Return is Only Half the Equation™

A practical risk management guide for individual investors

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Return is Only Half the Equation™, First Edition (May 2000)

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Introduction

In 1994, J.P. Morgan, the global investment bank, launched RiskMetrics®, a transparent approach to measuring the risk of financial assets. RiskMetrics educated the world on the importance of understanding financial risk, and provided a data set to give institutions the ability to calculate their own risk exposures, as well as a technical document explaining all the mathematics behind the methodology. RiskMetrics was fully transparent and open, and free to all market participants and observers.

RiskMetrics quickly became the standard for institutions around the world to measure and manage their financial risks. Shortly after the launch of RiskMetrics, the regulators from the G-7 countries adopted a requirement that all banks report their market risk exposure. Over the last few years similar requirements have been extended to non-G-7-country banks, as well as non-financial institutions. Value-at-Risk, or VaR, the approach RiskMetrics made public, has now become the standard risk measure for over 5,000 institutions around the world.

The success of RiskMetrics was obvious. It filled a market need. Global markets were becoming more volatile and interrelated, more complex instruments such as derivatives were being traded, and firms were deriving an increasing amount of their profits from trading and investments in financial assets. Institutions were able to quantify the returns of these activities, but few were able to accurately measure their risks. They knew that some investments were riskier than others, but they didn't know by how much, or how to quantify the total risk of their portfolios of investments.

RiskMetrics was successful because senior managers, regulators, and shareholders recognized that *Return is Only Half the Equation*. No decision should be made without understanding both the risk and the expected return of the outcome. RiskMetrics gave managers for the first time a transparent and consistent approach to quantify the risk of each of their financial investments and compare it to their expected returns, so that they could make better and more informed investment decisions.

Today there is a similar market need. Individuals around the world are taking on more responsibility for their financial futures. Investors as well as their financial advisors are looking at increasingly volatile markets and a wider array of increasingly complex investment options. And an individual's financial investments are more important to his future life than ever before. While individuals are given detailed return information, the best risk information they can get is “this stock or portfolio is aggressive,” which they understand is riskier than “this stock or portfolio is moderate or conservative.” They know that stocks are riskier than bonds, which are riskier than cash, but they don't know by how much, or how to quantify the total risk of their entire portfolio of investments.

To meet this need, the group that was responsible for RiskMetrics at J.P. Morgan is launching RiskGrades. RiskGrades is an open and transparent benchmark for individuals and their financial advisors to measure financial risk. RiskGrades include several components. First, there is an on-line course, *Understanding Risk*, explaining the basic concepts of financial risk. Second, there is the RiskGrade data set allowing individuals the ability to measure the risk of stocks, bonds, funds, and other financial assets around the world. Third, there are the RiskGrades on-line analytics giving individuals the tools necessary to manage the risk of their own investment portfolios. Finally there are two documents — *Return is Only Half the Equation*, a practical risk

management guide for individual investors, and the *RiskGrades Technical Document*, fully exposing all the calculations behind the RiskGrades approach. And all of the RiskGrades components are based on the same RiskMetrics research and technology used by thousands of leading institutions and regulators around the world.

The intent of RiskGrades is to help individuals make better investment decisions. RiskGrades do not by themselves provide advice, or make buy and sell recommendations. RiskGrades do not tell you what stock will do better in any one year, or tell you what investment strategy is right for you. Instead RiskGrades provide information about risk — information that should be considered, along with the return information you are already getting, to determine the best investments for you and your portfolio.

We have all grown accustomed to the infamous phrase “historical performance is no guarantee of future results,” and can be sure that no mathematical model can predict the future. Ultimately, successful investing can only be achieved by people — people who have good information, good discipline, and good judgement. RiskGrades provide some of that information, and some of that discipline. The judgment is up to you, and when appropriate, your professional financial advisor.

Ethan Berman
CEO
RiskMetrics

Why manage risks

Excerpts from a conversation with Wanda Lottery, recent winner of the cash sweepstakes.

Wanda Lottery: Why should I care about risk management? In the long run, equities go up.

RiskMetrics: Although the U.S. equities markets' rally has been quite impressive during the '90s, a glance at market history illustrates the need for careful risk management.

Imagine it's January 2, 1929 and you have $10,000 in the local bank. Considering the recent strength of the stock market and the fact that your friends are making a killing in the stocks, you decide to invest your cash in a Dow tracking fund rather than a new car. After all, with all the money you'll be making, you can buy two new cars in a few months. On September 3, 1929 your little nest egg has grown to $12,417. Only a few more months and you can reap the benefits of your investment. October brings what will be known as Black Thursday, and the nest egg shrinks to $7,495. As you close the newspaper's business section, you sigh and exclaim "The market will come back. I didn't really need a new car. I should be investing for my retirement anyway." But on your way home from work on a hot July summer day in 1932, your car breaks down and cannot be repaired. No need to worry, you can cash in your investment and buy that car.

Think again. Your investment is now worth $1,342. In three and a half years, your $10,000 has dwindled $8,658 down to a total of $1,342, a loss of more than 86%.

Date	Investment	Gain/Loss
02-Jan-29	$10,000	
03-Sep-29	$12,417	$2,417
29-Oct-29	$7,495	$-2,505
08-Jul-32	$1,342	$-8,658

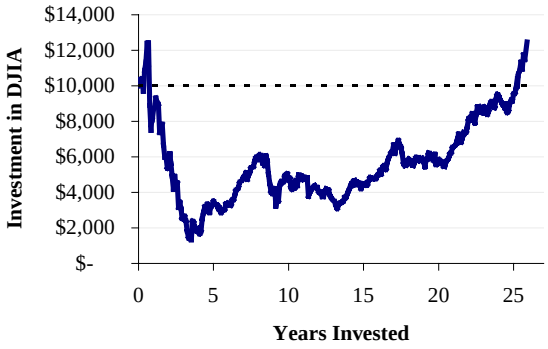
At this point you come to two conclusions: 1) I have no choice but to leave the money invested for the long term, to try to recoup my losses, and 2) I will be commuting to work on the bus. Sadly enough, markets don't always go up.

Wanda Lottery: But I heard on TV if I'm willing to wait 10 to 20 years I will make at least 10% on average by investing in stocks.

RiskMetrics: You may be capable of generating returns of 10% or more by investing wisely over the long term. However, applying a long-term average to a specific time period can be deceiving. Recall in the previous example, the investment of $10,000 had shrunk to $1,342 in an amazing three and a half years. How long would you guess it took to grow back to the original $10,000?

Wanda Lottery: This must be a trick question. If it took three and a half years to go down, I'll bet it took twice that to come back — say seven years.

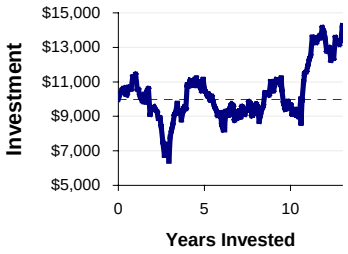
RiskMetrics: Would you believe it took a little more than twenty-five years for that nest egg to grow to the original $10,000 amount? For the investment to grow to $12,417, which you had briefly earned in September of 1929, you would need an additional year, making your investment horizon twenty-six years. Your average return over this period was less than 1%.



So, had you been 30 years old when you first invested your money, you would be none the richer at age 55.

Wanda Lottery: That was the Great Depression. Things have changed. Wake up. We're in the dot.com era. Something like that could never happen again.

RiskMetrics: The Great Depression era is an extreme example. However, protracted market retracements or downturns do occur. If you took that same $10,000 dollars and invested it in January of 1973, you would have suffered a loss of $4,401 by December of 1974. Ten years later, in 1983, you would eventually break even. Considering your track record and being a little bit gun shy, you take your $10,000 and put it in a safe place — under your mattress. In 1988 you decide it's time to invest once again. By now you have had enough of the U.S. markets and decide to invest overseas. Asia looks good. After extensive research you invest in the Japanese stock market. Your research pays off as your original $10,000 soars to $18,342, almost doubling by December of 1989. You decide to take the advice of experts and let your profits run by leaving the money invested in Japanese stocks. Unfortunately, what goes up fast can come back down faster and by July of 1992, four years later, again you are in negative territory and have suffered losses. The original $10,000 dollars is worth only $6,708. Interestingly enough, twelve years later, you are still waiting to break even.



Investing in the 70's

Investing in Japan

Wanda Lottery: Well you've certainly scared me. Maybe I'll just stick my money in the bank.

RiskMetrics: You shouldn't be scared about investing. You need to be aware that the decisions you make, while having potential returns, also have risks. Once you understand the risks, you can judge if the expected returns are worthwhile.

Risk management: As easy as crossing the street

The cornerstone of successful and repeatable investment strategies is risk management. While many individuals are scared off by financial risk management, by the complexity of the math or the negative connotations, the management of risk is really a skill we are all taught as children. "Look both ways before crossing the street," and " "Don't take money from strangers" are good risk management techniques. While the returns are clear, we are all told to consider the risk first.

Financial risk management is no different. While the numbers can be complex, they are only an input into a sound investment strategy. The most crucial element of managing risk is not the use of mathematics, but the use of good common sense. The same common sense that, hopefully, has been instilled in you as a child.

The examples presented in the previous discussion are extreme in nature. However, history has shown us countless situations where the markets did the unexpected. As J.P. Morgan once remarked, "markets go up, markets go down, but not necessarily in that order." Professionals know that active risk management is the way to best deal with this uncertainty and to produce superior returns. In the following chapters we will delve more deeply into risk management in the context of making better investment decisions. Since investment experience varies among readers, some may wish to read only certain sections while skimming others. We have included a brief outline of the text to aid in your review of this guide.

1. Risk: A definition and discussion of risk applied to the financial markets.

2. The importance of risk: Arguments for including risk measures in a return-focused community.

3. RiskGrades™: The benchmark measure for assessing risk associated with a financial investment.

4. Portfolio RiskGrades™: Understanding how a portfolio RiskGrade enables you to manage your expectations.

For the mathematically inclined and anyone else who is interested in the calculation of RiskGrades™ as well as examples of how they are used along with other risk management tools, we refer you to the *RiskGrades Technical Document*.

1 Risk

Definition of risk

Simply put, risk is uncertainty. In the financial world, risk is often measured in terms of volatility (or variability) of returns. For example, given that in 1999 the daily variability of returns for the S&P 500 Index and Yahoo! were 1.1% and 5.6 % respectively, we can venture that Yahoo! was a much riskier investment than the S&P 500 Index. In fact, Yahoo!'s returns were about five times (or precisely 5.6/1.1) as volatile as returns of the S&P 500 Index. But if Yahoo! was five times riskier, why did it outperform the S&P by 229%? That's because risk cuts both ways. Investing in Yahoo! stock means that you are more likely to experience sudden large drops in value, but you also stand a chance to make a higher return. Compare Yahoo!'s biggest daily drop and return (-23.5% and +13.5%) against the S&P 500 (-3.5% and +2.8%) in the table below. Higher volatility means the possibility of larger losses AND larger gains. You can see the same pattern when you look at GE, a more stable Blue Chip that isn't as risky as Yahoo!, but is still much riskier than the S&P 500 Index.

Comparison of risk and return for three popular investments

Investment	1999 daily volatility, %	1999 return, %	Biggest 1999 daily drop, %	Biggest 1999 daily return, %
S&P 500 Index	1.1	19.6%	-3.5	2.8
Yahoo! stock	5.6	248.9%	-23.9	13.5
GE stock	1.8	55.8%	-4.4	5.8

As risk relates to the chance of losing or making money, it becomes clear that risk is not necessarily a bad thing. In fact, risk can hold tremendous opportunities for those who know how to manage it. Those who can't stomach risks are guaranteed to miss out on promising opportunities. For example, those who keep all their financial assets under their mattress lose in the long run when inflation erodes their purchasing power. For example, assuming 5% inflation, $100 under your mattress loses 39% of your purchasing power over 10 years. The old adage "nothing ventured, nothing gained" could actually be "nothing ventured, sure to lose."

"If no one ever took risks, Michelangelo would have painted the Sistine floor."—Neil Simon

Risk and time

Risk is different for every person. First, different people have different investment time horizons. The first question to ask when making an investment is "When do I need the money?" A good investment for an 18 year old is probably not a good investment for an 81 year old. If you're likely to need your money within five years, you should not invest your entire wealth in high-risk assets. On the other hand, if your investment horizon is long (20 to 30 years), you should be more willing to accept the short-term fluctuations of risky securities in exchange for long-term growth prospects. In general, you can accept more risk the longer you can put off touching your money, because you have more time to recoup potential losses along the way.

Risk and objectives

Second, different people have different objectives. Are the returns of your financial assets necessary for you to make your mortgage payments, or are they "play money" that you can afford to lose. This will have a significant influence in how much risk you should tolerate in your portfolio. Likewise some investors have absolute return goals (e.g., 10% annual return) while others have relative return objectives (e.g., outperform the S&P 500 index by 1% per annum). This will influence whether you should consider your risk against an absolute level or relative to a benchmark.

It is crucial however to have clearly defined objectives to be successful in managing the risk of your investments. All too often, people set one objective (i.e., "I'll buy this stock for a quick trade") and when the markets do not move as expected, they change that objective ("I'll make it part of my long-term portfolio"). Go back to the example of Wanda, where we had an investor put money into the stock market to quickly make a few dollars to buy a new car, and when the market went down, she decided she needed the investment in her retirement plan. A disciplined and consistent investment strategy is required for the successful management of risk.

Risk as opportunity

As the proverbial "mattress stuffer" demonstrates, we can't expect to get anywhere if we avoid taking risks. History shows that great accomplishments have always involved taking significant calculated risks. "Great deeds are usually wrought at great risks," noted Greek historian Herodotus. Great artists, investors, and entrepreneurs alike are willing to take risk because they see it as opportunity. Rather than avoid risk entirely, we should avoid taking poorly understood risks and instead choose to take risks where the potential upside justifies the potential downside. The ability to understand, measure and manage risk can empower all people to make better decisions.

What's your risk preference?

So what's the right amount of risk to take? First, consider your risk preference. After all, what good is a profitable investment if it costs a heart attack along the way? One person may be inherently comfortable with risks that make another's stomach churn. How would you feel if your portfolio lost 10% or even 21% in a single day (that's how much the Nasdaq fell by as recently as April 14, 2000 and the S&P 500 fell by on Black Monday in October '87)? You can take some tests to discover your risk preference.[1] Two questions to test your risk preference might be:

1) Given the following selection of envelopes, which would you choose?
   A) Envelope with a 50% chance of containing $1000 (or nothing)
   B) Envelope with 5% chance of containing $10,000 (or nothing)
   C) Envelope with .1% chance of containing $400,000 (or nothing)

[1] You can take our complete risk preference test at www.riskgrades.com — *Understanding Risk*.

2) It's January 3, 2000 and having missed out completely on the U.S. Bull Market, you decide to enter the Millennium with a plan to invest in stocks. You start with an investment in Amazon.com and Lucent Technologies. Of course that's right before the technology sector tanks, with both investments plummeting by 28% before the week is over. What do you do?

   A) Sell these scary stocks and move back into safe money market haven
   B) Hold on and ride it out
   C) Hold on and continue with your plan of making other equity investments
   D) Buy more and take advantage of the discounted price

   You're an *Aggressive Risk Investor* if you answered C and D, respectively (too aggressive, in fact, considering that in question 1 the expected return of option C is lower than for alternatives A and B).

   You're a *Medium Risk Investor* if you answered B, and B or C, respectively, which means that you are willing to take some risks to earn your return, but shy away from making big bets. For question 2, answer C is what investment gurus would advise — the most proven way to make money in the market over the long run is to steadily invest, and to avoid trying to time the market.

   You're a *Low Risk Investor* if you answered A both times. You are someone who values predictability of returns above all and may be prone to mattress stuffing when left unsupervised.

People will always have different preferences for risk taking. Some claim that we are born with an innate risk tolerance level, although our appetite for risk tends to diminish as we grow older. In general it makes sense for a young person to take more risk. Conversely, an 81 year old has little incentive to risk his or her retirement nest egg.

2 The importance of risk

The world is return-focused

Historically, most investors have focused on returns, while neglecting how much risk was taken to generate those returns. Return information is ubiquitous in newspapers, Internet sites, and financial statements, while risk information is difficult to come by. Every quarter, investors see popular magazine rankings of the highest returning mutual funds, with the implicit assumption that these were the best performing funds. However, in order to judge investment performance, we must understand how much risk was taken to generate the returns. You may be surprised to find that the highest performing funds change radically from year to year, while the list of the most risky is remarkably consistent. In fact the one conclusion that you can draw from a list of the best absolute performing funds in any one year, is that they will not be the best performing funds the following year.

Quantify risk as you currently quantify return

In addition to better verbal risk disclosures, investors should receive more quantitative risk information. While mutual funds provide precise return numbers, most risk disclosures are still vague and general (e.g., the funds holdings present “aggressive,” “balanced,” or “moderate” risk). Risk should be quantified as rigorously as returns. For example, how would you feel if your mutual fund statements reported that last quarter’s returns were “balanced,” or “moderate” instead of stating the return number? Risk information is as important as Net Asset Value (NAV) and returns, and should be updated and accessible on a daily basis. The mission of RiskMetrics is to provide individual investors with updated daily risk information for all traded financial assets.

Factor risk into decision making

We pay a great deal of attention to risk in our personal life, but often make financial decisions without the appropriate understanding of risk. We look both ways before we cross the road. We research a company’s prospects before we accept a job offer. We buy health, auto, life and homeowner’s insurance. Imagine living your personal life without considering risk: Would you trust an unmarked car to give you a ride from a foreign airport? Would you go on a dangerous expedition with a novice guide? Would you plan a family picnic without checking the weather forecast? We need to apply the same risk management discipline to financial decisions as we apply to the rest of our lives. We can’t make investment decisions without looking at risk.

3 RiskGrades™

Measuring risk

Risk measurement is based on a historical analysis of returns. Rather than predict *which way* the market moves (e.g., whether the S&P 500 moves up or down next month), we forecast *how large* the market movements are likely to be (e.g., what is the chance of the S&P 500 moving by more than 10% next month). Risk estimates are much more stable and reliable than directional forecasts, and given a reasonable history of market returns, we can achieve high-confidence risk estimates (generally 95%, or even 99% confidence). In this section, we introduce the RiskGrade statistic, and show how it relates to risk analytics used by professional risk managers at major financial institutions. Our goal is to make you a better investor by providing you with the knowledge, tools and data to make better decisions.

Introducing RiskGrades™

RiskGrade is a new statistic, a measure of return variability recently devised by RiskMetrics to help investors better understand their market risk. RiskGrades are scaled from 0 to values exceeding 1000, where 100 corresponds to the average RiskGrade of a diversified (market-cap weighted) index of international equities during normal market conditions.[2] You would expect cash to have a RiskGrade of 0, while a technology IPO may have a RiskGrade closer to 1000. RiskGrades are dynamic — changing over time to accurately reflect market conditions, allowing for comparisons in an intuitive fashion, and capturing currency risk.

RiskGrades™ vary over time

RiskGrade is dynamic and adjusts to current market conditions during turbulent times, such as the Asian Crisis or the Russian Devaluation. The RiskGrades of major stock markets can easily escalate beyond 200, while in calmer markets RiskGrades could fall below 75. The graph below shows the RiskGrade of the Nasdaq equity index from the end of 1995 through April of 2000.

Reflecting the higher risk of the technology and biotechnology companies, the RiskGrade of the Nasdaq index spiked to slightly over 200 during the Russian Crisis. Observe how its RiskGrade currently has rapidly doubled to nearly 300, reflecting the nervousness of those who invested in

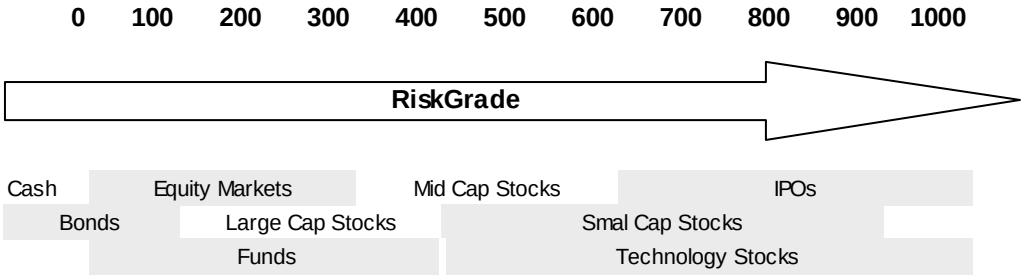
[2] Note that a RiskGrade of 100 corresponds to an annualized standard deviation of 20%, which was approximately the risk of a diversified global portfolio of equities during normal market conditions from 1995 to 1999.

the technology and biotech sectors. RiskGrades can help investors dynamically monitor exposure to market risk.

RiskGrades™ allow comparison between investments

RiskGrade is a standardized measure of volatility, and therefore allows "apples-to-apples" comparisons of investment risk across all asset classes and regions. Thus we can say that a Brazilian stock with a RiskGrade of 300 is six times as risky as an Asian Bond Fund with a RiskGrade of 50.

The following scale compares expected RiskGrades for some major asset classes.



* Approximate ranges for RiskGrades.

RiskGrades™ capture currency risk

Does a German investor in Volkswagen (VOWG) stock have the same risk as an American holding VOWG? For the American investor, VOWG is a riskier proposition, because in addition to the stock price fluctuation, she is exposed to the U.S. dollar/euro exchange rate fluctuations (e.g., she loses if the U.S. dollar depreciates relative to the U.S. euro). RiskGrade captures this currency risk component, and predicts the total price risk of your investment. Clearly, RiskGrade varies depending on the home currency of the investor. For example, the RiskGrade of Volkswagen (VOWG) from a U.S. investor's perspective is 247. Since VOWG stock is denominated in euro, part of this RiskGrade comes from the currency exposure of an American investor to fluctuations in the euro/U.S. dollar exchange rate. On the other hand, a German investor has no risk exposure to the euro rate (he gets paid in euro and the goods he buys are priced in euros). Accordingly, the RiskGrade for VOWG on the same day from the German investor's perspective is only 183.

4 Portfolio RiskGrades™

The following table shows the RiskGrades for four S&P 500 stocks, two mutual funds and the S&P 500 Index. Does anything strike you as odd?

Stock/Index	RiskGrade
IBM	214
General Electric	193
General Motors	202
AT&T	278
AIM Advisor, Large Cap Value, Fund Class A Shares	152
Dreyfus Index Funds Inc., S&P 500 Index Fund	127
S&P 500	123

At first glance you may ask why the RiskGrade for an individual stock is generally larger than the RiskGrades of its equity index or a fund composed of similar stocks (for example, in the above table, AT&T is 2 ¼ times more risky than the S&P 500 index). This is the power of diversification. We will get to the power of diversification shortly. But first we should remember that the goal is to make better investment decisions.

For that we need several risk measures, just as we use several return measures. The tools we provide for measuring risk on the portfolio level are: a portfolio's RiskGrade, which incorporates the nuances of diversification; RiskImpact™, which explains how much an individual asset contributes to the overall RiskGrade of the portfolio; and XLoss™ which, sets the expectation for an asset's potential performance on a worst-case basis. It is with this combination of risk measures that an individual can begin to optimize his or her investment portfolio.

Diversification: The Sum of the Parts DOES NOT Equal the Whole

A time-tested risk management technique and common approach practiced by professional money managers to minimize the ups and downs of a portfolio, is diversification. An easy way to think about diversification is that on any given day, not every stock traded on an exchange will go up or down together. When stocks of a specific company type go up or down independent from the greater market, this is known as sector diversification. The technology stocks are down, but the utilities are up. You can then extend this argument further. The U.S. stock market may go down today, driven by local concerns. However, Germany's stock market may rise. This type of diversification is known as geographic diversification. We can also throw another layer of diversification into the mix — asset class diversification. Simply stated, asset class diversification assumes that stocks and bonds may not both go up or both go down on any one given day. Using all these different types of diversification, geographic region with asset class, sector within asset class, and so on, you will get what professionals consider a well-balanced portfolio. A little confused by all this? Remember the famous adage, "don't put all your eggs in one basket." Diversification is just good old common sense.

When we calculate a RiskGrade for your portfolio, we factor in all the different types of diversification effects. If we use the example from the above table and construct a portfolio of four stocks — IBM, General Electric, General Motors, and AT&T — we get a RiskGrade of 145 for the portfolio.

Stock	RiskGrade
IBM	214
General Electric	193
General Motors	202
AT&T	278
Portfolio	145

A RiskGrade of 145 is less than the RiskGrade of each of these individual stocks. We also calculate a diversification measure in RiskGrade terms, which for this portfolio is 77. In essence we are telling you that the effects of diversification are making your portfolio 34% less risky. Hence, in a portfolio, the sum of the individual stocks' RiskGrades do not equal the whole.

RiskImpact™

Recall that an individual asset's RiskGrade varies over time due to market conditions or endogenous factors. Likewise, a portfolio's RiskGrade varies as it reflects these changes, in addition to changes in the strength of the diversification effects described previously. What happens if one day you check your portfolio's RiskGrade and rather than seeing 200, you find it has risen to 300 — double the risk of the world markets and the limit you have set for stomach churning market swings? How can you easily shed the extra 100 RiskGrade points? RiskImpact tells you how much your portfolio's RiskGrade will be reduced of you were to sell a given asset and keep the proceeds of the sale in cash. In fact, you are taking money off the table that you are not willing to risk at the current moment.

It should be noted that risk is not constant. As markets become more or less volatile, your portfolio will become more and less risky, even if you have not made any adjustments. You need to monitor your portfolio RiskGrade on a regular basis, even if you are not doing any financial transactions. If you are using a RiskGrade level as a target for your financial exposure, you may need to add risk when markets become less volatile, and reduce risk when market prices move rapidly. As the earlier RiskGrade chart of the Nasdaq shows, the dramatic increase in risk of the Nasdaq in the first quarter of 2000, would have given a sell signal to any investor with a portfolio RiskGrade target.

Loss in Extreme Markets (XLoss™)

RiskGrades are a powerful tool to explain the expected risk of financial markets. But what about the unexpected? We have all witnessed extreme unexpected market movements in financial asset prices. As one investor recently remarked, "we've had three once-in-a-lifetime events in the last two months." Loss in Extreme Markets (XLoss) measures the loss of your assets and portfolio in extreme events. Unlike RiskGrades, XLoss is calculated by looking at only the worst-performing days for your portfolio, not taking into account the probability of those events. If the potential amount you can lose is much more than you are willing to risk losing, you may chose to be proactive and scale back your investment in that asset, even if the RiskGrade is within your risk

threshold. RiskGrades need to be considered with XLoss to accurately capture the risk of your portfolio.

"What If" analysis

If we all had hindsight's 20/20 vision, we would all be millionaires. "What If" analysis can help improve your financial vision by letting you see how potential changes in your investment strategy can impact your portfolio. You can add an asset to your portfolio, delete an asset from your portfolio, or make adjustments to the amount that you own of an asset. When you are through modifying your investment mix, you can view the impact of the changes on your portfolio's risk profile. You can also dissect the changes by risk measure: RiskGrade, diversification effect, RiskImpact, and XLoss. Using the "What If" tool can permit you to "undo a bad decision" by preventing you from making it in the first place.

Conclusion

We hope that this guide has given you a good overview of how understanding risk can help you make better investment decisions. The intent of RiskGrades is to educate, not overwhelm, so that you, as an individual investor, can benefit from some of the same tools that professionals use in managing money. As each of us take on more responsibility for our own financial futures, it is crucial that we have as much help as possible in guiding our investment strategies. At this point we trust that it is clear how the mass proliferation of real-time price and return information, fancy charts, and technical analysis should be supplemented by some basic risk measures, such as RiskGrades, Risk Impact, and XLoss. Please visit our website at www.riskgrades.com, or our partners' websites to get further details about the importance of risk and your own portfolio's RiskGrade measures. And remember, no matter what you do, ***Return is Only Half the Equation.***