employees should invest as much as possible through a qualified plan, if available, before investing in a taxable portfolio. The earlier in life that employees begin contributing, the greater the benefit. For more on tax-deferred retirement plans, see *The Bernstein Income Tax Playbook*, Bernstein, 2014.



Allocation is 60% stocks/40% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxable bonds in retirement accounts. To make a fair comparison, we assume that the tax-deferred portfolio is transferred to a taxable portfolio and that both taxable portfolios are liquidated and taxed at the age specified. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix. Source: Bernstein

## Case Study Making the Most of a 401(k)

Robert is 30 years old and single. He earns \$100,000 a year pretax at a large company and expects his salary to increase 5% a year until he retires at age 65, even if he doesn't receive a major promotion in the years ahead.

Robert has a growth-oriented asset allocation in his 401(k), with 80% invested in global stocks and 20% in intermediate-term taxable bonds. He expects to adopt a moderate asset allocation, with 60% in stocks and 40% in bonds, when he retires.

Until now, Robert has contributed 6% of his pretax salary, or \$6,000, each year to the 401(k), in order to receive the full employer match. But a friend contributes the maximum: \$18,000 in 2015. How much would that increase his long-term wealth? Would it allow him to retire comfortably?

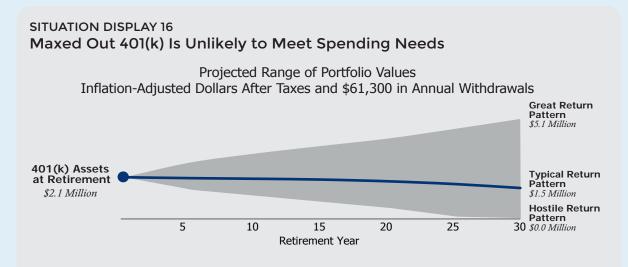
We estimated that at his current 6% contribution rate, after 35 years of average market returns, Robert would have inflation-adjusted wealth of \$1.5 million. But if he maximized his contributions from now on—and took full advantage of catch-up rules that allow him to contribute an extra \$6,000 a year (adjusted for inflation), after age 50—his inflation-adjusted wealth

would be almost 50% greater, or \$2.1 million! Not too shabby, you might think. But will this support his lifestyle in retirement?

Probably not. We estimate that if Robert retires at 65, he will be able to spend only \$61,300 a year in inflation-adjusted dollars from his 401(k) without running the risk of depleting his account if markets are hostile. In typical or great markets, he would still have significant assets left after 30 years, as *Situation Display 16* shows.

Bear in mind that after all those annual inflation increases, Robert's final inflation-adjusted salary would be \$190,000. In other words, his retirement account would replace only 32% of his final salary. This is not likely to be pleasant.

Of course, if he makes the maximum contribution to his 401(k) and he's lucky enough to live through a period of outstanding investment returns, his results could be much better.



Starting portfolio of \$2.1 million in real dollars is based on maximum annual contributions of \$18,000, with catch-up of \$6,000 at age 50, adjusted for inflation, plus employer match of 6% of salary each year and an allocation of 80% stocks/20% bonds. In retirement, allocation is 60% stocks/40% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxables in retirement accounts. Sustainable spending of \$61,300 annually, inflation-adjusted, is based on a 90% level of confidence over the expected lifetime of a 65-year-old male. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Assumes normal capital-market conditions; "normal" assumes all assets are fairly priced; it is Bernstein's estimate of capital-market equilibrium. Great represents the 10th percentile, typical represents the 50th percentile, and hostile represents the 90th percentile. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

## Making the Most of a 401(k)

If market returns are great, he could retire with a few million dollars more than if market returns are typical. We estimate that there's just a one-in-10 chance of an outcome this favorable. It's not something he can bank on.

### Using a Roth to Improve the Odds

Robert asked what else he could do. His advisor suggested taking advantage of his employer's Roth 401(k) option. The maximum contribution for a traditional 401(k) and a Roth 401(k) is the same, but the tax treatment of the two is different.

With the traditional 401(k), Robert would contribute pretax dollars, and the growth of the portfolio is not taxed. But once he retires, his withdrawals will be taxed at ordinary-income-tax rates. With the Roth, Robert would contribute after-tax dollars but pay no tax on portfolio growth or withdrawals. If his tax rate doesn't change, the tax treatment shouldn't make a difference. However, an after-tax

contribution of \$18,000 is, in effect, much larger than a pretax contribution of the same amount.

If Robert maximizes his contributions, the Roth 401(k) will support sustainable retirement spending of \$77,000 a year, inflation-adjusted—a hefty 26% more than the traditional 401(k) (*Situation Display 17*).

The downside is that contributing \$18,000 after taxes is equivalent to contributing \$25,000 before taxes, for someone in Robert's tax bracket. That's a lot to save from \$100,000 in annual salary. (For someone in the top tax bracket, \$18,000 after taxes is equivalent to \$30,000 pretax.)

If Robert isn't willing to save that much, he could contribute somewhat less than the maximum to the Roth 401(k) account and monitor how his account balance grows. He could increase his contribution rate later, if markets are poor. If they are very poor, he could defer retirement until age 70.

#### **SITUATION DISPLAY 17**

#### The Roth 401(k) Advantage Can Be Substantial

Sustainable Annual Retirement Spending in Inflation-Adjusted Dollars After Taxes



Assumes maximum annual contributions of \$18,000 with catch-up of \$6,000 at age 50, adjusted for inflation, plus employer match of 6% of salary each year. Employee contributions are pretax and made to a traditional 401(k) in "Traditional 401(k)" scenario. Employee contributions are after-tax and made to a Roth 401(k) in the "Roth 401(k)" scenario. Employer contributions are always made to a traditional 401(k) in all scenarios. During the savings years, 1–35, all assets are allocated 80% stocks/20% bonds. Assumes both 401(k)s are reallocated to 60% stocks/40% bonds at retirement. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals in taxable accounts and intermediate-term taxables in retirement accounts. Sustainable spending is inflation-adjusted and is based on a 90% level of confidence over the expected lifetime of a 65-year-old male. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.



# Does it make sense to give up the tax benefit of a traditional 401(k) for a Roth 401(k), if I'm in a high tax bracket?

For many professionals, we recommend that if they are already contributing the maximum pre-tax to a traditional 401(k), and have the capacity and desire to contribute more, to instead contribute the maximum to a Roth 401(k) after tax.

But if you live in a very high tax jurisdiction, such as California or New York City, and plan to move to a lower tax jurisdiction (such as Florida) when you retire, you may be better off staying in a traditional 401(k). That would allow you to defer more tax on your higher current income and pay tax at a lower rate on withdrawals when you retire.

Not all employers offer Roth 401(k)s. There is some risk that Congress will reduce the tax benefits of these qualified plans.

#### How should I allocate the assets in my 401(k)?

Generally, if you are young and there are many decades ahead before you will begin taking distributions from the plan, a growth-oriented allocation strategy is advantageous. We quantify the value of tax deferral at 1.6% per year, which can be maximized in a growth strategy.

Your employer may have age-based allocation plans that glide from a more growth-oriented allocation to a more conservative allocation as you get older. If you generally fly on autopilot for your 401(k) investments, the age-based strategies can be a good way to ensure appropriate allocations.

If your employer contributes company stock to the 401(k), you should consider selling the stock to reinvest in a diversified portfolio. Having a concentrated position in a single stock is generally risky and increases your target financial capital. It's particularly risky when it's stock in your company. If the company goes bankrupt, your may lose both your job and your retirement investments in the company.

#### How should I prioritize saving for my retirement versus my children's education?

For most professionals, it's best to contribute the maximum to your retirement savings plans before you contribute to college savings plans. Your kids can borrow for school, if necessary, but you can't borrow for retirement.

#### The Debt Dilemma

Many people don't have a plan when it comes to when and how to take on debt or pay it back.

You should take on debt if the benefits will exceed the costs. For example, a college education can boost your human capital—so a student loan may be a good investment. Likewise, owning may be cheaper than renting a home, so it may pay to take out a mortgage.

You should pay down debt if the costs exceed the benefits. Paying down debt may have a significant impact on your net cash flows and, thus, your future wealth. Some key considerations are:

The interest rate of your debt and your investments. In general, it doesn't make sense to pay down debt that costs you 2% by selling investments that are earning 5%, but it does make sense to pay down credit card debt at 14% by selling bonds earning 3%.

**Taxes.** The interest you pay on mortgage debt and some student loans is tax-deductible, but other interest is not. Most investment returns are taxable, but some can grow on a tax-deferred basis.

**Other loan terms.** Prepayment penalties may eliminate the benefit of paying off high-cost debt; an imminent interest-rate hike when a low teaser rate expires may increase the benefit.

**Your liquidity needs.** It may not make sense to pay down a mortgage if you're going to need the money soon to pay for your wedding. You might then have to take out a new loan, possibly at a higher rate. Similarly, if much of your money is locked up in illiquid assets, it may be wise to pay down debt that allows the lender to suddenly demand repayment.

But paying down debt doesn't change your net worth, as *Situation Display 18* shows. If your total assets are worth \$5,325,000 and your liabilities total \$1,850,000, your net worth is \$3,475,000. If you sell \$1,800,000 in marketable securities to pay off the mortgage, you will have the same net worth. But now, your assets will be dominated by the \$2 million home you own free and clear, rather than the \$3 million securities portfolio you used to have. Paying down debt can change your risk profile.

# SITUATION DISPLAY 18 Paying Down Debt Changes Your Risk Profile, Not Your Net Worth

#### **With Mortgage** Assets Cash \$200,000 Marketable Securities \$3,000,000 Real Estate \$2,000,000 Automobiles \$75,000 Personal Property \$50,000 **Total Assets** \$5,325,000 Liabilities Auto Loan \$50,000 \$1,800,000 Mortgage **Total Liabilities** \$1,850,000 \$3,475,000 Net Worth = Assets - Liabilities

The second secon	
Assets	
Cash	\$200,000
Marketable Securities	\$1,200,000
Real Estate	\$2,000,000
Automobiles	\$75,000
Personal Property	\$50,000
Total Assets	\$3,525,000
Liabilities	
Auto Loan	\$50,000
Mortgage	-
Total Liabilities	\$50,000
Net Worth = Assets - Liabilities	\$3,475,000

Source: Bernstein

# Case Study To Mortgage or Not to Mortgage?

Buying a home—particularly a first home—can be exciting. It makes many people feel as though they've come of age. But it's also a big responsibility that is likely to create unexpected expenses—and usually requires substantial debt.

The main question that wealthy people face when buying a home is whether to mortgage it. If you're sitting on a large sum of cash, you can choose whether to pay for the house with cash, or just use cash for the down payment and take a mortgage out on the home.

Let's look at two scenarios for a 35-year-old couple, Marc and Melinda, buying a \$1 million home. In the first scenario, they purchase it outright for \$1 million. In the second, they put down 20%, or \$200,000, and take out a 30-year fixed-rate mortgage at 4.3% for the remaining \$800,000.

Which strategy would add most to the couple's target financial capital? They'd like to spend \$200,000 a year, inflation-adjusted, beginning at age 65.

The results may be surprising. Whether they purchase the home outright, or take out a 30-year mortgage, their target financial capital requirement is the same: about \$4 million. That's because the benefit of eliminating monthly after-tax mortgage payments would be offset by the investment returns forgone over decades, if the money to buy the home comes from their target financial capital.

From a target-financial-capital perspective, Marc and Melinda should be indifferent. Whether to mortgage is less a financial decision than an emotional decision for them: Would they simply feel better if they had less debt? If so, their advisor said that they should consider first paying off any higher-cost debt they had. (See Debt to Pay First.)

The best way to think about a mortgage is in terms of how it affects your overall asset allocation. If you own your home outright, you may have too large a portion of your net worth exposed to residential real estate, which can be risky in the short run. A mortgage enables you to diversify, by retaining or increasing your exposure to financial assets that provide either stability or growth opportunities to your overall wealth.

For entrepreneurs, taking out a home mortgage has another benefit: It may also preserve liquidity, perhaps to fund a new venture. If you don't take out a mortgage to buy your house, you'll probably be able to mortgage it later if you need cash—albeit at potentially higher rates. The rules regarding tax-deductibility are also somewhat different.

#### **Debt to Pay First**

If you'd like to reduce your debt, make a list of outstanding balances and interest rates. Then develop an action plan, focusing on these points:

- Credit card debt typically carries the highest interest of any personal debt. Thus, it generally makes sense to pay it down first. If you have several cards, pay off your highest-interest-rate card first, then the second-highest, and so on. If you opened an account and locked in a low balance transfer or a 12-month teaser rate, pay attention to when it expires and ensure that you pay down the debt before the rate resets. (Don't pay 0% card debt before then: The odds are, you've paid for it up front, via a balance-transfer charge.)
- **401(k) loans** may not seem like a bad idea, since you're paying yourself the interest. But while the loan is outstanding, you are losing out on valuable tax-deferred long-term growth. Pay back these loans to regain this advantage.
- Car loans at market interest rates are good debts to pay down. Again, if you're paying a low or zero introductory rate, pay attention to when it resets. Some car loans carry a prepayment penalty, so weigh that cost against the interest you save by paying the debt off early.

#### **Debt to Pay Next**

- Student loans often have high interest rates, but the interest may be deductible if your income is below certain thresholds. If you are a single or joint filer with income under fairly low limits that change from time to time, some portion of the interest is deductible on your federal tax return. If your income is above these thresholds, there's no tax advantage to student debt; it may make sense to pay it off.
- Margin debits on brokerage accounts are secured by the assets in your account, so they may be at attractively low interest rates. If you

take the margin loan for investment purposes, the interest is likely to be deductible on your income tax return. Maintaining a margin debit can make sense if your account can earn more than the interest you are paying. But margin loans charge floating rates. As interest rates rise, they may become less attractive. Margin loans also pose liquidity risk: The lender can make a margin call (demand partial repayment) if the value of the underlying assets declines. During a sharp market decline, it may be difficult to meet a margin call without selling securities at fire-sale prices.

- Home equity loans are secured and thus typically carry lower interest rates than many other types of debt, but often not as low as first mortgages. Interest on loan balances up to \$100,000 is deductible on your federal income tax return, which cuts their effective cost even more. But the loan terms may include a prepayment penalty. They may also provide liquidity that you might otherwise not have. If you have a home equity line of credit, you might want to pay down most of it but leave the line in place, in case you need credit later.
- Mortgage debt should typically be the last debt that you repay. Although it may feel good to stop writing checks to the bank each month, the financial benefit would be offset by forgoing investment returns on the capital you would use to pay down principal. In addition, you may lose the federal tax deduction for interest on balances up to \$1 million. At today's rates, we typically find that paying off a mortgage won't dramatically affect long-term wealth.

After paying down debt on your own balance sheet, you may want to help your loved ones to eliminate their debt, particularly if they're paying onerous interest rates. Doing so will often involve making gifts that could trigger estate or gift tax considerations.



# Mortgage rates are likely to rise before I buy a home. When are mortgages too expensive?

That depends on the expected rate of return on your portfolio relative to the cost of the mortgage. If the after-tax return you could get by investing the amount of the mortgage is less than the mortgage's interest rate, you won't gain additional investment growth by having taken out a mortgage.

If rates drop after you take out a mortgage, you can refinance the mortgage. Generally, we recommend considering refinancing after rates have dropped by 1% or more.

# When should I consider an adjustable-rate, rather than a fixed-rate, mortgage?

Adjustable-rate mortgages, or ARMs, can be attractive but complex. Make sure you understand their terms.

Many banks offer an initial teaser rate on ARMs that's lower than prevailing mortgage rates. Check when it will reset and how the new rate will be set. If rates go up, will you be able to service your mortgage?

If you are not planning to stay in the home for longer than the initial period (sometimes seven to 10 years), an ARM may allow you to pay less interest than a traditional fixed-rate mortgage.

Also check whether you could convert the ARM to a fixed-rate loan later or refinance it to extend the loan, if needed.

#### The Company Stock Problem

If you're a corporate executive or other employee of a public company, a meaningful part of your compensation may come in the form of company stock, usually as restricted stock or stock options. You may also have a chance to invest part of your cash compensation in company stock. What should you do?

You may be convinced that your company is going to grow exponentially and that holding the stock is the ticket to great wealth. Or, you may be reluctant to hold the stock because if the company does badly, you could lose your investment as well as your job.

Many corporate executives were convinced that their firm was going to be the next Google, but it turned out to be Pets.com. Others have sold their company stock early, only to see it shoot for the moon. There's only one thing you can know for sure: You don't know what will happen.

We work with executives and other employees to evaluate three key questions:

- Should you invest your cash compensation in company stock or in a more diversified portfolio?
- If you receive restricted stock, should you hold it or sell it all upon vesting?
- If you receive company stock options, when and how should you exercise them?

We evaluate the likely outcomes of each possible choice in an integrated way because each decision has an impact on the others—and on the client's target financial capital requirement. Our Wealth Forecasting System allows us to analyze holdings of single stocks, as well as current and future expected grants of stock and stock options, as part of the client's overall portfolio.

If you strongly believe that the stock is likely to appreciate dramatically and become the basis for your wealth, you should consider building a higher level of target financial capital as a buffer against the potential for large losses on company stock.

If you feel that your livelihood is already tied to your company's health and that company stock and options increase your risk exposure to the company too much, you may decide to sell some stock.

Either way, make sure that you're aware of the impact that the company stock has on your target financial capital, and actively manage your company stock holdings.

For a summary of the most common forms of stock compensation, see Executive Compensation.

# Case Study The Corporate Executive

Cooper and Charles are both 35. Much of their combined annual income comes from the restricted stock and options that Cooper receives from the technology firm where he is an executive; Charles is a chef.

Cooper and Charles would like to retire at age 55 and draw \$100,000 per year in today's dollars from their investments to supplement other retirement income. As *Situation Display 19* shows, we calculated that the couple's target financial capital would be \$2.4 million, if they invest in a diversified portfolio, with 70% in stocks and 30% in bonds. If, however, just 25% of their wealth is invested in employer stock and the rest in a 70/30 portfolio, their target financial capital rises to \$2.5 million. And if 75% is invested in employer stock, their target increases by a third—to \$3.3 million!

This is the result of something called risk drag. The high volatility of a single stock tends to drag down its growth over time. Large holdings of a single stock tend to increase target financial capital requirements, making them harder to reach.

Many executives think that they can offset risk drag by investing the rest of their portfolio in ultra-safe holdings, such as cash or bonds. Our research suggests, however, that if you have half of your portfolio invested in a single stock, it doesn't matter how you invest the rest of the portfolio.

Situation Display 20 shows the odds of a 30% loss for portfolios that have half their value in a single stock and half in diversified asset allocations ranging from all cash to a 70/30 mix of stocks and bonds. The odds barely change, regardless of how the rest of the portfolio is invested.

We recommended that Cooper sell his restricted stock when vested—and not buy more company stock. Although the couple would lose some potential upside, in most cases we estimated that they would be better off with a diversified

# SITUATION DISPLAY 19 Stock Concentration Adds to Target Financial Capital Needed Target Financial Capital Required per \$100,000 of Future Spending US\$ Millions \$3.3 \$2.8 \$2.8 \$2.8 \$2.8 \$2.8 \$3.3 \$3.3

Financial capital is based on the growth of a portfolio with no withdrawals until retirement assuming a confidence level that glides up as human capital declines, so that at retirement it is expected to support a sustainable future spending rate of \$100,000 per year after taxes and inflation. Non-single-stock assets are allocated 70% stocks/30% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals. Single stock is modeled with 35% volatility, 1.2 beta, and a 1% dividend rate. Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future

Single-Stock Weight in Portfolio

**results or a range of future results.** See Notes on Wealth Forecasting System in the Appendix. Source: Bernstein

portfolio. They could lower their target financial capital requirement with regular stock sales. Restricted stock is subject to ordinary income tax upon vesting, so the tax is unavoidable. Selling it is typically an easy choice.

#### **What About Options?**

Cooper's non-qualified stock options posed a trickier question. The value of a stock option has two main parts: its intrinsic value if exercised right away and its time value, which reflects the possibility that it may be more profitable to exercise it in the future.

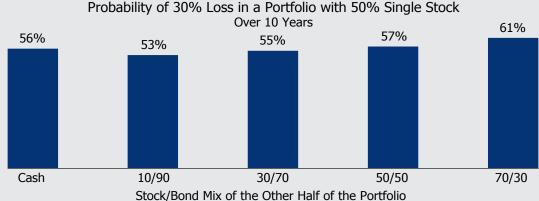
Time value changes over time: It decreases as the stock price increases and as the option approaches expiration. If an option is out of the money when granted, its time value is then 100% of its total value. If the stock price rises, the option's intrinsic value will increase but its time value will decrease.

The option's time value will also fall as the option nears expiration because it has less time to benefit from further stock appreciation. Just before expiration, time value falls to almost 0% of total value.

The optimal time to exercise stock options is when their time value is between about 30% and 10% of total value, as *Situation Display 21* shows. The purple line represents the risk-adjusted potential return of exercising the option at various ratios of time value to total value. The line begins to plateau around 30% and reaches its peak around 10%, the calculated inflection point, when the option's upside return potential is no longer attractive versus its downside.

These ratios could be reached at any point in the life of the option. If the stock price skyrocketed soon after the option's first vesting date, the 30% ratio could be reached quickly. So we can't just say,

# SITUATION DISPLAY 20 Single-Stock Risk Trumps All Other Investment Risks Probability of 30% Loss in a Portfolio with 50% S



Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 30% over a 10-year period. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals.

Because the Wealth Forecasting System uses annual capital-market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for peak-to-trough losses that do not last an exact number of years. Assumes no rebalancing between single stock and diversified assets. The single stock is assumed to have 35% volatility, 1.2 beta, and a 1% dividend rate. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

# Case Study The Corporate Executive

"You should exercise 10-year options at year 7." Active management of stock option grants requires actively monitoring their value.

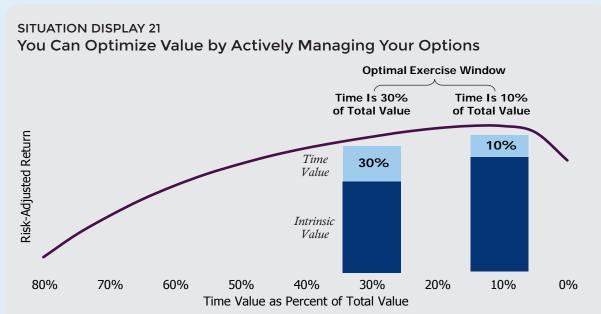
Cooper and Charles are sensitive to risk because they are building their target financial capital. For them, exercising the options when time value reaches 30% of total value is a good rule of thumb. If they were seeking to maximize returns (perhaps if options were part of their potential surplus capital), they might choose to hold on to the options until their time value falls to just 10% of total value.

Actively managing company stock and option grants can dramatically lower your target financial capital requirement. For Cooper and Charles, exercising options at 30% time value to total value could meaningfully boost the odds of financial success.

We estimate that if Cooper continues to hold a \$100,000 stock option grant until expiration, in typical markets he would realize \$6,000 in value after taxes, inflation-adjusted. But if he actively manages his stock options, exercising them when time value is 30% of total value and reinvesting the proceeds in globally diversified equities, he would net \$22,000—almost four times as much.

More importantly, our research suggests that the active approach increases the odds that the stock option would yield some value, rather than expire worthless. Passively riding an option position until expiration would result in a positive value 53% of the time, in our analysis. Actively managing options to exercise them when time value is 30% of total value increases the odds to 65%.

Cooper decided to actively manage his options.



Risk-adjusted return calculated as the median excess return over cash divided by the standard deviation of the excess return over cash; return calculated as the implied logarithmic growth rate; potential exercise considered on a monthly basis for a vested option; exercise proceeds assumed to be invested in 100% stocks. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results.

Source: Bernstein

#### **SITUATION DISPLAY 22**

### **Executive Compensation**

	Restricted Stock	Restricted Stock Unit (RSU)	Non-Qualified Stock Option (NQSO)
Description	A compensation award that is granted in the form of company shares of stock	Similar to a grant of restricted stock; however, no actual stock is issued and is considered outstand- ing until vesting	An option awarded to employees that has a grant date, an exercise price, a vesting schedule, and a maturity date. Upon vesting, the employee can choose when and how to exercise an option and acquire the stock. At the time of exercise, the holder must pay the exercise price and tax to acquire the stock
Subject to Vesting?	Yes Can be time-based or based on the company or employee meeting certain performance goals	Yes  Can be time-based or based on the company or employee meeting certain performance goals	Yes
Expiration	No	No	Yes, typically 5, 7, or 10 years
Taxation	Value of stock at time of vesting is taxed as compensation income Executive may sell shares to pay the taxes and hold the rest If shares received are later sold, any gain above the value upon vesting is subject to capital gains tax	Value of stock at time of settlement is taxed as compensation income Shares are often withheld by the company to pay taxes before they are delivered to the employee If shares received are later sold, any gain above the value upon vesting is subject to capital gains tax	Profit between the exercise price and the current stock price at time of exercise is taxed as compensation income  If shares received are later sold, any gain above the value upon exercise is subject to capital gains tax
Advantages	Tax deferral until vesting Pays dividends	Tax deferral until vesting  May pay dividend equivalents	Tax deferral until exercise  Can create tremendous wealth through leverage
Disadvantages	May decline in value prior to vesting Vesting subject to compensation income tax	May decline in value prior to vesting Vesting subject to compensation income tax	High-risk; can lose all value quickly Exercise subject to compensation income tax No dividends Could expire worthless
Settlement	Stock-settled (stock is issued upon vesting)	Can be stock-settled (stock is usually issued upon vesting) or cash-settled (company pays out value of stock in cash)  Can provide for settlement at a later date	Stock-settled (stock is issued upon exercise)

Source: Bernstein

#### **SITUATION DISPLAY 22**

## **Executive Compensation-continued**

	Incentive Stock Option (ISO)	Stock Appreciation Right (SAR)
Description	A type of employee stock option that offers employees potentially more favorable tax treatment  No more than \$100,000 of ISOs can become exercisable in any one year	An award that upon exercise pays out an amount of cash or stock based on the appreciation of the company stock price from the time of grant
Subject to Vesting?	Yes	Yes  Can be time-based or based on the company or employee meeting certain performance goals
Expiration	Yes, typically 5, 7, or 10 years	Yes, typically 7 to 10 years
Taxation	Upon exercise, the profit between the exercise price and the stock price is not taxed as compensation income, provided that the underlying stock is held for a period of not less than one year from the date of exercise and two years from the date of grant. After the stock is disposed, the difference between the sale price and exercise price would be taxed as long-term capital gains.*  Any sale prior to this period will result in a disqualifying disposition and subjects the profit to ordinary taxes	Value of payment is taxed as compensation income If shares received are later sold, any gain above the value upon vesting is subject to capital gains tax
Advantages	Potential long-term capital gain treatment	Tax deferral until exercise
Disadvantages	High-risk; can lose all value quickly Profit may be subject to alternative minimum tax (AMT) Limitation on amount that can be exercised No dividends Could expire worthless	No dividends  Could expire worthless  Vesting subject to compensation income tax
Settlement	Stock-settled (stock is issued upon exercise)	Can be stock-settled (stock is issued upon vesting) or cash-settled (company pays out value of stock in cash)

<sup>\*</sup>The ISO profit is considered preferential income for alternative minimum tax (AMT) purposes, so different tax rates may apply. Source: Bernstein



#### How can I make restricted stock in my company work for me?

Assuming that you have potential surplus capital and that you ask for and gain your company's approval, you might consider contributing the stock to a GRAT strategy. The volatility of a single stock position is well suited to a GRAT, and the GRAT will repay the principal to you in the form of annuity payments each year. Any upside, over the 7520 rate, experienced in the GRAT would result in transfer-tax-free wealth to your children. Said differently: If you're required to hold a volatile stock, a GRAT strategy could harness the volatility of the position and result in wealth transfer opportunities for your children. See Tax-Efficient Wealth Transfer Techniques for more information on GRATs.

#### Shouldn't I just exercise a 10-year option after seven years?

Not necessarily. If your company grants you an option today that expires in 10 years, the option's value today is 100% time value. Six months from now, if the stock's price surges, your option will be deep in the money, and its time value may be a very small percent of its total value, even though there are  $9\frac{1}{2}$  years until it expires. Time until expiration certainly matters. The main variables that affect time value are:

- **Intrinsic value.** The deeper in the money the option is, the lower its time value;
- Volatility. The greater the volatility of the stock, the greater the time value, because the stock has more potential to shoot up in price;
- **Time remaining.** More time until expiration means more time value;
- Dividend yield. The higher the stock dividend, the lower the time value, because holding the option means forgoing dividends; and
- **Risk-free rate.** The higher the US Treasury bond yield, the higher the time value, because while you hold the option you have to put aside less cash to earn the return needed to pay the option's exercise price.

For more information on stock options, see *Executive Decisions*, Bernstein, 2011.



# I work for a private company, which gave me the opportunity to exercise my non-qualified stock options early. Should I?

That depends.

To exercise an option, you have to buy the stock at the exercise price, and you will have to pay income tax on the difference between its exercise price and the stock's current price, even though you may continue to hold the stock for several years because it's a private security without a ready market. Do you have cash on hand to exercise the options that you won't need anytime soon? Can you afford to pay the tax due?

The tax hit will be smaller if the current stock price is close to the exercise price because your initial profit on exercising the option will be smaller. Do you want the stock anyway? Like any other stock, your company's stock could end up worthless if the company goes out of business. If your company goes out of business, you will probably lose your job. How confident are you in the company's future?

#### My colleague just filed an 83(b) tax form. Should I do so, too?

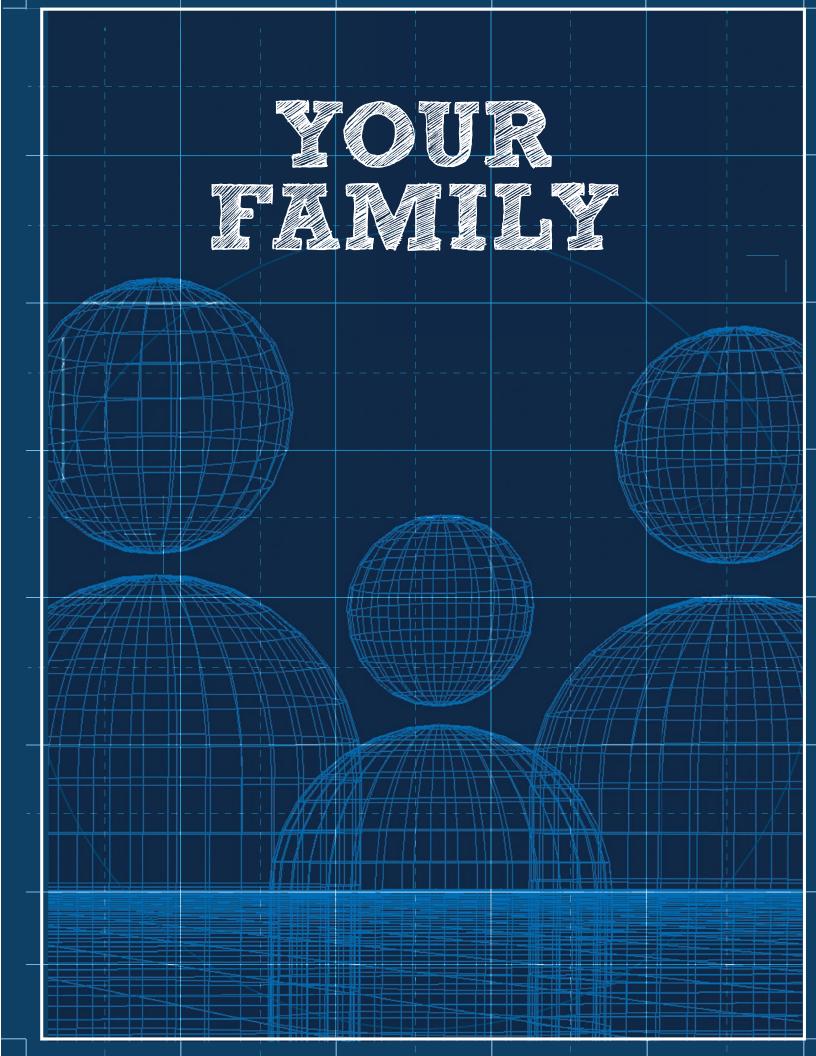
An 83(b) election allows you to recognize income on a stock grant before it vests, or on early exercise of an option.

If you expect the stock's value to rise significantly, it may make sense to pay income tax before it rises. However, if the stock declines in value, you will have paid more tax than necessary, sooner than necessary.

Carefully consider the risks before you make an 83(b) election. If you are building your target financial capital, proceed with caution. In general, 83(b) elections are best used with stock in private companies intending to go public.

For more information, see *Executive Decisions*, Bernstein, 2011.

# Notes



#### **Planning for Your Family**

If planning for your own needs is difficult, planning for your family is at least twice as hard. Once you marry, have children, or take on responsibility for a parent or sibling, additional issues come into play.

Having a will or life insurance may not be strictly necessary if you are only responsible for yourself, but if you have children or other dependents, these are crucial matters to take care of right away.

In this chapter, we review estate-planning basics and the many ways that you can make the most of your wealth for your loved ones' benefit by reducing taxes. We explain the key tax considerations for gifts, discuss educational savings plans, and explain many wealth transfer strategies.

We bring your choices to life in a case study, The Entrepreneurs' Wealth Transfer. We also explain how we think about these issues in Sharing the Wealth: Potential Surplus Capital.

In addition, we discuss insurance and how we quantify the life insurance you may need, even if you will be leaving substantial wealth behind.

Lastly, we note that wealth can create problems. No matter how much you love your fiancé, you may want to be careful about his future claims on your inherited or earned wealth, in case your marriage doesn't work out. We also touch on the possibility that your children may not share your work ethic. The answer to one of the frequently asked questions discusses some ways to motivate the kids and instill your values.

#### **Estate-Planning Basics**

If you haven't written a will yet, you are in good company. Many famous writers, musicians, and artists—such as Stieg Larsson, Bob Marley, and Pablo Picasso—died without leaving instructions about who should get their assets and take care of their children; an estimated two-thirds of American adults do not have a will.

Even those who really should know better have died intestate, or without a will, including eccentric billionaire Howard Hughes and President Abraham Lincoln.

While the possibility of dying or becoming disabled may seem remote if you're young and healthy, you should take steps to protect your family from the mess that can result from failing to plan for these possibilities, including litigation and embarrassing publicity. Your family is not likely to be able to get a Supreme Court Justice to intervene to assure quick action, as Lincoln's family did.

Other basic legal documents can ensure that your property is managed as you wish during your lifetime, if you become unable to manage it yourself; and that decisions about your own healthcare are made by the person(s) you choose in accordance with your own desires, if you become unable to decide for yourself.

Taking care to create these basic legal documents (*Family Display 1*) will spare your family from having to deal with a wide range of potential problems during a crisis, reduce the potential for family conflict, and preserve their privacy—and yours.

#### **FAMILY DISPLAY 1**

#### **Basic Estate-Planning Documents**

Document	Purpose	When Effective
Will	Distribution of property; care of minor children or other dependents	Upon death
Revocable Living Trust	Distribution of property	During life and at death
<b>Durable Power of Attorney</b> for Property	Distribution and management During life, usually in the even of disability	
<b>Durable Power of Attorney</b> for Healthcare	Healthcare decisions During life, in the event of	
Living Will	Decisions on end-of-life treatment	During life, in the event of disability

Source: Bernstein

#### Will

A valid will provides instructions on the administration and distribution of the assets held in your name at death. The will may provide for assets to be transferred outright to beneficiaries or to be held in trust for them. The will also designates the individual(s), bank, or trust company that will act as executor (or personal representative) of your estate, and the trustees of any trusts created under the will. Often, the will also names the individual(s) who will serve as guardian for minor children.

To be effective, a will must be probated (or be proven) after your death in an appropriate state court, which then oversees the administration of your estate through the probate process. Your executor (or personal representative) is empowered to administer your estate (the legal entity that takes over your affairs after death), including payment of debts and taxes and the distribution of assets as instructed in the will.

If you die without a will, assets held in your name at death will be distributed in accordance with the laws of the state you lived in. These laws generally provide for distributions among your family in stated proportions, depending upon who survives you. They also govern selection of the administrator (or personal representative) who will have responsibility for the estate. Your assets may be distributed in a way that you would not have chosen or that causes adverse tax consequences, or both. Such problems increase the chances of a family fight.

Even if you have a will, the administration and distribution of your assets will be subject to the probate process, a state court proceeding that is open to the public. The potential expense, delay, and loss of privacy that the probate process entails makes minimizing assets subject to probate desirable for many people.

Assets that are subject to probate generally include assets titled in your name at death.

Assets that are not subject to probate generally include:

- Assets with designated beneficiaries, such as IRAs, pensions, life insurance policies, or annuities
- Property held in joint tenancy that passes by law to the other tenant
- Assets held in trust at the time of death

#### **Revocable Living Trust**

Establishing and funding a revocable living trust during your lifetime is one of the most common ways of minimizing property subject to probate and avoiding court quardianship if you become incapacitated.

You can revoke or amend a revocable living trust at any time. You may act as sole trustee with exclusive authority to manage the trust assets and designate a successor trustee. This type of trust confers no income tax or estate tax benefits and does not protect your assets from creditors.

If you become incapacitated, the successor trustee you selected can manage trust assets without court guardianship proceedings or a durable power of attorney.

When you die, the successor trustee can execute your estate plan directly and immediately with regard to all assets in the trust. Hence, the revocable living trust is sometimes referred to as a will substitute. Like a will, it provides for the distribution of your property. Unlike a will, it is not subject to the expense, delay, and loss of privacy of a probate proceeding.

In practice, it can be difficult to put all your assets into a revocable living trust during your lifetime. Most people with a revocable living trust also have a basic will to dispose of any assets held in their own name at death. The basic will is often called a pour-over will, since it typically directs that all probate assets be poured into (or added to) the revocable living trust for disposition.

#### **Durable Powers of Attorney**

Other basic documents address the possibility that you may become mentally incapacitated prior to death.

If you become mentally incapacitated without the proper documents, your family may have to apply to a local court to appoint a guardian (or conservator) for you. The court may give the guardian authority over your financial affairs or personal affairs, or both. The court proceedings are typically costly, time-consuming, burdensome, and intrusive. Usually, the guardian must file regular and detailed reports with the court.

Executing the right durable powers of attorney might spare your family the guardianship process. In most jurisdictions, there is one type of power of attorney for financial and legal affairs, and one for health decisions. In a durable power of attorney for property, you can name someone to undertake one or more business, financial, and legal transactions on your behalf after you become incapacitated. Consult with your advisors about how to draft and execute a power of attorney for property; it can confer extensive authority on your agent.

In a durable power of attorney for healthcare (sometimes called a healthcare proxy), you may authorize someone to make healthcare decisions on your behalf if you are unable to make those decisions yourself. Your agent cannot make certain decisions that are inconsistent with any wishes that you have stated in a living will.

#### **Living Will**

A living will states your wishes regarding end-of-life medical care in case you become unable to communicate these wishes directly. It addresses such subjects as whether you want your life to be artificially extended if you fall into a persistent vegetative state. Sometimes, a living will and durable power of attorney for healthcare are combined into a single document. In the absence of a living will, your healthcare providers may be obligated to provide medical care that you don't want; the potential for disagreeable conflicts rises.



## I just created and executed a pour-over will and a revocable living trust. Now what should I do?

Put the documents in a secure place (perhaps in the safekeeping of your attorney) and make sure that someone other than your spouse knows that these documents exist and where they are located. Your attorney, another family member, your accountant, the executor of the will, or the successor trustee of the revocable living trust are good candidates to tell.

Work with your attorney to transfer assets into the trust. You may want to retitle in the trust's name personal financial accounts (such as bank and investment accounts), as well as some real estate and tangible personal property.

#### My wife and I recently bought a house. How should we title this asset?

That depends on what your goals are. Many couples want their first residence to be held in both their names, in joint tenancy, so that the property will pass automatically to the surviving spouse when one spouse dies. Work with your attorney to ensure that the title of your home fits with your wills.

The details of how joint tenancy works vary by state. All states allow some form of joint tenancy with right of survivorship.

Twenty-six states allow married couples to own a residence in a special form of joint tenancy known as tenancy by the entirety. In effect, this means that each spouse has full ownership of the property concurrently with the other. The death of one spouse leaves the survivor as the sole owner. Importantly, this form of title protects each spouse from the transfer of the other's half of the property without mutual consent. It provides some creditor protection for the residence, since creditors of a single spouse may not attach and sell the debtor spouse's interest in the home.

Nine states have community property laws, which in general give each spouse a one-half interest in certain property acquired during the marriage, which may include the residence.

#### Marriage Checklist

If you're in the whirlwind of planning your wedding and honeymoon, you may not feel up to dealing with these important, but prosaic, financial matters. If so, do your best to take care of them soon after.

#### □ Beneficiaries

Now is the time to review and amend as necessary your beneficiary choices for your 401(k) and IRA accounts, as well as any life insurance policies. Keep in mind that this may apply to an insurance policy provided through your employer.

#### ☐ Health Insurance

If you work, it's time to review your employer health benefits and amend your coverage to include your new spouse. If you are both employed, you'll want to compare policies; you may save money by switching to a better plan that your spouse's employer offers. Typically, marriage is a qualifying event that will allow a midyear change to health benefits.

#### ☐ Life Insurance

Now is a good time to determine how much life insurance, if any, the surviving spouse may need, if one spouse dies. See Mind the Insurance Gap.

If only one of you is working to provide for your new family, disability insurance may be advisable to replace lost income if the working spouse becomes temporarily or permanently disabled.

#### □ Wills/Trusts

Review your estate plan (or create one) to ensure that there are appropriate provisions for your spouse if you die unexpectedly. Your spouse should do the same.

#### ☐ Pre- and Postnuptial Agreements

If either spouse owns, or expects to receive or inherit, assets that the spouse would like to protect in the event of divorce, consult a lawyer about a marital agreement. Typically, each spouse will need separate counsel.

#### **Sharing the Wealth: Potential Surplus Capital**

People can be remarkably generous. Many investors we meet have acquired millions of dollars early in life—from selling a business or an inheritance—and would like to give a large chunk to family, friends, or worthy causes. After all, they say, they never expected to have so much money, and they can't imagine spending it all on themselves. When should I share the wealth? they ask—and How much can I give? A million dollars? More?

Other people find the idea of giving large sums to anyone outrageous. They worked for their money, they say, and they don't see why anyone else should get so much for nothing. "I don't want to raise a bunch of entitled brats" is a frequent refrain we hear.

We admire generosity, and we wouldn't presume to tell anyone how much he or she "should" give. Nonetheless, we generally caution younger clients not to give away large portions of their wealth, because unexpected things can happen over the decades to come. They may need more money in the future than they think, if, for example, they have more children than they now expect or their career is less successful or satisfying than they anticipate.

Some people ask if they can make large gifts to their children but retain control and benefits, so that they can take the gifts back if they need the money. The answer is that there may be adverse estate tax consequences. In general, tax law will count the transferred property as part of your estate for estate tax purposes if you retain certain benefits or controls over it. The safest course of action is to have no control over or benefit from gifted property, but some of the advanced wealth transfer strategies allow you to retain an interest or partial control of wealth you transfer.

#### What's Your Surplus?

To help young clients figure out how much of their wealth they can prudently share and when they should share it, we generally advise them to disaggregate their wealth into two buckets: the assets required to support their expected lifetime spending once they stop working (their target financial capital); and additional assets that can be earmarked for family, friends,

future generations, or charities. We call that second bucket their potential surplus capital (see Setting Your Target).

For example, if you are 40 years old and have \$10 million in financial assets, and a careful wealth-planning analysis shows that you need only \$3 million now in target financial capital that will grow (if invested properly) to support you after you retire at age 70, you have \$7 million in potential surplus capital.

"Great," you might say. "I'd like to put \$4 million in a trust for my kids and give \$3 million to a fund that protects the environment."

That's when we remind you that we said "potential." Your potential surplus capital is just an estimate based on assumptions about your life and your current priorities—and both your life and your priorities may change. If you divorce or remarry, have additional children, or decide in a few years that you hate your high-paying job, you may regret large gifts to family or to charity.

When you're 70 and retired, by contrast, you'll know much more about how your life has shaped up—and estate taxes will be looming. At that point, it would be far more prudent to make plans for the use of your entire surplus capital.

The flexibility of your gifts is another factor. It's generally advisable to preserve as much flexibility as possible for changes in the family's circumstances, such as the possibility that you may have additional children. A well-drafted trust can provide this kind of desirable flexibility.

Some split-interest charitable vehicles allow you to give to charity any money remaining after many years of distributions (see Vehicles for Split-Interest Charitable Gifts).

Your philanthropic priorities may also change. Ten or 20 years from now, you may wish you had given less to one cause and more to another.

When you are talking about giving large sums of money that may represent a significant chunk of your net worth, it may make more sense to preserve your flexibility by making large annual gifts.

#### What's the Tax Hit?

The next step in planning a wealth transfer is to evaluate its likely tax impact. The US government imposes three transfer taxes that can take a big bite out of money you give to other individuals:

- **Gift tax** is imposed upon gifts during your lifetime.
- **Estate tax** is imposed upon transfers at death.
- **Generation-skipping transfer (GST) tax** is imposed upon gifts made during your lifetime or at death to, or for the benefit of, grandchildren, more remote descendants, and individuals more than 37½ years younger than you are, in addition to any applicable gift or estate tax.

There are many exemptions, deductions, and credits to transfer taxes (*Family Display 2*). When they are exhausted or unavailable, the top transfer tax is 40%.<sup>1</sup>

The same unlimited marital deduction and unlimited charitable deduction are allowed with respect to estate tax due at death. The applicable exclusion amount not used during your life is available with respect to estate tax at death. If your estate doesn't need your applicable exclusion amount to avoid tax, the unused portion can be transferred to your surviving spouse.

A special form of the annual exclusion and of the educational/medical (ed/med) exclusion is available for computing GST tax. There is also a \$5.43 million GST tax exemption, which is similar to the applicable exclusion amount and indexed to inflation.

#### **FAMILY DISPLAY 2**

#### Transfer Tax Exemptions, Deductions, and Credits

Туре	Description
Marital Deduction	Transfers to one's spouse for the benefit of that spouse, if he or she is a US citizen, are unlimited.
Annual Gift Tax Exclusion	Individuals may give away \$14,000 a year, and married couples, \$28,000, inflation-adjusted, to as many individuals as they desire without incurring gift tax or using any of their lifetime applicable exclusion.
Lifetime Applicable Exclusion	Individuals may give \$5.43 million in 2015 dollars, indexed for inflation (\$10.86 million for married couples), during their life or at death without incurring tax, in addition to the \$14,000 annual gift tax exclusion.
Educational/Medical Exclusion	Individuals can pay an unlimited amount for someone else's tuition or healthcare directly to the education or healthcare provider, without using any of the annual exclusion or lifetime applicable exclusion. Tuition may be for any level of educational program.
Charitable Deduction	Transfers to qualifying charities are exempt from gift tax and may result in a charitable income tax deduction and the avoidance of capital gains.

Source: IRS and Bernstein

While the gift tax and estate tax have the same 40% rate, there is an important difference. The estate tax is tax-inclusive, meaning that the 40% tax is applied to the entire taxable estate, including the amount subject to tax. Gift tax, on the other hand, is tax-exclusive: The 40% rate is calculated only on the amount transferred by gift, and not on the amount of gift tax paid. For example, assuming no exemptions or deductions are available, if you have \$140,000, it is possible to make a lifetime gift of \$100,000, which would leave you with \$40,000 to pay the 40% gift tax calculated on that gift. But if you die with \$140,000, your estate owes 40% of the entire \$140,000, which comes to \$56,000, leaving only \$84,000 after taxes. In other words, the gift tax has an effective rate of 28.6% (\$40,000/\$140,000), a big drop from the 40% effective rate of the estate tax (\$56,000/\$140,000). Few people making estate plans take advantage of the lower effective rate of gift tax, for a variety of reasons, including simple reluctance to pay gift tax during life.

#### **State Transfer Taxes**

Many states, but not all, impose transfer taxes. Florida and California don't impose transfer taxes. New York and Washington impose relatively high estate tax rates, reaching 16% at the highest marginal rates. The federal estate tax, however, allows a deduction for state estate taxes paid, which softens their impact. New Yorkers thus face a top blended federal and state estate tax rate of only 49.6%, not 56% (40% + 16%). At least one state (Connecticut) imposes a gift tax on lifetime transfers.

#### More on the Applicable Exclusion Amount

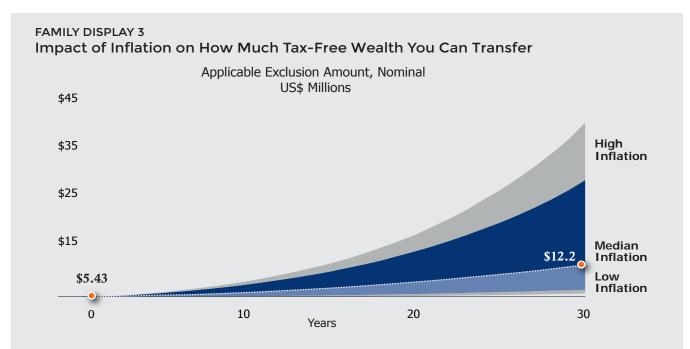
The applicable exclusion amount—currently \$5.43 million and indexed for inflation—shelters most Americans from paying any federal transfer tax on a transfer of their wealth, particularly since married couples effectively receive the benefit of two full exclusion amounts. This is very generous versus history.

We estimate that the federal estate tax exclusion will grow from \$5.43 million to \$12.2 million over the next 30 years, in the median case for inflation (*Family Display 3*). If inflation is very low, the exclusion will

increase less, but if inflation is very high, the exclusion could increase to almost \$40 million per person in the same time frame.

With the inflation adjustment, the applicable exclusion amount is likely to continue to shelter most Americans from transfer taxes. Investors who don't expect to have estates above the threshold needn't worry about federal transfer tax considerations when planning their legacy. Of course, they must still keep an eye on the possibility that Congress might change the transfer tax law. They may also want to pay attention to some important income tax issues in planning their legacy, not to mention the possibility that their estates may be exposed to state estate taxes.

Individuals with greater wealth that could exceed the inflation-adjusted exclusion amounts in the future may want to begin focusing on whether they can afford to make lifetime gifts, and, if so, whether there are any tax-efficient ways to transfer money to their family, their children, or charities. They may want to explore education savings plans or one or more tax-efficient wealth transfer strategies or tax-efficient charitable strategies.



Based on increases in inflation, rounded to the nearest \$10,000. The applicable exclusion amount shown is for an individual, based upon 10th ("High"), 50th ("Median"), and 90th ("Low") percentile outcomes for the inflation-adjusted applicable exclusion amount. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

#### **Get Smart About Education Savings**

Given the high cost of education, it's important to make the most of available income tax deductions while paying attention to federal transfer tax rules. Educating your children isn't just an expense: The Internal Revenue Service sees it as a gift.

Fortunately, direct tuition payments to elementary and secondary schools fall under the educational/medical exclusion. You can pay unlimited current tuition, or medical expenses, on behalf of one or more beneficiaries, without incurring gift tax.

As a result of the exclusion, tuition payments do not count against your \$14,000 annual exclusion or the \$5.43 million applicable exclusion amount. Payments for room and board and other non-tuition expenses do not qualify for the exclusion.

There is also a tax-advantaged way to invest to fund future college or graduate school expenses: a Section 529 plan. Contributions to a Section 529 plan made with annual exclusion gifts grow free of federal income tax, and earnings can be withdrawn tax-free as long as the funds are used for qualified higher-education expenses.

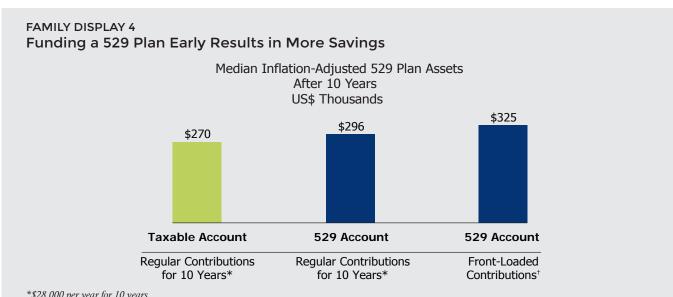
Contributions to a 529 plan do not qualify for the unlimited ed/med exclusion but may cover a much wider array of expenses, including tuition, fees, books, supplies and equipment, and special-needs services required to enroll in or attend an eligible educational institution, as well as room and board, for students attending at least half-time.

#### **How a 529 Plan Works**

Individuals can make gifts of up to the \$14,000 annual exclusion amount (married couples, up to \$28,000) per year to a 529 account for the benefit of any number of individuals. The 529 program allows you to front-load five years of annual exclusion gifts, and thus give up to \$70,000 in one year (\$140,000 for a married couple) per beneficiary.

Front-loading a 529 plan can be a great way to avoid income taxes on the future growth of funds earmarked for higher-education expenses. Family Display 4 shows the advantages of 10 years of annual or front-loaded contributions to a 529 plan versus taxable savings.

For more detail on 529 plans, see *The Bernstein Income* Tax Playbook, Bernstein, 2014.



<sup>\*\$28,000</sup> per year for 10 years.

Based on Bernstein's estimates of the range of returns for the applicable capital markets over the next 10 years as of December 31, 2014. Data do not represent any past performance and are not a promise of actual future results. See Notes on Wealth Forecasting System in the Appendix. Source: Bernstein

<sup>†140,000</sup> in the beginning of year one and \$140,000 at the beginning of year six.

The assets are invested 70% in globally diversified equities and 30% in fixed income when the child is age 8, and become more oriented toward bonds over time, until reaching 25% globally diversified equities and 75% fixed income at the child's college age. Stocks modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international and 7.5% emerging markets. Bonds modeled as intermediate-term diversified municipals in the taxable account and intermediate-term taxables in the 529 accounts. Taxable account assumes top marginal federal tax rates and a 6.5% state income tax rate.

#### First Child Checklist

Preparing for the birth or adoption of your first child involves more than choosing healthcare providers, buying a crib, and learning about infant care. You also need to tend to various financial and legal matters—particularly if you will be a single parent.

#### □ Beneficiaries

Now is the time to review and amend your beneficiary choices for your 401(k) and IRA accounts, as well as any life insurance policies, to ensure that the child will be included. Keep in mind that this may apply to an insurance policy provided through your employer.

#### ☐ Health Insurance

If you work, it's time to review your employer health benefits and amend your coverage to include dependent coverage for your new child. Typically, having a child is a qualifying event that allows a midyear change to health benefits.

#### ☐ Life and Disability Insurance

Now is a good time to determine how much life insurance, if any, the surviving spouse and child may need, if one spouse dies. (See Mind the Insurance Gap.)

If only one of you is working to provide for your new family, disability insurance may be advisable to replace lost income if the working spouse becomes temporarily or permanently disabled.

#### □ Wills/Trusts

Review your estate plan (or create one if you haven't already) to ensure that there are appropriate provisions for the child, including appointment of a guardian, if both you and your spouse die unexpectedly.

#### ☐ Child Care

Many parents require child-care assistance, particularly if they work. Identify the types and price of child care available (day care, nanny, family) and which you prefer.

Factor the cost of child care into your financial plan to ensure that you stay on track to reach your target financial capital.

#### □ College Savings

If you plan on funding your child's college education, a 529 college savings plan can be very effective. The earlier you can establish the account, the better, due to longer tax-deferred growth. Your parents and other family members may also want to contribute to the fund, or establish one of their own. (See Get Smart About Education Savings.)

#### **Wealth Transfer Strategies**

Once you and your spouse have determined that you have potential surplus capital that you want to give to your children or other individuals, you have a number of tax-efficient strategies to explore.

Starting wealth transfers early often increases the long-term benefits to both you and the recipients. The recipients get to invest or use the money sooner, while you move future income and appreciation on the transferred property out of your estate. For assets likely to appreciate, the earlier the funds are moved, the greater the transfer tax savings should be.

There are five categories of lifetime gifts that are not subject to gift tax, as shown in Family Display 2. For transfers to children, only three categories are relevant: the annual exclusion, the ed/med exclusion, and the lifetime applicable exclusion amount. Of these, your first task is to make sure that you take appropriate advantage of the annual exclusion.

#### **Annual Exclusion**

The annual exclusion, at \$14,000 (adjusted for inflation), may strike some readers as too small to worry about. But a married couple has two annual exclusions (\$28,000) available for as many donees as they want every year. Making use of the annual exclusion for a decade or more to several children has a stunning power to transfer wealth over time. If you have five children, you could give them \$140,000 a year; with inflation, that could amount to \$1.6 million in a decade.

It is worth consulting professional advisors about how best to use annual exclusion transfers to minor children. Outright transfers (e.g., in custodial accounts) may result in their receiving too much money at a relatively young age, such as 21.² Failure to make annual exclusion gifts during a calendar year represents a wasted opportunity, since these gifts constitute a use it or lose it proposition. If you have

potential surplus capital that you want to give to your children, it generally makes sense to maximize the use of annual exclusion gifts, even if your estate is unlikely to be subject to estate tax at death.

#### **Using IDGTs to Maximize Gifts**

If the recipient doesn't need the money for immediate consumption, a donor can make annual exclusion gifts to an intentionally defective grantor trust, or IDGT. (See Tax-Efficient Wealth Transfer Techniques.) With an IDGT, the trust assets are excluded from the donor's estate for estate tax purposes, but the income generated is included in the donor's income for income tax purposes. Because the donor is legally responsible for paying the income tax on the trust income, he can further reduce his estate while letting the trust assets grow tax-free for the eventual recipient.

We estimate that in typical markets, annual exclusion gifts to an IDGT for one beneficiary can transfer more than \$400,000 in inflation-adjusted dollars over 20 years (*Family Display 5*). Over 30 years, that figure grows to over \$800,000. About \$180,000 came from the donor paying income taxes on the trust's income.

A single lifetime gift to an IDGT, using a portion of the donor's \$5.43 million applicable exclusion amount, can allow a donor to transfer significant wealth because all the future appreciation on the gift and the future income taxes will be outside the donor's estate. The donor could also use a portion of his lifetime applicable exclusion to make a single lifetime gift to an IDGT to benefit his grandchildren and more remote descendants, without incurring transfer tax. We illustrate the advantages of the IDGT in The Entrepreneurs' Wealth Transfer.

#### Other Strategies

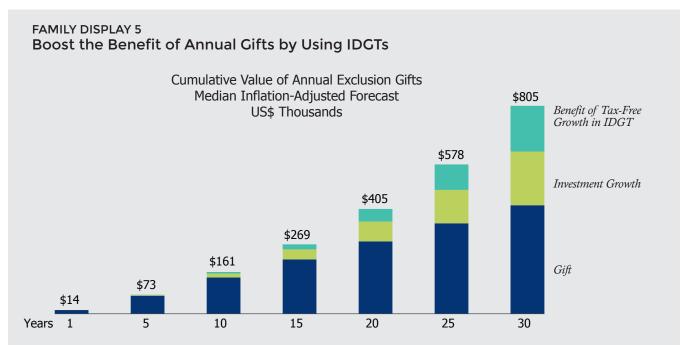
An alphabet soup of other, more complex strategies may be appropriate and appealing for some investors.

<sup>&</sup>lt;sup>2</sup>Transfers into a trust for a child require some special features to qualify for the annual exclusion. Please consult your professional advisor.

Tax-Efficient Wealth Transfer Techniques (Family Display 6) provides key features of some that younger investors are now using. Appreciation strategies, such as GRATs and installment sales to IDGTs, can be particularly effective ways to give an asset with significant expected growth in low-interest-rate environments. For an investor who feels comfortable "giving when times are good," these strategies can be particularly appealing.

No single strategy is likely to meet all of a wealthy family's objectives, but a combination of strategies may do so. Key variables to understand include the pace at which a strategy can move funds to the recipients, how much wealth it can move, its overall efficiency in meeting a particular transfer objective, and its flexibility to move funds to multiple generations or be adjusted over time.

A well-crafted wealth transfer plan leaves ample room for later adjustments, if the family's goals change or market returns are better than expected. The Entrepreneurs' Wealth Transfer provides an example of how we apply this framework.



Initial annual gift is \$14,000, indexed for inflation. All accounts are invested 100% in stocks. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging markets. If the assets were liquidated, additional capital gains or losses would be realized that are not reflected here. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

#### **Tax-Efficient Wealth Transfer Techniques**

	Grantor Retained Annuity Trust (GRAT)	Installment Sale to Intentionally Defective Grantor Trust (IDGT)*	Generation-Skipping Trust or Dynasty Trust
Purpose	To transfer to a younger generation any appreciation in the trust assets over the Section 7520 rate, <sup>†</sup> with low or no transfer tax cost; the grantor retains the annuity payments.	To transfer to a younger generation both the amount of the initial outright gift to the trust and any appreciation in the sale assets over the interest rate on an accompanying promissory note, while retaining the purchase-price value.	To transfer assets to multiple generations with the least possible transfer-tax cost, typically by combining exemptions for gift or estate tax with GST tax exemption.
Description	The grantor contributes assets to the GRAT. The grantor receives a fixed-dollar annuity from the GRAT for a number of years (the annuity term). After the end of the annuity term, the remainder typically passes to the children or trusts for their benefit.	Typically, the grantor makes a gift of at least 10% of the overall transfer to the IDGT. The grantor then sells the remainder of the assets to the IDGT in exchange for a promissory note bearing interest at a federally determined rate. The trust is designed to pass assets to the children or other beneficiaries.	Typically, the trust is designed to last for multiple generations and provide for discretionary distributions to family members.
Income Tax Considerations	A GRAT is a grantor trust. <sup>‡</sup> The grantor pays any income tax generated by the assets in the trust. Annuity payments are considered a return of principal to the grantor.	The IDGT is a grantor trust. <sup>‡</sup> Initial sale and interest payments to the grantor are ignored for income tax purposes. If the grantor dies during the term of the note, the income tax consequences are uncertain, and capital-gains taxes may be due on the sale as of the grantor's death.	The trust can be designed to be a grantor trust during the grantor's lifetime; otherwise, it is a taxable trust.
Estate/ Gift Tax Considerations	The grantor can create a GRAT with no gift tax cost if the present value of the annuities equals the contribution. If the grantor survives the annuity term, any amount remaining in the GRAT passes to the remainder beneficiaries free of gift or estate tax. However, if the grantor dies during the annuity term, part or all of the trust assets are included in the grantor's estate for estate tax purposes, reducing or eliminating the benefit of this vehicle.	The initial outright gift to the IDGT is a taxable gift that requires use of the grantor's gift tax exclusion, or, if none, payment of gift tax. The sale will not result in a taxable gift if the value of the promissory note equals the value of the assets sold and if the promissory note bears an interest rate sufficient to avoid an imputed gift. Generally, gift/sale assets are excluded from the grantor's estate. If the grantor dies during the note's term, the outstanding note balance is included in the grantor's estate. Appreciation of the trust assets exceeding the interest rate on the note passes to the remainder beneficiaries free of gift or estate tax.	Assets retained in the trust will not be subject to estate tax.
GST Tax Considerations	Typically not exempt from GST tax.	This trust can be designed to be exempt from GST tax.	The trust is designed to be exempt from GST tax.

<sup>\*</sup>This vehicle is not described in any tax authority. Accordingly, some income and transfer tax consequences remain uncertain, and the strategy may be subject to IRS challenge. Hence, this technique requires substantial guidance from knowledgeable tax and legal advisors.

Continued on the following page

<sup>†</sup>The Section 7520 rate is determined monthly based on Treasury-bond yields; the rate in effect at the creation of the trust is used to calculate the present value of the annuity (and acts as the hurdle rate for certain trusts like GRATs and CLATs).

 $<sup>^{\</sup>dagger}A$  grantor trust passes through income for tax purposes to an individual (usually the grantor) who is taxed on all trust income.

#### Tax-Efficient Wealth Transfer Techniques-continued

	Irrevocable Life Insurance Trust (ILIT)	Family Limited Partnership (FLP)**	Qualified Personal Residence Trust (QPRT)
Purpose	To allow a spouse to benefit from life-insurance death benefits as needed and also allow those benefits to pass to younger generation with low or no transfer tax cost.	To consolidate management, investment, and disposition of assets in a single business entity, and transfer economic interests in the assets to younger generations without providing recipients with direct control over assets.	To transfer to a younger generation a personal residence at a reduced value for transfer tax purposes and all subsequent appreciation.
Description	The grantor contributes assets to the ILIT, and the trustee purchases an insurance policy on the life/lives of the grantor and/or the grantor's spouse. Alternatively, the grantor may transfer an existing policy to the ILIT. The ILIT trustee owns the insurance policy and receives the proceeds upon the insured's death, which may be held in further trust.	One or more family members contribute assets to the FLP. The FLP has two classes of owners: general partners (GPs) and limited partners (LPs). GPs own controlling interests and are subject to FLP liabilities. LPs do not participate in management of the FLP and are not subject to FLP liabilities. Depending on the restrictions in the partnership agreement and the nature of the assets contributed to the FLP, certain discounts may be appropriate in the valuation of the LP units.	The grantor contributes a personal residence to the QPRT and retains the right to occupy the residence for a number of years. After the end of the term, the remainder typically passes to children or trusts for their benefit.
Income Tax Considerations	Typically, the ILIT is a grantor trust‡ during the grantor's lifetime and becomes a non-grantor trust upon the grantor's death.	FLP partners are taxed on their respective pro rata shares of partnership income/gains. Dispositions of partnership interest and the funding or dissolution of the FLP may trigger capital gains or other income tax consequences in certain circumstances.	Typically, the QPRT is a grantor trust.‡
Estate/ Gift Tax Considerations	Typically, ILITs are designed to qualify annual contributions for the gift tax annual exclusion. A contribution to the ILIT exceeding the annual exclusion may result in a taxable gift that requires use of the grantor's gift tax exclusion, or, if none, payment of gift tax. The insurance policy is excluded from the grantor's gross estate.§	Any discounts properly reducing the value of the LP units reduce the gift or estate tax exclusion used, or gift or estate tax paid, in transferring those units.	The contribution to the QPRT results in a taxable gift that requires use of the grantor's gift-tax exemption, or, if none, payment of gift tax. However, the taxable gift is based only on the value of the remainder beneficiary's interest, not the full value of the residence.  If the grantor survives the term, then the value of the residence exceeding the taxable gift (including all appreciation in the residence from the time of the gift) passes to the remainder beneficiaries free of gift or estate tax. However, if the grantor dies during the term, the residence is included in the grantor's taxable estate, eliminating the benefit of this vehicle.
GST Tax Considerations	This trust can be designed to be exempt from GST tax.	Any discounts properly reducing the value of the LP units reduce the GST tax exemption used, or GST tax paid, in transferring those units.	Typically not exempt from GST tax.

 $<sup>\</sup>S$  If the trustee purchases the insurance policy, it is excluded from the grantor's gross estate from the point at which the ILIT was created. If the grantor contributes a preexisting policy to the ILIT, the policy will be excluded from the grantor's gross estate beginning as of the third anniversary of the contribution.

<sup>\*\*</sup>In many states, a limited liability company (LLC) is an alternative to an FLP. LLCs and FLPs have slightly different structures, but similar purposes and benefits.



#### How do I give to my kids without demotivating them?

Giving through trusts can be a good way to establish boundaries and conditions around your children's receipt of money. Trusts offer an alternative to giving to your children directly, as well as protection from creditors (which can include future spouses of your children).

Education about financial markets, investing, and budgeting can be invaluable lessons for children and can begin at a young age. A family fiscal policy, which details expectations and requirements for allowances and expenditures, can be a good way to learn more about each child's relationship with money and to enforce consequences for poor behavior.

#### How can I give money to my children without putting my own future financial security at risk?

The decision to transfer assets relies on your target financial capital and potential surplus capital and should be carefully considered. Our wealth forecasting tools can help you build confidence that your gifting program will be consistent with your own financial security and can weather periods of market turmoil.

To increase confidence further, you might focus on strategies, like GRATs and installment sales, that transfer wealth to your children only if the assets appreciate. These strategies give when times are good in the capital markets.

Some strategies, such as rolling short-term GRATs, are easily discontinued if you decide that you've transferred enough assets or if you become concerned about your own financial security.

#### Our parents make annual gifts to us each year. How do these gifts affect our taxes and theirs?

There are two types of taxes to consider: gift tax and income tax.

In general, the person making the gift, not the recipient, is responsible for paying gift taxes. Your parents, as the donors, need to determine whether to file a gift tax return and whether they owe gift tax. Some gifts of artwork or other hard-to-value assets may need to be professionally appraised.

In general, receipt of a gift doesn't represent taxable income, so you don't have to report the gift on your income tax return. But, if your parents give you appreciated property, and you subsequently sell the asset, you will owe capital-gains tax on the increase in value since your parents acquired the asset. This makes a gift of appreciated property less valuable to you than an equivalent gift of cash.

The rule that a lifetime gift includes a carryover of the asset's cost basis does not apply to transfers at death subject to the estate tax, when there is usually a step-up in cost basis, or to a lifetime gift of property held at a loss.

# Case Study The Entrepreneurs' Wealth Transfer

Eric and Eleanor, the 40-year-old couple discussed in The Entrepreneurs, want to use the \$2.7 million in potential surplus capital from the \$34 million sale of their business to meet two secondary goals: donating to charity and transferring wealth to their children tax-efficiently. Should they commit all their potential surplus today? and How should they structure the gifts?

#### **How Much to Commit**

We advised Eric and Eleanor not to commit their full potential surplus capital right away. Their potential surplus capital might turn out to be needed to meet higher-than-expected living expenses. Eric and Eleanor were only 40; in the decades ahead, their earnings power, accumulated wealth, lifestyle, and obligations could change dramatically. (See Sharing the Wealth: Potential Surplus Capital.)

Given their particular circumstances, we suggested that Eric and Eleanor give (or commit to give) just over \$2 million, and think of the remaining \$700,000 as an emergency buffer to their target financial capital. (For another couple, an immediate gift of \$1 million or \$2.5 million of their surplus capital might be appropriate.) As their financial circumstances and requirements become more certain, they could add to their giving commitments.

Eric and Eleanor agreed, and decided to commit \$1 million to charity and another \$1 million to their children. For the gifts to charity, see The Entrepreneurs' Charitable Gifts.

#### **Structuring the Wealth Transfer**

Eric and Eleanor's wealth transfer goal was to put away money that could give their children a head start, perhaps allowing them to buy homes or start their own businesses. Like many relatively young investors, they hadn't thought much about estate taxes yet.

We analyzed four potential structures: an irrevocable intentionally defective grantor trust (IDGT), an installment sale to an IDGT, a grantor retained annuity trust (GRAT), and a refinement to the GRAT strategy known as a series of rolling GRATs.

A gift to the irrevocable IDGT would move \$1 million outside the estate, along with all the future

# FAMILY DISPLAY 7 How a \$1 Million Gift Today Could Grow over Time

Irrevocable Intentionally Defective Grantor Trust (IDGT) Values (Median)

\$ Millions \$3.5



Assumes the gift is made to a grantor trust with no distributions over the 20-year period. Allocation is 80% stocks/20% bonds. Stocks modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging markets. Bonds modeled as intermediate-term in-state municipals.

If the gift was made with cash using \$1 million of applicable exclusion, median estate tax savings would be approximately \$1 million. If the gift was made with private company stock discounted by 30% and using only \$700,000 of applicable exclusion, median estate tax savings would be \$1.12 million. Assumes assets not gifted are subject to 40% estate tax.

Based on Bernstein's estimates of the range of returns for the applicable capital markets, as of December 31, 2014. **Data do not represent past performance and are not a promise of actual future results or a range of future results.** See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

#### Case Study

#### The Entrepreneurs' Wealth Transfer

growth and income on that \$1 million, since the couple would pay any income taxes the trust owed. We estimate that if they invested the \$1 million in a growth-oriented portfolio suitable to the time horizon and risk tolerance of the children, its nominal value would grow to \$3.5 million in 20 years in typical markets; its real (inflation-adjusted) value would grow to \$2 million (*Family Display 7*).

In the unlikely case that the couple died by the end of 20 years, the trust would reduce estate taxes due by about \$1 million. If they lived longer, as is reasonable to expect, the trust would grow even more—and so would the estate tax savings that it would generate. Eric and Eleanor found a strategy that could tax-efficiently transfer \$3.5 million to the kids over 20 years very appealing.

The three other strategies would allow the couple to retain the principal but give the children any appreciation in its value above a stated interest rate. The gift would thus be smaller, and possibly nil. However, when interest rates are very low, the likelihood of transferring some wealth is high. Before you adopt any of these strategies, consult with an attorney familiar with the legal details and any potential risks of these strategies.

In the installment sale strategy, the couple would set up an IDGT that would buy financial assets from the couple in exchange for a note. In this case, the \$1 million, 10-year note would pay interest annually at 2.91%, the long-term applicable rate that the IRS sets in the month of the proposed transfer. At the end of the trust's 10-year term, the IDGT would make the final interest payment and pay off the note in full. Any appreciation in the assets above the interest rate would result in a wealth transfer free of estate and transfer taxes to a trust for their children.

In the GRAT strategy, the couple would contribute money to a trust that makes annuity payments of principal and interest to them over its term. In this case, the couple considered a 10-year term GRAT with an interest rate of 2.2% (the 7520 rate mandated by the IRS at that time). Any appreciation over and above the interest rate would result in a wealth transfer free of estate and transfer taxes to a trust for their children.

The risk in a GRAT and an installment sale to an IDGT is that one or two years of extremely bad performance in the trust portfolio could cause the trust's return to underperform the mandated interest rate over the course of the trust's term. If this occurs, the remainder beneficiaries (the couple's children) would receive nothing at the end of the term.

A rolling GRAT strategy reduces this risk by setting up a series of two-year GRATs over a 10-year horizon, rather than a single 10-year GRAT. In this case, the couple would contribute \$1 million to a two-year GRAT, and at the end of the first year, when the first annuity payment is due, the couple would commit the annuity payment to another two-year GRAT. At the end of the second year, they would commit both the second annuity payment from the first GRAT and the first annuity payment from the second GRAT to fund a third GRAT. This would continue for as long as the couple wants to continue the strategy.

Any GRAT can succeed or fail. The advantage of the rolling GRAT strategy is that it gives you many shots at success. A single long-term GRAT strategy offers only one, which can be derailed by even a brief, but severe, decline in the asset's value. In addition, the short term of each GRAT in the series gives the couple the flexibility to stop funding new GRATs if their situation changes, or they become comfortable with the amount of wealth transferred.

#### Case Study

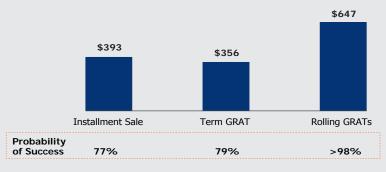
#### The Entrepreneurs' Wealth Transfer

Family Display 8 shows our forecasts for each of the three strategies in typical markets. For their \$1 million contribution to the trusts, the couple could expect to transfer about \$393,000 with an installment sale, \$356,000 with the term GRAT, and \$647,000 with the series of rolling GRATs.

Eric and Eleanor decided that they preferred to make a \$1 million gift and establish the IDGT for their children. Their attorney suggested that there may be time before the sale to fund the IDGT with their company's private stock and pay the income taxes on the trust's behalf. The couple kept open the possibility of using rolling GRATs and perhaps an installment sale to transfer to their children the future payouts from escrow and earnouts on the sale of their business, as well as any wealth that their new venture might create. Thus, in the future, their estate plan might contain three of the wealth transfer strategies available to them, each designed for a specific purpose and with a different investment strategy.

# FAMILY DISPLAY 8 Comparing Potential Outcomes When Retaining Principal

Inflation-Adjusted Median Remainder Values in Year 10 \$1 Million Initial Sale/Contribution US\$ Thousands



All strategies are funded with \$1 million invested 100% in stocks. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging markets. GRAT strategy assets/remainders and installment sale assets are assumed to be held in intentionally defective grantor trusts (IDGTs). Wealth transfer amount for rolling GRAT strategy includes the aggregate value of the assets received from the GRAT and the subsequent growth in the IDGTs. For comparability, the installment sale strategy does not include a seed gift. All GRATs have been "zeroed-out" for gift tax purposes. All GRAT annuity payments grow by 20% each year. The initial GRATs are assumed to be funded when the 7520 rate is 2.2%. The installment sale is assumed to be funded when the long-term AFR is 2.91%. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

#### Insurance: When It Pays to Buy Protection

Investing involves uncertainty; financial planning seeks to manage uncertainty. But sometimes, it's worth paying to transfer uncertainty to someone or something else. That's essentially what you do when you buy insurance.

You buy health insurance because you can't know how healthy you will be, and you don't want to be ruined by huge doctor and hospital bills.

You buy life insurance because you can't know how long you will live and be able to provide for your children or other dependents; and disability insurance because you can't know how long you will be able to work.

You buy long-term care insurance for yourself or your parents because you can't know if you or they will need personal care at home or in a nursing facility.

You buy an umbrella insurance policy with your auto or home insurance to protect yourself from litigation arising from accidents.

Quantifying the amount of insurance you need may be difficult, and it could change over time. For example, once your children are nearly grown, you may not need as large a life insurance policy (adjusted for inflation) as when they are infants, since the benefit needn't support them for as long. In addition, you will have likely saved more when they are older and may be able to provide some financial support from your savings until they can support themselves.

We encourage clients to put in place an insurance plan that meets their family's particular needs, rather than trying to find a one-size-fits-all policy. Mind the Insurance Gap demonstrates how we help clients decide how much insurance they need.

You'll need to talk to a licensed insurance agent about the cost and features of the policies available.

# Case Study Mind the Insurance Gap

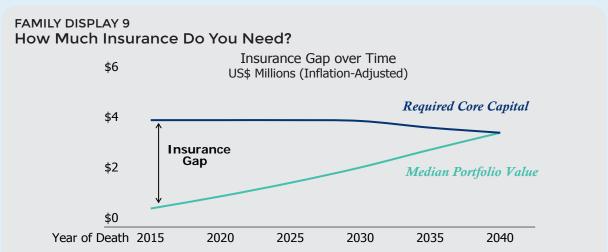
Larry and Layla are a married couple, age 42 and 39, respectively. They have a five-year-old daughter and recently had another daughter. Larry's job in software sales supports the family. After the birth of their first daughter, Layla left her position in marketing to be at home full-time.

Larry and Layla want to know if they are on track to meeting their retirement goals and how much insurance they might need. Larry earns about \$247,000 a year and expects his salary to grow by inflation annually. He and Layla spend about \$100,000 a year after taxes. Layla has \$50,000 in her former employer's 401(k). Larry's balance is currently \$250,000. Both balances are invested in portfolios with moderate-growth asset allocations.

Larry plans to continue to contribute the maximum amount each year to his 401(k), which is \$18,000 today and will grow with inflation (including a catch-up payment at age 50 of \$6,000); and he expects his company to continue matching his contributions up to 3% of his annual salary. With help from their parents, the couple

has been able to save what they expect will be enough for their children's college education. We determined that if Larry and Layla stick with their current spending and saving rates, they should hit their target financial capital when Larry is 66, allowing him to retire then. But what if something happens to Larry? The couple has disability insurance through Larry's employer. But Layla's best friend recently died in a car accident; that made them wonder if they might need life insurance, too.

We provided an analysis that illustrates two key values: the value of Larry and Layla's growing savings over time; and the assets that they would require over time to support future spending. We refer to the difference in these two values as the insurance gap.



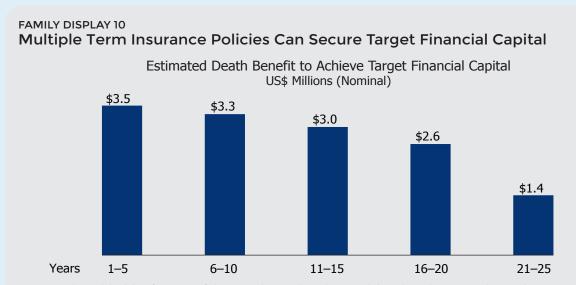
Median portfolio value is based on the growth of an initial portfolio of \$300,000 in a 401(k) plus maximum contributions to the 401(k), grown with inflation, along with an employer matching contribution of 3% of salary and any net savings to the taxable portfolio resulting from \$247,000 salary net of taxes and \$100,000 annual spending, both inflation-adjusted. Allocation is 65% stocks/35% bonds. Required core capital is the amount needed to support the surviving spouse's lifetime spending of \$100,000, inflation-adjusted, assuming a confidence level that glides up as human capital declines so that it will support sustainable future spending after taxes and inflation. The insurance gap is the death benefit needed for the portfolio value to equal the required core capital. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix. Source: Bernstein

Because the life insurance would provide for Layla and the children immediately if Larry were to die unexpectedly, we solved for the insurance amount that would allow Layla to continue spending \$100,000 in today's dollars, assuming she didn't return to work. *Family Display 9* shows that if Larry were to die later this year, Layla would be left with about \$400,000 but would need \$3.9 million in nominal dollars in order to support the family's inflation-adjusted spending of \$100,000 for the rest of her life. So she would need \$3.5 million from a life insurance policy to fill the insurance gap.

As you might expect, the longer Larry is able to work and save, and the longer the couple's investments grow, the less insurance is needed to fill the gap. Ten years from now, the couple would require \$3 million in coverage. Twenty years from now, they would need only \$1.4 million. Larry and Layla constructed a plan that included several insurance policies with different terms to fill the gap (*Family Display 10*). The longest policy has a 25-year term and a \$1.4 million death benefit. The shortest has a five-year term and a \$0.2 million death benefit.

They worked with an insurance agent to find a package with attractive pricing. Because term life policies are generally inexpensive,<sup>3</sup> this coverage did not add meaningfully to their living expenses but provided enormous comfort to the family.

Note: It is important to discuss your potential insurance needs with a licensed insurance agent.



Represents the total death benefit amount of the staggered term policies that is needed to achieve the core capital required to support the surviving spouse's lifetime spending of \$100,000, inflation-adjusted. Assumes a confidence level that glides up as human capital declines to support sustainable future spending after taxes and inflation. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

<sup>&</sup>lt;sup>3</sup>A 20-year term life insurance policy typically costs between \$1,000 and \$1,500 a year per \$1 million in coverage, depending on your age and health conditions.

# FREQUENTLY ASKED QUESTIONS

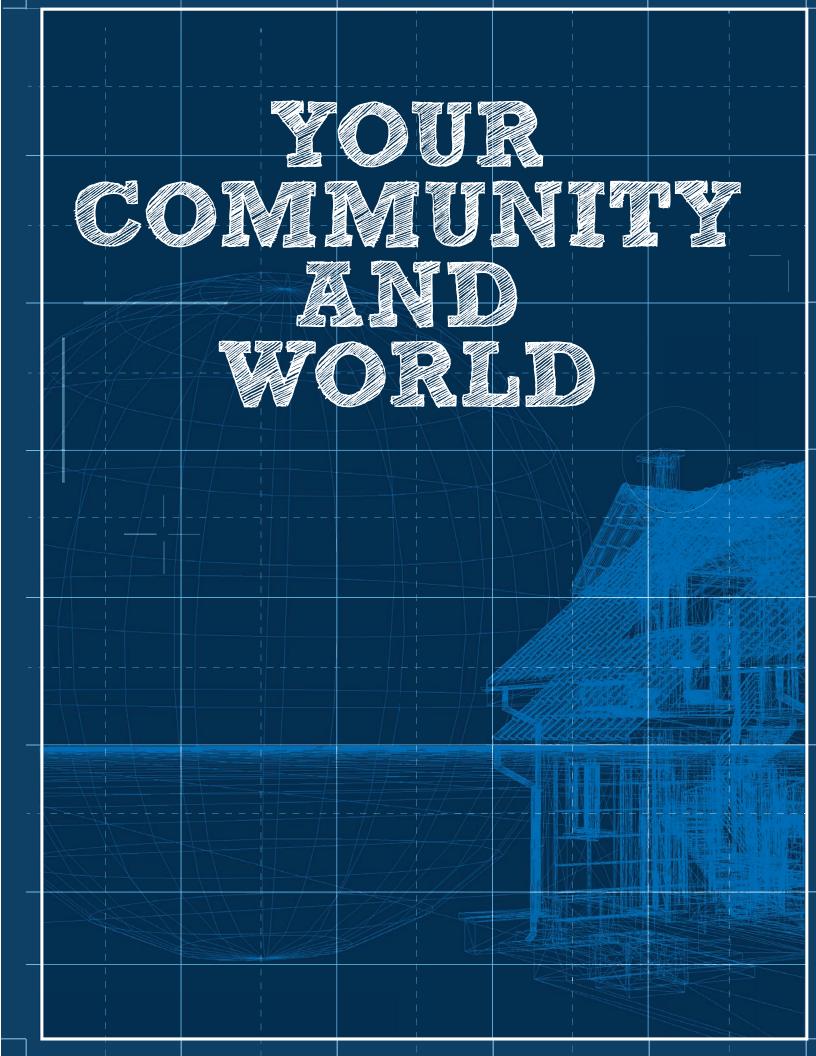
# How does a universal life insurance cash-value account compare with my other investment portfolios?

The cash value of your life insurance policy should not substitute for a non-insurance investment portfolio, in our view, because the internal costs of insurance policies generally make them expensive ways to invest, even though the insurance policy is generally exempt from income tax. Think of the cash value as a potential way to supplement the death benefit you seek.

### Is a whole life policy an attractive fixed-income substitute?

Despite their income-tax-exempt status, whole life policies tend to be an expensive way to invest. Also, the attractive dividend rate they may pay today is subject to change over time, and those changes generally lag related changes to bond yields. With rates likely to rise at the time of this writing, a whole life policy does not look advisable.

More broadly, we think, life insurance should never be viewed as a substitute for liquid bond investments because bonds play a very important risk-mitigating role relative to the stocks in your portfolio: Their value tends to rise when stocks fall, smoothing fluctuations in your overall portfolio's value. Even when bond yields are low, bonds remain an important part of a diversified investment allocation, in our view.



### **Doing Well by Doing Good**

There are many ways to give back to the community and the world.

- You can volunteer your time after work or during the weekend to the local hospital or animal shelter, or to a political campaign or cause.
- You can join the board or a committee of an organization, adding your insights and expertise to its management.
- You can work full-time at a nonprofit or political entity, starting right out of school or mid- or late-career. For many people, financial independence does not signify retirement but the time when they can leave a higher-paying job to work for a cause, often at a much lower annual salary.
- You can give money or securities to organizations and causes. Most of them need it badly. Charitable giving has an additional benefit: It's one of the few ways that you can avoid, not just defer, income tax.

Indeed, few strategies for avoiding income tax are as widely available, highly valuable, and easy to use as charitable donations. Anyone who gives to a qualified charity or educational institution can deduct the value of the contribution from his or her taxable income, and thus reduce his or her tax bill. Charitable giving can be an important element in the tax-management part of your financial plan. There are few limits on charitable gifts to nonprofits.

### **Think It Through**

However and whenever you choose to give back, it's important to analyze the trade-offs and the likely impact on your financial plan, using our target financial capital/potential surplus framework. Philanthropy is noble, but it can have financial consequences that you should understand and plan for.

Here we review and quantify the advantages and disadvantages of tax-efficient charitable giving strategies, from the simple to the highly complex.

### Making the Most of Direct Gifts

The simplest way to give to charity is to make a direct gift of cash. Writing a check or using your credit card is easy, scalable, and flexible: You can give more or less from one year to the next, or stop giving altogether, if your situation changes financially or if a new cause or organization grabs your heart. You will receive a personal income tax deduction for however much you give.

Often, even financially sophisticated people miss a simple way to boost the tax benefit of charitable donations: giving appreciated securities, rather than cash.

For someone in the top (39.6%) federal tax bracket, deducting the value of a \$10,000 cash gift to a public charity reduces the federal income tax owed by \$3,960 and thereby cuts the effective cost of the gift (the value of the gift minus the tax benefit) to \$6,040. In states with income tax, the effective cost may be even lower.

By contrast, gifts of appreciated publicly traded stock or other assets can also reduce or eliminate tax on capital gains, as well as reduce tax on ordinary income (*Community Display 1*).

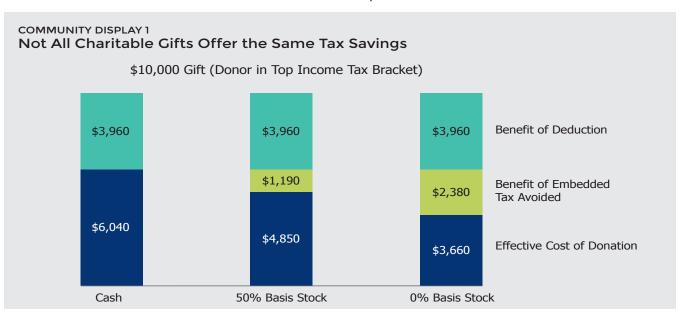
Someone in the top bracket who donates \$10,000 in publicly traded stock he bought for \$5,000 can avoid

paying the 23.8% tax on the \$5,000 gain, cutting the donation's effective cost to \$4,850.

Someone in the top bracket who donates \$10,000 in stock that he got for nothing—perhaps when he founded his firm—can avoid paying the 23.8% tax on the stock's \$10,000 gain, and cut the effective cost to \$3,660.

To receive a deduction for the fair market value of a capital asset, it must be held for more than one year. The tax code permits charitable deductions of up to 50% of adjusted gross income (AGI) in the year of the cash gift, and up to 30% in the year of the gift of appreciated stock. However, the deduction can be carried forward for five years. Deferring a deduction is valuable if a taxpayer wants to give more than he or she can deduct in one year—perhaps to help a charity get a matching grant.

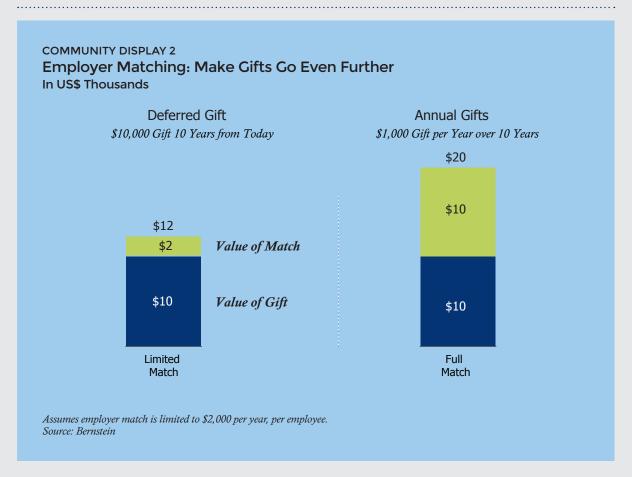
The rules around charitable giving are complex. The limitations on the income tax deduction vary with the donor's income level, the type of property being donated, and the nature of the recipient charity (for example, a public charity versus a private foundation). Documentation requirements for charitable donations include appraisals, in some cases. Consulting your tax advisor about your specific situation is critical.



Deduction limited to 50% of AGI in year of cash gift or 30% of AGI in year of gift of appreciated public stock. "Benefit of Deduction" assumes full use of deduction against income otherwise taxed at 39.6% tax rate. For simplicity, we have ignored the Pease limitation of itemized deductions for donors with high AGIs, although this limitation is very unlikely to affect the charitable deduction in states with an income tax. "Benefit of Embedded Tax Avoided" assumes that the gain would otherwise be taxed at 23.8% (20% long-term capital-gains tax and 3.8% Medicare surtax). Assumes gift is made to a public charity.

Source: IRS Publication 526 and Bernstein

### When to Give



Early in their careers, many people feel that their capacity to give isn't big enough to make a difference, and that it would be better to wait a few years, until their incomes are higher or their expenses lower. Waiting to make a larger contribution down the road may seem like the wise choice for both yourself and charity.

Few charities will agree. They will welcome whatever you can give (most donations are small), and they may fear that a gift deferred may never arrive.

The financial benefit to the charity of not delaying is easily quantified. A 30-year-old accountant who thinks that he can afford to give \$1,000 per year to charity might believe that giving \$10,000 in a lump sum in 10 years

would benefit the charity more. But if his firm matches employees' charitable contributions up to \$2,000 per year per employee (some firms match significantly more or less), annual gifts of \$1,000 each year would double the charity's take to \$20,000 (*Community Display 2*).

By contrast, if the accountant waited 10 years and then gave \$10,000, the charity would get \$8,000 less from the company match—and that's before factoring in inflation and the time value of money. By making annual gifts each year, the charity can either immediately deploy those funds before inflation erodes them or reinvest them for use. If they reinvest the \$20,000 they received, they could earn an additional \$10,000 over 10 years.

### **Alternatives to Direct Gifts**

If you have more money or time to devote to philanthropy, you may feel that direct gifts to your favorite charities are no longer enough. You may want to set longer-term priorities for giving, involve other members of the family in decisions, or establish a philanthropic program that outlives you. There are many other charitable vehicles and giving strategies that a donor can use, including private foundations, donor-advised funds, charitable remainder trusts, and charitable lead annuity trusts.

Private foundations and donor-advised funds for public charities are charitable vehicles that allow you to make a large charitable gift in one year that will be distributed gradually over time. But which of the two is the right vehicle to use? The answer depends on the individual. There are many similarities between the two but some key distinctions.

In general, donors who are focused on reducing costs and administrative tasks and retaining the right to make anonymous gifts will probably be more comfortable with a donor-advised fund. Donors most concerned with perpetuity may well favor a private foundation. And some donors may choose to establish both and use each for specific purposes.

Charitable remainder trusts (CRTs) and charitable lead annuity trusts (CLATs) are split-interest giving structures: They benefit both a charity and a non-charitable entity or person (such as you, the donor/grantor, or your children). CRTs typically provide an income stream to the donor, and transfer any assets remaining at expiration to charity. These vehicles are often established for the life of the donor; IRS and charity rules put limits on these vehicles for younger donors, due to their long life expectancies.<sup>1</sup>

CLATs pay an annuity stream to charity for a set term (say, 10 years), and transfer any assets remaining at the end of the term to non-charitable beneficiaries (such as your children) free of transfer tax.

Community Displays 3 and 4 show the differences and similarities between these alternatives. The best, or most appropriate, strategy for you depends on your situation and your goals.

<sup>&</sup>lt;sup>1</sup>With another split-interest structure, the charitable gift annuity, or CGA, the average age of CGA beneficiaries receiving an immediate payment is 79, and 81.6% of them are at least 75 years old, according to the American Council on Gift Annuities 2013 survey.

## **Vehicles for Irrevocable Charitable Gifts**

	Private Foundations (Nonoperating)	Donor-Advised Funds (Public Charity)
Overview	Good fit for donors who desire maximum control over gifts and assets and may wish to involve family deeply; donors must deal with administrative complexity and legal/regulatory scrutiny	Many different types; very little administrative burden on donor; generally cost-effective for small gifts
When Charity Receives Gift	Beginning now, over time	Beginning now, over time
Income-Tax-Free Environment	Yes*	Yes
Income Tax Deduction Limits (Contributions)	Generally based on fair market value of gift; can be carried forward five years	Generally based on fair market value of gift; can be carried forward five years
Cash	30% of AGI	50% of AGI
Marketable Securities	20% of AGI	30% of AGI
Private Securities	Cost basis, at 20% of AGI	Fair market value, at 30% of AGI
Other Key Characteristics		
Operating Costs	High, but decline (on a percentage basis) as assets rise; include legal fees, start-up costs; ongoing costs vary but can be significant	Low, but sponsor may charge investment and administration fees ranging from 0.6% to 3% generally
Excise Tax	1% or 2% of net investment income	None
Control	Absolute	Contingent on sponsor
Annual Grants	Required 5% distribution	Generally no minimum or maximum
Anonymity	No	Achievable if desired
Perpetuity	Yes	Contingent on sponsor
Compensation of Board Members	Yes	n/a
Administrative/Compliance Burden	Can be significant; subject to strict rules	Very little

<sup>\*</sup>There is an excise tax of 1%–2% on net investment income. Source: IRS and Bernstein

# **Vehicles for Split-Interest Charitable Gifts**

	Charitable Remainder Trust (CRT)	Charitable Lead Annuity Trust (CLAT)
Overview	Distributes income to donor; remainder transfers to designated charity; potential to diversify low-basis concentrated assets and defer taxes	Benefits charity; potential transfer to younger generation of any appreciation in trust assets over the 7520 rate,* with low/no transfer-tax cost
When Charity Receives Gift	At expiration of CRT	Beginning now, over a fixed period of years
Income-Tax-Free Environment	CRT is income-tax-exempt, but distributions may result in taxable income to recipient	Non-grantor CLAT: CLAT not exempt from income taxes, but entitled to annual charitable deduction equal to the lesser of the annuity distribution to charity or the trust's income  Grantor CLAT: CLAT is a grantor trust; the grantor pays any income tax generated by the assets in the trust
Personal Income Tax Deduction	Limited to present value of remainder interest when CRT is established; can be carried forward five years  Deduction limitations are dependent upon remainder beneficiary	Non-grantor CLAT: no charitable deduction for donor; CLAT itself generally receives a tax deduction  Grantor CLAT: The grantor receives a deduction based on the contribution to the CLAT in the year of contribution; can be carried forward five years
Distributes Income to Donor	Yes (see below)	No
Other Key Characteristics		
Multiple Structure Types	The charitable remainder annuity trust distributes a fixed dollar amount each year.	Non-grantor CLAT (see above)
	<ul> <li>A charitable remainder unitrust may use one of these annual payout options:</li> <li>Pay stated percent of trust value each year</li> <li>Pay lesser of net income and stated percent of trust value each year</li> <li>Pays the same as above, but if income exceeds stated percent of trust value in one year, distributes the excess to make up for years when income was less than stated percent of trust value</li> <li>The trust instrument may provide for a switch among payment methods in certain circumstances.</li> </ul>	Grantor CLAT (see above)
Illiquid/Exotic Assets	Potentially; real estate, artwork, and alternatives may affect income tax deduction.	Potentially; real estate, artwork, and alternatives may affect income tax deduction.

<sup>\*</sup>The Section 7520 rate is determined monthly based on Treasury-bond yields; the rate in effect at the creation of the trust is used to calculate the present value of the annuity (and acts as the hurdle rate for certain trusts like GRATs and CLATs).

Source: Bernstein



# How can I give to charity, without jeopardizing my ability to meet my future spending needs?

Your first step before making any charitable gifts should be to determine your capacity to give. Check whether you are on track to achieve your target financial capital. Making smaller gifts each year can give you the flexibility to stop giving or increase your giving in the future. If you want to give more today but retain an income stream, a charitable remainder trust (CRT) could be an option; CRT income may be structured as a fixed annuity or a percentage of remaining value each year.

### Which charitable strategy would best minimize the income tax bite from a large bonus?

Most charitable-giving strategies result in an immediate income tax deduction. In general, the deduction allowed depends on the size of the gift relative to your adjusted gross income (AGI) and the type of asset given (such as cash, stock, or real estate). If you give appreciated, marketable stock to a public charity, you can deduct no more than 30% of your AGI in a given year. If you are giving the same asset to a private foundation, the deduction is limited to 20% of AGI per year. As a result, if you have \$1 million of AGI and want to donate \$275,000 in appreciated stock, you could deduct the full amount in the first year if you give it to a public charity, but you could deduct only \$200,000 in the first year if you give it to a private foundation. (Charitable deductions can be carried forward for five years, so you could deduct the balance later.)

Charitable deductions may also be subject to the Pease limitation, which reduces itemized deductions by 3% of AGI above \$309,900 (in 2015, inflation-adjusted) for joint filers, or 80% of total deductions, whichever is less. However, many wealthy individuals have other itemized deductions that reduce or eliminate the impact of the Pease limitation on the value of their charitable deductions.

# I may increase my charitable donations this year, but giving to my kids is important, too. What do you recommend?

Gifts to a grantor charitable lead annuity trust (CLAT) are fully deductible, which can help you reduce income taxes in a high-income year. For instance, if you fund a \$1 million grantor CLAT this year, you would receive a \$1 million charitable deduction that you could use this year and over the next five years. As the grantor, you would be responsible for the income taxes on behalf of the grantor CLAT. A CLAT established in a low-interest-rate environment is highly likely to meet its charitable annuity requirements and leave meaningful assets for children at the end. However, there's no guarantee that there will be wealth left to transfer to your children at the end of the trust term. Therefore, donors using this strategy should have strong charitable intent.

### How can I keep a large charitable gift out of the public eye?

Contributions made via cash, donor-advised funds, CLATs, and CRTs can be anonymous. Donations to private foundations are a matter of public record.

# Case Study The Entrepreneurs' Charitable Gifts

Eric and Eleanor, discussed in The Entrepreneurs, wanted to use the \$2.7 million in potential surplus capital from the sale of their business to donate to charity and transfer wealth to their children. Here, we discuss their plans for giving \$1 million to charity.

Eric and Eleanor want a longer-term giving vehicle that would provide an up-front charitable deduction that they could use to offset the taxable gain from the sale of their business. Two potential vehicles seemed suitable: a donor-advised fund and a grantor charitable lead annuity trust (CLAT).

With the donor-advised fund, the couple thought that they would distribute 5% of the fund's value each year to various charities.

With a growth-oriented investment allocation, we estimated that the fund could distribute \$900,000 over 20 years and still have nearly \$800,000 left in inflation-adjusted dollars, in the median case.

We call the combined amount "total philanthropic value," or TPV. Over 20 years, we estimate, Eric and Eleanor's \$1 million gift would have a TPV of \$1.7 million. Over 40 years, it would have a TPV of \$2.5 million (*Community Display 5*).

# COMMUNITY DISPLAY 5 How Much Is a \$1 Million Gift to a Donor-Advised Fund Worth?





TPV is the sum of real cumulative distributions and the real portfolio remainder value in a given year. Allocation is 80% stocks/20% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term taxable bonds.

Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. **Data do not represent past performance and are not a promise of actual future results or a range of future results.** See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

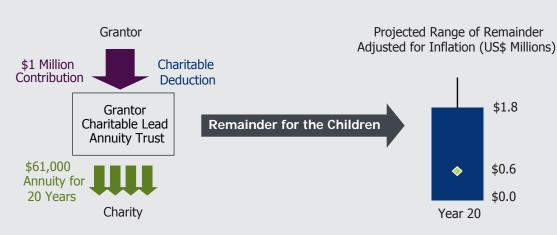
### Case Study

### The Entrepreneurs' Charitable Gifts

The CLAT, by contrast, would give some money to charity and possibly leave some wealth for Eric and Eleanor's children. If they funded a 20-year grantor CLAT with \$1 million and invested it in the same growth-oriented allocation, it could distribute \$61,000 per year, based on a 2.0% 7520 rate. In typical markets, we estimate that after 20 years there would still be \$600,000 in inflation-adjusted assets, represented by the diamond in the box on the right, remaining that the trust could transfer to their children, or trusts

for their benefit, free of transfer tax (*Community Display 6*). If markets were very hostile, it's possible that the CLAT may not pass any wealth to the kids, as shown by the bottom of the box. Because it is an irrevocable gift of the full \$1 million, the donor-advised fund would provide far more to charity. Eric and Eleanor decided to go with the donor-advised fund. They reasoned that they were committing \$1 million to a separate trust for their children, and they might have more to give them later on.

# COMMUNITY DISPLAY 6 CLAT Gives Annually to Charity, Transfers Remainder to Children



Annuity based on a 7520 rate of 2.0%. CLAT allocation is 80% stocks/20% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term taxable bonds. Charitable lead trusts as defined under Sections 170, 170A, 2055, and 2522 of the Internal Revenue Code of 1986, as amended from time to time (the "Code"), and Treasury regulations thereunder.

Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. **Data do not represent past performance and are not a promise of actual future results or a range of future results.** See Notes on Wealth Forecasting System in the Appendix.

Source: IRS and Bernstein

### **Social Investing**

For many investors, ensuring that their investments reflect their personal values and ethical principles is important. They care about returns and want to support companies whose products or business practices they approve of (such as green energy) and avoid those businesses they don't like (such as tobacco, or guns).

But discussions of such strategies can be confusing because several different terms are used, often interchangeably; in fact, they may be converging. The most common are socially responsible investing (SRI); environmental, social, and governance (ESG) principles; and impact investing.

SRI strategies usually employ screens to identify companies to include or exclude, based on the manager's or the investor's ideas about their social impacts.

ESG strategies are similar but tend to focus on certain areas of concern:

- Environmental factors, including climate change, hazardous-waste disposal, nuclear energy, and natural-resource depletion;
- Social factors, including human and labor rights, consumer protection, and diversity; and
- Corporate-governance factors, including management structure, executive compensation, and shareholder rights.

Some, but not all, ESG-oriented institutional investors are signatories to the United Nations—supported Principles for Responsible Investment (PRI).

Impact investing goes further: It seeks to invest (usually privately) in organizations having a positive impact in a particular area, such as reviving a blighted neighborhood.

Investors often feel empowered by impact investing, but they should recognize the risks. These investments can be as risky as venture capital and are likely to drive up your target financial capital requirements; such investments may be best made with potential surplus capital.

### **Impact on Portfolios**

There are many ways to address SRI or ESG concerns. Some investment managers buy or create ESG screening tools to help them avoid investing in companies with undesirable practices. We think that such tools may be useful but are rarely enough. That's why Bernstein integrates research into potential ESG issues for a company into everything we do: from meetings with company managements, suppliers, and industry experts to monitoring news reports (*Community Display 7*).

But assessing ESG issues can raise as many questions as it answers. For example, if you try to avoid investing in companies with high  $CO_2$  emissions or abusive labor practices, do you have to check all the vendors of each company you consider?

Investors should also recognize that both positive and negative screens limit portfolio managers' flexibility and may affect portfolio returns. Investors with otherwise identical portfolios are likely to have different results, if one of them imposes restrictions on companies in certain industries.

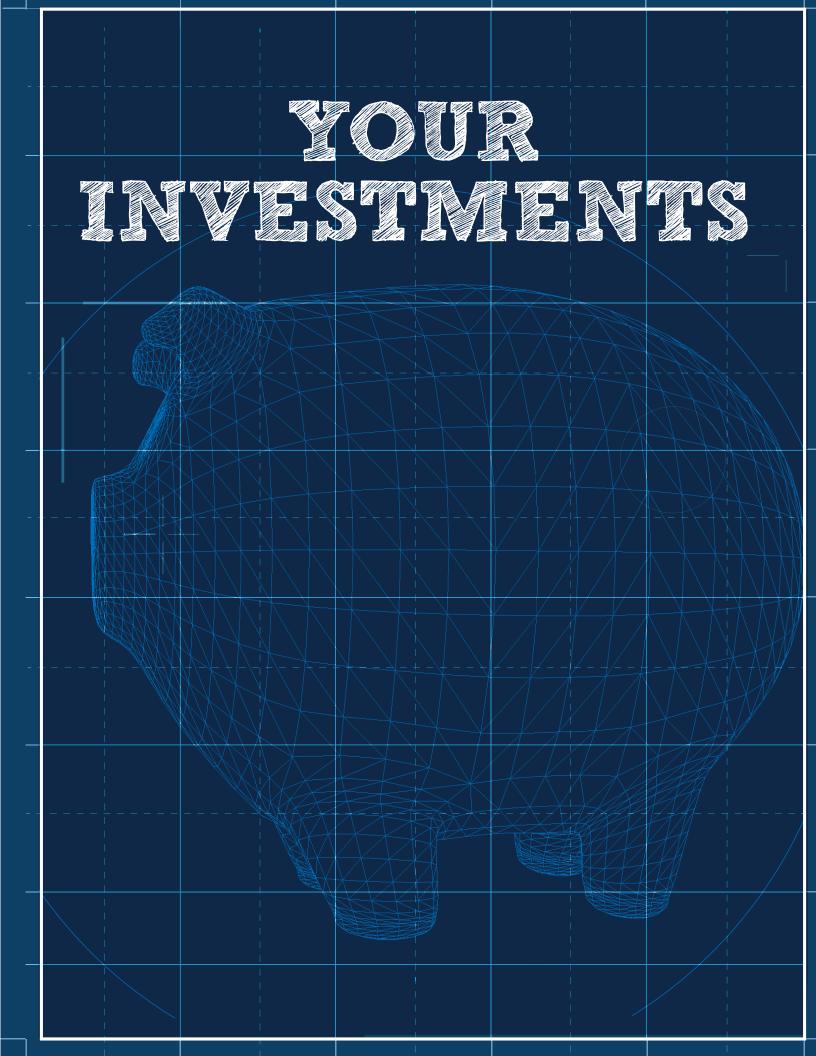


In any given period, the restrictions could help or hurt, but over time, narrowing the universe of potential investments is likely to detract from returns relative to more diversified standard benchmarks.

Some ESG advocates argue that companies with an ESG focus can outperform the broad market over time. But this is still a relatively new field; while the number of managers that invest with a social lens is growing,

few ESG managers have a statistically meaningful track record. Therefore, we think it is still too early to assess the relative performance of the ESG segment.

In sum, investors whose priority is a portfolio that reflects their personal values now have a range of choices to meet their social as well as financial goals. For such investors, the goal is to work with managers whose philosophy about social issues as well as risk and return best matches their own.



### The Assets that Support Your Plan

Investing can be overwhelming. The seemingly endless array of choices can paralyze some investors. The memory of two deep bear markets for stocks in the last 15 years repels others, although each bear market followed (and was followed by) an extended market rally.

Busy lives also leave many people feeling that they don't have the time or patience to learn enough about the capital markets to make decisions about how to invest. All these feelings are natural—but doing nothing can be harmful.

Bank interest rates were close to zero at the time of this writing, so parking your money in a bank account would have virtually the same result as stuffing it under a mattress. Even modest inflation could erode the spending power of your wealth. And if inflation accelerates, cash that you expected to fund a comfortable lifestyle may suddenly prove inadequate.

Keeping all your money in something you understand—say, real estate, or your company's stock—may feel comfortable and could generate great wealth. It's also fraught with risk. In the last two decades, we've seen several booms and busts in real estate and in stock market sectors such as financial services, technology, energy, and biotech. Many stocks that seemed like sure winners crashed and burned, or were left in the dust as new leaders emerged.

As we explain in The Company Stock Problem, concentrated positions in a single stock can add materially to portfolio risk, increasing your target financial capital requirement.

If you want to preserve your independence and security, fund your children's education, or meet other goals, you cannot afford to neglect investing your wealth. It's worthwhile to learn the basics of investing, even if you choose to entrust management of your investments to someone else.

In this section, we explain the basic principles of investing that undergird our approach to financial planning. If you're knowledgeable about investing, we suggest that you at least skim it: It should help you understand the logic behind our approach.

### **Investing Basics: Three Broad Buckets**

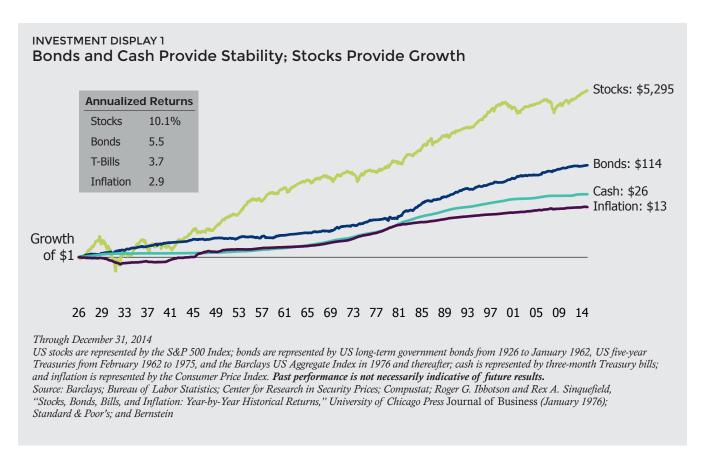
Our approach to asset allocation starts with categorizing investments by the role they play in portfolios. In our view, most portfolios should include well-diversified exposures to three groups of investments: return-seeking, risk-mitigating, and diversifying assets. The mix that is right for you depends on your circumstances, goals, time horizon, and risk tolerance.

This section describes the major types of investments in each category.

Risk-mitigating investments are expected to provide stability and income, serving to counterbalance the higher volatility of return-seeking assets. The two principal types of risk-mitigating investments are investment-grade bonds and cash instruments. As *Investment Display 1* shows, the long-term returns of both investment-grade bonds and cash are well below the returns of stocks but far more stable. There are few zigs and zags in their cumulative growth lines.

Bonds are tradable debt instruments issued by a national or local government, agency, corporation, or special-purpose vehicle. Investment-grade bonds are rated BBB— or higher (up to AAA) by credit-rating agencies, signaling that they are very likely to pay their coupons and repay principal on schedule. Bond prices fluctuate primarily in response to changes in prevailing interest rates and perceived credit quality. Prices for most bonds fall when interest rates rise or perceived credit quality declines (and rise when interest rates fall or perceived credit quality improves). Prices for some bonds also respond to changes in inflation or market volatility.

Cash instruments such as Treasury bills (T-bills) are debt with less than a year to maturity. They are typically less volatile than bonds: Investment Display 1's light teal line is very smooth but also rises much less over time. Due to their very modest returns, the chief risk from cash instruments is that their purchasing power will be eroded by inflation.



A big benefit of risk-mitigating investments is that they have very low or negative correlations to return-seeking investments (*Investment Display 2*). That is, prices for bonds or cash generally don't move up and down with return-seeking investments, such as stocks—or they move in opposite directions.¹ Because of their low or negative correlation to stocks, risk-mitigating investments can reduce overall portfolio volatility, as well as provide income.

Return-seeking assets are expected to generate more growth but also add more volatility and risk to a portfolio than cash or bonds. This group includes stocks and high-yield bonds. Because these assets are volatile, diversification across region, sector, and style is important; see Subcategories of Asset Classes.

Stocks are publicly traded ownership interests in a company; they offer significant appreciation (and depreciation) potential, due to expectations that the company's earnings power will grow (or decline) over time. Many stocks are highly liquid: They can be bought and sold quickly, with low transaction costs. Many stocks also provide regular income from dividends. Stocks are vulnerable to inflation over shorter time periods but

tend to withstand inflation better over time because higher prices eventually feed into corporate revenue and earnings.

Over the long term, stock market returns have far exceeded returns for other major asset classes, despite occasional deep market losses and more frequent, but smaller, dips, as Investment Display 1 shows. Stocks have beaten bonds, cash, and inflation in more than 80% of all 10-year periods since 1926 (*Investment Display 3*).

There are also equity investments that are not traded in public markets. Venture capital represents ownership interests in early-stage companies that are not yet public. Most venture capital investments are made through partnership interests in a venture capital fund, but the direct, or "angel," investments you might make in early-stage companies also fall into this category. Private equity represents ownership interests in typically more established private firms. Sometimes, private equity investors buy out the shareholders in public companies, borrowing against the companies' assets to do so.

Because venture capital and private equity investments are not traded in public markets, they are illiquid and

# INVESTMENT DISPLAY 2 Correlations of Returns for Many Pairs of Asset Classes Are Low or Negative

Return Correlations for Major Asset Classes: 2001–2014

	Global Equities	Global High- Yield Bonds	Global Bonds	Cash	Municipal Bonds	Global REITs	Commodities	Hedge Funds
Global Equities	1.00	0.74	(0.10)	(0.06)	(0.10)	0.83	0.52	0.75
Global High- Yield Bonds	0.74	1.00	0.14	(0.10)	0.21	0.75	0.43	0.65
Global Bonds	(0.10)	0.14	1.00	0.04	0.73	0.12	(0.04)	(0.07)
Cash	(0.06)	(0.10)	0.04	1.00	0.02	(0.04)	0.03	0.07
Municipal Bonds	(0.10)	0.21	0.73	0.02	1.00	0.10	(0.07)	(0.01)
Global REITs	0.83	0.75	0.12	(0.04)	0.10	1.00	0.47	0.62
Commodities	0.52	0.43	(0.04)	0.03	(0.07)	0.47	1.00	0.60
Hedge Funds	0.75	0.65	(0.07)	0.07	(0.01)	0.62	0.60	1.00

Global equities are represented by the MSCI All Country World Index; global high-yield bonds by the Barclays Global High-Yield Index (hedged); global bonds by the Barclays Global Aggregate Index (hedged); cash by the Citigroup 3-Month T-bill Index; municipals by the Barclays 1–10-Year Municipal Bond Index; global REITs by the FTSE EPRA/NAREIT Developed Real Estate Index; commodities by the Bloomberg Commodity Index; and hedge funds by the HFRI Fund of Funds Composite Index.

Source: Barclays, Bloomberg, Citigroup, FTSE, HFRI, Morgan Stanley Capital International (MSCI), and Bernstein

Pairs of asset classes that always move in the same direction have a correlation of 1; those that always move in opposite directions have a correlation of -1; those that move without regard to each other have a correlation of 0.

normally require long-term commitments. For investors with long-term horizons who don't expect to need to draw on this part of their portfolio, venture and private capital can offer compelling investment opportunities. The appropriate allocation to such investments varies, depending on the individual's circumstances, including his or her need for liquidity.

If you are an entrepreneur and are building a company, your ownership stake in your company is also equity. When thinking about your total wealth, including the equity risk in your company is crucial to determining your overall asset allocation.

High-yield bonds, as their name suggests, typically offer high income, but they may also offer significant appreciation (and depreciation) potential from a change in their perceived credit quality. Many high-yield bonds are issued by companies with credit ratings below BBB—, typically due to less steady cash flows or higher leverage. Others are issued by lower-quality governments, often in emerging markets. We characterize high-yield bonds as

INVESTMENT DISPLAY 3
Stocks Beat Bonds, Cash, and
Inflation in Most 10-Year Periods

Percent of 10-Year Periods Since 1926

Stocks
Beat
Bonds

Stocks
Beat
Cash

81%

84%

Stocks
Beat
Inflation

685%

Bonds Beat Cash

Bonds
Beat
Inflation

71%

Inflation 64%

**Beat** 

Annualized returns for 10-year periods, rolled monthly. Stocks are represented by the S&P 500 Index; bonds by US long-term government bonds from 1926 to January 1962, US five-year Treasuries from February 1962 through 1975, and the Barclays US Aggregate Index from 1976 through 2014; cash by three-month Treasury bills; and inflation by the Consumer Price Index. Past performance is not necessarily indicative of future results.

Source: Barclays, Standard & Poor's, US Bureau of Labor Statistics, US Treasury, and Bernstein return-seeking, rather than risk-mitigating, because they offer higher expected return and risk than investment-grade bonds and have a fairly high correlation to stocks and low or negative correlation to other bonds, as Investment Display 2 shows.

# Diversifying assets are expected to diversify both return-seeking and risk-mitigating assets.

An allocation to diversifying assets can improve portfolio expected return without adding risk, or reduce risk without sacrificing expected return, which makes them valuable in times when expected returns are low. This group includes securities related to "real" (or nonfinancial) assets, including real estate and commodities, as well as alternative (or nontraditional) investments such as hedge funds. The return potential and risk of diversifying assets vary widely.

Real estate tends to be more resistant to the ravages of inflation than either stocks or bonds. Real estate investment trusts (REITs) are liquid investments and generally make high income distributions. While REITs, like bonds, are interest-rate-sensitive, they can be as volatile as stocks and offer similar long-term return potential. Private real estate equity and debt are not publicly traded and thus less liquid.

Commodities include futures and forward contracts on oil and gas, metals, and agricultural products. Prices can be extremely volatile. Their appeal lies in their role as an inflation hedge; like real estate, they tend to rise and fall with inflation or inflation expectations. But commodities and real estate do not always trade together because they are subject to different supply and demand cycles and because real estate provides an income stream, whereas commodities often have a holding cost.

Hedge funds are investment vehicles that may invest in any asset class, sometimes using leverage or taking short positions (investing to profit from an investment's price decline). Hedge-fund strategies vary widely but typically seek to generate returns primarily from manager skill, rather than market exposure; market-neutral hedge funds seek to eliminate market exposure entirely. Some hedge funds reduce overall market risk (or beta) by owning one security and going short a related security. Others take highly leveraged exposures to specific markets when betting on macroeconomic shifts. Because their return and risk come primarily from skill, not market exposure, hedge funds typically have low correlations to stock and bond markets, even if they

invest in stocks or bonds. Returns in any given year typically vary widely across and within hedge-fund categories. Our research suggests that manager selection and exposure to a diversified group of hedge funds are crucial for investment success in this investment category.

Most hedge funds are pooled vehicles that restrict when capital may be invested and withdrawn; most are private partnerships.

Risk and return characteristics, such as appreciation potential and interest-rate risk, for the asset classes discussed are shown in *Investment Display 4*.

# INVESTMENT DISPLAY 4 Risk and Return Characteristics of Selected Investments

	RISK-MITIGATING		RETURN- SEEKING	DIVERSIFYING			
	Cash and Equiva- lents	Bonds	Stocks	Real Estate Invest- ment Trusts	Commodi- ties	Hedge Funds	Illiquid Invest- ments
Income	Yes	Yes	Varies widely	Yes	No (may be negative)	Limited	Varies widely
Appreciation Potential	No	Some	High	High	Some/ High	High	Can be high
Inflation Protection	Low	Low	Moderate	High	High	Varies	Varies
Interest- Rate Risk	Low	High	Limited	Moderate/ High	No	Varies widely	Varies widely
Currency <b>Risk</b>	None, if held in home- country currency	Yes, for foreign bonds, but can be managed	Yes, for foreign stocks, but can be managed	Yes, for foreign REITs, but can be managed	Low for US\$ investors; high for other investors	Varies widely	Varies widely
Short-Term Price Risk	No	Some	High	High	High	High	Low; assets mark to market infrequently
Long-Term Return Uncertainty	High	Some	Some	Some	High	High	High
Transaction Costs	Minimal	Low to moderate	Low to moderate	Low to moderate	Low	High	High
Ease of Selling	High	Usually moderate	Usually high	Usually high	High	Low	Very low

Not an exhaustive list Source: Bernstein

### **Subcategories of Asset Classes**

# INVESTMENT DISPLAY 5 Global Stock Portfolios Have Had Strong Returns with Less Risk

Annualized	d: 1976–2014	
	Return	Risk
Global Stocks	11.3%	14.3%
US Stocks	11.6	15.0
Developed Foreign	9.6	17.1
Emerging Markets	9.9	22.3

As of December 31, 2014

US stocks are represented by the S&P 500 Index; developed foreign markets by the MSCI EAFE Index, with countries weighted by market capitalization and currencies unhedged; and emerging markets by a Bernstein simulation through 1984, by the International Finance Corporation (IFC) World Bank Global Index from 1985 to 1987 (IFC Index was reconstructed for the period April—Dec 1984), and by the MSCI Emerging Markets Index thereafter.

Global stocks comprise 70% S&P 500 Index, 25% MSCI EAFE Index, and 5% MSCI Emerging Markets Index. An investor cannot invest directly in an index, and index performance does not represent the performance of any AB mutual fund.

Past performance is not necessarily indicative of future results. Source: Compustat, IFC, MSCI, Standard & Poor's, and Bernstein

Each of the major asset classes can also be categorized by region, sector, and/or style. Generally speaking, we favor investing globally in each asset class. In our view, this widens the opportunity set and reduces risk. For example, global stocks have had about the same return as US stocks since 1976, with less volatility (*Investment Display 5*).

Of course, global investing comes with foreign exchange risk—the risk that the currency of foreign investments will fall (or rise) versus the investor's home currency. We generally recommend active management of the currency risk that arises from foreign investments.

In other words, active managers should make two decisions: whether to hold a particular investment and whether to retain the currency exposure it may bring (see Active or Passive?).

Stocks can also be divided on the basis of economic sector (such as industrials or financials); size (whether the company's market capitalization is large or small); and other characteristics such as the stock's exposure to growth, value, quality, and so on. Different categories have distinct traits. For example, small-cap stocks tend to be more volatile and less liquid than large-cap stocks.

Bonds can also be divided into sectors with distinct characteristics. Most importantly, municipal bonds are tax-free and therefore appeal to investors in high tax brackets. Income on corporate bonds is fully taxable. Liquidity and quality can differ as well. Corporate bonds tend to be higher-yielding but less liquid than sovereign bonds. The credit quality of municipal, corporate, and sovereign bonds varies widely.

### **Time Frame Matters**

Stocks tend to perform best over longer time periods; but over shorter time periods, stock returns can be all over the map. Bond returns are far more predictable but usually lower. Since you can't know for sure what will happen in the period ahead, the right asset allocation for you depends on your time frame, appetite for return, and tolerance of risk (*Investment Display 6*).

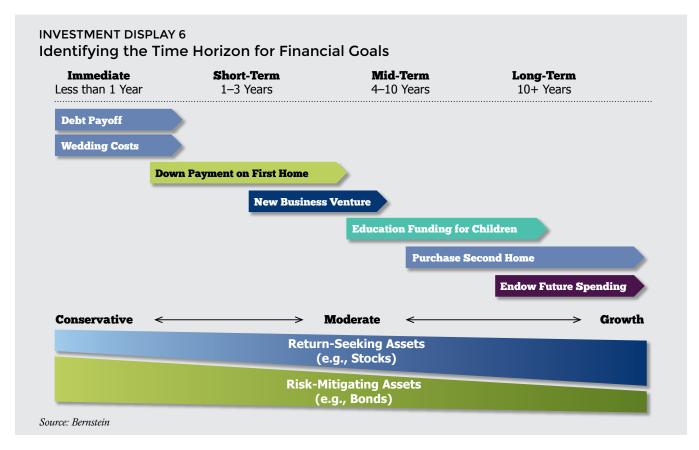
If you plan to use your money fairly soon (say, in less than two years) for something important, such as a down payment on a house or a wedding, it generally makes sense to keep most of that money in cash instruments or fairly short-term bonds. Cash rarely loses value in nominal terms: As you can see in *Investment Display 7*, cash has delivered negative returns in just 1% of all three-month periods and two-year periods since 1926. Even a 30% allocation to stocks increased the share of periods with negative returns materially.

Cash is also highly liquid: There's little chance that you won't be able to withdraw your money when you

want to, without accepting fire-sale prices or paying high transaction fees.

But holding cash has a cost. Cash returns have been lower than inflation over many three-year periods, as well as about one-third of all 10-year periods since 1926. Given the very low-interest-rate and low inflation environment at the time of this writing, we expect the return on cash after taxes and inflation to be negative over the next three years (*Investment Display 8*).

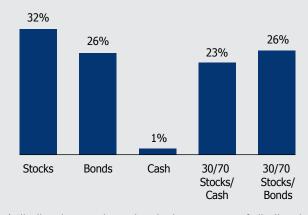
We expect the after-tax, inflation-adjusted return on bonds to be significantly better than cash over the next three years if market conditions are typical or very good; we expect bond returns to lag cash only slightly if market conditions are very bad. Even more remarkable, in the unusual market environment at the time of this writing, we estimate that returns for a conservative portfolio, with 30% in global stocks and 70% in bonds, would be no worse than cash if markets are hostile for the next three years—and would be much better if markets are typical or very good.

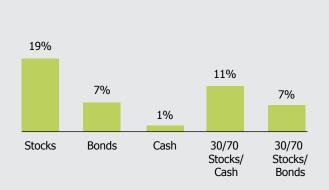


# INVESTMENT DISPLAY 7 Cash Is Best When You'll Need All the Money Soon

Frequency of Loss for 3-Month Periods\*

Frequency of Loss for 24-Month Periods<sup>†</sup>





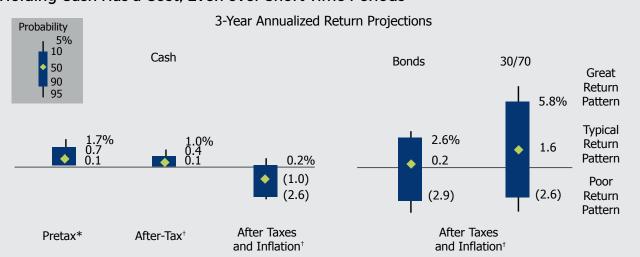
<sup>\*</sup>All rolling three-month periods with a loss as a percent of all rolling three-month periods from 1926 through 2014.

†All rolling 24-month periods with a loss as a percent of all rolling 24-month periods from 1926 through 2014.

Stocks are represented by the S&P 500 Index; bonds are represented by US long-term government bonds from 1926 to January 1962, US five-year Treasuries from February 1962 to 1975, and the Barclays US Aggregate Index in 1976 and thereafter; cash is represented by three-month Treasury bills; and inflation is represented by the Consumer Price Index. Past performance is not necessarily indicative of full results.

Source: Barclays; Bureau of Labor Statistics; Center for Research in Security Prices; Compustat; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard & Poor's; and Bernstein

# INVESTMENT DISPLAY 8 Holding Cash Has a Cost, Even over Short Time Periods



<sup>\*</sup>Represents projected pretax compound annual growth rates.

Based on Bernstein's estimates of the range of returns for the applicable capital markets as of December 31, 2014. **Data do not represent past performance** and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting in the Appendix. Source: Bernstein

<sup>†</sup>Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Growth rates calculated based on the estimated market value; if the assets were liquidated, additional capital gains or losses would be realized that are not reflected here.

<sup>&</sup>quot;30/70" means 30% stocks and 70% bonds. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals.



### How should I invest outside my 401(k)?

That depends on your time horizon. If you are investing for the long term (e.g., you don't intend to touch the funds for 10 years or more), you probably need a diversified portfolio that includes return-seeking, risk-mitigating, and diversifying investments, not unlike your 401(k) investments. All else being equal, with a long time horizon you can have more of your investments in return-seeking assets. If you are investing for the near term, you'll want most of the portfolio in risk-mitigating investments. See Three Portfolios for Three Time Horizons for an example of how one couple aligned the asset allocations of three portfolios with the time horizon for each.

That said, we recommend that clients create a comprehensive investment plan that looks at all their assets—those within their 401(k) and those outside it—as well as their projected income and expenses, and stress-tests how different investment allocations would affect the likelihood that they could meet their long-term financial goals.

# How should I invest money I need in two years to make a down payment on my first home?

If you want to minimize the odds that you'll lose some of this money in the two years before you buy a house, invest in something stable, safe, and liquid: cash or short-term bonds, or both.

### **Asset Allocation for the Long Term**

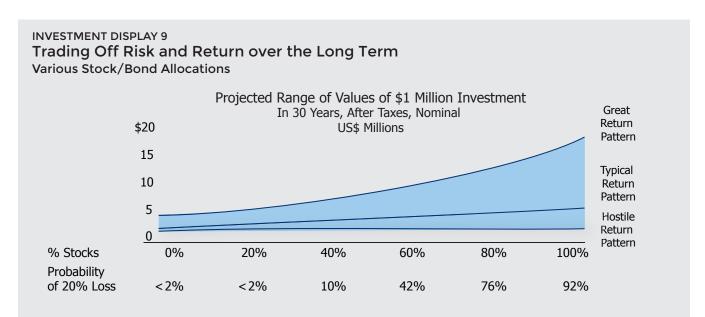
Typically, investors invest most of their money for longer than three years. You may have at least a 10-year investment time horizon to purchase a second home, pay for family expenses like college, or start your own business—and a more than 50-year investment horizon to support your spending in retirement. If you want to endow a foundation for perpetuity, your horizon may be longer still.

When investing over longer time horizons, two key risks should be weighed against market risk: shortfall risk (the chance that your investments won't grow enough to meet your spending needs); and inflation risk (the chance that inflation will erode the spending power of your wealth).

Unless your current wealth is very large relative to your projected long-term spending needs, you are likely to need a substantial allocation to return-seeking assets to protect against shortfall risk; and a modest allocation to real assets or inflation-protected bonds to protect against inflation risk.

When we help clients choose the asset allocation that is right for them, we project the range of after-tax returns for various asset allocations, based on our proprietary Wealth Forecasting System. Because plans can succeed only if you stick with them in difficult times, we highlight the likelihood of experiencing a large peak-to-trough loss—such as 20%—at some point along the way. For clients who rely on their portfolio for spending, we also show the risk that they will run out of money.

*Investment Display 9* shows our projections for how much \$1 million could grow after taxes over the next 30 years if invested in several simplified asset allocations: all bonds at the far left, all stocks at



Assumes top marginal federal income tax rates and a 6.5% state income tax rate. Asset values represent the estimated market value; if the assets were liquidated, additional capital gains or losses would be realized that are not reflected here. Stocks are modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small- and mid-cap, 22.5% developed international, and 7.5% emerging market. Bonds are modeled as intermediate-term diversified municipals. Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 20% over the life of the forecast. Because the Wealth Forecasting System uses annual capital-market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years. Based on Bernstein's estimates of the range of future results as of December 31, 2014. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System in the Appendix.

Source: Bernstein

the far right, and various mixes of the two. It also shows the odds of a large loss for each asset mix. The projected value in typical markets rises gradually with the equity allocation, while the projected value in great markets rises dramatically. Even the projected value in very poor markets rises with the equity allocation, until the portfolio has 60% in stocks and 40% in bonds; then it declines slightly, as the portfolio loses the diversification benefit of bonds.

We project that the all-stock portfolio will likely do much better than the all-bond or all-cash portfolio over the full 30-year span in average and great markets, and even in most poor market scenarios—but that it won't be smooth sailing. We also expect the all-stock portfolio to fall at least 20% from peak to trough for some period within that 30-year horizon (a decline that the all-bond or all-cash portfolio is very unlikely to experience). As previously discussed, allocations to diversifying assets can further reduce the likelihood of a large loss, without reducing long-term return.

For most long-term investors, neither all stocks nor all bonds would provide an acceptable trade-off between long-term growth and the risk of large losses. Most younger investors who are not withdrawing for spending are likely to allocate between 60% and 80% of their target financial capital to stocks, unless they are unusually risk-averse.

# Case Study Three Portfolios for Three Time Horizons

To bring the relationship between time horizon and asset allocation into focus, let's go back to the entrepreneurs' financial-planning challenge first discussed in The Entrepreneurs.

Eric and Eleanor had three goals for the proceeds from the sale of their business, each with a different time horizon:

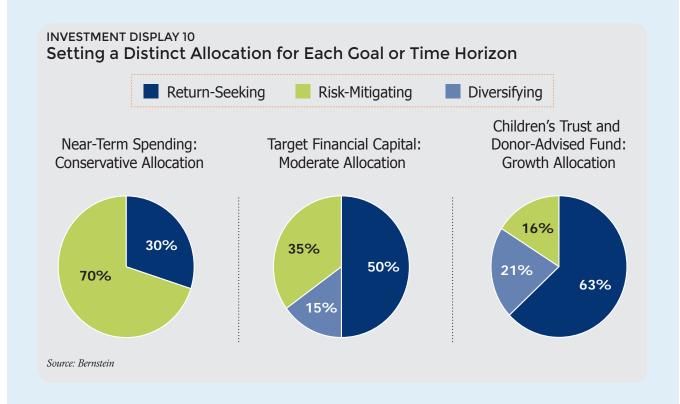
- Support \$360,000 in annual spending for the next five to seven years, while they started a new business;
- Secure their target financial capital, so that it would support \$240,000 in annual spending (adjusted for inflation) starting 25 years from now, when they plan to retire; and
- Fund a \$1 million trust for their three young children, and a \$1 million donor-advised fund for charitable giving.

To support their near-term spending, a conservative asset allocation is appropriate. Eric and Eleanor didn't want to risk a large decline in portfolio value that could force them to take money out of their target financial capital.

The time horizon for their target financial capital is much longer. Eric and Eleanor plan to work for another 25 years and to live off their earnings (and the near-term fund) until they retire, so the fund should grow untouched for 25 years. A moderate allocation with growth potential seemed reasonable.

The children's trust has an extremely long time frame, based on their children's expected lives, especially since the couple doesn't anticipate making any distributions from the trust until the children are in their thirties—some 20 years from now. The donor-advised fund similarly has a long time horizon, as it is earmarked for charity. For both, a growth-oriented asset mix made sense.

After careful analysis and consideration of the risk/return trade-offs of various allocations, the couple decided to adopt very different allocations for the three separate portfolios (*Investment Display 10*).





# Since I sold my company, people have been asking me to invest in other early-stage companies. Should I?

Investments in early-stage companies have the potential to create significant wealth—and to lose all value. Even when successful, they may not provide a return on investment for many years—and you may not be able to get your money out when you need it. We suggest that you consider such investments within the context of a comprehensive investment plan designed to meet all your financial goals.

# My mother's retirement fund was impaired by the 2008 market drop, shortly after she retired. Should I be worried?

Your mother was very unlucky. Withdrawing funds after a big market drop can seriously erode wealth because you have to sell more securities to support the same spending—and the securities you sell don't participate in any subsequent market recovery. Your mother may have had to adjust her annual spending as a result.

But you are still saving for retirement at some point far in the future. If there is a large market drop sometime in the next 10 years, you are not going to be forced to realize losses on withdrawals. In fact, if you are still saving for retirement at that point, you will benefit from the drop because you'll be able to invest at low prices, and then participate in the likely market recovery. You can afford to take more risk with your investments now than when you are close to—or past—retirement.

Nonetheless, we believe that it's important for all investors to stress-test their investment plans. You should understand the odds that your portfolio will sustain a large loss in value, at least temporarily, and feel comfortable with that risk.

### **Active or Passive?**

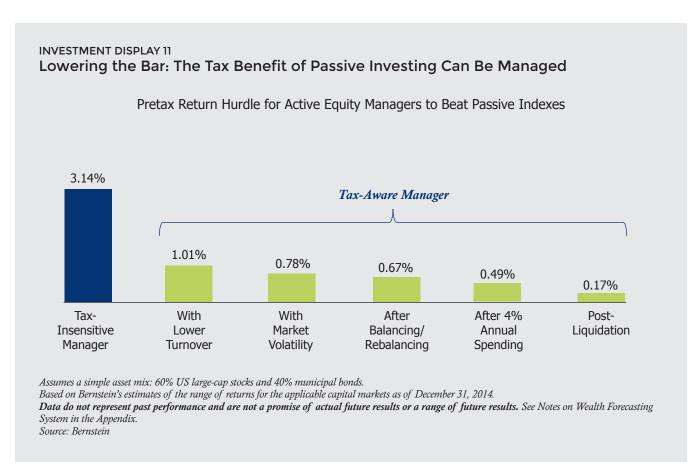
Debate has raged for decades over whether active managers can deliver enough added return to cover their costs, or whether passive index funds and ETFs (exchange-traded funds) are the better choice.

The main appeal of passive investing is lower management fees, which are possible because passive funds simply mimic the composition of a given index and do not research the securities involved. Passive funds also tend to trade less than actively managed portfolios and so generally have lower embedded transaction costs.

However, the advice and tailored execution that often come with active management can be very useful. For example, wealthier investors are typically subject to higher tax rates and can benefit most from an active manager's attention to deferring or avoiding large taxable gains. While some people argue that less frequent trading makes passive management more efficient for taxable accounts, our research<sup>2</sup> suggests that the tax advantage of passive investing is actually quite small for two reasons:

- Active managers can dramatically reduce tax costs by limiting portfolio turnover and taking advantage of volatility; and
- Investors in indexed funds realize significant taxable gains when they rebalance, withdraw money for spending, or liquidate their portfolios.

Just reducing portfolio turnover can cut the tax hurdle to about 1% from over 3%, we estimate; layering on additional tax-management strategies can reduce the tax hurdle to less than 0.2% (*Investment Display 11*). Can active managers enhance after-fee return and/



<sup>&</sup>lt;sup>2</sup> "Clearing the Hurdle," Bernstein, 2015.

or reduce risk relative to passive managers? That depends on the asset class and the manager.

For bonds, replicating a capitalization-weighted index can be quite risky. If a country or company issues more debt, index replication forces you to buy more of that debt—even if the added debt is degrading the issuer's credit quality. And if companies and countries shift to issuing very long-term debt to lock in very low interest rates, index replication forces you to hold more long-term debt, which would trade off sharply if interest rates rise.

Active bond managers can outperform, in part, by avoiding such traps. Paying careful attention to each issuer's credit quality and to the extra return for taking credit risk is crucial. It's also critical to adjust the mix of short-, medium-, and long-term bonds in a portfolio when interest rates are rising or falling significantly.

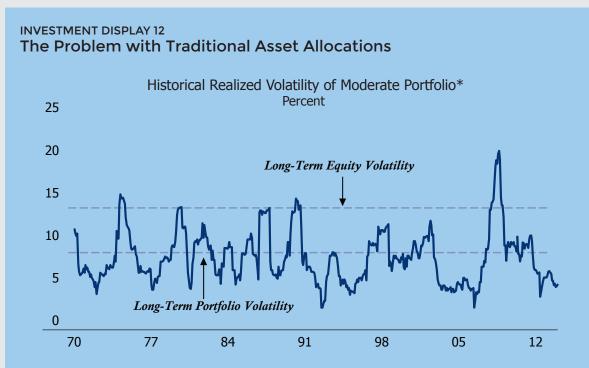
For stocks and other asset classes, the potential benefit of active management is more complex. Active managers of stock portfolios can add value by using their research to avoid overvalued stocks or sectors that are likely to fall. They can also invest with high conviction in securities their research identifies as having potential to appreciate more than

the market, creating portfolios that are intentionally very different from indexes. And they can hedge the currency risk that comes with investing overseas. As a result, skilled active managers—especially those with a disciplined investment approach—can outperform indexes over time, even after fees and expenses. The challenge is to identify active managers to choose. Investors often select active managers with strong past performance, which tends to produce disappointing results because active strategies tend to cycle in and out of favor. We think that identifying a variety of active management teams with complementary approaches and skills can produce more consistent results across a wide range of market conditions.

Note that alternative assets such as hedge funds are inherently active because their returns are driven mostly by manager skill rather than by underlying markets. As a result, alternative assets are also the most expensive.

As with most choices in investing, there may be roles for both active and passive portfolios. Investors should work with an advisor who understands their goals for return, volatility, and liquidity over relevant time frames.

### **Active Risk Management**



Through December 31, 2014

\*Rolling realized one-year volatility. Static portfolio results are based on a portfolio that is invested 60% in global equities and 40% in global bonds (as adjusted to reflect duration only) and rebalanced monthly. Average equity volatility is based on global equity returns

Source: Barclays, MSCI, and Bernstein

The most important risk-management strategy, in our view, is to adopt a well-diversified strategic asset allocation that is suitable for the investor's time frame, need for return and liquidity, and tolerance for fluctuations in portfolio value.

But a strategic asset allocation that meets your tolerance for risk over the long term can become uncomfortable in the short term, as market conditions shift. Market volatility itself is volatile. In late 2008 and early 2009, even a 60/40 stock/bond mix was more volatile than stocks alone usually are; in the past three years, by contrast, stock market volatility has been unusually subdued (*Investment Display 12*).

When volatility soars even for balanced portfolios, frightened investors often flee return-seeking assets. Many investors thought that they were

de-risking their portfolios after the 2008 market drop by selling their return-seeking assets, but they instead missed the huge stock market recovery that followed. Similarly, when volatility falls, complacent investors often take on too much risk in the pursuit of return.

While it can make sense to seek to reduce fluctuations in portfolio value with short-term asset-allocation shifts, it's crucial that the shifts not be too large or maintained too long—and that they be driven by disciplined analysis, not emotion.

Our research has shown that dynamically adjusting your asset mix can cushion the impact of extreme markets, typically providing additional protection during downturns but giving up some gains during rallies, without reducing returns over the longer time frame.

### **Key Takeaways**

This book covers a lot of territory. We hope you'll keep it as a reference book, while retaining a few key concepts:

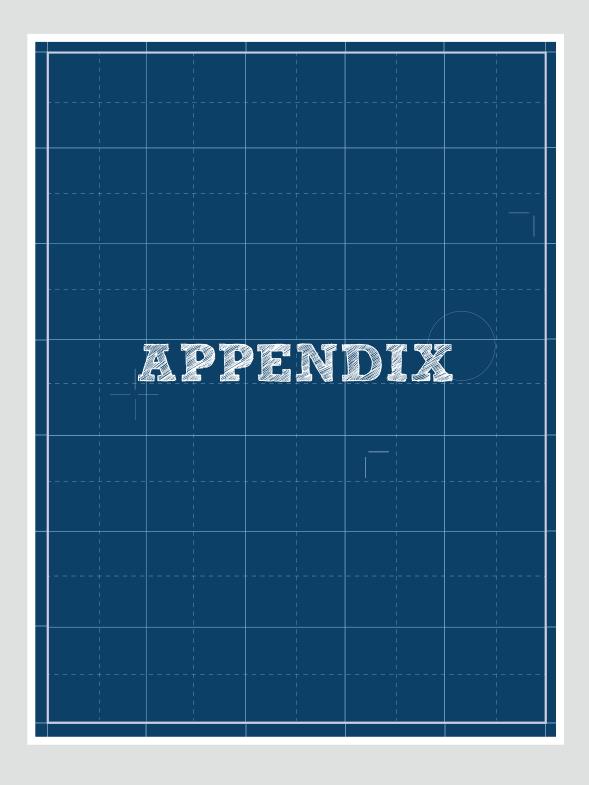
Planning can be daunting when you're young and have a very long time horizon; you can't know how your spending needs and income will develop in the decades ahead, or how the capital markets will perform. But take heart: A long horizon also gives you flexibility. Young investors have more ways to improve or change their financial outcomes than older investors do.

You will probably end up revising your plan as your career and your spending needs evolve. In fact, you should revisit your plan when your life circumstances change.

Your target financial capital is a key planning element to consider. This is the money you invest so that it will grow, over decades, into the capital needed to cover your anticipated spending needs when you stop working. While retirement may be far off, there are many things you can do today that can help you achieve your target financial capital. If you take care of them, you can have greater confidence that buying a new car or front-loading a 529 college savings plan for your children will not jeopardize your lifestyle in retirement.

You may have many other goals with various time frames—from buying a home next year, to starting a new business three years out, to transferring wealth to charity when all your personal needs have been met. It's important that you map out your near-term and long-term goals and communicate them to your advisors so that you can develop a plan to achieve them.

Let your Bernstein Advisor know if we can help.



### **Glossary of Key Terms**

We recognize that the specialized language of the investment world can be daunting, if not downright off-putting; where possible, we have substituted plain-language terms. Inevitably, however, we have been forced at times to use financial jargon because certain terms are more precise. We have done our best to define industry terms as well as Bernstein terminology, at least the first time we use those terms. In addition, we have indicated which terms were created by Bernstein to describe metrics that we see as important to long-term planning.

Here are definitions of some key words and phrases that appear frequently in this book.

**Active management:** Making decisions about which securities to buy in order to increase return or manage risk, as opposed to passive management, which replicates an index.

**Annual exclusion:** An amount that you may give every calendar year to as many individuals (or certain trusts for their benefit) as you wish without incurring federal gift tax or using your lifetime inflation-adjusted exclusion. The annual exclusion, which is \$14,000 in 2015, is indexed for inflation.

**Applicable exclusion amount:** The cumulative amount that you may give during your lifetime in one or more taxable transfers (for which no other deduction or exclusion is available—e.g., the annual exclusion) without paying a gift tax. To the extent that it is not used during your lifetime, the applicable exclusion amount is available against the estate tax at death. It is \$5.43 million in 2015 and indexed for inflation.

**Asset classes:** Broad categories of investments, such as stocks, bonds, cash equivalents, real estate, commodities, and alternatives.

**Core capital**: Bernstein term for the amount of capital needed to support a desired level of spending in retirement, even if capital-market returns are poor, inflation is high, and you live a long time.

**Correlation:** A statistical measure of the degree to which the prices of two assets move together.

**Diversifying assets:** As used by Bernstein, investments expected to diversify both return-seeking and risk-mitigating assets. This group includes securities related to "real" or nonfinancial assets, such as real assets and commodities, as well as hedge funds.

**Educational/medical (ed/med) exclusion:** An unlimited exclusion from federal gift tax for educational and medical expenses that are paid directly to the provider on behalf of someone else.

**Estate tax:** A transfer tax that is imposed on the property owned, or deemed to be owned, by a deceased person. The federal estate tax, after various deductions, exclusions, and credits, including the applicable exclusion amount, is imposed at a top rate of 40%. Some states also impose an estate tax.

Financial capital: Money or financial investments.

**Generation-skipping transfer (GST) tax:** A transfer tax that is imposed, in addition to the gift or estate tax, upon certain transfers during lifetime or at death that pass to or for the benefit of grandchildren or more remote descendants (or to unrelated persons who are more than 37.5 years younger than the donor). The GST tax has several exclusions and exemptions, including the GST tax exemption, which can shelter up to \$5.43 million (in 2015) from the GST tax. Like the applicable exclusion amount, which it resembles in concept, the GST tax exemption is indexed for inflation.

### **Glossary of Key Terms**

**Gift tax:** A transfer tax that is imposed on certain gifts (i.e., gratuitous transfers) that you make during your lifetime. The federal gift tax is currently imposed at a top rate of 40%.

**Human capital:** Ability to work to generate financial capital that you can invest.

Inheritance tax: A transfer tax imposed by some states on the recipient of a deceased person's property.

**Marital deduction:** An unlimited deduction from estate and gift tax for transfers to a spouse (or certain kinds of trusts for his or her benefit), provided that the recipient spouse is a US citizen.

**Options**: Instruments that give you the right, but not the obligation, to buy a stock, bond, or index, at a specified price at some point in the future. Options are in-the-money when exercising them would be profitable; they are out-of-the-money when it would not be profitable to exercise them.

**Passive management:** Replicating an investment index or a benchmark, or buying an instrument that replicates an investment index or a benchmark, as opposed to active management.

**Potential surplus capital:** Bernstein term for financial capital in excess of target financial capital that may be available to fund other spending, charitable gifts, or wealth transfers.

**Required minimum distribution (RMD):** The minimum amount that must be distributed annually from certain qualified retirement accounts. For accounts owned by the participant, RMDs typically begin at age 70.5, or at the participant's retirement for some 401(k) plans. For inherited accounts, RMDs typically commence at the time of inheritance. The amount of the RMD is often (but not always) based on actuarial and age-related factors relevant to the recipient.

**Return-seeking assets:** As used by Bernstein, investments that tend to generate more growth over time, usually with significant short-term volatility. The two principal types of return-seeking investments are stocks and high-yield bonds.

**Risk-mitigating assets:** As used by Bernstein, investments that tend to provide stability and income and that counterbalance the higher volatility of return-seeking investments. The two principal types of risk-mitigating investments are high-quality bonds and cash.

**Surplus capital:** Bernstein term for financial capital in excess of required core capital that may be available to fund other spending, charitable gifts, or wealth transfers.

**Target financial capital:** Bernstein term for the money you invest to grow over decades to cover your anticipated spending needs in retirement; essentially, an estimate of required core capital in advance of retirement, when your financial and life circumstances are still fluid.

**Total philanthropic value (TPV):** A Bernstein term for the total value of the distributions over time and the remaining principal of a private foundation or donor-advised fund.

**Volatility**: The extent to which the price of a financial asset or market fluctuates, measured by the standard deviation of its returns. Volatility is a commonly cited risk measure.

### **Notes on Wealth Forecasting System**

#### 1. Purpose and Description of Wealth Forecasting System

Bernstein's Wealth Forecasting System<sup>SM</sup> is designed to assist investors in making their long-term investment decisions as to their allocation of investments among categories of financial assets. Our planning tool consists of a four-step process: (1) Client-Profile Input: the client's asset allocation, income, expenses, cash withdrawals, tax rate, risk-tolerance level, goals, and other factors; (2) Client Scenarios: in effect, questions that the client would like our guidance on, which may touch on issues such as when to retire, what his/her cash-flow stream is likely to be, whether his/her portfolio can beat inflation long-term, and how different asset allocations might affect his/her long-term security; (3) The Capital Markets Engine: our proprietary model that uses our research and historical data to create a vast range of hypothetical market returns, which takes into account the linkages within and among the capital markets, as well as their unpredictability; and (4) A Probability Distribution of Outcomes: based on the assets invested pursuant to the stated asset allocation, 90% of the estimated ranges of probable returns and asset values that the client could experience are represented within the range established by the 5th and 95th percentiles on "box-and-whiskers" graphs. However, outcomes outside this range are expected to occur 10% of the time; thus, the range does not guarantee results or establish the boundaries for all outcomes. Estimated market returns on bonds are derived taking into account yield and other criteria. An important assumption is that stocks will, over time, outperform long bonds by a reasonable amount, although this is in no way a certainty. Moreover, actual future results may not meet Bernstein's estimates of the range of market returns, as these results are subject to a variety of economic, market, and other variables. Accordingly, the analysis should not be construed as a promise of actual future results, the actual range of future results, or the actual probability that these

#### 2. Retirement Vehicles

Each retirement plan is modeled as one of the following vehicles: traditional IRA, 401(k), 403(b), Keogh, or Roth IRA/401(k). One of the significant differences among these vehicle types is the date at which mandatory distributions commence. For traditional IRA vehicles, mandatory distributions are assumed to commence during the year in which the investor reaches the age of 70.5; for 401(k), 403(b), and Keogh vehicles, mandatory distributions are assumed to commence at the later of: (1) the year in which the investor reaches the age of 70.5; or (2) the year in which the investor retires. In the case of a married couple, these dates are based on the date of birth of the older spouse. The minimum mandatory withdrawal is estimated using the Minimum Distribution Incidental Benefit tables, as published on www.irs.gov. For Roth IRA/401(k) vehicles, there are no mandatory distributions. Distributions from a Roth IRA/401(k) that exceed principal will be taxed and/or penalized if the distributed assets are less than five years old and the contributor is less than 59.5 years old. All Roth 401(k) plans will be rolled into a Roth IRA plan when the investor turns 59.5 years old, to avoid minimum distribution requirements.

### 3. Rebalancing

Another important planning assumption is how the asset allocation varies over time. We attempt to model how the portfolio would actually be managed. Cash flows and cash generated from portfolio turnover are used to maintain the selected asset allocation between cash, bonds, stocks, REITs, and hedge funds over the period of the analysis. Where this is not sufficient, an optimization program is run to trade off the mismatch between the actual allocation and targets against the cost of trading to rebalance. In general, the portfolio is expected to be maintained reasonably close to the target allocation. In addition, in later years, there may be contention between the total relationship's allocation and those of the separate portfolios. For example, suppose an investor (in the top marginal federal tax bracket) begins with an asset mix consisting entirely of municipal bonds in his/her personal portfolio and entirely of stocks in his/her retirement portfolio. If personal assets are spent, the mix between stocks and bonds will diverge from targets. We put primary weight on maintaining the overall allocation near target, which may result in an allocation to taxable bonds in the retirement portfolio as the personal assets decrease in value relative to the retirement portfolio's value.

#### 4. Expenses and Spending Plans (Withdrawals)

All results are generally shown after applicable taxes and after anticipated withdrawals and/or additions, unless otherwise noted. Liquidations may result in realized gains or losses, which will have capital-gains tax implications.

#### 5. Modeled Asset Classes

The following assets or indexes were used in this analysis to represent the various model classes:

Modeled as	Annual Turnover Rate
3-month Treasury bills	100%
AA-rated diversified municipal bonds of 7-year maturity	30
AA-rated in-state municipal bonds of 7-year maturity	30
Taxable bonds of 7-year maturity	30
S&P 500 Index	15
S&P/Barra Value Index	15
S&P/Barra Growth Index	15
Russell 2500 Index	15
MSCI EAFE Unhedged Index	15
MSCI Emerging Markets Index	20
1/3 FTSE NAREIT Index, 1/3 MSCI ACWI Commodity Producers Index, 1/3 DJ-UBS Commodity Index	30
Diversified hedge-fund asset class	33
	3-month Treasury bills  AA-rated diversified municipal bonds of 7-year maturity  AA-rated in-state municipal bonds of 7-year maturity  Taxable bonds of 7-year maturity  S&P 500 Index  S&P/Barra Value Index  S&P/Barra Growth Index  Russell 2500 Index  MSCI EAFE Unhedged Index  MSCI Emerging Markets Index  1/3 FTSE NAREIT Index, 1/3 MSCI ACWI Commodity  Producers Index, 1/3 DJ-UBS Commodity Index

### 6. Volatility

Volatility is a measure of dispersion of expected returns around the average. The greater the volatility, the more likely it is that returns in any one period will be substantially above or below the expected result. The volatility for each asset class used in this analysis is listed on the Capital-Market Projections page at the end of these Notes. In general, two-thirds of the returns will be within one standard deviation. For example, assuming that stocks are expected to return 8.0% on a compounded basis and the volatility of returns on stocks is 17.0%, in any one year it is likely that two-thirds of the projected returns will be between (8.9)% and 28.8%. With intermediate government bonds, if the expected compound return is assumed to be 5.0% and the volatility is assumed to be 6.0%, two-thirds of the outcomes will typically be between (1.1)% and 11.5%. Bernstein's forecast of volatility is based on historical data and incorporates Bernstein's judgment that the volatility of fixed-income assets is different for different time periods.

#### 7. Technical Assumptions

Bernstein's Wealth Forecasting System is based on a number of technical assumptions regarding the future behavior of financial markets. Bernstein's Capital Markets Engine is the module responsible for creating simulations of returns in the capital markets. These simulations are based on inputs that summarize the current condition of the capital markets as of December 31, 2014. Therefore, the first 12-month period of simulated returns represents the period from December 31, 2014, through December 31, 2015, and not necessarily the calendar year of 2015. A description of these technical assumptions is available on request.

#### 8. Tax Implications

Before making any asset-allocation decisions, an investor should review with his/her tax advisor the tax liabilities incurred by the different investment alternatives presented herein, including any capital gains that would be incurred as a result of liquidating all or part of his/her portfolio, retirement-plan distributions, investments in municipal or taxable bonds, etc. Bernstein does not provide tax, legal, or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions.

#### 9. Tax Rates

Bernstein's Wealth Forecasting System has used various assumptions for the income tax rates of investors in the case studies. See the assumptions in each case study (including footnotes) for details. The federal income tax rate is Bernstein's estimate of either the top marginal tax bracket or an "average" rate calculated based upon the marginal rate schedule. For 2014 and beyond, the maximum federal tax rate on investment income is 43.4% and the maximum federal long-term capital-gains tax rate is 23.8%. Federal tax rates are blended with applicable state tax rates by including, among other things, federal deductions for state income and capital-gains taxes. The state tax rate generally represents Bernstein's estimate of the top marginal rate, if applicable.

#### 10. Target Financial Capital Analysis

The term "target financial capital" means the money you invest to grow over decades during the accumulation phase so that in retirement you will have the amount of money necessary to cover anticipated lifetime net spending. All financial assets in excess of this target financial capital are "potential surplus capital." Bernstein estimates target financial capital by putting information supplied by the client, including current and expected future income and spending, into our Wealth Forecasting System, which simulates a vast range of potential market returns over the client's anticipated life span. From these simulations we develop an estimate of the target financial capital the client will require today to grow over time to required core capital. Variations in actual income, applicable tax rates, and market returns may substantially impact the likelihood that a target financial capital estimate will be sufficient to grow to the desired level of core capital. Accordingly, the estimate should not be construed as a promise of actual future results, the actual range of future results, or the actual probability that the results will be realized.

#### 11. Core Capital Analysis

The term "core capital" means the amount of money necessary to cover anticipated lifetime net spending. All non-core-capital assets are termed "surplus capital." Bernstein estimates core capital by inputting information supplied by the client, including expected future income and spending, into our Wealth Forecasting System, which simulates a vast range of potential market returns over the client's anticipated life span. From these simulations we develop an estimate of the core capital the client will require to maintain his/her spending level over time. Variations in actual income, spending, applicable tax rates, life span, and market returns may substantially impact the likelihood that a core capital estimate will be sufficient to provide for future expenses. Accordingly, the estimate should not be construed as a promise of actual future results, the actual range of future results, or the actual probability that the results will be realized.

#### 12. Mortality

In our mortality-adjusted analyses, the life span of an individual varies in each of our 10,000 trials in accordance with mortality tables. To reflect that high-net-worth individuals live longer than average, we subtract three years from each individual's age (e.g., a 65-year-old would be modeled as a 62-year-old). Mortality simulations are based on the Society of Actuaries Retirement Plan Experience Committee Mortality Tables RP-2000.

#### 13. Taxable Trust

The taxable trust is modeled as an irrevocable tax-planning or estate-planning vehicle with one or more current beneficiaries and one or more remainder beneficiaries. Annual distributions to the current beneficiary may be structured in a number of different ways, including: (1) an amount or a percentage of fiduciary accounting income (FAI) (which may be defined to include part or all of realized capital gains); (2) FAI plus some amount of principal, expressed as a percentage of trust assets or as an amount; (3) an annuity, or fixed dollar amount, which may be increased annually by inflation or by a fixed percentage; (4) a unitrust, or annual payment of a percentage of trust assets, based on the trust's value at the beginning of the year or averaged over several years; or (5) any combination of the above four payout methods. The trust will pay income taxes on retained income and will receive an income distribution deduction for income paid to the current beneficiaries. Capital gains may be taxed in one of three ways, as directed: (1) taxed entirely to the trust; (2) taxed to the current beneficiaries to the extent the distributions exceed traditional income; or (3) taxed to the current beneficiaries on a pro rata basis with traditional income.

#### 14. Endowment

The endowment is modeled as a nontaxable permanent fund bestowed upon an institution to be used to support a specific purpose in perpetuity. The endowment may receive an initial donation and periodic funding from either the personal portfolio modeled in the system or an external source. Annual distributions from the endowment may be structured in a number of different ways, including: (1) an annuity or fixed dollar amount, which may be increased annually by inflation or by a fixed percentage; (2) a unitrust, or annual payout of a percentage of endowment assets, based on a single year or averaged over several years; (3) a linear distribution of endowment assets, determined each year by dividing the endowment assets by the remaining number of years; or (4) the greater of the previous year's distribution or any of the above methods. These distribution policies can be varied in any given year.

### 15. Intentionally Defective Grantor Trust

The intentionally defective grantor trust (IDGT) is modeled as an irrevocable trust whose assets are treated as the grantor's for income tax purposes but not for gift or estate tax purposes. Some income tax and transfer tax consequences associated with transfers to, and the operation of, an IDGT remain uncertain, and the strategy may be subject to challenge by the IRS. Hence, this technique requires substantial guidance from tax and legal advisors. The grantor may give assets to the trust, which will require using gift tax exemptions or exclusions, or paying gift taxes. The IDGT is modeled with one or more current beneficiaries and one or more remainder beneficiaries. Distributions to the current beneficiaries are not required, but the system permits the user to structure annual distributions in a number of different ways, including: (1) an amount or a percentage of fiduciary accounting income (FAI) (which may be defined to include some or all realized capital gains); (2) FAI plus some principal, expressed either as a percentage of trust assets or as a dollar amount; (3) an annuity, or fixed dollar amount, which may be increased annually by inflation or by a fixed percentage; (4) a unitrust, or annual payment of a percentage of trust assets, based on the trust's value at the beginning of the year or averaged over several years; or (5) any combination of the above four payout methods. Because the IDGT is modeled as a grantor trust, the system calculates all taxes on income and realized capital gains that occur in the IDGT portfolio each year, based on the grantor's tax rates and other income, and pays them from the grantor's personal portfolio. The IDGT may continue for the duration of the analysis, or the trust assets may be distributed in cash or in kind at a specific point in time or periodically to: (1) a non-modeled recipient; (2) a taxable trust; or (3) a taxable portfolio for someone other than the grantor. If applicable, an installment sale to an IDGT may be modeled as a user-entered initial "seed" gift followed by a sale of additional assets to the trust. The system will use one of two methods to repay the value of the sale assets plus interest (less any user-specified discount to the grantor): (1) user-defined payback schedule; or (2) annual interest-only payments at the applicable federal rate (AFR) appropriate for the month of sale and the term of the installment note, with a balloon payment of principal plus any unpaid interest at the end of the specified term.

#### 16. Grantor Retained Annuity Trust

The grantor retained annuity trust (GRAT) is a wealth transfer vehicle that receives its initial funding from the grantor and transfers annuity payments to the grantor's personal portfolio each year. The annuity amounts, which are determined in advance, may be fixed (the same amount each year) or increasing (growing each year by no more than 20% of the previous year's amount). The annuity payment is made first from available cash, and then from other portfolio assets in kind. Because the GRAT is modeled as a grantor trust, the system calculates all taxes on income and realized capital gains that occur in the GRAT portfolio each year, based on the grantor's tax rates and other income, and pays them from the grantor's personal portfolio. When the GRAT term ends, the remainder, if any, may be transferred in cash or in kind (as the user specifies) to: (1) a non-modeled recipient; (2) a continuing grantor trust; or (3) a taxable trust. If the remainder is transferred in kind, the assets will have carryover basis.

#### 17. Rolling Grantor Retained Annuity Trust

The rolling grantor retained annuity trust (GRAT) is a wealth transfer strategy that consists of a series of GRATs. Each GRAT is a wealth transfer vehicle that receives its initial funding from the grantor and transfers annuity payments to the grantor's personal portfolio. Each year, the annuity payments from all existing GRATs are used to establish a new GRAT. The annuity amounts, which are determined in advance, may be fixed (the same amount each year) or increasing (growing each year by no more than 20% of the previous year's amount). Because the GRAT is modeled as a grantor trust, the system calculates all taxes on income and realized capital gains that occur in all GRAT portfolios each year, based on the grantor's tax rates and other income, and pays them either from the grantor's personal portfolio or, if specified, from annuity payments before funding the next GRAT. The remainders of all individual GRATs may be transferred in cash or in kind to: (1) a non-modeled recipient; (2) a continuing grantor trust; (3) a taxable trust; or (4) a taxable portfolio for someone other than the grantor. In each year in which a new GRAT is to be created (aside from year 1), we use our Capital Markets Engine to generate an IRS Section 7520 rate that is consistent with the concurrent yield-curve environment. Using this rate as a discount rate, we are able to continually construct new "zeroed-out" GRATs in an ever-changing interest-rate environment.

#### 18. Charitable Remainder Trust

The charitable remainder trust (CRT) is modeled as a tax-planning or an estate-planning vehicle, which makes an annual payout to the recipient(s) specified by the grantor, and at the end of its term (which may be the recipient's lifetime), transfers any remaining assets, as a tax-free gift, to a charitable organization. Depending on the payout's structure, the CRT can be modeled as either a charitable remainder unitrust (CRUT) or a charitable remainder annuity trust (CRAT). The CRUT's payout is equal to a fixed percentage of the portfolio's beginning-year value, whereas the CRAT's payout consists of a fixed dollar amount. In the inception year of the CRT, its grantor receives an income tax deduction typically equal to the present value of the charitable donation, subject to the applicable adjusted gross income (AGI) limits on charitable deductions and phaseout of itemized deductions, as well as the rules regarding reduction to basis of gifts to private foundations. Unused charitable deductions are carried forward up to five years. Although the CRT does not pay taxes on its income or capital gains, its payouts are included in the recipient's AGI using the following four accounting tiers: Tier 1—Ordinary Income (Taxable Interest/Dividends); Tier 2—Realized Long-Term Capital Gains; Tier 3—Other Income (Tax-Exempt Interest); and Tier 4—Principal. CRTs are required to pay out all current and previously retained Tier 1 income first, all current and previously retained Tier 2 income second, all current and previously retained Tier 4 income last.

#### 19. Charitable Lead Trust

The charitable lead trust (CLT) is modeled as a portfolio that receives its initial funding from the grantor and transfers payments to one or more charitable recipients each year for a specified number of years or for the life or lives of certain individuals. The annual payments may be a fixed dollar amount (charitable lead annuity trust or CLAT) or a percentage of the trust's assets as valued every year (charitable lead unitrust or CLUT). In the case of a CLAT, annuities may be fixed (the same amount each year), or increasing. The annual payment is generally made first from available cash and then from other trust assets in kind. In a non-grantor CLT, the trust itself is subject to income taxation, and generally pays income tax with respect to retained income and receives a charitable income tax deduction with respect to certain income paid to the charitable recipient(s). Realized capital gains may be taxable to the trust or treated as a distribution to charitable recipient(s) (and therefore eligible for a charitable income tax deduction), depending upon the provisions of the trust instrument and other factors. In a grantor CLT, the trust is a "grantor" trust for income tax purposes such that the grantor is personally taxed an all items of trust income. The grantor is entitled to a charitable income tax deduction upon funding for the portion of the CLT then calculated to be payable to the charitable recipient(s) over its term (often the entire funding amount). This charitable income tax deduction is subject to recapture rules if the grantor dies during the term of the CLT. For both the non-grantor and grantor CLT, when the CLT term ends, the remainder, if any, may be transferred as directed by the trust agreement, including to a non-modeled recipient, a taxable trust, or a beneficiary's portfolio. The assets transferred from the CLT will have carryover cost basis.

	Median 30-Year Growth Rate	Mean Annual Return	Mean Annual Income	One-Year Volatility	30-Year Annual Equivalent Volatility
Cash Equivalents	3.1%	3.5%	3.5%	0.3%	10.1%
Intermediate-Term Taxables	4.3	4.7	5.9	4.5	8.5
Intermediate-Term Diversified Municipals	3.3	3.5	3.4	3.6	7.7
Intermediate-Term In-State Municipals	3.2	3.5	3.4	3.6	7.7
US Diversified Stocks	7.1	8.7	2.8	14.4	19.5
US Value Stocks	7.4	8.9	3.3	14.3	19.2
US Growth Stocks	6.8	8.8	2.3	15.6	20.7
US Small-/Mid-Cap Stocks	7.2	9.3	2.4	16.1	21.6
Developed International Stocks	7.8	9.9	3.3	15.7	20.5
Emerging-Market Stocks	5.9	9.8	3.9	20.6	25.8
Real Assets	6.5	7.7	3.9	11.7	17.1
Diversified Hedge-Fund Portfolio	5.9	6.5	3.3	9.5	15.9
Inflation	2.9	3.3	N/A	1.1	11.5

Based on 10,000 simulated trials, each consisting of 30-year periods. Reflects Bernstein's estimates and the capital-market conditions as of December 31, 2014. For hedge-fund asset classes, "Mean Annual Income" represents income and short-term capital gains.

Data do not represent past performance and are not a promise of actual future results or a range of future results.

# Notes

# Notes

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