Executive Decisions
Making the Most of Compensation Plans
To Build and Protect Personal Wealth

- Why it’s so important to actively manage grants of restricted stock and stock options
- How to make the best choices among compensation plans and elections
- Using company stock to secure retirement assets while building a legacy for family and charity
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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Executive Summary

Managing Stock-Based Compensation
Company stock and options and other non-cash forms of compensation can bring tremendous wealth—but making the most of these awards demands an active management approach. The natural tendency to accumulate as much as possible can lead to an overconcentration of risk or lost opportunities to maximize value. However, with the right tools and thoughtful planning, you can make well-informed decisions on building and protecting wealth with stock-based compensation.

As an investment manager for many corporate executives and entrepreneurs, Bernstein has conducted extensive research regarding executive wealth issues. Using our proprietary Wealth Forecasting System (WFS), a powerful financial planning tool, we have a unique capability to model stock-based compensation as part of an individual's or family's total wealth. The WFS can project the probable outcomes of portfolios that include both current and expected future grants of single stock, restricted stock, and stock options—as well as traditional and alternative asset classes. (For more information on the WFS, see “A Closer Look at Our Modeling: The Wealth Forecasting System,” page 8.)

In this report, we present our key findings, including:

- How to evaluate and compare different types of stock-based compensation
- How to integrate stock-based compensation into lifetime wealth planning using a Core and Excess Capital framework
- A method for determining how much single stock is appropriate in your portfolio, and, if you need to diversify, a framework for choosing which holdings to divest and which to keep
- How to manage stock options to maximize their value
- Strategies for integrating single stock with estate and charitable planning
- Determining when and how to use non-qualified deferred compensation plans
- How to structure 10b5-1 trading plans
- How to make informed decisions regarding net unrealized appreciation (NUA) elections and 83(b) elections

Large holdings of company stock and options are a double-edged sword: They can build tremendous wealth, but they are also risky, no matter how strong the company. Many executives have greater exposure to their company’s fortunes than they realize. Not only are their investments largely tied up in company stock, but their livelihood (salary and bonus) and benefits (healthcare and certain types of retirement plans) may also rely on the company’s continued health.

A proactive approach to managing stock-based awards is essential to achieving the optimal balance of risks and potential rewards. Most executives, for a variety of reasons, tend to view stock and stock options as the “gravy” on top of their investments, simply amassing as much as is given and holding it for as long as possible. This passive management
approach is inefficient and heightens the risk of your holdings losing value—or of leaving money on the table.

**High exposure to a single stock cannot be hedged away with asset allocation.** For example, a common strategy known as a “barbell” approach involves buying high-quality bonds whose low risk is intended to offset the risk of the single stock. But the volatility of an average single stock can be so high that regardless of the allocation of the remaining part of the portfolio, the stock often remains the dominant driver of investment results.

**To maximize the value of stock-based compensation over a lifetime, a core and excess capital framework can help you make smart decisions.** Core capital is the amount you need to support your lifestyle for the rest of your life, based on probability calculated to an extremely high degree of confidence. Once you reach your core capital goal, this amount should be protected by investing it conservatively in a diversified portfolio. Any assets that exceed core capital represent excess capital and can be invested more aggressively, creating the opportunity to take greater risk with stock-based compensation in pursuit of the greatest potential reward.

When building core capital, it’s generally best to sell restricted stock as soon as it vests and reinvest the proceeds in a diversified portfolio. Single-stock concentration reduces the likelihood of meeting retirement spending goals. But if you have already accumulated your core capital in a diversified portfolio, the reward potential of the restricted stock may justify holding it.

When building core, the optimal time to exercise stock options is when their time value has declined to approximately 30% of their total value. Although option values are highly volatile because of their leveraged nature, our analysis shows it’s best to exercise around the 30% level. Above core, you can afford to wait until the time value is 10% of total value. But waiting to exercise options until just before expiration results in significantly poorer risk-adjusted returns.

If you are divesting company stock to build a diversified core portfolio, rank your stock lots and option grants in order of cost to sell, and then divest just enough to reach core.

As a general guideline, the order of selling should be:

1. Stock held at a loss
2. Stock held in tax-deferred accounts
3. Stock options with a time value of less than 30% of total value
4. Stock held at a profit, in order of lowest capital gain

Of course, every situation is unique, and a customized analysis, in consultation with your tax advisor, is always advisable.

**When investing “excess,” or legacy, capital, you can afford to take greater risks with company stock in your portfolio.** As long as you are not counting on the single stock to support you in retirement, the upside potential of company stock can create a substantial legacy for heirs or charitable gifts.

**Donating stock that has appreciated greatly in value is one of the most tax-efficient ways to fund charitable contributions.** By creating a private foundation or using a donor-advised fund to accelerate the timing of your tax deduction and get the benefit of investing in a tax-advantaged environment, you can achieve even greater tax savings and provide more to the charitable cause.

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1. A stock option’s total value is the sum of its intrinsic value (the difference between its exercise price and the underlying share’s current price) plus its time value (which is calculated with an option pricing model). Generally speaking, an option’s time value tends to decrease as it approaches expiration. It also decreases as the intrinsic value increases. For a more detailed discussion of stock option exercise strategies, see “Managing Stock Options to Meet Financial Goals,” page 17.

2. Bernstein.com
Holdings of company stock are often the best way to fund wealth transfer strategies. A concentrated single-stock position should be the first choice when funding certain wealth transfer strategies to family.

Non-qualified deferred compensation plans are attractive for their tax-deferral benefit, but you should be aware of their credit and concentration risks. As a rule of thumb, you should enter into a long-term plan of this type only with a company that has an excellent credit rating.

10b5-1 trading plans are flexible enough to suit different executives with different circumstances and appetites for risk. There is no one “best way” for divesting concentrated exposure—except to understand the potential rewards and risks of holding versus selling.

Display 1 summarizes our conclusions. In the chapters that follow, we present the analysis that led to these conclusions, as well as three case studies to illustrate how these findings can be used to make the best decisions.

Display 1
Key Findings

<table>
<thead>
<tr>
<th>Compensation Questions</th>
<th>Research Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much single-stock exposure is appropriate?</td>
<td>Use the core and excess capital framework to make the determination; the amount will depend on one’s core capital goal.</td>
</tr>
<tr>
<td>Restricted stock: Sell at vesting or hold?</td>
<td>When building core capital, sell at vesting and diversify.</td>
</tr>
<tr>
<td>Stock options (non-qualified): When to exercise?</td>
<td>Exercise when time value reaches 30% of total value.</td>
</tr>
<tr>
<td>Participate in discretionary non-qualified deferred compensation plan?</td>
<td>Generally not. Carefully consider credit and concentration risks relative to tax-deferral benefits.</td>
</tr>
<tr>
<td>When should one use the net unrealized appreciation (NUA) election?</td>
<td>When time horizon is short and stock basis is low.</td>
</tr>
<tr>
<td>Is an 83(b) election appropriate for restricted stock or stock acquired through options?</td>
<td>Generally not. While the after-tax potential gain may be higher, the downside risk is also greater.</td>
</tr>
</tbody>
</table>

Source: Alliance Bernstein
The Need to Manage Executive Compensation

Opportunity Creates Choices

For many professionals, salary is just one part of the reward for work well done. The bulk of compensation may come in other forms: cash bonuses, stock options, restricted stock, phantom stock or stock appreciation rights, or a variety of deferred compensation plans.

These types of compensation offer the opportunity to amass much greater wealth than a traditional paycheck could provide. Surveys estimate that among companies that issue stock, about one-third of employees own shares—and the more senior the executive, the greater the holdings. Our research found that among the 1,000 largest US public companies, top executives control an average of 8.6% of their companies’ outstanding shares; their holdings are composed, on average, of two-thirds restricted stock/one-third stock options.

Yet stock-based compensation brings challenges: Putting a fix on its future value can be tricky, which makes wealth planning difficult. Restricted stock, for example, fluctuates in value, and there’s no way of knowing what it may be worth when it vests. Further, when it does vest, there’s another decision to be made: to sell or hold. Stock options present an even more difficult planning challenge: Because they are essentially leveraged instruments, they can soar in value—or expire worthless. And they have expiration dates, by which time you must “use ‘em or lose ‘em.” Waiting may increase the options’ eventual payoff, but it may do the opposite.

Similarly, some companies offer their employees choices on types of compensation—like receiving a portion of an annual bonus in stock options or restricted stock, or deferring pay in a non-qualified retirement plan. Unfortunately, most people have no frame of reference to help them make informed decisions. If you were given the chance to take any portion of your bonus in stock options, how much would you take? Anecdotal evidence suggests people tend to fall into three camps: The risk takers choose mostly stock options; those who are risk-averse take mostly cash; and the others split the choices evenly. But going on gut instinct or rough calculations is not the best way to negotiate this kind of choice. Your decision can have a huge impact on the ultimate value of the awards.

Presented with non-cash compensation, too many executives, especially those early in their career or pressed for time, make decisions without careful analysis: They simply accumulate whatever is offered and hang on to it for as long as possible. Unwittingly, they may be leaving money on the table—or adopting the highest-risk strategy.

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2 The National Center for Employee Ownership, 2009
3 The 1,000 largest companies by market capitalization; reporting executives are those whose compensation is listed on SEC filings.
4 Some employers may make the decision for you by restricting your ability to sell company stock.
In short, stock-based compensation and income deferral plans provide great opportunities to build wealth, but to make the most of them you need to make well-informed decisions. To maximize the value of these opportunities—and to manage their risks—you need to:

- Understand the risk/reward equations of each type of compensation award
- Have strategies for managing them
- Integrate them into your overall personal wealth planning

The Case for Active Management
A full accounting of your overall wealth may reveal that it is more dependent on your company and its success than you realized. As Display 2 illustrates, with an assemblage of directly held shares, stock options, company pension plans, and other deferred compensation plans, executives can easily have more than half their wealth tied up in the company.²

Display 2
Executives May Have Assumed More Risk than They Realize

Large exposure to a single stock can increase the upside, should the company do well, but it also brings more risk than most people realize. Even the strongest companies can experience sudden stock plunges, sometimes for reasons that have nothing to do with the company’s fundamental value. In the global credit crisis of 2008, many Fortune 500 stocks lost more than half their value. Many dividends were cut and stock options went “underwater.” The stock price of some firms may have recovered (for some, it did not), but that was cold comfort to shareholders—especially if they were approaching or in retirement. In the worst case, the stock value of seemingly strong companies can suddenly plummet to zero—as was the case in 2008.

Yet it may not be easy to reduce this exposure. A thicket of securities regulations and company policies can stand in the way of selling stock. Employees of publicly held companies are prohibited from selling shares around the time of company earnings announcements, underwritings, or material events. Shares may be subject to vesting schedules or stock retention requirements. And sometimes a perfectly innocuous sale may incur regulatory scrutiny if a material event occurs shortly afterward. Some companies even forbid selling until you have left the firm.

The objective of wealth planning with non-cash compensation, therefore, is to balance the goals of maximizing the potential rewards with managing the risk, in a way that is right for the individual. With good planning, you can build a portfolio that not only decreases your risk but also increases your potential for building and protecting wealth—possibly across generations.

Effective wealth planning with non-cash compensation plans requires multifaceted advisory expertise in stock and option valuation, tax laws and their potential changes, and (often) trusts and other estate planning vehicles. It requires clear articulation of your goals, income needs, and tolerance for risk. A healthy dash of psychology is also necessary, because most executives are invested emotionally, not just financially, in their companies.

²Not only are financial assets at stake, but a typical executive’s career is also tied to his/her company, adding “career risk” to financial risk. If the company’s stock suddenly plummets, chances are good that the company is under pressure, which may put the executive’s primary income source—salary and bonus—at risk as well.
Cash, Stock, or Options?

Generally, most people's first choice of pay is cold, hard cash. The gratification is instant: You can spend it, bank it, or invest it. Its value is clear; you don't need a calculator to figure out what it's worth. What's not to like?

Further, cash compensation can be deferred. And some companies allow it to be invested before you receive it, so you get the potential for investment growth while you wait for it, and you don't have to pay taxes until you actually receive it.

Nice Restrictions to Have
Restricted stock is stock that is granted to you, but it cannot be sold or transferred until certain conditions are met. Companies also offer restricted stock as an incentive to keep valued employees. The terms of the restrictions can vary widely, but usually restricted stock grants have a vesting period. For example, such grants may vest in four parts over four years. But should you leave the company during that time period, you lose the amount that has not vested. Some restricted stock has other conditions that determine if and when it vests, such as the company meeting certain financial goals.

The value of deferring income tax can be substantial, and grows over time (see “Weighing the Benefit of Non-Qualified Deferred Compensation,“ page 33). Further, some restricted stock plans allow you to accumulate the dividend payouts as well before the stock vests. One way of looking at restricted stock is that the government shares the single-stock volatility risk with you. If the stock price goes up, Uncle Sam takes part of the gain. If the stock price goes down, your tax bill will be lower than if you had received the stock immediately.

Turbocharging the Upside
A stock option gives its holder the right—but not an obligation—to buy common stock at a given price (the

### Options Are a Leveraged Form of Stock Ownership

<table>
<thead>
<tr>
<th>Stock Price ($)</th>
<th>In-the-Money Option</th>
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<tbody>
<tr>
<td>100</td>
<td>100</td>
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</table>

<table>
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<tr>
<th>OptionExercise Price ($)</th>
<th>Option Intrinsic Value ($)</th>
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<tr>
<td>—</td>
<td>90</td>
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</table>

<table>
<thead>
<tr>
<th>1% Change in Stock Price ($)</th>
<th>101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option Exercise Price ($)</td>
<td>90</td>
</tr>
<tr>
<td>Option Intrinsic Value ($)</td>
<td>101</td>
</tr>
<tr>
<td>Change</td>
<td>+1%</td>
</tr>
</tbody>
</table>

*As with most stock-related compensation vehicles, the rules and restrictions on option grants can vary widely from company to company.

†Intrinsic value is only part of the total value of an option, but to illustrate this point we focus only on intrinsic value. See “Understanding Time Value,” page 19.

‡For a further discussion of option pricing, see “Managing Stock Options to Meet Financial Goals,” page 17.
Options Are a Leveraged Form of Stock Ownership

Parts Over Four Years. But Should You Leave the Company Vesting Period. For Example, Such Grants May Vest in Four Can Vary Widely, But Usually Restricted Stock Grants Have a Term of the Restrictions Met. Companies Also Offer Restricted Stock as an Incentive to Keep Valued Employees. The Terms of the Restrictions Can Vary from Company to Company.

Restricted Stock Is Stock That Is Granted to You, But It Obligation—to Buy Common Stock at a Given Price (the Exercise Price). A Stock Option Gives Its Holder the Right—but Not an Obligation—to Buy Common Stock at a Given Price (the Exercise Price). The Option's Intrinsic Value Is, Therefore, $10.† If the Stock Price Moves to $101, the Stock's Value Has Increased by 1%. But the Option's Intrinsic Value Has Moved from $10 to $11—a 10% Gain! When This Leverage Is Applied to Holdings of Thousands or Even Millions of Dollars, the Exponential Growth Can Be Spectacular.

Of course, leverage is a two-edged sword. The option can lose value just as quickly as it gained it, and if the stock price drops below the option's exercise price, the option is "out of the money," meaning that for the time being, its intrinsic value has dropped to zero. Worse yet, if you hold the option to its expiration date and it's out of the money, it expires worthless.

Generally, when companies offer stock options to employees, they offer a greater quantity of them than if they had offered outright shares of stock or restricted stock. For example, if a company offers a choice of restricted stock or stock options, it might offer three or four options to every one share of restricted stock. This reflects the fact that companies value option grants based on option pricing models (usually the Black-Scholes model), and the value of a newly granted option is considerably less than the value of a share of stock.‡

Ranking the Choices

Compensation comes in three basic flavors: cash, restricted stock, and stock options. (Instruments such as phantom stock or stock appreciation rights are variations of restricted stock and options, but their operating premise remains the same.) Each has pros and cons, as shown in Display 3, and each has a distinctly different risk/reward profile. (See “Cash, Stock, or Options?” facing page.)

Given the choice of cash, restricted stock, or stock options, which is best? The answer always depends on your individual situation, but to compare the risk and reward potential of each, we used our Wealth Forecasting System to project 10-year probable outcomes.

We began by assuming an individual received one grant of cash, one grant of restricted stock, and one grant of stock options, each valued at $100,000 before taxes.† (We use this number because it is easily scaled: For example, to measure the growth of $1 million, simply add one zero to all the results. For $10,000, drop one zero.)

Display 3

Deferred Compensation Choices

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>Cash</td>
<td>Tax deferral until vest</td>
</tr>
<tr>
<td></td>
<td>Investment flexibility</td>
</tr>
<tr>
<td>Restricted Stock</td>
<td>Tax deferral until vest</td>
</tr>
<tr>
<td></td>
<td>Potential dividends</td>
</tr>
<tr>
<td>Stock Options</td>
<td>Tax deferral until exercise</td>
</tr>
<tr>
<td></td>
<td>Higher upside*</td>
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<td></td>
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</tbody>
</table>

‡Due to leverage

Source: Alliance Bernstein

We base our assumptions on a federal income tax of 39.6%, a federal capital gains tax of 20%, and a state income/capital gains tax of 6%. All the choices are assumed to vest in equal portions over four years.
A Closer Look at Our Modeling: The Wealth Forecasting System

Bernstein’s Wealth Forecasting System (WFS) is a proprietary planning tool uniquely suited to analyzing executive wealth. It projects the probable returns of portfolios holding virtually any mix of assets, including both current and expected future grants of single stock, restricted stock, and stock options—as well as traditional and alternative asset classes. Its projections integrate the effect of inflation, taxes, and spending. It also integrates multiple investment vehicles like taxable accounts, tax-exempt accounts, and charitable or wealth transfer trusts, modeling them simultaneously to show the effect of changes in one on the others and to forecast wealth across generations.

The WFS, like most sophisticated financial planning tools, uses a Monte Carlo–type model, which simulates 10,000 plausible paths of return for each holding or asset class, as well as inflation, and produces a probability distribution of outcomes. However, unlike many Monte Carlo models, it does not draw randomly from a set of historical returns or other broad measures to produce estimates for the future. Instead, it takes a “ground-up” approach to model single stocks and asset classes. The WFS projections:

- Are based on the building blocks of holdings or asset returns, such as inflation, yields, yield spreads, stock earnings, price multiples, and volatility
- Incorporate the linkages that exist among the returns of various asset classes
- Take into account current market conditions at the beginning of the analysis
- Factor in a reasonable degree of randomness and unpredictability

For example, when modeling the potential impact of inflation on a portfolio’s spending power, the WFS has three unique attributes. First, it defines initial conditions, because they will affect future outcomes. In other words, potential outcomes will be very different if your starting point is 1980 (very high inflation), 2000 (lower inflation; high asset valuations), or 2010 (low inflation; modest valuations). Second, it recognizes that history has limited use as a guide. While many financial forecasting models use a random sample of history as their foundation, Bernstein’s WFS creates plausible paths of investment outcomes to show how the financial markets may unfold, based on our understanding of economics and random shocks. This enables us to consider a wide range of potential scenarios. Third, in every path it ties together inflation’s impact both on the value of future spending

Bernstein’s Wealth Forecasting System Accommodates Current and Future Expected Grants

See Notes on Wealth Forecasting System, page 44, for further details.
Source: AllianceBernstein
power and on stock and bond returns. Our model thus considers how inflation will affect spending and asset returns consistently, creating a more realistic set of projections on which to base planning.

Outcomes from the WFS are shown as a probability distribution known as a box-and-whiskers chart. As the display (facing page) shows, the median outcome, or 50th percentile, is designated by the circle in the middle of the bar at the right. The 90th percentile—which represents very poor market performance—is at the bottom of the box, and the 10th percentile is at the top of the box. These outcomes have an equal one-in-10 chance of occurring. The “whiskers” extend the distributions to the 95th and 5th percentiles to graphically indicate that such extreme results, though highly unlikely, are possible.

Showing likely investment results in terms of probability is an excellent wealth planning tool. To gauge the midpoint of likely investment returns, we use the median result. But if we want to be conservative and plan for poor returns, we may use the 90th percentile, or even the 95th percentile, result. To illustrate, the 90th percentile reflects the fact that 9,000 of the 10,000 trials resulted in returns at this level or higher, giving us a 90% level of confidence that returns will be at this level or better. While this is no guarantee, statistically speaking, it provides a high level of confidence.

Using the WFS, we can model a simple illustration of the single-stock conundrum. The display (right) shows the range of probable annual returns for diversified portfolios with different asset allocations, from 0% stocks/100% bonds on the left to 100% stocks/0% bonds on the right—and the probable returns for a single stock of average volatility.* It is a vivid demonstration of the risk and return of a single stock. The median return of the single stock—5.9%—is about one-third lower than that of a diversified portfolio of 100% stocks (9.0%). The downside risk (90th percentile) is considerable, with a one-in-10 chance that the single stock could drop 28.8%. Of course, the upside (10th percentile) is even more eye-popping: a one-in-10 chance the stock could rise 53.7%, which is precisely why single-stock ownership can be so rewarding. Using the WFS, we can model different strategies to seek the optimal balance of risk and return, depending on individual circumstances.

*First-year volatility of the portfolio: 0/100 = 4.0%, 20/80 = 5.2%, 40/60 = 8.0%, 60/40 = 11.2%, 80/20 = 14.4%, 100/0 = 17.6%; Single Stock = 32.8%. Annual equivalent volatility of the portfolios over 20 years: 0/100 = 5.1%, 20/80 = 5.6%, 40/60 = 7.6%, 60/40 = 10.1%, 80/20 = 12.8%, 100/0 = 15.6%; Single Stock = 32.3%. Annual equivalent volatility differs from first-year volatility because the expectation and distribution of asset class returns change over time. If the allocation targets change over time, this will also affect the annual equivalent volatility of the portfolio but will not be reflected in the first-year volatility.
For the cash grant, we assumed it was immediately invested in a diversified portfolio of global stocks. The cash grant vested in equal portions over four years, as did the other grants, and a portion of the portfolio was sold to pay income tax as it vested. For the restricted stock grant, we assumed that shares were sold to pay taxes as it vested, but the remaining shares were held for the duration of the 10-year period. And for the stock options, we assumed the entire grant was exercised after 10 years. The ending values are all adjusted for inflation.

Display 4 shows the range of outcomes in a box-and-whiskers graphic, from dismal at the bottom to excellent at the top. The bigger the bar, the greater the range of possible outcomes, and, generally, the greater the risk. (See “A Closer Look at Our Modeling: The Wealth Forecasting System,” page 8.)

The results are striking: For the highest median value, cash, invested in a diversified portfolio for 10 years, generates $87,000. That means, in typical market conditions, it is the safest of the choices. The potential downside (assuming very poor performance) also represents the best of all the choices: $50,000. However, its potential upside (assuming excellent performance) is not too exciting. Of all the choices, it is the lowest: just $155,000.

Restricted stock that is held for 10 years and then sold exhibits a wider array of returns. While its median result—$65,000—is lower, and its potential downside is also lower, its upside is much greater.

Finally, the rightmost bar vividly shows the appeal—and the risk—of stock options. The median result after 10 years is only $35,000. This may seem surprisingly low, but keep in mind that at the time of issue, options have no intrinsic value—the exercise price equals the current stock price. There is a significant risk that the options will expire worthless. However, if the stock performs very well, defined as the upper decile of performance in probable outcomes, it will be worth at least more than four times the starting amount: $450,000. And remember, that’s after taxes and inflation.

The choices are many, and the stakes are high. The right choice depends entirely on your individual situation. In the next section, we will discuss a decision-making framework designed to help you make informed choices.

Display 4

Quantifying the Pros and Cons

<table>
<thead>
<tr>
<th></th>
<th>Expected Value of $100,000 Award After 10 Years After Taxes and Inflation ($ Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash (Invested in</td>
<td>155</td>
</tr>
<tr>
<td>Global Stocks)</td>
<td></td>
</tr>
<tr>
<td>Restricted Stock</td>
<td>198</td>
</tr>
<tr>
<td>Stock Options</td>
<td>450</td>
</tr>
</tbody>
</table>

Tremendous upside, but great risk

All compensation is assumed to vest over four years. Cash is assumed to be invested in global stocks (see footnote 7, below, for global stock assumptions) pre- and post-vest. Taxes due on vested restricted stock are assumed to be paid in shares of stock. All portfolios are liquidated and taxed at year 10. Options are assumed to expire at the end of year 10. Amounts are net of embedded capital gains and income taxes. 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, page 44, for further details.

Source: AllianceBernstein

Footnotes:
7 Global stocks are composed of 35% US value, 35% US growth, 25% developed international, and 5% emerging markets.
8 We assume the restricted stock is taxed as ordinary income when it vests; the ensuing growth at the end of 10 years is taxed as a capital gain. Some companies may offer the opportunity to defer receipt of restricted stock, but that is not the case in this example.
9 The option grant assumes 2.7 options per share of restricted stock. This number is based on pricing for a 10-year, at-the-money call option on a medium volatility stock (33% volatility; 1.5% dividend) and a risk-free rate of 2.8% (i.e., the yield on US Treasury bonds). For more information, see Notes on Wealth Forecasting System, page 44. Other stock option exercise strategies are covered in “Managing Stock Options to Meet Financial Goals,” page 17.
10 It may seem disappointing that after 10 years a $100,000 award is worth only $87,000, but remember, all projected outcomes are after taxes and inflation.
The Core and Excess Framework
An Executive Blueprint for Building Wealth

One of the greatest impediments to good wealth planning is that people tend to think of their investment portfolio in one lump sum. Following this instinct, they manage all their wealth based on personal feelings about risk. A risk-averse individual could end up with a portfolio so heavily weighted with low-risk, low-return assets that it cannot reach desired financial goals. It may even fall short of inflation, which is like losing money, because the portfolio’s purchasing power has diminished. For a risk taker, it may mean a portfolio of volatile assets with high-return potential but also the likelihood of large losses along the way.

We use a core and excess framework as a simple but powerful way to segregate wealth into two categories for planning purposes. As Display 5 illustrates, core capital is the amount you need to live the lifestyle you want for the rest of your life, calculated to a very high degree of probability. Excess capital is everything beyond that—your financial legacy. It is wealth you intend to leave to heirs or give away to charity, or spend on completely discretionary activities.

Although quantifying how much core capital you need is an inherently subjective exercise, it ends with a fairly precise output. By definition, the number should provide you with an exceptionally high degree of confidence. For entrepreneurial types, this portfolio “for life” may also include a “rainy day fund”—a separate reserve for unanticipated contingencies or opportunities, or perhaps a new business venture. Regardless,

Display 5
Goal-Based Planning: Establishing Priorities

<table>
<thead>
<tr>
<th>Lifestyle Spending</th>
<th>Core Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Reserve</td>
<td>Assets necessary to meet your spending needs</td>
</tr>
<tr>
<td>Children</td>
<td>Excess Capital</td>
</tr>
<tr>
<td>Future Generations</td>
<td>Assets that are part of your wealth transfer/charitable plan</td>
</tr>
<tr>
<td>Charity</td>
<td></td>
</tr>
<tr>
<td>Other Pursuits</td>
<td>Source: AllianceBernstein</td>
</tr>
</tbody>
</table>

the core capital figure is the cornerstone for all the planning that follows. ¹¹

If your primary concern is reaching core capital, we generally use the WFS to calculate a core capital figure that provides a 90% degree of confidence that you will never run out of money. But if you want to be even more conservative—when you’re planning on transferring excess capital out of your estate, for example—we plan for a 95% degree of confidence.¹² Let’s say you are married and you intend to retire at 60 and think $200,000 per year (of constant purchasing power) is how much you and your spouse will need in retirement; we can calculate the amount of core capital you’ll need even if inflation is high and the financial

¹¹In discussing the value of envisioning one's wealth as divided into compartments (i.e., core and excess capital), we don't imply that the funds must be separated or held in different accounts or trusts. These categories are simply a way in which investors can better visualize and analyze these sums, so they can develop an optimal asset allocation and wealth transfer plan.

¹²Some people ask why we don’t use a 99% level of confidence (100% is impossible because the future is uncertain by definition). The answer is that to attain that level of confidence, the core capital number escalates dramatically—in the example that follows, it would be $9.3 million. A 95% level is close enough to 99% that anyone should feel extremely secure.
markets are dismal, and one or both of you have unusually long life spans.\footnote{13}{One core capital calculations use life expectancy data from the Society of Actuaries RP-2000 mortality tables. For a single individual, the numbers in this example would differ, because one person in any given couple is likely to live longer than the other.}

Display 6 shows the core capital needs for different ages and spending levels, for a couple with their investments in a diversified portfolio. (It’s important to remember that the 95% level of certainty assumes long-running dismal market conditions and poor investment returns in order to provide extremely high confidence in retirement savings: Many individuals may be comfortable accepting a slightly lower degree of certainty, which would reduce their core capital number.) Along the top of the display are age and maximum annual spending rates. On the left are different levels of spending, which we assume will grow with inflation. The point where age and spending level intersect shows the core capital needed. So, the 60-year-old couple spending $200,000 annually in our example would need $7.4 million in core capital.

Over time, your core capital needs decline, because your expected life span decreases. You can see this in the display, where, as the same couple spending $200,000 reaches age 70, core capital declines to $6.1 million (a 3.3% spending rate), and at age 80, it declines to $4.5 million.\footnote{14}{These guidelines are for couples. For a single individual, our core capital estimates would differ (the odds of at least one of the two living longer than a single individual are higher) and would vary based on the gender involved (women have longer life expectancies than men). Also, note that within each age category, there’s a rather simple, linear relationship among all the amounts: Double the spending and you double the core capital.} This may have ramifications on your estate planning, because if your assets are growing faster than your core needs, you will have excess capital that may be subject to estate taxes.

Core capital and excess capital call for different investment strategies, and making the distinction can have a profound effect on how you manage your stock-based compensation. For example, if you have not yet reached your core capital goal, assets such as stock options can help you reach the goal faster than your paycheck alone could. But once you have accumulated your core capital, this part of your wealth needs to be protected, and it’s time to think about diversifying these assets to reduce single-stock concentration risk. However, at
the same time, once you have secured your core capital, you can begin thinking about excess capital. Your stock-based compensation can become even more valuable because you can afford to take greater risk with excess capital, in pursuit of greater reward.

By separating core from excess and investing them differently, you can increase the probability of meeting your financial goals. Not only can you seek the highest returns for your stock-based compensation, you can begin estate planning sooner rather than later, which can have a tremendous impact on multigenerational wealth accumulation and preservation.15

Getting to Core Faster
If stock-based compensation can help you build wealth faster, why would you reduce single-stock concentration in your core capital? The answer is that with significant holdings of one stock, the amount of core capital you need actually increases. This is because the greater the proportion of one stock in your portfolio, the greater the odds that an unexpected event could lower the value of your assets. Since core capital should provide you with the highest level of confidence, too much of one stock reduces that confidence and raises the core capital goal.

The culprit is volatility. Over time, a single stock will tend to be more volatile than a group of stocks, because the performance of stocks within a group will tend to offset one another—as some are failing, others are rising. Diversification thereby mutes a portfolio’s volatility. For example, one stock may drop 50%, but if the others rise, the portfolio still grows. Over time, the “risk drag” of volatility will tend to weigh heavily on a single stock. Display 7 illustrates this: On the left, the expected average annual return of a portfolio of global stocks is not too different from that of a single stock: 10.5% to 10.2%, respectively, over 20 years. But over time its growth will suffer. The compound growth rate of the global stock portfolio is 9.1%, compared with 5.0% for a single stock.

15See our research blackbook Multigenerational Wealth Management: Getting a Legacy Up, April 2008.
Core capital requirements rise dramatically with single-stock concentration. Display 8 (preceding page) shows the effect of different proportions of single-stock concentration on the couple in Display 6. Each bar represents a different asset allocation for the part of their portfolio that is not single stock: The bar at the far left, for example, represents no stocks/all bonds (0/100), the next bar represents 20% stocks/80% bonds, and so on. Meanwhile, within each bar, each stratum shows how much core they will need given the percentage a single stock represents in their portfolio. For example, the couple with a portfolio of 60% stocks/40% bonds and no single-stock concentration had a core capital goal of $7.4 million. But should a single stock represent 25% of their portfolio, their core need increases to $8.7 million. At 50%, it becomes $11.1 million. And with 75% of their portfolio concentrated in one stock, their core capital requirements more than double, to $16.7 million.

But one note of interest: If all the couple’s holdings other than the single stock are 100% bonds, putting 25% in a single stock gives them a slightly lower core capital requirement ($11.1 million) than they would otherwise have if they had no single stock ($11.8 million), as the bar at the far left illustrates. This is because a small allocation to equities will generally improve the performance of an otherwise all-bond portfolio over the long term—even if the equities are a single stock. However, once this couple’s single-stock exposure rises to 50% or 75%, their core capital requirements also rise. Further, the heavy weighting to bonds actually drives core capital requirements higher than any of the other allocations.

**Lost in the Hedges**

Executives may embrace the core and excess framework but may still be reluctant or unable to reduce their company stock exposure, for any number of reasons. Some ask: Why not hedge the risk? In other words, retain all the stock and options, but hedge them by investing the remaining assets in ultraseat investments such as intermediate-term municipal bonds (the 0/100 strategy in Display 8) or with derivatives. It sounds appealing, but on closer examination, these strategies turn out to be ineffective or unusable by most corporate executives.
For example, a common strategy to offset single-stock risk is to buy high-quality bonds in a “barbell” approach—where the plan is to have the low risk of bonds offset the high risk of the single stock. But this approach does very little to address the crux of the issue: A large exposure to company stock remains the dominant driver of investment results, regardless of how the remaining half of the portfolio is allocated.

Display 9 shows the extent to which a high single-stock concentration will dominate a portfolio’s risk profile: It shows the probability of different degrees of losses (20%, 40%, or 50%, from peak price to trough) in a portfolio that is half invested in a single stock and the remaining half in either cash or stock/bond allocations ranging from 100% bonds to 100% stocks, moving from left to right. Note that there is very little difference in most of the allocations: As long as half of the portfolio is a single stock, it barely matters whether the other half consists of cash, all bonds, 80% bonds, or 40% bonds.

It is often possible to hedge against single-stock risk by using derivatives strategies such as an options-based collar (buying put options and selling covered calls on the stock). But most companies don’t allow their executives to directly hedge against their stock—and the costs over time can be considerable.

Calibrating Your Risk
The bottom line regarding single-stock concentration is that it carries significant risk. The decision on how much risk is appropriate for you depends entirely on your personal circumstances—and age may be an important factor. For example, a 60-year-old executive may be thinking of retirement and have a fairly good idea of how much money she would need to keep herself comfortable for the rest of her life (i.e., her core capital). To protect her core capital, she should invest that money relatively conservatively, and too much of a single stock would not be a good thing. However, her excess capital may be a good place for single stock. She can afford to take risks with this capital, and if it grows, she will have more to leave to heirs and charity.

In contrast, a 30-year-old who is accumulating stock and stock options probably has no idea what her core capital goal should be—nor should she. With a lifetime ahead of her, she can afford to take risks and may decide that single-stock concentration is her best chance to build wealth.

Whatever your age, determining the right mix of single stock and options depends on your personal circumstances and tolerance for risk. A customized analysis of your goals and investment portfolio can help you make informed decisions.

Diversifying Single Stock
Assuming you want to diversify single-stock exposure, where do you start? One simple way is through selling restricted stock as it vests and investing the proceeds in a diversified portfolio. You are likely to improve your median outcome, and the potential upside you are giving away is not enormous. Display 10 illustrates this: The bars show the value of restricted stock after 10 years in two scenarios: The “hold” scenario on the left assumes that shares are sold to pay taxes upon vesting, but that the remaining shares are held. The bar on the right assumes that the entire vested position is sold as it vests and the after-tax

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16 Shares are assumed to vest in equal portions over four years.

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proceeds are reinvested in global stocks. At the end of year 10 we assume all holdings are sold and capital gains taxes paid.

In the median and 90th percentile cases, you are likely to do better by selling all the stock upon vesting, as the volatility of holding the single stock may work against you. The median outcome of the sell-upon-vesting strategy is $81,000, compared with $65,000 in the hold strategy. Admittedly, the hold strategy has a higher upside should the stock perform well, but nowhere near the upside of stock options (as shown in Display 4, page 10).

What about shares of company stock you already own, either directly or through options? Chances are the holdings were accumulated over time, at different prices or exercise prices, and some may be held in taxable accounts and others in nontaxable accounts. Each stock lot or options tranche, therefore, has different tax ramifications if sold.

A simple, practical strategy for selling is to rank your holdings in order of how much it costs to sell them, with the lowest cost first. Typically, this would mean selling in the following sequence:

1. Stock held at a loss
2. Stock held in tax-deferred accounts
3. Stock options
4. Stock held at a profit, in order of lowest capital gain

Stocks held at a capital loss should generally be sold first, giving you a pool of money that can offset gains in a taxable portfolio.

Next come stocks held in a tax-deferred account, such as a 401(k) or IRA. These can be sold and replaced with diversified holdings at no cost.

After the easy decisions to sell holdings held at a loss and nontaxable shares, you face some tougher ones: selling options or shares that will result in an immediate tax bill and the loss of potential future appreciation. Neither is appealing. But the alternative is to put your core capital at risk.

We rank stock options third because they have a finite life span and are leveraged instruments, with a much higher potential for loss—and gain. Some may be close to expiring, which would make them excellent candidates for divesting. Others may have increased in value to such an extent that you feel comfortable taking some money off the table. However, valuing options and managing them in a core/excess framework requires a full consideration of their dynamics, which we discuss in the next section.

The last holdings to divest are stocks held with capital gains. The lots with the lowest capital gains will likely come first, to keep your tax bill down. Stocks held for less than a year are not primary candidates because they would be taxed at higher ordinary income rates, though selling holdings with small short-term gains may result in a lower tax cost than a longer-term holding.

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**Chapter Highlights**

- A “core and excess capital” framework for wealth planning can help investors align their investment strategy more closely with personal goals. A concentrated position in a single stock increases one’s core capital needs.
- When building core capital, sell restricted stock at vesting.
- A “barbell” strategy of offsetting single-stock concentration with high-quality bonds may not provide a better investment outcome than reducing your single-stock exposure.
- Ranking one’s concentrated holdings in order of cost-to-sell is an effective way to begin reducing single-stock concentration to build a well-diversified core capital portfolio.

17For a detailed analysis of stock option exercise strategies, see the following section, “Managing Stock Options to Meet Financial Goals.”
Managing Stock Options to Meet Financial Goals

The Power of Leverage

Stock options are powerful tools for building wealth. But they are completely different from common stock. First, they are leveraged instruments, meaning they can appreciate in value faster than common stock holdings—and they can also lose value faster. Second, they expire: Unlike stock, you can't hold options indefinitely; you have to decide when to exercise them. And third, determining their value requires some calculations, which we’ll discuss below.

Further, there are different types of stock options, subject to different tax rules. The most prevalent today are non-qualified options, so we’ll focus on those in our analysis. Incentive stock options used to be very popular, but are less so today. (See “What About Incentive Stock Options?” page 21.)

Given all these variables, stock options need to be carefully monitored and actively managed. Too many people who receive option grants simply hold them until they are near expiration, whether because they misunderstand their risk/reward characteristics, have no time to plan, feel peer pressure, or simply suffer from inertia. If you’ve been granted stock options, it is important to understand their fundamentals and create a plan for exercising them. Without a plan, you won’t optimize their value and could even lose all their worth. With a plan, they can help you achieve your financial goals.

Precious Time

Managing options requires a basic knowledge of option pricing. While the math of options can get very complicated, the basic concepts are relatively simple. The most important concept is that an option's total value consists of two parts: its intrinsic value and its time value.

Intrinsic value is the difference between the option’s exercise price and the underlying stock’s price. For example, if the exercise price is $10 and the stock price is $12, the option is “in the money” and its intrinsic value is $2. But if the exercise price is $10 and the stock price is $9, the option is “out of the money” and has no intrinsic value.

Time value is less obvious to many option holders. But a good way to think of it is this: Even if the option is out of the money, that doesn’t mean it’s worthless. You wouldn’t hand it over to someone else for free, because the underlying stock still has time to appreciate. So an option has “time value,” which is the option’s value over and above its intrinsic value on any given day. An option’s total value is the sum of its intrinsic value and its time value. (See “Understanding Time Value,” page 19.)

But knowing your option’s current total value isn’t all you need to know to manage your options. The primary question you have to answer is: When is the optimal time to exercise?

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18The math of option pricing assumes there are two types of options: put options and call options. All employee stock options are call options, and our analysis reflects that.
Exercising options before they expire can go against human nature: First, if the stock is rising, no one wants to leave money on the table. And exercising the options is a taxable event: No one wants to pull out their checkbook to pay taxes sooner than they have to. But this is where you must remember the risks of leverage, and that your options have a finite life span. Given the very real risk of loss, you have to consider the optimal time to exercise.

Using our Wealth Forecasting System, we conducted research on the optimal time for exercising stock options. By comparing different exercise points based on the options’ time value relative to their total value, we were able to identify the range in which it makes the most sense to exercise, based on one’s goals.  

Display 11 shows a summary of the analysis. This assumes a onetime $100,000 pretax grant of options that vest over four years and expire in 10 years. The underlying stock for the options is a hypothetical one, with average volatility and dividend yield. Each bar in the display is a probability distribution representing a time value of zero. (In this analysis it means you have waited 10 years and have only a 61% chance that the options will expire worthless.) The $100,000 stake can grow to $450,000, after taxes and inflation! Furthermore, the “whisker” rising above the bar on the far right represents the 10th percentile outcome. The $100,000 grant can grow to $358,000, and that will tend to decrease over time, subject to various variables, as shown in the display. The ratios of time value to total value decrease from left to right, with the bar on the far right representing a time value of zero. (In this analysis it means you have waited 10 years and have only a 61% chance that the options will expire worthless.)

* Assumes onetime $100,000 pretax grant of options that vest over four years and expire in 10 years, and that exercised options are invested in 100% globally diversified equities. Values are net of income and capital gains taxes. See footnote 7, page 10, for global stock assumptions. The range of outcomes is based on Bernstein’s long-term forecasts of capital markets. Data do not represent any past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System, page 44, for further details.

Source: AllianceBernstein

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**Display 11**

**Comparing Option Exercise Strategies**

**Expected Value of $100,000 Options* Award After 10 Years**

After Taxes and Inflation

($ Thousands)

<table>
<thead>
<tr>
<th>Probability of Outcome</th>
<th>Time Value/Total Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 0</td>
<td>0</td>
<td>86%</td>
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<tr>
<td></td>
<td>48</td>
<td>84%</td>
</tr>
<tr>
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<td></td>
<td>82</td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>71</td>
<td>61%</td>
</tr>
</tbody>
</table>

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20The option grant assumes 2.7 options per share of stock. This number is based on pricing for a 10-year, at-the-money call option on a medium-volatility stock (33% volatility; 1.5% dividend) and a risk-free rate of 2.8%.

21In each case, we determined the range of probable values if the holder had exercised the options, paid taxes, and invested the net proceeds in a diversified global stock portfolio until the end of the 10-year period.
Understanding Time Value

Calculating the intrinsic value of a stock option is simple: Subtract the exercise price from the stock price. If the resulting number is negative, then the option is out of the money and the intrinsic value is zero. But time value is determined by a number of variables, as shown in the display (right).

- **Intrinsic value:** The more the option is in the money, the lower the time value.
- **Volatility:** The greater the volatility of the stock, the greater the time value of the option, because the stock has more potential to shoot higher than the exercise price. (Of course, it also has greater potential to drop, but option values can’t go below zero. Thus, an option holder may be indifferent to a small loss relative to a large loss.)
- **Time remaining:** The further away the expiration date, the greater the time value of the option, because the stock price has more time to appreciate. Typically, the day you are granted an option, its only value is time value, and that will tend to decrease over time, subject to other variables.

Valuing Employee Options: Factors to Consider

<table>
<thead>
<tr>
<th>Current Stock Price</th>
<th>Exercise Price</th>
<th>Volatility</th>
<th>Time Remaining</th>
<th>Dividend Yield</th>
<th>Risk-Free Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000</td>
<td>$30,000</td>
<td>33%</td>
<td>10 years</td>
<td>1.5% dividend</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Source: AllianceBernstein

- **Dividend yield:** The higher the dividend on the stock, the lower the time value, because by holding the option you are forgoing dividends on the underlying stock.
- **Risk-free rate:** The higher the market’s “risk-free” rate (i.e., the yield on US Treasury bonds), the higher the time value, because while holding the option, you have to put aside less cash to earn the return that would be needed to pay the option’s exercise price.

Several findings spring from this analysis: One is the incredible upside potential of waiting until expiration (the bar on the far right). The $100,000 stake can grow to $450,000, after taxes and inflation! Furthermore, the “whisker” rising above the bar shows even higher potential results, the 5th percentile outcome. Although this kind of performance is rare, it does happen. However, we also see the risk of this strategy: The option holder has waited 10 years and has only a 61% chance that the options will have any value. While waiting until expiration could make you a fortune, there’s roughly a four-in-10 chance that the options will expire worthless.
In contrast, your odds of making at least some money from the options increase the sooner you exercise—in other words, choosing to exercise when the intrinsic value is a relatively small part of the total value. But you may be leaving money on the table.

(Given the wealth-building potential of stock options, it may be discouraging to see that the median resulting amount in each case is considerably less than the $100,000 grant we began with. There are two things to remember here: First, the final numbers are after inflation and taxes, which we calculated for someone in the highest bracket. Second, these are median numbers, and there is still plenty of upside potential.)

**Parsing the Risk/Reward Potential**

The potential of huge profits from stock options can blind people to the risk involved. But huge gains will occur only some of the time. The $450,000 figure in the rightmost bar of Display 11 (page 18), for example, assumes the underlying stock performs at the 10th percentile outcome—a one-in-10 chance. For a more clear-eyed analysis, we should assume the stock in question enjoys typical, not spectacular, performance over 10 years. Therefore, we look at the median outcome of each bar. And in doing so, we see that by exercising when time value reaches 20% of total value, you get the optimal result—$87,000.

In real life, most executives receive more than one option grant, so we ran comparable analyses for yearly option grants over five- and 10-year periods. Although the final dollar amounts were higher, the results were effectively the same: Exercising at the 20% mark represented the highest median outcome. We also tested hypothetical stocks with different dividend yields, volatility, and beta—and the results were still effectively the same.

There are different scenarios in which time value may reach 20% of total value. But generally speaking, after the ratio starts at 100% when the option is granted, it will decrease as the stock price rises and the expiration date draws closer. Of course, stocks can be volatile, so time value will fluctuate—which brings up the subject of risk.

So far, in focusing on the median expected value of options, we have been ignoring risk. However, if you are building your core capital and counting on the options to help you get there, you may want to focus on where you maximize the risk-adjusted returns. Display 12 shows the risk-adjusted returns for exercising options at different time value/total value ratios. The x axis starts with a time value/total value ratio of 80% and moves rightward with progressively lower ratios. The y axis measures risk-adjusted return.

We can see that the progression of risk-adjusted returns peaks in the 10%–30% range. Thus, if you are sensitive to risk, exercising when time value reaches 30% of total value is a good rule of thumb. If you are seeking to maximize returns (perhaps if the option grant is part of excess capital, for example), you may choose to hold on until time value falls to just 10% of total value.

**Display 12**

**By Actively Managing Your Options, You Can Optimize Value**

Risk-adjusted return is calculated as the median excess return divided by the standard deviation of the excess return over cash; return is calculated as an implied logarithmic growth rate; potential exercise is considered on a monthly basis for a vested option; exercise proceeds are assumed to be invested in 100% global stocks. See footnote 7, page 10, for global stock assumptions.

*Source: AllianceBernstein*
What About Incentive Stock Options?

Although incentive stock options (ISOs) are not as common as non-qualified stock options, they are still used. But they require some devilish decision making revolving around one's tax status.*

The difference between non-qualified options and ISOs is this: When you exercise a non-qualified option grant, you are immediately taxed at ordinary income tax rates on the difference between the exercise price and the stock price. But with ISO grants, no immediate taxes are due, and when the stock is sold the difference between the exercise price and the stock price may be taxed as a capital gain if you hold the stock for a minimum of 12 months (and if at least 24 months have transpired from the date of the ISOs’ initial grant). If you sell the stock upon exercise or within 12 months (a “disqualifying disposition”), the ISOs' profit would be taxed as ordinary income.

The potential to hold the stock for favorable tax treatment is clearly attractive. However, if your short-term goal is to reduce single-stock concentration, a disqualifying disposition strategy may outweigh the tax benefits of holding the underlying stock.

The AMT Trap

One reason ISOs have lost much of their luster is that more individuals find themselves subject to the alternative minimum tax (AMT). Although the profit upon an ISO exercise is not taxable under ordinary tax rates (other than with a disqualifying disposition), if you fall under the AMT, the profit is considered preferential income and taxed accordingly. If the stock falls in value between the exercise date and when you pay your taxes, you may owe more in taxes than the stock is worth!

For these reasons, most individuals receiving ISOs should work with their tax advisor to determine the maximum amount they can exercise without falling under the AMT.

However, if you are going to fall under the AMT anyway, you may be able to mitigate the tax effect. The AMT is often due in the year following the exercise, so one strategy is to exercise ISOs in the first quarter of the calendar year and hold the stock. If the stock has fallen prior to year-end and the AMT is significant relative to the value of the shares, you have maximized your window to disqualify. You would sell the shares, pay income tax on the difference between the initial exercise price and the current stock price, and avoid being subject to potential AMT. (If the sale price were below the exercise price, the difference would create a short-term capital loss.) Even if no AMT is due, exercising in the early part of the year extends the amount of time between exercising and paying capital gains tax. It pushes the taxable event into year 2, and the paying of tax into year 3 (unless estimated tax payments are due).

Another strategy some executives use is to exercise non-qualified options in the year the ISOs are exercised. The non-qualified option profit will increase compensation income for the year and with a careful, iterative calculation may be large enough to keep one out of the AMT.

* Anyone considering exercising incentive stock options and holding the stock should consult with his/her tax advisors about the implications of being subject to the alternative minimum tax.
Chapter Highlights

- Stock options’ total value is the sum of their intrinsic value and their time value.
- To gain the most from stock options, one should actively manage option grants, monitoring their time value relative to their total value.
- If you are counting on stock options to build your core capital (the amount you need to support your chosen lifestyle for the rest of your life), a good rule of thumb is to exercise vested stock options when their time value declines to 30% of their total value.
- If you have already secured your core capital and stock options are now part of your excess capital, you may wish to hold them longer, but after time value declines to 10% of their total value, your risk-adjusted return potential decreases.

Note that in diversifying a concentrated stock position, tax cost is the most important measure for assessing individual stock lots. But in assessing the cost of exercising stock option grants, we consider opportunity cost (the time value/total value ratio).
Building a Legacy with Your Single-Stock Holdings
How Best to Share the Wealth

If you have excess capital, it’s time to consider estate planning and wealth transfer strategies. While there are many wealth transfer strategies available, a few lend themselves to a high concentration of single stock, especially stock that was obtained at a low cost.

Human nature often causes us to defer gifts, because no matter how much money we have, we’re always afraid of running out. In many cases, charitable gifts are left as part of an estate plan that allots a certain amount of assets to the children and the remainder to charity. However, while testamentary gifts reduce your estate tax, you have forgone the opportunity to take advantage of income tax savings that result when you give during your lifetime.

Taking advantage of the income tax savings during your lifetime increases your legacy—allowing you to leave more to children or charity, or both. Thus, the first step in charitable planning is a core/excess analysis to calculate gifting capacity. In Display 13, we show the core/excess split for a 60-year-old couple with $20 million, at various spending levels. Funds that reside in excess capital are available for lifetime gifts; the next step is to determine the best charitable vehicles and investment strategy to maximize charitable value.

Donating stock that has appreciated greatly in value (low-basis stock, in tax terms) is one of the most tax-efficient ways to fund charitable contributions. In most cases, by giving the stock to charity you receive a tax deduction equal to the stock’s value—and you avoid the capital gains tax that you would have paid had you sold the stock. Thus, shares of highly appreciated stock are generally the first choice for direct gifts to charity.

You can increase the benefits further by creating a private foundation (or using a donor-advised fund, discussed in more detail below) to accelerate the timing of your tax deduction and

Display 13
Helping High-Net-Worth Donors Size Gifting Capacity

$20 Million Portfolio
60% Stocks/40% Bonds
Couple, Age 60*
($ Millions)

<table>
<thead>
<tr>
<th>Spending</th>
<th>Core</th>
<th>Excess</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100K</td>
<td>$16.3</td>
<td>$18.5</td>
</tr>
<tr>
<td>$250K</td>
<td>$10.7</td>
<td></td>
</tr>
<tr>
<td>$500K</td>
<td>$3.7</td>
<td></td>
</tr>
</tbody>
</table>

*Based on 95th percentile projections of Bernstein’s Wealth Forecasting System; data do not represent past performance and are not a promise of actual future results. Spending is assumed to increase with inflation. See note to Display 6, page 12, for information regarding asset allocation assumptions and mortality assumptions. See Notes on Wealth Forecasting System, page 44, for further details. Source: Society of Actuaries RP-2000 mortality tables and AllianceBernstein
get the benefit of investing in a tax-advantaged environment. In this way you get even greater tax savings and provide more to the charitable cause.

To illustrate, let’s say you have $1 million of a low-basis single stock and had intended to donate it to charity over the course of 10 years. Alternatively, you could create a private foundation and fund it with $1 million worth of stock up front. Display 14 illustrates the advantages of this strategy. It shows three approaches: selling your stock and donating cash in equal portions over 10 years; donating the stock itself in the same portions; and creating a private foundation by transferring all the stock up front. (This analysis assumes the foundation immediately sells the stock and invests in a diversified global stock portfolio.)

The left side of the chart shows “charitable value,” defined as how much money the charity has received at the end of 10 years. The right side shows the value of the tax deduction to you, assuming you are able to take full advantage of the charitable deductions available. Comparing the first two bars of each set (“Gift Cash” and “Gift Stock”), you see that gifting stock rather than cash results in an extra $100,000 for charity and an extra $100,000 tax deduction for you. The third bar shows the substantial benefit of forming a foundation—an extra $500,000 to charity and an extra $100,000 to you. Using the low-basis stock and a private foundation maximizes the value of your charitable legacy.

Private foundations have other benefits as well. They give you the opportunity to take a direct role in the management of funds and spending. This can be gratifying personally, and you can involve members of your family. A growing number of high-net-worth families have created foundations as a way to build family unity by linking family members in a common cause. Family foundations can also be a good way to introduce younger members of the family to the responsibilities and management of wealth.

Private foundations do require lots of ongoing attention, and if that level of commitment seems too great, a donor-advised fund may be a good alternative. Donor-advised funds are essentially third-party foundations that make donations over time on your behalf. These funds have become popular because they are simple to use and require very little maintenance on your part. The tax advantages of donating low-basis stock to a donor-advised fund are similar to those of a private foundation.

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Display 14

Reaping Rewards by Donating Single Stock to Charity

<table>
<thead>
<tr>
<th>Expected Value of Three Strategies After 10 Years*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Value: $1 Million</td>
</tr>
<tr>
<td>$1 Million</td>
</tr>
<tr>
<td>$1 Million</td>
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<tr>
<td>$1 Million</td>
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<td>$1 Million</td>
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<tr>
<td>$1 Million</td>
</tr>
</tbody>
</table>

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23 See the notes to Display 14 for the methodology of the gifting strategies.
24 Assuming that full value can be used to offset ordinary income. Charitable donations are limited to 50% of income if made in cash and 30% of income if securities are donated. If donations are made to a private foundation, the limits are 30% and 20%.
25 For more information on private foundations, see our research publication Smarter Giving for Private Foundations, September 2010.
Other charitable strategies that may also lend themselves to low-basis single stock are charitable remainder trusts and charitable gift annuities. However, under current interest rates and expected future tax hikes, these strategies will tend to be less effective than a private foundation or donor-advised fund.

**Wealth Transfer to Family**

A strategy that works very well with single stock is called a rolling short-term grantor-retained annuity trust (GRAT). By using a rolling short-term GRAT, you can essentially keep your stock while transferring much of its growth in value to your beneficiaries.

Single stock can lend itself to this strategy because rolling short-term GRATs take advantage of investments' volatility to transfer wealth.

Here's how the strategy works: In a basic GRAT, you transfer assets to the trust and retain the right to a specified annuity payment from the GRAT for each year during its term. If you structure the GRAT so that it is “zeroed-out” (in other words, the total annuity payments equal the amount contributed, plus an interest “hurdle rate” set by the IRS), once the trust's term ends, any value over the zeroed-out amount goes to your beneficiaries free of gift tax.26

In a rolling short-term GRAT strategy, you create a short-term GRAT (say, one with a two-year term), then fund the GRAT with your stock, rolling each year's annuity payment into a new GRAT. A series of short-term GRATs is actually more efficient than a single long-term GRAT at capturing the volatility of stocks: Their multiple term expirations provide more opportunities for a transfer of wealth. For example, while the S&P 500 was flat for the 10 years ending in 2009, it was up during five of the 10 two-year GRAT terms. And when your stock outperforms the IRS hurdle rate during any two-year GRAT term, the excess growth transfers to your children (or a trust for your children) free of estate and gift taxes. You can keep this strategy “rolling” for as many years as you wish.

When considering a GRAT strategy, we first calculate the core capital and then quantify how much wealth to put into GRATs to move the desired amount of excess capital to the next generation over a certain time horizon. To the extent that you are holding a single-stock position, this will be applied to the

**Display 15**

**Single Stocks Can Be Effective in GRAT Strategies**

![Expected Range of Values*](image)

<table>
<thead>
<tr>
<th>Wealth Transferred</th>
<th>Estate Tax Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Stock</strong></td>
<td><strong>Diversified</strong></td>
</tr>
<tr>
<td>29.8</td>
<td>9.0</td>
</tr>
<tr>
<td>19.8</td>
<td>8.2</td>
</tr>
<tr>
<td>14.7</td>
<td>4.8</td>
</tr>
<tr>
<td>10.2</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*Based on Bernstein's estimates of the range of returns for the applicable capital markets over the next 10 years. Data do not represent past performance and are not a promise of actual future results or a range of future results. Analysis assumes $10 million two-year rolling GRAT strategy (global stocks or single stock); an initial 7.52% rate of 2.4%; GRAT remainders are transferred to an intentionally defective grantor trust. Funded with single stock: 100% single-stock GRAT strategy (dividends are invested in 100% global stocks); $10 million global equity grantor portfolio (for taxes); grantor “swaps” successful remainders with global stocks from a personal portfolio and retains single-stock exposure. Funded with global stocks: 100% global stock GRAT strategy; $10 million global stock grantor portfolio (for taxes). Assumes marginal federal estate tax of 55%. See footnote 7, page 10, for global stock assumptions.

Source: AllianceBernstein

26Note that the current administration has proposed creating a minimum 10-year term for GRATs. This proposal was included in several bills that passed the House in 2010 but was not included in any Senate bills nor in the tax bill passed by Congress in December 2010. If passed, the term minimum would be effective upon enactment and pre-existing GRATs would be grandfathered in. Going forward, diversified equity GRATs would be more effective than single-stock GRATs. For a more detailed explanation of GRATs and other wealth transfer strategies, see our research publication Multigenerational Wealth Management: Getting a Legacy Up, April 2008.
strategy first. In *Display 15* (preceding page), we see the projected results of a $10 million rolling GRAT strategy over the next 10 years using a single stock versus a diversified portfolio of equities. On the left it shows how much wealth was transferred to beneficiaries after 10 years, and on the right, the potential estate tax savings.\(^{27}\)

Note that in median markets, a $10 million commitment to GRATs will move $9.0 million (inflation-adjusted) over 10 years—transferring to your heirs almost $1 for every dollar committed to the strategy. The single stock transfers $800,000 more than the diversified equity portfolio in the median case, with an upside potential for transferring a remarkable $10 million more. The expected estate tax savings were $500,000 greater with the single stock.

It’s worth noting that stock in the above strategy is not “locked up” for 10 years—because you can substitute other assets for the stock during each GRAT’s term. Also note that we would not recommend taking on a single-stock position for the purposes of executing a GRAT strategy, but to the extent that you have made the decision to hold it, it becomes the best asset to place in a GRAT.

The advantages of using rolling short-term GRATs make it an excellent strategy to consider if you are holding a large amount of one stock and considering how to transfer wealth.\(^{27}\)

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### Chapter Highlights

- Donating stock that has appreciated greatly in value (low-basis stock, in tax terms) is one of the most tax-efficient ways to fund charitable contributions.
- A private foundation (or donor-advised fund) accelerates the tax benefits and builds more value for charity.
- Concentrated single-stock positions should be the first choice when funding a rolling short-term GRAT strategy to transfer wealth to family.

\(^{27}\)Assuming 55% total estate tax with no exemption
We’ve demonstrated the importance of bringing single-stock risk under control, analyzed methods of doing so, and shown how to maximize the likelihood of reaching your financial goals within the core-and-excess capital framework. Now, let’s look at some examples of putting these insights into action.

- John Talent, a 50-year-old executive, has been offered a new job with an attractive compensation package composed largely of stock options. How can he best compare the package to his current compensation?

- Jane Leader, a 55-year-old senior executive, has amassed millions of dollars in company stock and options and has decided to retire. Is it time to take some of the money off the table?

- Blake Silver, a 65-year-old CEO, is on the verge of retiring with significant wealth, including a great deal of company stock. How should he handle the transition, and is it time to initiate estate planning?

Case Study I: Building Core Capital
John Talent has spent the last 10 years working at Wonder Drugs Inc., a blue-chip pharmaceutical company based in Baltimore, but he’s got an exciting opportunity to transfer to the company’s three-year-old biotech spin-off, Bio-X, near San Francisco. The big attraction is stock options in the new company.

At Wonder Drugs, John is well compensated, with perks that include an annual cash bonus of 50% of his salary and a long-term incentive plan that gives him annual grants of restricted stock worth two times his salary. John has a taxable portfolio of $2.2 million and a 401(k) plan with $300,000, both of which are invested in a portfolio of 40% stocks and 60% bonds. He also has 27,000 shares of company vested stock and 40,000 shares of unvested stock.

Wonder Drugs management understands that the cost of living in the San Francisco area is higher and that John is taking a risk by leaving a secure job at the parent company. So they are offering to increase John’s salary, exchange his unvested Wonder Drugs shares for Bio-X shares, and provide him with an incentive package that is a little lighter on restricted stock—but includes $600,000 in annual stock option grants in Bio-X.

John has worked out that his annual living expenses will increase from $200,000 to around $300,000 in San Francisco. He hopes that he can retire at the end of 10 years, when he will be 60. At that point, he and his wife would like to move back to rural Maryland, where they expect they will need $200,000 annually (in today’s dollars) to support their lifestyle in retirement. John has created a spreadsheet with the two competing offers (Display 16, following page), but it is still hard for him to judge. There is a big risk in leaving a prestigious company to join one that has been in existence for only three years, but the prospect of building his wealth quickly and retiring at 60 is very appealing.

Working with John’s accountant, we used our Wealth Forecasting System to model all the variables simultaneously, showing John how much wealth he can expect to have after 10 years in the two scenarios. The initial outcome was not what John expected:
If John takes the package with Bio-X and follows a passive management strategy—that is, holding on to stock and options awards for as long as possible—the most likely result (the median of 10,000 probable scenarios) will be only slightly greater wealth than if he stayed at Wonder Drugs: $9.9 million rather than $9.2 million (Display 17). True, the compensation package does provide considerably greater upside, but only if Bio-X performs extremely well.

However, we ran another analysis with a strategy of actively managing his stock and options, and with this strategy, his expected wealth jumps considerably. If he stays at Wonder Drugs for 10 years, his median wealth will be $9.7 million. If he moves to Bio-X, he can expect median wealth of $12.0 million, 24% higher than staying at Wonder Drugs, provided he adopts the following strategy:

- Exercising his Bio-X option grants when their time value becomes less than 30% of their total value
- Changing the asset allocation of his other assets (outside of Bio-X) from a 40/60 stock/bond mix to 60/40, to compensate for the reduction in equity exposure from the three steps above

Further, we helped John determine that his core capital goal is $7.4 million—that's how much he'll need to support the annual spending of $200,000 for life that he and his wife need in retirement. Along the bottom row of Display 17, we see that if he stays with Wonder Drugs and continues his current investment strategy, he has only a 75% chance of reaching that goal.
by age 60. If he moves to Bio-X and lets his stock exposure ride, his odds of reaching the goal actually drop—to 64%. However, if he moves to Bio-X and adopts an active management approach to his wealth, not only do the odds of reaching his core capital goal rise to a solid 88%, a comforting level, but he will also get exposure to the potential upside of Bio-X, which could fundamentally change his retirement lifestyle.

From a purely financial point of view, we helped John find the best solution. Now he needs to finish his due diligence on Bio-X—and start looking for housing in the Bay Area.

Case Study II: Preparing for Retirement
Jane Leader is the 55-year-old chief executive of a natural foods company. The company stock she holds has done very well, outperforming the broad market. She is currently worth approximately $20 million: $14 million in directly held stock, restricted stock, and stock options; $1 million in company stock held in a non-qualified deferred compensation plan; and $5.1 million in a diversified portfolio (Display 18).

Jane has decided to retire, and the board of directors has agreed to hire her as an independent consultant with a $1.5 million annual cash stipend for five years. Meanwhile, she’s asked her advisors to help her create a personal financial plan. We’ve run a Wealth Forecasting Analysis (WFA) for her, based on her current assets and expected future income, her lifestyle expectations, and her tax situation. She’s told us that she and her husband want to maintain their current lifestyle, spending $450,000 per year, adjusted for inflation, for the rest of their lives.

The results of the WFA surprised her: Her core capital goal (the amount needed to accommodate her spending needs with a 95% degree of probability) is $18.8 million—but that assumes a diversified portfolio of 60% stocks and 40% bonds. If she retains her exposure to the company stock and does not diversify, the probability that she will have enough capital to achieve her goal is only 82%—in other words, there is a one-in-five chance that she and her husband will run out of money in their lifetimes; these odds are not good enough for someone with this much wealth.

Based on discussions with her advisors, she agrees it would be prudent to start reducing her single-stock exposure, but in a systematic fashion, to keep costs down as much as possible. Using our framework of divesting, we prioritized what holdings to sell. Display 19 (following page) shows the results.

Her holdings in the company’s non-qualified deferred compensation plan come first, because, luckily, the plan provides investment choices for participants, and Jane can exchange company stock in the plan for diversified mutual funds. She can do this with no tax cost, so it’s a no-brainer. This is free diversification.28

Jane assumed she would sell the stock in her personal account next, but our analysis leads us to recommend she exercise two of her option grants that have a time value of less than 30% of total value.

Display 18
Jane Leader: A Financial Snapshot

<table>
<thead>
<tr>
<th>Cash Compensation</th>
<th>$1.5 Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred Comp Plan</td>
<td>$1 Million in Company Stock</td>
</tr>
<tr>
<td>Company Stock</td>
<td>$5.2 Million</td>
</tr>
<tr>
<td>Restricted Stock Grants</td>
<td>$1.7 Million</td>
</tr>
<tr>
<td>Stock Options</td>
<td>$7.1 Million</td>
</tr>
<tr>
<td>Diversified Account (60% Stocks/40% Bonds)</td>
<td>$4.5 Million</td>
</tr>
<tr>
<td>401(k) Retirement Plan (60% Stocks/40% Bonds)</td>
<td>$600,000</td>
</tr>
</tbody>
</table>

Spending is assumed to increase with inflation. Current holdings are $5.1 million invested 60/40 ($4.5 million taxable, $600,000 retirement); $5.2 million of single stock; $1 million in deferred compensation (allocated to single stock); $1.7 million in unvested restricted stock; and $7.1 million in options (intrinsic value). Assumes annual income of $1.5 million for five years. Deferred compensation assumed to be paid out as a lump sum in five years.
Source: AllianceBernstein

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28For an executive who is able to maintain a high equity exposure and must decide what to do with his/her retirement plan stock upon leaving a company, see the discussion on net unrealized appreciation, page 37.
Next we look at the stock held in her personal account, which will incur capital gains taxes, but the risk mitigation is worth the cost. She sells the lots with the lowest capital gains first—four lots in all.

Finally, while her unvested restricted stock can’t be sold immediately, we recommend that over the next five years she sell it as it vests and reinvest it in a diversified portfolio because there will be no additional tax cost in doing so (beyond the unavoidable income tax that occurs upon vesting).

This plan is optimal because it allows Jane to reach her core capital goal but still retain the wealth-building potential of more than $5 million in company stock and options. Yet Jane is curious to see the incremental effect of a full reduction in exposure. In other words, what if she divested all her company stock and options?

Display 20 shows the results. The left bar shows her legacy wealth if she takes no action at all; the middle bar shows the partial diversification plan outlined above; and the right bar shows a plan of total diversification—selling all her vested stock holdings.

The display shows why it’s important to diversify your core capital; it also shows why it can be lucrative to retain company stock in your excess capital. As the left bar illustrates, if she does not diversify at all she would have only an 82% chance of meeting her financial goals. The middle bar shows the benefit of diversifying to protect core capital: Her odds of success have jumped to 95%. But the middle bar also shows the potential for wealth creation on top of her financial security: If the stock performs very well over time, her wealth has a one-in-10 chance of growing to $118 million! Finally, the third bar shows that selling all her stock and options is probably not the best choice. The chances of improving her retirement security don’t change meaningfully, and she gives up some of the upside we see in the middle option.

Source: AllianceBernstein
Blake Silver: The Outcomes of Planning vs. Doing Nothing

Blake hasn't given much thought to estate planning, but he has fairly simple goals: First, he wants to maintain his lifestyle without worrying about money. Second, he would like to leave $5 million to each of his three grown children. Third, he would like to leave $10 million to charity, but the children's inheritance takes priority. He continues to believe that his company will do well and would prefer to maintain his single-stock position. Finally, he can't stand the idea of paying estate tax and would like to avoid it entirely.

Working with his advisors, we showed him how he could use his company stock to help him achieve his goals. We determined that based on his and his wife's ages and their annual spending goal and portfolio holdings, their core capital is $10.3 million. With $16 million in a liquid taxable portfolio, their core is well secured. Blake's single-stock holdings are all within his excess portfolio, which means he can continue to hold them and not sell it as it vests and reinvest it in a diversified portfolio because it is worth the cost. He sells the lots with the lowest capital gains taxes, but the risk mitigation which will incur capital gains taxes, but the risk mitigation of growing to $118 million! Finally, the third bar shows that wealth creation on top of her financial security: If the stock in your excess capital. As the left bar illustrates, if she does not diversify at all she would have only an 82% chance of stock and options? is curious to see the incremental effect of a full reduction in capital goal but still retain the wealth-building potential of

* Expected portfolio values at death; after portfolio taxes but before estate taxes. Based on Bernstein's estimates of the range of returns for the applicable capital markets over the next 50 years. Data do not represent past performance and are not a promise of actual future results or a range of future results. Analysis assumes in “Current” approach: maintain allocation to single stock in deferred compensation; maintain not-of-tax restricted stock exposure post-vest; hold options until expiration; liquid holdings are allocated 60/40 and current single stock is maintained. In “Partial Diversification”: sell restricted stock upon vesting; exercise vested options when time value is less than 30% of total value and invested options, as they vest, when the time value is less than 10% of the total value; invest liquid assets and deferred compensation in 60/40 portfolio; sell $3.2 million and keep $1.9 million of direct single-stock holdings. In “Full Diversification”: sell restricted stock upon vesting; exercise vested options when they are in the money; 60/40 allocation for liquid assets and deferred compensation; sell all single-stock holdings. See Display 6, page 12, for asset allocation assumptions. See Notes on Wealth Forecasting System, page 44, for further details.

Blake Silver is 65 years old and the CEO of a venerable publishing company that he helped transition to the new media age. He is confident the company has a bright future; he has put in place a management succession plan, and he's ready to retire.

He is worth $29 million, with $19 million in liquid diversified portfolios and $10 million in company stock that has a cost basis of $2.5 million. He and his wife live a comfortable lifestyle, spending $300,000 a year.
worry about his lifestyle even if the stock founders. But Blake was surprised that, based on his current situation, we would expect his estate tax bill to be $16.7 million.29

We then modeled a scenario whereby he would gift $2 million from his liquid portfolio today and establish a trust for his children.30 In addition to funding the trust, we recommend that he place his $10 million single-stock position in a “rolling” two-year GRAT strategy for 10 years. He liked that if the GRATs were successful he could pass on assets from his personal portfolio to his children in lieu of the stock itself.31 Blake will continue to pay income taxes on the income generated in the GRAT and his children’s trust, thereby decreasing his taxable estate and further reducing his estate taxes.

To ensure that this strategy never jeopardizes his lifestyle, Blake decided that should his liquid portfolio fall below $5 million, he would suspend the rolling GRAT strategy and stop paying the taxes for the children’s trust. Regarding his charitable intentions, we suggested he wait to reevaluate accelerating lifetime charitable gifts until he has met his legacy objective. At that point, we can update the core/excess analysis and determine gifting capacity.

* * *

Display 21 (preceding page) shows the impact of the plan. His ability to maintain his lifestyle is virtually assured; his odds of leaving $15 million to his children go from 64% to 84%; and his odds of leaving $10 million to charity go from 49% to 67%.

**Display 22**

**Planning Can Enhance Legacy Outcomes Considerably**

<table>
<thead>
<tr>
<th>Median Results*</th>
<th>After Taxes and Inflation ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
</tr>
<tr>
<td>Do Nothing</td>
<td>15.0</td>
</tr>
<tr>
<td>Plan</td>
<td>20.3</td>
</tr>
</tbody>
</table>

*Data do not represent past performance and are not a promise of actual future results. Represents the median, inflation-adjusted value at death. See notes to Display 21, preceding page, for analysis assumptions, and notes to Display 6, page 12, for information regarding mortality assumptions. See also Notes on Wealth Forecasting System, page 44, for further details.

Source: Society of Actuaries RP-2000 mortality tables and AllianceBernstein

Even more impressive is the improvement in expected outcomes (Display 22). After Blake and his wife pass, the children can expect to receive $20.3 million; charity should receive $19.5 million; and he will pay no estate taxes. Blake is convinced and begins work with his legal and accounting team to create the trusts.

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29 This assumes inflation-adjusted spending, no wealth transfer strategies and median outcomes for his investments, and a federal estate tax rate of 55% with a $2 million nominal exemption. See Notes on Wealth Forecasting System, page 44, for further information.
30 An intentionally defective grantor trust (IDGT) invested in 60% stocks and 40% bonds.
31 GRATs can be set up with “substitution” power, enabling the grantor to substitute one set of assets for another prior to the GRAT’s termination.

32 Bernstein.com
Specialized Strategies

Weighing the Benefit of Non-Qualified Deferred Compensation

Non-qualified deferred compensation plans are retirement plans that supplement qualified plans, such as pension plans or 401(k) plans. They resemble qualified plans in that you put some of your compensation into the plan for a specified term, during which it can grow without taxes being due.

These “non-qual” plans can be structured in a variety of ways. They may be voluntary or mandatory, and some employers may match all or a partial amount of the money you put into them. Their time frame can vary, and so can the assets held in them. 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, and so on.

It’s important to note that you must state in advance when you will take out the money and whether you will receive it in a lump sum or installments. Non-qualified plans may also have a vesting period; if you leave the company during this time, you forfeit the unvested portion.

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. The financial benefits of this tax deferral can be considerable.

To assess the potential benefit, we modeled the likely outcome of two $100,000 pay packages, one in traditional, taxable compensation and one in a non-qual plan. To make an accurate comparison, the traditional compensation starts with less—because it gets hit with taxes right away. In the case of an executive subject to top marginal federal tax rates and 6% state tax, the post-tax amount comparable to $100,000 would be $56,776.

Given that the deferred account starts out with almost twice as much value and pays no taxes on investment gains along the way, it’s not surprising that it easily wins the race. The more time it has to grow without taxes, the greater the benefit. The display (above) shows its growth, adjusted for inflation, over different lengths of time. After five years the median will be

Deferring Taxes Can Really Pay Off

<table>
<thead>
<tr>
<th>Years</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Increase</td>
<td>8%</td>
<td>18%</td>
<td>29%</td>
<td>41%</td>
<td>54%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Based on Bernstein’s estimates of the range of returns for the applicable capital markets over the next 30 years. Data do not represent past performance and are not a promise of actual future results or a range of future results. For comparability, the tax-deferred portfolio is assumed to be transferred to a taxable portfolio and the taxable portfolio is assumed to be liquidated and taxed each year displayed. See Notes on Wealth Forecasting System, page 44, for further details.

Source: AllianceBernstein
worth 8% more; after 15 years it will be worth 29% more; and after 30 years it will be worth 70% more. Looking at the middle bars—15 to 25 years—we see that the percentage gain in each case is about twice the number of years (41% is roughly twice 20, for example). So we can say that, very roughly speaking, the value of tax deferral is about 2% per year. Over time, this can be considerable.

There is an important caveat about the potential benefit of tax deferral: It’s impossible to know what tax rates will be in the distant future. On the one hand, if you defer taxes today and your personal income tax rates are lower when you finally receive the compensation, the benefits of tax deferral remain. On the other hand, if tax rates on capital gains, income, and dividends go up, tax deferral has less benefit. In our analysis above, if you were going to defer taxes for 10 years and your overall tax rate rose 9%, the benefit of deferring taxes would be wiped out.32

**Be Sensitive to Credit Risk**

The other, potentially greater risk to non-qualified deferred compensation plans is credit risk—the risk that the employer may not be able to pay the sum when it comes due. This may seem unlikely or even preposterous, but when it comes to personal wealth, every risk should be considered.33 For unlike qualified plans, non-quals are not protected by any government agency—they are strictly a benefit provided by your employer.

Considering credit risk can be a useful exercise when deciding how much to participate in, or whether to take, deferred compensation. If your employer is a bond issuer, the bond market is a helpful guide.

To illustrate, let’s make up a company called General Consolidated Corp., a major multinational with excellent credit. The bond market prices the company’s existing 10-year debt at a 1% yield premium to the equivalent Treasury bond. This is, by definition, the credit risk premium of General Consolidated.

So if you work for General Consolidated and are offered a non-qualified deferred compensation plan, you can safely say the benefit of a roughly 2% annual gain in tax deferral outweighs the risk implied by the 1% yield premium, all else being equal. However, all else may not be equal: You likely have many other sources of financial exposure to the company.

Say you have 50% of your total net worth tied up in General Consolidated stock. Plus, your salary, annual cash compensation, and ability to receive future equity awards are part of your company risk. Further, company credit spreads will fluctuate, but because of the illiquid nature of deferred compensation plans, you won’t have the opportunity to reduce your exposure to the plan until retirement (assuming you elected this payout). So even though the current benefit of tax deferral compensates you for the credit risk, it can’t offset your concentration risk.

Every individual has a different tolerance for risk, so it is difficult to define a threshold at which credit and concentration risks outweigh the benefit of tax deferral. But as a rule of thumb, once a company’s credit spreads hit 2% or greater, the benefit of tax deferral becomes questionable, given all the other company risks an executive typically bears.

The bottom line is that deferred compensation plans can be highly lucrative. But given a choice, you should carefully consider the credit and concentration risks. ■

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32Based on an increase in the ordinary federal tax rate, causing a decrease in wealth under median market conditions

33Companies are permitted to establish US domestic-based grantor trusts known as “Rabbi Trusts,” which can be funded and invested to match the accruing employee liabilities in a non-qualified deferred compensation plan. However, the assets in such trusts must still be accessible to claims of creditors. For example, an executive could have the choice to assign $100,000 of his deferred compensation funds to be invested in an 80%/20% stock/bond portfolio, and the company could place $100,000 in a Rabbi Trust and invest the funds accordingly.
How to Structure Your 10b5-1 Trading Plan

When executives want to sell or buy company stock, they have to jump through hoops. Securities laws prevent anyone with access to undisclosed financial information from trading when in possession of material information. Therefore, trading “blackouts” are imposed on insiders around material events such as earnings announcements, an acquisition, product rollout delays, or even the landing of a major contract. Given these restrictions, there may not be many open time frames for an insider to trade.

This is why so many executives who want to diversify embrace a popular program with an ungainly name: the 10b5-1 trading plan. A properly devised and executed 10b5-1 trading plan allows an executive to sell in predetermined stages without regard to “blackout periods,” and the sales should pass muster with regulators. These plans are also common enough that an executive may be able to sell without being viewed as “bailing out” of the stock.

Simple 10b5-1 trading plans often specify selling a constant number of shares over a certain time period—for example, 3,000 shares every quarter for two years. But the plans are more flexible than many people realize and can accommodate different strategies for selling. We used our Wealth Forecasting System to compare the effectiveness of several staged-selling strategies:

- Sell 50% immediately, then equal amounts quarterly over the next two years
- Structured Sale Plan: Sell equal amounts quarterly over the next two years
- Profit Taker: Sell only after the stock price rises (25% of shares if it rises 20%; 50% of shares if it rises 40%; 75% of shares if it rises 60%; 100% of shares if it rises 80%; and all or whatever is remaining at the end of the two years, regardless of price)

There is an important caveat about the potential benefit of tax deferral. On the one hand, if tax rates on capital gains, income, and dividends go up, tax deferral has less benefit. In our analysis above, if you were going to defer taxes for 10 years and your overall tax rate rose 9%, the benefit of deferring taxes would be wiped out.

There are two potential risks to consider. The first and most obvious is concentrated risk. If, for example, 50% of your net worth is tied up in General Consolidated, the benefit of deferring taxes may seem unlikely or even preposterous, but when it comes to personal wealth, every risk should be considered.

The other, potentially greater risk to non-qualified deferred compensation plans, you won’t have the opportunity to offset your concentration risk. For example, if you work for General Consolidated and are offered a special deal which allows you to sell 50% of your shares in the next two years, and after the 50% is sold,” you are made an offer to sell an additional 50% of your shares if the price rises 60%; 100% if it rises 80%; and all of the remaining shares if it rises 100%. Your initial 50% is sold today for “$3 Mil.,” and then your remaining shares are sold over the next two years.

In each case, as the stock is sold, we assumed the proceeds are invested in a portfolio of global stocks.

10b5-1 Strategies

Comparing 10b5-1 Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Range of Values After Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sell All Now</td>
<td>Initial Value: $5 Million ($ Millions)</td>
</tr>
<tr>
<td>50% Now, 50% over Time</td>
<td>98%</td>
</tr>
<tr>
<td>Structured Sale Plan</td>
<td>95%</td>
</tr>
<tr>
<td>Profit Taker</td>
<td>87%</td>
</tr>
<tr>
<td>Sell at End</td>
<td>81%</td>
</tr>
<tr>
<td>Sell at the end of two years</td>
<td>78%</td>
</tr>
</tbody>
</table>

Based on Bernstein’s estimates of the range of returns for the applicable capital markets over the next two years. Analysis assumes quarterly sales for the “50% Now, 50% over Time” and “Structured Sale Plan” scenarios. Values are net of embedded capital gains tax. Assumes cost basis of $0. Data do not represent any past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System, page 44, for further details.

Source: Alliance Bernstein

In our analysis, we compared the above strategies to two extreme alternatives as “control” cases:

- Sell all shares immediately
- Sell all at the end of two years

The end results for each of these strategies, shown in the display (above), illustrate a basic precept of divesting single stock for the sake of diversification: All else being equal, the

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14 The name refers to the Securities and Exchange Commission’s Rule 10b-5, which concerns insider trading. SEC Rule 10b-5 provides a safe harbor from insider trading rules. See Glossary, page 41.

15 Other rules may apply; insiders should always check with their company counsel before making transactions in company stock.
The Risk of Losses Tends to Rise the Longer Stocks Are Held

![Graph showing odds of loss over two years](chart.png)

*Data indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 20%, 40%, and 50% over the life of the forecast based on monthly observations. This analysis uses monthly capital market returns to calculate the probability of such a loss. The above chart does not reflect the probability of peak-to-trough losses measured on a more frequent basis (such as daily or weekly), which would be larger. The range of outcomes is based on Bernstein’s long-term forecasts of capital markets, does not represent any past performance, and is not a promise of actual future results. See Notes on Wealth Forecasting System, page 44, for further details.

Source: AllianceBernstein

sooner you sell, the more you’ll reduce your risk—but you will also limit your potential upside.

The display (preceding page) shows the probable results of starting with $5 million and applying various selling strategies over two years. The bar on the left represents the first control strategy of selling all shares immediately. It has the lowest dispersion of results and a median result of $4.3 million sold. Each successive strategy increases the dispersion of possible results. Although the median results are not dramatically different, the range of returns becomes huge after two years.

Another way to look at this display is to consider the probability of reaching your goals. The bottom row of numbers shows the probability of receiving more than $3 million after two years. Once again, selling early increases the probability. This also sheds light on the “profit taker” strategy (selling only after the stock price rises): While it has a slightly higher median result, the probability of achieving your goals is less than the plain vanilla strategy of selling equal amounts at regular intervals.

(In a strategy similar to that of the “profit taker,” some executives place a limit order in 10b5-1 plans, dictating that sales take place only above a certain price. But this strategy can lead to disappointment as well. For example, if you place an order to sell at $50, the stock may reach $49.99 and no trade will take place. Although the use of limits may give you a higher median result, there is a significant chance that a limit will not succeed, causing a plan to fail to execute and subjecting you to further downside risk.)

The dispersion of results in the display shows one risk in any staged-selling plan: the risk that the stock could drop sharply before the selling is done. As we’ve seen, single stocks are more volatile than a diversified portfolio. So in considering different 10b5-1 trading strategies, you should consider whether you can tolerate a large drop in your holdings’ value. For example, if the holdings serve as collateral or backing for a loan or other financial obligation, it could be a big issue. It may also be an emotional issue: How will you feel if your share holdings dropped, say, by 50%?

To compare this risk among the five strategies, we looked at the likelihood of drops in the holdings’ value during the two-year time span. The display (above) shows the odds of peak-to-trough losses of 20%, 40%, and 50% during the two years of the five selling strategies. Not surprisingly, the risks line up in
In a strategy similar to that of the “profit taker,” some than the plain vanilla strategy of selling equal amounts at median result, the probability of achieving your goals is less after the stock price rises: While it has a slightly higher also sheds light on the “profit taker” strategy (selling only years. Once again, selling early increases the probability. This the probability of receiving more than $3 million after two results. Although the median results are not dramatically Each successive strategy increases the dispersion of possible dispersion of results and a median result of $4.3 million sold. strategy of selling all shares immediately. It has the lowest over two years. The bar on the left represents the first control the holdings serve as collateral or backing for a loan or other emotional issue: How will you feel if your share holdings dropped, say, by 50%? To compare this risk among the five strategies, we looked at the likelihood of drops in the holdings’ value during the two-year appreciates between the cost basis and current sale price incurs favorable capital gains tax treatment. The NUA election allows you to withdraw stock from your retirement account and pay ordinary taxes on the cost basis only; then whenever you sell the position, the net unrealized appreciation between the cost basis and current sale price incurs favorable capital gains tax treatment. How do you decide which is best? The decision boils down to whether the immediate tax benefit of the NUA election outweighs the longer-term benefit of growing diversified assets tax-deferred in an IRA. Although each individual case is different and future tax rates are unpredictable, three primary factors drive the analysis:

- **Expected time horizon**: The longer an executive’s time horizon, the greater the likelihood that the tax-deferred growth of investing in an IRA will overcome the initial, onetime tax relief provided by the NUA election. For example, a 60-year-old who expects to live to at least 80 stands to benefit from the long-term growth of his assets in a tax-deferred IRA account, and therefore he might choose not to remove the equity and reduce his IRA assets through an NUA election. In contrast, a 70-year-old with similar life expectancy and a requirement to soon start withdrawing minimum distributions from his IRA might profit more from the onetime tax benefit of making an NUA election.

- **Cost basis of retirement plan stock**: The lower the cost basis of the stock, the greater the tax benefit of the NUA election. The immediate tax benefit from the NUA election can be viewed as a hurdle that the IRA strategy must overcome through years of tax-deferred growth. The lower the stock’s cost basis, the higher the hurdle—and thus the longer the time horizon required for the IRA strategy to beat out the NUA election.

- **Tax rate differential between ordinary income and capital gains**: The greater the differential between the ordinary income and capital gains tax rates, the more attractive the NUA election becomes. For example, in the current tax rate environment, we assume a 15.8% differential for a typical executive, because the maximum federal tax rate is expected to return to 39.6% and the capital gains tax rate to 23.8% in 2013. However, were the capital gains tax rate to increase even more, say, to the pre-1997 level of 28%, the differential would narrow to 11.6%, reducing the attractiveness of making an NUA election.
The display (above) illustrates how many years it will take for the tax-deferral advantage of an IRA to beat the NUA election, based on the cost basis of the stock relative to its current price. The bar on the far left, for example, represents a stock with zero cost basis. In this case, an IRA rollover would need 17 years to catch up to the tax advantage of the NUA election. The bar at the far right shows that if the stock’s cost basis is the same as the current price, there is effectively no advantage to being able to take the NUA election. In other words, the lower your cost basis, the more compelling the NUA election becomes.

Notice that any time horizon greater than 17 years makes the NUA election undesirable, no matter what the cost basis of the stock.

Not only must longevity be taken into consideration, but both minimum required distributions (MRDs) and unrequired distributions (monies needed to sustain your lifestyle) are important factors. Distributions from an IRA to meet spending will reduce the amount of funds available to continue to grow tax-deferred. If you anticipate needing to draw significantly from your IRA in the near term, removing funds today from your tax-deferred accounts by taking the NUA election makes particularly good sense if you have low-basis stock.

Conversely, if you are certain you will take only MRDs and leave the IRA to a spouse or heirs, the IRA’s time horizon can be stretched out. In this case, the NUA election may not make sense. The NUA election decision should be made with regard not just to your lifestyle requirements but to your wealth transfer and charitable wishes as well.
When to Choose the 83(b) Election

An 83(b) election allows one to recognize income on the purchase of stock (either outright or through the early exercise of an option) prior to the actual vesting of the stock. If you expect the value of the stock to rise significantly, it may make sense to pay income tax before it rises. This technique is often used by holders of private stock prior to an IPO, but it can also be used where there is a public market for the underlying security. Can it make sense for holders of a restricted stock grant?

For example, if you received a restricted stock grant at $50 per share and it didn’t vest until the shares were trading at $70, you would be subject to income tax on the $70 price. However, if you used the 83(b) election to pay income tax on the $50 share grant up front, you could establish a cost basis at $50. If you then sold the stock upon its vesting date, assuming at least 12 months have passed, the $20 gain would be taxed as a long-term capital gain.

We used our WFS to determine whether it makes sense for an executive to make the 83(b) election up front for a $100,000 stock grant that vests in equal amounts over the next four years. We compared the result at the end of four years using two strategies: one in which the executive holds the stock and sells it at the end of four years, versus selling one-fourth of the stock at each vesting date. The display (right) shows the results.

Both 83(b) strategies actually resulted in a lower median and downside value. The strategy is risky: If the stock price falls, you have in effect paid a higher tax than necessary, sooner than necessary.

83(b) and Stock Options

What about using the 83(b) election with stock options? If you purchased a stock through the early exercise of an option (i.e., one allowed before vesting) that had an exercise price of $50 and the stock is at $50, and you applied the election, you would have no income tax due because the difference between the purchase price and the stock price is zero. Again, a basis would be established and any shares sold in the future would be capital gains.

If you exercised the option when the stock was $60, you paid income tax on the $10 profit and $50 for the stock. Your basis would be $60. But, according to the rules, if you forfeit the unvested stock and the company agrees to repurchase your shares at $50, your basis for the unvested shares is the $50 price you paid for the stock. You receive no loss benefit. (Only for vested shares would the basis have been $60.) So you lose the potential capital loss benefit and receive no benefit for the income tax paid on the $10 profit.

Remember that stock prices don’t always rise. Paying income tax early could result in paying more than necessary. Also, when executives leave their companies, typically they have to forfeit unvested shares back to the company. The bottom line: 83(b) elections generally are best used with private companies intending to go public.

To 83(b) or Not to 83(b)?

Based on Bernstein’s estimates of the range of returns for the applicable capital markets over the next four years. Data do not represent past performance and are not a promise of actual future results or a range of future results. For comparability, all portfolios start with $143,224: $100,000 pretax stock grant and $43,224 cash, representing the 83(b) tax liability. All portfolios are assumed to be liquidated and taxed at the top federal rate and state tax rate at the end of the analysis. See Notes on Wealth Forecasting System, page 44, for further details.

Source: AllianceBernstein

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36Where no 83(b) election is made and the stock is held until the end of four years, we assume enough shares are sold to pay for the taxes due each year as the position vests.
37We assume the options are non-qualified for this example. Applying the 83(b) election to stock acquired through incentive stock options is considerably more complex and requires consultation with a tax advisor.
Glossary

Affiliate
A person who directly or indirectly controls, or is controlled by, an issuing company. Control means the power to direct the management and policies of the company through ownership of voting securities, by contract or otherwise. Generally, officers, directors, 10% shareholders, and their immediate family members are considered to be affiliates.

Black-Scholes Model
Created by Fischer Black and Myron Scholes, this financial model is one of several used to value options. Such calculations are important to corporations, which are required to expense the value of options granted.

Blackout Period
A period during which companies prohibit employees and affiliates from purchasing or liquidating shares. Blackout periods often coincide with quarter-end, year-end, or other earnings reporting schedules.

83(b) Election
An election that recognizes compensation income on the acquisition of stock (either through a restricted stock grant or the early exercise of an option) prior to the actual vesting of the stock. The election must be made within 30 calendar days of the stock acquisition. When the stock is eventually sold after vesting requirements have been met, the difference between the acquisition price and the sale price is treated as a capital gain or loss. Often used by holders of private stock prior to an IPO, an 83(b) election can also be used where there is a public market for the underlying security. If the executive leaves before the vesting date, the stock is forfeited and no credit or deduction is available for the amount of taxes initially paid.

Exercise Price
The price at which the holder of an employee stock option can purchase company shares.

Form 144
A notice of the proposed sale of restricted securities or control securities under Rule 144 that must be filed with the SEC. The form is valid for 90 days.

Incentive Stock Option (ISO)
A type of employee stock option that offers an employee more favorable tax treatment than a non-qualified stock option. (See "Non-Qualified Stock Option.") No more than $100,000 of ISO option stock (shares times exercise price) can become exercisable in any one year. Upon exercise, the profit between the exercise price and stock price is not taxed as compensation income, provided 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 receive more favorable long-term capital gains treatment. Any sale of stock that occurs before this time has elapsed will disqualify the favorable tax treatment and subject the profit to ordinary taxes (a disqualifying disposition). The ISO is nontransferable and must be exercised within 90 days of leaving a company to maintain its tax-deferred status. The ISO profit is considered preferential income for alternative minimum tax (AMT) purposes. As more people find themselves subject to the AMT, the popularity of these options has waned.
**Insider**
Generally an officer, director, or principal stockholder (or a member of his/her immediate family) of a publicly owned corporation (see “Affiliate”). The term may also apply to persons who obtain nonpublic information about a company.

**Intrinsic Value**
The difference between the exercise price of an option and its current stock price. Typically, an option will have no intrinsic value on the date of its grant.

**Non-Qualified Deferred Compensation Plans**
Plans that give executives the opportunity to benefit from tax deferral for amounts deferred or awarded above the maximum contribution limits of qualified retirement plans. These plans include SERPs (supplemental executive retirement plans), “Top Hats,” and other types of voluntary and mandatory excess benefit plans. They are similar to qualified plans in that they offer the opportunity to defer taxation on current and reinvested earnings. Unlike qualified plans, though, future access to the proceeds is not protected. These plans are not considered funded and are subject to claims by a company’s creditors in the event of bankruptcy.

**Non-Qualified Stock Option (NQSO or NSO)**
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 to exercise an option and acquire the underlying stock. At the time of exercise, the holder must pay the exercise price as well as compensation income tax (ordinary taxes plus Social Security and Medicare) on the profit between the exercise price and the current stock price. Often the underlying shares are sold simultaneously, with the exercise price and taxes netted out (a cashless exercise). Other times, enough shares are sold to cover the exercise price and taxes (sell to cover).

**Phantom Stock Award**
An award that pays out in cash or stock based on the value of the underlying stock at the end of a specific period. Some awards are conditional upon the company achieving certain performance objectives. Payouts are taxed as compensation income. (See “Stock Appreciation Right.”)

**Restricted Securities**
Unregistered securities acquired directly or indirectly from an issuer or from an affiliate of the issuer, in a transaction not involving a public offering. Certificates of restricted securities are typically stamped with a restrictive legend indicating that the securities have not been registered under the Securities Act of 1933.

**Restricted Stock**
A compensation award that is granted in the form of company shares of stock. Typically, the stock will be subject to a vesting schedule, with the value of the stock at the time of vesting taxed as compensation income. To pay the taxes, an executive can sell a partial amount of shares and hold the balance.

**Restricted Stock Unit (RSU)**
A compensation award similar to a grant of restricted stock; however, no actual stock is issued and is considered outstanding until the RSU vests (stock-settled RSUs). The company can also pay out the cash value of the shares upon vesting (cash-settled RSUs). Unlike restricted stock grants, RSUs have no voting rights and do not pay out dividends, although a company can choose to pay out dividend equivalent units. An 83(b) election is not permissible with RSUs.

**Rule 10b5-1 Trading Plan**
A stock trading plan that falls within the “safe harbor” of Rule 10b5-1, permitting insiders to trade stock during company-imposed “blackout periods” (see above) or when they may be in possession of material nonpublic information (“inside information”), when they would otherwise be constrained from trading.

A 10b5-1 trading plan must be authorized during a time when the issuer’s rules would permit insiders to purchase and sell securities issued by the issuer (“window period”). The plan must specify the terms (i.e., amount, date, etc.) of the proposed transaction(s) and must describe in detail any formula, mechanism, or trading program to be followed.

Creating a sales strategy using a 10b5-1 trading plan will allow affiliates to establish a financial plan designed to fit with their long-term goals. Sales of securities under a plan would still have to be executed in compliance with the requirements of US securities law and/or other legal and contractual restrictions.
Rule 144
An SEC rule that permits the public resale of restricted securities or control securities if certain conditions, including holding periods and volume limitations, are met:

- Holding Period: Restricted (unregistered) stock must be held for six months before it may be sold, subject to Rule 144.
- Current Public Information: Adequate current public information must be available on the company.
- Volume Limitations (affiliates only): During any three-month period, the amount of stock that can be sold under Rule 144 cannot exceed the greater of either 1% of shares outstanding or the average weekly reported trading volume during the four calendar weeks preceding the filing of notice of the proposed sale. Restricted securities held by non-affiliates are not subject to volume limitations if owned for a period of six months.
- Manner of Sale (affiliates only): The securities must be sold in brokers' transactions.
- Filing Notice with the SEC (affiliates only): The seller must file Form 144 at the time of or prior to placing the order. The form is valid for 90 days.

Section 16(c)
A section of the Securities Exchange Act of 1934 that prohibits an insider from selling short any equity security of the issuer.

Stock Appreciation Right (SAR)
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. The value of such payment is taxed at exercise as compensation income. (See “Phantom Stock Award.”)

Time Value
The value of an employee option above and beyond its intrinsic value, based on financial models. When a stock price is at or below an option's exercise price, the option's total value will consist solely of time value. Time value decreases 1) as the time to option expiration shortens and 2) as the stock price rises over the option exercise price.

Total Value
The value of an employee stock option calculated by financial models. The total value is the sum of the option's intrinsic value and time value.

Vesting
A condition that has to be met before holders of stock, options, and deferred compensation gain ownership of the awards (no risk of forfeiture). The conditions of vesting can be met either by certain time requirements (e.g., one-quarter per year over four years) or corporate performance metrics (e.g., meeting certain earnings per share growth goals).
These tables show how holdings of a single stock are likely to affect the amount of core capital needed by a couple at different ages with different stock/bond allocations other than the single stock. The table on the left assumes the single stock has medium volatility characteristics, and the table on the right assumes a stock with high volatility.* The numbers represent required core capital per $100,000 of annual spending, for ease of calculating higher spending amounts. For example, to determine core capital needs for a couple spending $400,000 annually, simply multiply the table’s numbers by 4. In each table, the single-stock concentration is shown in the left column (0% through 75%), and the stock/bond allocation of the remaining portion of the portfolio is shown across the top.†

### Single Stock and Core Capital Tables

**How Single Stock Affects Core Capital Requirements**

These tables show how holdings of a single stock are likely to affect the amount of core capital needed by a couple at different ages with different stock/bond allocations other than the single stock. The table on the left assumes the single stock has medium volatility characteristics, and the table on the right assumes a stock with high volatility.* The numbers represent required core capital per $100,000 of annual spending, for ease of calculating higher spending amounts. For example, to determine core capital needs for a couple spending $400,000 annually, simply multiply the table’s numbers by 4. In each table, the single-stock concentration is shown in the left column (0% through 75%), and the stock/bond allocation of the remaining portion of the portfolio is shown across the top.†

#### With Single Stock of Medium Volatility

<table>
<thead>
<tr>
<th>Single-Stock Concentration</th>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 55</td>
<td>0%</td>
<td>6.7 Mil.</td>
<td>5.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Age 60</td>
<td>0%</td>
<td>5.9</td>
<td>4.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Age 65</td>
<td>0%</td>
<td>5.0</td>
<td>4.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Age 70</td>
<td>0%</td>
<td>4.2</td>
<td>3.4</td>
<td>3.1</td>
</tr>
</tbody>
</table>

#### With Single Stock of High Volatility

<table>
<thead>
<tr>
<th>Single-Stock Concentration</th>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
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<tbody>
<tr>
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<td>5.0</td>
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<tr>
<td>Age 60</td>
<td>0%</td>
<td>5.9</td>
<td>4.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Age 65</td>
<td>0%</td>
<td>5.0</td>
<td>4.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Age 70</td>
<td>0%</td>
<td>4.2</td>
<td>3.4</td>
<td>3.1</td>
</tr>
</tbody>
</table>

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*For volatility assumptions, see Notes on Wealth Forecasting System, page 45: “Modeled Asset Classes.”

†Based on Bernstein’s estimates of the range of returns for the applicable capital markets over the periods analyzed for a couple’s joint life expectancy. Amounts based on sustainable spending rates for couples invested in a portfolio of global stocks (35% US value, 35% US growth, 25% developed foreign markets, and 5% emerging markets) and diversified intermediate-term municipal bonds, at 95% confidence. In our analysis the life span of an individual varies in each of our 10,000 trials in accordance with mortality tables. See Notes on Wealth Forecasting System, page 44, for further details.

Source: Society of Actuaries RP-2000 mortality tables and AllianceBernstein
Notes on Wealth Forecasting System

1. Purpose and Description of Wealth Forecasting System
Bernstein’s Wealth Forecasting System\textsuperscript{SM} is designed to assist investors in making long-term investment decisions regarding their allocation of investments among categories of financial assets. Our new 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 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 impact his/her long-term security; 3) The Capital Markets Engine: Our proprietary model, which uses our research and historical data to create a vast range of market returns, takes into account the linkages within and among the capital markets, as well as their unpredictability; and finally 4) A Probability Distribution of Outcomes: Based on the assets invested pursuant to the stated asset allocation, 90% of the estimated ranges of returns and asset values the client could expect to 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 establish the boundaries for all outcomes. Expected 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 results will be realized.

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 Roth IRA/401(k) vehicles 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. 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, assets are assumed to be sold to rebalance.

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:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Modeled as…</th>
<th>Annual Turnover Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Equivalents</td>
<td>3-Month Treasury Bills</td>
<td>100%</td>
</tr>
<tr>
<td>Int.-Term Div. Munis</td>
<td>AA-Rated Diversified Municipal Bonds with Maturity of 7 Years</td>
<td>30%</td>
</tr>
<tr>
<td>Int.-Term Taxables</td>
<td>Taxable Bonds with Maturity of 7 Years</td>
<td>30%</td>
</tr>
<tr>
<td>US Value Stocks</td>
<td>S&amp;P/Barra Value Index</td>
<td>15%</td>
</tr>
<tr>
<td>US Growth Stocks</td>
<td>S&amp;P/Barra Growth Index</td>
<td>15%</td>
</tr>
<tr>
<td>Developed Int'l Stocks</td>
<td>MSCI EAFE Index—Unhedged</td>
<td>15%</td>
</tr>
<tr>
<td>Emerging Markets Stocks</td>
<td>MSCI Emerging Markets Index</td>
<td>20%</td>
</tr>
<tr>
<td>Single Stock (Medium Volatility)</td>
<td>Volatility: 33%; Dividend: 1.5%; Beta: 1.1</td>
<td>0%</td>
</tr>
<tr>
<td>Single Stock (Low Volatility)</td>
<td>Volatility: 26%; Dividend: 2.8%; Beta: 0.8</td>
<td>0%</td>
</tr>
<tr>
<td>Single Stock (High Volatility)</td>
<td>Volatility: 43%; Dividend: 0.7%; Beta: 1.6</td>
<td>0%</td>
</tr>
</tbody>
</table>

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 in the Capital Markets Projections section 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 September 30, 2010. Therefore, the first 12-month period of simulated returns represents the period from September 30, 2010, through September 30, 2011, and not necessarily the calendar year of 2011. 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 the following tax rates for this analysis:

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario</td>
<td>All</td>
</tr>
<tr>
<td>Start Year</td>
<td>2011</td>
</tr>
<tr>
<td>End Year</td>
<td>2060</td>
</tr>
<tr>
<td>Federal Income Tax Rate</td>
<td>39.6%</td>
</tr>
<tr>
<td>Federal Capital Gains Tax Rate</td>
<td>20.0%</td>
</tr>
<tr>
<td>State Income Tax Rate</td>
<td>6.0%</td>
</tr>
<tr>
<td>State Capital Gains Tax Rate</td>
<td>6.0%</td>
</tr>
<tr>
<td>Tax Method Type</td>
<td>Marginal Rate</td>
</tr>
</tbody>
</table>

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. Stock Options and Restricted Stock Grants
It is assumed that the value of a vested non-qualified stock option equals the current fair market value of the underlying stock less the strike price. The exercise schedule can be set for each lot of options as 1) immediately after vesting, 2) at expiration, 3) at a specified price target, or 4) time value/total value ratio. When the exercise guidelines are met, the options are immediately purchased at the supplied strike price and sold at fair market value. The resulting profits are taxed as earned income. In the event of a cash shortfall, our model assumes a “cashless” exercise takes place. Also, an option will be automatically exercised if it is unexercised and in the money during its expiration year. Earned income tax is paid on the net gain of each option. The model for restricted stock assumes the grants are purchased at zero-cost basis and immediately sold at fair market value upon vesting. In the year of vesting, earned income tax is paid on the value of the grant.

11. Intentionally Defective Grantor Trusts (IDGTs)
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- 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 the average over multiple 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.

12. Grantor-Retained Annuity Trusts
The grantor-retainee 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.
13. Rolling Grantor-Retained Annuity Trust Strategy
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.

14. Capital Markets Projections

<table>
<thead>
<tr>
<th>Portfolio Type</th>
<th>Mean 50-Year Growth Rate</th>
<th>Mean Annual Return</th>
<th>Mean Annual Income</th>
<th>One-Year Volatility</th>
<th>50-Year Annual Equivalent Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Equivalents</td>
<td>3.8%</td>
<td>4.2%</td>
<td>4.2%</td>
<td>0.3%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Int.-Term Diversified Municipals</td>
<td>3.9%</td>
<td>4.2%</td>
<td>4.0%</td>
<td>4.0%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Int.-Term Taxables</td>
<td>5.0%</td>
<td>5.4%</td>
<td>6.3%</td>
<td>4.6%</td>
<td>13.3%</td>
</tr>
<tr>
<td>US Value Stocks</td>
<td>9.2%</td>
<td>10.9%</td>
<td>4.1%</td>
<td>17.5%</td>
<td>23.7%</td>
</tr>
<tr>
<td>US Growth Stocks</td>
<td>8.9%</td>
<td>11.0%</td>
<td>2.5%</td>
<td>20.2%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Developed Int’l Stocks, Unhedged</td>
<td>9.5%</td>
<td>11.7%</td>
<td>3.6%</td>
<td>19.9%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Emerging Markets Stocks</td>
<td>7.7%</td>
<td>11.9%</td>
<td>3.4%</td>
<td>29.5%</td>
<td>31.9%</td>
</tr>
<tr>
<td>Single Stock (Medium Volatility)</td>
<td>5.5%</td>
<td>10.9%</td>
<td>2.7%</td>
<td>32.8%</td>
<td>36.7%</td>
</tr>
<tr>
<td>Single Stock (Low Volatility)</td>
<td>6.3%</td>
<td>10.7%</td>
<td>2.7%</td>
<td>27.5%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Single Stock (High Volatility)</td>
<td>4.0%</td>
<td>11.2%</td>
<td>2.8%</td>
<td>41.0%</td>
<td>41.8%</td>
</tr>
<tr>
<td>Inflation</td>
<td>2.9%</td>
<td>3.2%</td>
<td>—</td>
<td>1.1%</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

*Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns. Based on 10,000 simulated trials each consisting of 50-year periods. Reflects Bernstein’s estimates, and the capital market conditions of September 30, 2010.*
Securing Your Financial Future
Building and preserving wealth across generations requires expert planning, unbiased advice and highly disciplined investing. Our clients are individuals and families, business owners, family trusts and foundations, and other financial guardians. We work in concert with their accountants, tax planners, trust and estate attorneys, and other expert advisors to resolve complex financial issues.

The core principles of our approach to building and preserving our clients’ wealth are:

**Lifetime Wealth Planning**

*The Advice You Deserve*
Putting sophisticated planning tools and expert advice to work for you, we help you make well-informed investment decisions.

**Our Best Thinking**

*Centrally Managed Investments*
To give you direct access to our best thinking, we’ve structured our business around centralized research and investment management, with integrated wealth planning.

**Customized Portfolios**

*Attention to Your Details*
Your particular circumstances guide the way we manage your money, as we tailor portfolios to your goals, income needs, tax situation and tolerance for risk.

**Tax-Aware Investing**

*Keeping More of What You Earn*
To help you keep more of what your investments earn, we employ tax management strategies in multiple ways.

**Keeping You Informed**

*Communication Works Both Ways*
When you’re well-informed about the strategies we pursue, you’re more secure. And the more we understand you, the better we can tailor solutions just for you.

**A Legacy of Trust**

*Commitment to Individuals, Families and Their Causes*
When you entrust Bernstein to serve as your investment manager, you become part of a proud tradition of integrity, trust and financial success.

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