# Growing Wealth in a Complex World

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*"The only sure thing about the future is that it may or may not be different from the past."*

**1. Introduction**

Over the past several years, I have helped co-author several books on the current state of investment management. A central thesis of these books *The New Science of Asset Allocation* (John Wiley, 2010) and *Postmodern Investment* (John Wiley, 2012) was that individual investors must be aware that the basic underpinnings of modern portfolio theory are now over 60 years old, and that there now exists a wide range of new investment products and investment vehicles that have increased the investment opportunities in today's world, but have also made, for some, an investment world which seems increasingly complex. Each of these books attempted to simplify this investment world by emphasizing the underlying factors which drive the expected return of various investment strategies and asset classes. While I believe that the investment topics raised in these books are important to the educated investor, if too many ideas or too many concerns are raised about investment products, asset allocation programs, and risk management processes, the average American investor may simply freeze up in confusion and fear. As a result, criticism alone may provide no solution, but in fact, may prevent some investors from seeking one. When all is said and done, investment actions have to be taken. Growing wealth in a complex world is about understanding both the pros and cons of those actions, as well as understanding the structure of the investment world in which those actions are made.

For some it may be interesting to note that this article contains no math and no equations. A complex investment world does not necessitate a complex view or understanding of financial asset. It is my fundamental belief that there exists no financial product or risk management system, with all of its inherent promises and potential failures, that cannot be understood by the average investor with a basic understanding of addition and subtraction. As a collective, investors fundamentally realize that one cannot get something for nothing. For example, eight percent risk free interest rates do not exist in a two percent risk free world; an equal weighted stock and bond fund is not a balanced fund but, given the relative volatilities of stocks and bonds, is really a stock fund with a little bit of bonds; and, there is no such thing as an absolute return fund that makes money in all markets. To move forward in this new world, investors must simply demand transparency and insist upon a detailed analysis of the fundamental sources of return and risk of any product presented. Investors must also insist on a full explanation as to when a particular product will most likely perform well and under what conditions will the product most likely perform poorly.

However, for investors hope often trumps logic. In their search for new investment opportunities, investors are often dependent on the goodwill of others, and often that goodwill, in the form of knowledge, has to come from those very firms and individuals who are providing both the investment product and its embedded risk management tools. These firms or individuals have varying degrees of industry knowledge, training, education and/or experience. For the most part they hold a "business card" and often their personal priorities may be determined by the firm for whom they are working. Against this background, how do we ensure that an investor is receiving full and untainted information? For the most part, we cannot. Behind each investment product is a firm's business model, which provides or supports that product. An investor should know if his goals are well aligned with the individual or firm offering investment advice and if one's advisor is knowledgeable about the products they are selling. The most important investment and risk management decision is, therefore, the choice of whom to work with. What is the extent of their knowledge? What is the extent of their business experience? How are they compensated? What is the extent to which that person can service you in a way that mandates your concerns prevail in a world of competing interests. Perhaps one way is for investors to prepare themselves by reviewing a series of simple questions which may offer them the confidence that they can navigate this increasingly complex world of modern investments.

**2. Question: How Can You Assure Me that This Product Will Work In All Economic Conditions?**

**Answer: No one can.**

Outside of death and taxes, there are few sure things in life or investments. If the history of investment could be summarized in a simple statement, it would be "Things Change." Financial products change for a host of reasons: political upheavals, technology, regulation, market structures, and so on. Even if a financial product is constructed to meet the economic concerns of the day, there is no assurance that it will be suitable for the economic conditions of the future. If change is difficult for individuals, it is even more difficult for most businesses and governmental entities. Corporations spend a considerable amount of time and effort designing new products and services. For the most part, these firms have the public's interest at heart. They have no institutional reason to sell what are essentially bad products. However, not all commercial products are suitable for all individuals. Similarly not all investment products are suitable for all individuals. Problems in some financial products are not known until well past their inception. In addition, there are hosts of regulatory restrictions and legal exposures on how investment firms present and monitor products. As a result, investment firms have often found that it is best to stay with the tried and true (and the popular), rather than exposing themselves to the potential problem of investor dissatisfaction or confusion as to new products and new investment ideas.

Governments, too, have conflicting priorities with current financial regulations designed to fit a past set of problems often taking precedence over regulation that is known to fit current conditions. Even worse, the very process of regulatory and legal change that is required to make adjustments to past laws so that they fit current processes is difficult. Often, government officials are not entirely honest when discussing the range of benefits and costs of financial regulation. When discussing the potential impacts of financial regulation they often commit a 'Washington Lie'. That is, these officials are lying. They know that we know that they are lying, and we know that they know that we know that they are lying.
Simply put, most part investors live in a world crafted by others. This is a world in which investment advisors spend more time discussing why an investment product works than why or when it will not. Historically, the investment map and its borders continue to be framed by what we describe as Modern Portfolio Theory (MPT). Within MPT, higher expected return is achieved for correspondingly higher expected risk. This risk is often stated and measured as an asset's standard deviation.

For those investors and investment advisors who are content to stay in the MPT world, many current products (e.g., conservative, moderate, or aggressive stock/bond based portfolios) may suffice. Historically, simple stock and bond portfolios based on the level of volatility the investor could expect were deemed adequate. However, as markets have evolved, simple stock/bond diversification has been shown not to provide investors with sufficient risk control (equity risk dominates portfolio risk and historical correlations may not reflect current return co-movements). In addition, historical stock and bond returns provide little information as to current expected returns (past bond returns may not reflect current yields and expected stock returns in a two percent GDP growth world cannot be based on a world in which historical GDP growth was between 4-5%).

As an alternative to simple risk-based portfolios based on stock and bond diversification, many of the financial changes over the past sixty years have resulted in new opportunities for risk and return management. More importantly, as new technologies, regulations and financial markets came into existence, new investment products offer both a new world of investment opportunity albeit with a new world of investment risk. However, this new world of investments often reminds us of the maritime charts of old which often showed monsters and sea dragons as symbols for unknown dangers and unpredictable outcomes. Using these charts, ancient mariners explored the seas and sometimes brought back tales of heroic adventures and noble voyages. Each voyage informed the next, and through these tales the seas became less forbidding.

What is often forgotten, however, is that the tales of adventure are the stories of the survivors. The stories of failure and the dangers they encountered are left untold. So as investors begin their pursuit of investment knowledge, they must be careful to understand that any chart or algorithm contains an element of the unknown and unknowable. Each of the following is a short story of various investment voyages. Not all of the risks are discussed, or even known, since sometimes the sailors never came back. However, for those who survived, we should at least be aware of the challenges met along the way.

**3. Question: Why Not Just Equity and Fixed Income: The Traditional Pair?**

**Answer: Less is not necessarily better than more.**

For most investors, the investment universe is dominated by two asset classes: stocks and bonds. The reasons for this dominance are many. First, their fundamental sources of risk and return are generally, if not easily, understood. Second, they are often the most transparent, the easiest to trade, and the most liquid assets. Third, most individuals believe that stocks and bonds often differ in their sensitivity to changes in economic factors and provide a simple road to asset diversification. In sum, for many people, stocks and bonds make a perfect pair and since they have been married for such a long time, there is a long history of how they behave.

So the problem begins. Since stocks and bonds are regarded as the primary investment forms, investment firms consistently try to find new ways to use them. Within each portfolio, considerable effort is taken to show how these two subgroups could be joined to meet every investor's need. Over time, the concept of equity as an asset class evolved from the general to the specific. Sub-components such as growth and value, large and small capitalization, U.S. and non-U.S. have been suggested to have distinct and differing risk/return characteristics. Similarly, various parts of the fixed income market, such as U.S. Treasuries, U.S. corporate, U.S. high yield, non-U.S. government, emerging markets, have also been presented as having unique and distinct risk and return characteristics such that portfolios containing various combinations of the equity and fixed income sub groups would have different performance and risk outcomes.

The discovery of these new investment matrixes have led the average investor to believe that investment diversification was possible within the equity and fixed income groups. For those willing to combine equity and fixed income, they could consider even more investment opportunities such as strategic asset allocation (combining stocks and bonds to maximize return or minimize risk), tactical asset allocation (moving across stocks and bonds in a systematic fashion to maximize return), and ultimately dynamic asset allocation (managing each or both asset classes to maximize return or minimize risk under various market environments).

There is just enough truth in the benefits of diversification within equities and within fixed income as well as across equities and fixed income that the range of financial products built using these two asset group provided a reasonable set of investment opportunities for most investors. Given enough data, one could always come up with a time period or economic conditions where the benefits implied in the traditional stock and bond product literature could be obtained.

The fact that the use of historical data alone as a basis for how the assets will perform in the future may lead investors to believe in a world that no longer exists was not something that was stressed in the literature. Today's global equity markets differ in form and substance from the markets that existed in much of the historical analysis. The fact that the new forms of fixed income and equities products which have been structured and shown to provide unique return or risk opportunities in certain historical states of the world may not provide similar return and risk opportunities in the current market and regulatory environment is rarely discussed. The essential message for stocks and bond investors is that determining which stocks are good and which are bad (e.g., growth versus value), or when they are good (rising earnings market) and when they are bad (following a crash), is not as easy as looking to the past for clear and concise answers. Things change, and sometimes change quickly. For example, index products of today may differ fundamentally in their holdings from what they held just several years ago, and this works for bonds as well as stocks. Given the changing nature of global stock and bond markets, investors should be aware that that they should look not at how a strategy or asset class performed in some past world, but rather at how the current asset class (stock or bond) can be expected to perform in the next one. In short, although the past provides an interesting story, it is not necessarily a prologue for the future.

**4. Question: If Not Stocks and Bonds, What?**

**Answer: What is ever in the sea?**

As stated earlier, simple stock and bond diversification as a means to manage investor risk is now more than 60 years old. Today more modern and more dynamic approaches to the creation of investor's portfolios include a wider range of asset classes and rule based approaches to managing portfolio risk. If simple stock and bond diversification does not offer all the answers, what is the strongest foundation for allocating assets properly? The answer is that a deeper understanding of a broader set of trade-offs is required, as well as an appreciation of the distinct types of risks (e.g. under different states of the world, the risk of the past may not forecast the risk of the future). The fact is that simple risk-based stocks and bonds do not offer investors adequate means to reduce risk or maximize returns in a certain states of the world (i.e., see 2008). For many investors, as well as investment managers, a possible answer could be found in an investment strategy that was over sixty years old; that is, hedge funds. Hedge funds were first sold as an investment strategy that offered an ability to minimize losses in down stock and bond markets while participating in the positive returns of up stock and bond markets. One reason for the supposed ability of hedge funds to offer unique returns not available in traditional stocks and bonds was that the products were being managed by the best and the brightest among managers; further these managers were not required by custom or regulation to track a stated benchmark.

Note that the use of benchmarks remains an essential part of the traditional stock and bond world. In fact, many traditional asset managers were required by law not to go off the reservation. However, for those with enough money (accredited investors), new investment opportunities were available for the simple fact that the government did not have to care if they lost money (they would always have enough left to get through the day). For these individuals, investment managers offered diverse sources of return based on unique investment strategies often not liquid or transparent enough to be sold to the normal retail investor. For many wealthy investors, the offer seemed irresistible: membership in a special club of absolute return. Unfortunately, the offer was more fiction than fact. The managers were good, but not special. Hedge funds were like traditional stock and bond investment in that certain hedge fund strategies (equity long-short, distressed securities) made money in the same economic markets as similar traditional long-only investments. Equity long-short generally makes money when equity markets rise and loses money when equity markets fall. Distressed securities lose money when high yield traditional fixed income lose money (credit spreads increase) and make money when high yield traditional fixed income makes money (credit spreads decrease). However, many hedge fund strategies differ just enough from traditional long-only stocks and bonds such that each hedge fund strategy can be used as building blocks to design one's own particular investment recipe.

Given the greater discretion in fund concentration and investment choice, hedge funds are shown to offer returns that are consistent with the market factors driving the underlying strategy, but they also offer an option on the manager's ability to modify the strategy in a way that may be more or less sensitive to changes in market conditions than that implied in the comparison traditional equity or fixed income benchmark. Hedge funds are shown to be both more and less special than is often presented to investors. Today, the underlying return opportunities in hedge fund strategies are available in a wide range of new 'hedge fund' investment vehicles (ETFs, mutual funds, tracking products). The question for investors remains the extent to which they should focus on more strategy benchmark-based hedge funds or search for a "great manager." One thing is known for certain, there is no all-inclusive hedge fund asset class. Each hedge fund's return depends on its unique set of assets traded (e.g., stocks and bonds) and how they are traded (hedged or unhedged). Yet, within a strategy, most managers are sensitive to the same economic factors. That is, most equity long-short managers make money in the same periods and lose money in the same periods.

Finally, investors should consider that the glory days of hedge funds were pre-internet, pre high frequency trading, pre Dodd Frank. A time when investment managers could create an information arbitrage based on fundamental research and analysis and when the information was at least somewhat proprietary is all but gone in a world of 24/7 cable news, social networks, blogs, and global dissemination of every fact, error, and suspicion relating to a company, its management, and its competitors within micro seconds. Hence, it should be of no surprise that the best performing hedge fund managers of today are at the two extremes; that is, essentially day traders with exceptionally low trading costs or those who invest in illiquid assets that often have to be held for lengthy periods before obtaining the "illiquidity premia".

**5. Question: Do Absolute Return Investments Actually Exist?**

**Answer: No.**

If hedge funds are not the answer in the quest for an asset class that has the potential for making positive returns across a wide range of market conditions, does such an asset class exist? Today one often sees advertisements for 'Absolute Return Funds'. These funds often claim that they are more agnostic as to which benchmark they are tracking (stocks or bonds); thus they often claim they are benchmark free and attempt to focus on 'Total Return" in contrast to benchmark return. That sounds good, but often all one is really doing is moving from one higher risk asset class to a lower risk asset class, based on one's forecast of risk and, as we all know, there is risk in forecasting risk. These 'Absolute Returns Funds' do not 'eliminate risk'. The funds may be 'benchmark agnostic,' but they are also generally 'asset class long bias' and generally lose money in markets in which both stocks and bonds fall together.

Is there an asset class that can make money when most asset markets are falling? For many, managed futures offer the opportunity of favorable returns in various market environments. The fact that they can go both long and short across a wide set of financial securities offers the hope that they may offer positive returns in both down and up stock, bond, commodity, or currency markets. For many investors though, managed futures are false hopes. Investing in a 'futures market' where, at the end of the day, the average return among all traders is zero seems like a foolish investment. However, some market players (e.g. agriculture firms, airlines) often have to reduce expected firm risk and must hold certain futures positions to offset their expected spot market needs (regardless of their own expectation of market movements). Even in a market where the average return among all traders is zero, positive expected returns are potentially available to traders who provide liquidity to corporate hedgers by taking the opposite futures position to the corporations that are using the futures markets as a risk offset to their traditional business needs.

When compared to many other investment vehicles, managed futures do, therefore, offer the potential for positive returns across a wide range of various states of the world. One world, however, in which they do not necessarily offer positive returns on a consistent basis is the one world in which investment managers often attempt to portray managed futures as the ultimate solution; that is, markets where equities themselves sometimes perform poorly. Equity markets are known to follow what is called a random walk, where past price patterns are a poor means of forecasting future price patterns. Managed futures traders who use past price patterns as a means to forecast futures price movements may find equity markets to be a poor choice as a primary trading market. This is not to say that managed futures trading strategies may not perform well in asset markets that are more trend following in nature. It shows only that a good story based on past historical performance is not necessarily a true story for the future. For investors, more important than a story being good is a story being valid for various states of the world. For many investors, historical performance becomes fact and if not fact at least hope. One can ask investors to know the difference. This does not mean that managed futures are not an absolute investment vehicle, which does not have a fixed sensitivity to various market factors (return or risk); it only means that an absolute return is not always 'absolute'. Investors may accept managed futures as a potential investment, but they must beware of false prophets who offer managed futures as the grail in the quest for absolute return.

**6. Question: Is There A Traditional 'Long Only' Alternative to Managed Futures?**

**Answer: Commodities—an ever-changing balance.**

Managed futures, by design, may be expected not to have a high positive correlation with traditional stocks and bonds. However, is there a world in which long-only asset exists which likewise can be expected also to provide low correlation with traditional stock and bond investment? Very few people have visited this world and some may question if this world even exists. For some investors, this world is commodities. Most investors view their commodity investment through equity holdings in firms that specialize in the production of various commodity products. However, calling an equity investment a commodity investment does not make it a commodity investment, and calling a commodity an investment opportunity does not make it an investment opportunity. In recent years, the investment community has seen the development of commodity investment from its beginnings as an individual investment to investment through benchmark/portfolio indices. Each of these commodity benchmarks is shown to provide somewhat distinct commodity investments, and each benchmark is shown to provide different diversification benefits to traditional stock and bond investments, as well as to other alternatives.

Commodities' place in active asset management is relatively new. Global markets have recently expanded to the point that supply and demand conditions may now favor long-term investment. However, even an investment in commodities may not reflect expectations based on historical data. Today, gold has become more of a currency substitute, corn is seen as an energy replacement, and certain rare commodities are fundamental as technology inputs. These changes have increased institutional and investor interest in commodities as long-term investments. The properties of commodities as long-term investments, however, do not necessarily reflect their properties over shorter intervals. Given the changing demand and supply conditions, one may wish to consider them more as short-term investments when economic conditions warrant or, at the very least, to find a product that offers the ability to manage the product to benefit the changing states of the world. But ability to make money does not mean a certainty to make money. For example, energy prices may rise and fall with the rise and fall of economic conditions and correspondingly have a positive correlation with stock markets, which also may rise and fall with the changes in economic conditions. But the world is not always that simple. A fall in energy prices (reduced returns) may also reduce costs to corporations and resulting in a rise in equity prices, which then results in a negative correlation between energy and equity returns. In short, there is simply no constant correlation, high or low, between commodities and traditional assets. Since commodities are not structured to ensure low or negative correlation to traditional assets, perhaps they should be regarded more as return enhancers than as risk reducers.

**7. Question: Are There Other 'Long Term' Risk Reducers?**

**Answer: The secret is long term.**

Private equity and real estate (at least private commercial real estate) are often excluded from discussions of individual investor portfolios. Instead, these relatively less liquid investments are regarded as the private domain of institutional investors. It has been regarded as a world of little transparency and even less liquidity. However, private equity and real estate have an allure. If you had the price of admission, you could be invited into a special club in which public investment is worthless while private information has the potential for monopoly profits. Given the time commitment to the investment area, investors were not expected to demand immediate return to capital, or cash flows that reflected current economic conditions. In many ways, private equity/real estate investment was a high-cost option on a range of potential investment opportunities, some of which would pay off big, others of which would never be heard of again.

Investors who are entranced with the story of the private equity arena must be advised that the cost and form of investment has evolved over time. Once it was a playground for leverage buyout kings; later the land of the Internet entrepreneur; for a short time in the province of the quick in and out of the IPO artist. In recent years, it has become a market that is increasingly made available to smaller players and investors either through secondary offerings or direct investment in public offerings of major private equity players. What is surprising to some observers is the extent to which investors believed that this more liquid investible private equity is separate from the equity markets in general. The term "equity" in public equity (especially in its liquid form) should have given it away. For years, the public face of private equity was the self-reported returns to various consulting or data services. These accounting-based returns often provided evidence of over-the-top returns to individuals or institutions that were able to invest at opportune times. With the development of secondary market offerings and the public sale of private equity firms' equity shares, private equity took some of the "privacy" away in order to expand its market. In so doing, it exposed itself to a situation where its real value would be measured by the market. When the market dropped in value and the commensurate value of private equity fell with it, the fact that private equity was, in many cases, more equity than private was revealed. The message to investors is that the "wizards" of the private equity world are just men—often good men, many times talented men, but just men nonetheless. They offer real opportunities with real risk, and those expected returns and historical volatilities based on self-reported accounting returns provide only a limited view into the potential returns from future private equity investment. For investors, the fact that it was private did not protect the investor from changing market conditions. In the future, private equity whose returns are based on the ability of any new venture to convert quickly to a cash flow cycle and are continuously subject to the vagaries of various states of the world, are less risk reducers than return enhancers. One should not have to remind investors that private equity is not necessarily a bad investment—only a very risky one, even for those who are willing and able to play the game over a time frame outside the investment realm of the average investor.

Real estate brings up a similar host of issues for investors. Until recently, in fixed-income form was viewed as a secure, government-backed (or at least government-sponsored) investment opportunity, often with unique risk and return characteristics (such as early payback) not found in more common fixed-income securities. When structured as an equity investment (e.g., closed-end fund), it also offered access to a growing world of investment opportunities. The past five years have increased investment choices radically. Changes in financial technology and financial institutions have created conditions in which one's home and homes in general became something moved in and out of, through flipping and trading up. Likewise, homes became expendable items, used as much a short-term source of cash as a long-term investment. Somehow, the potential volatility in income streams and home values did not make it into the average investor's mean/variance conservative, moderate, or aggressive asset allocation scenario.

Today, real estate is now truly up for sale. In the stock market, REITs are divided into numerous U.S. and global segments. Similarly, residential and private commercial real estate is no longer based solely on estimates, but increasingly uses actual sales values as an attempt to determine current market prices. The veil of real estate having a value separate from the rest of the American economy has been lifted. Common forms of real estate, similar to more liquid forms of private equity, is more equity than private. Although the benefits of real estate are there (even if they require more work to find them), the diversification benefits in the current environment are limited to those forms of real estate (storage offices, rental properties) that thrive on the failures of traditional real estate, rather than the forms (new home development) that benefit from it.

**8. Question: Asset Allocation: Is There A Simple Way?**

**Answer: No - only a hard way.**

For most investors, asset allocation is modern investment. Walk into any financial advisor's office, pick up a financial institution's family office circular, or read the ads in any investment magazine, and all of them claim to offer the newest and best means to ensure that their investment expertise meets the unique needs of every potential individual or institutional investor. What is amazing is that much of this advice is seemingly done for pennies on the dollar and is equally available for all investors. Of course, we all know that this is not possible. General Motors, Ford, and the other car makers attempt to maintain that each car is special for each driver, but they do not pretend that each car is built to the unique specifications of each driver. Sure, the drivers themselves have the ability to adjust certain parts of the vehicle (move the seat forward and back, listen to the music they want on the speakers they desire), but at the heart of it, each car is the same within the brand and price range given. More expensive cars are designed to run smoother, accelerate faster, and change lanes more quickly, thus offering greater returns in the driving experience. However, not everyone needs bigger, faster cars. For many people, smaller, cheaper, and easily serviced vehicles are just fine. A twenty thousand dollar car is not a sixty thousand dollar car, and if they are buying a twenty thousand dollar car, the dealer does not have the time, money, or resources to make it perform like a sixty thousand dollar car.

Investors need to understand the differential nature of most asset allocation programs. At one end are programs that use traditional asset groupings (stocks and bonds) and at the other end are programs that insert traditional alternatives and modern alternatives into them. Investors must ask if the data they consider and the risks they review are likely to be historical anomalies. How often should you review your investment picture? Monthly? Weekly? Daily? And if you review it daily, would the results be the same if you reviewed it monthly? When you receive information from your asset allocator, how often do you receive it (monthly or weekly?), and to what degree is that information updated, given that the market and your asset position may change more quickly than is reflected in your monthly circular?

There is no complete answer to these questions because the solution for any individual is just that, individual, and asset allocation solutions for more complex and larger portfolios require resources that most individuals cannot or would not be willing to pay for. In the world of asset allocation, as in the world of investment choice, you get what you pay for. If you want greater certainty of return, you have to pay for it, and buying an asset allocation system does not necessarily do it alone (unless it is specifically created to provide a range of insurance products, such as options). Cheaper, less inclusive asset allocation models may be adequate for the situation, but do not mistake a free asset allocation model for one that costs thousands of dollars more. The more expensive model may not be what you need, and in many cases it will not provide a better solution to your problem than the least expensive one; it should, to offer the possibility of doing more.

**9. Question: What is an Asset Allocation Model?**

**Answer: It is all about risk management.**

One of the fundamental truths, if not the fundamental truth, of investment theory is that return is a function of risk and not the other way around. In short, if one wishes to manage return, one may best look to manage risk, which is the source of return. If an investor looks to an asset allocation model which focuses on direct estimation of return rather than focusing on risk management as an answer to his investment decisions, it is only a matter of time before he will be disappointed. At one level, risk management may be regarded as a relatively simple exercise—that is, an attempt to reduce the risk of loss surrounding an investment. For more complex portfolios, if an investor has the money, he has access to a greater range of alternatives. However, for each and every one of those alternatives comes with its own risk and return. There is risk in risk management.

At the end of the day, where does risk management (e.g., asset allocation) take the investor? Is there an easy-to-follow list of questions and answers to determine which method is best? The answer is no. The reason is simple. An investor should not place his complete faith in any one approach to risk management, in any single letter grade, or in any government assurance. It was investors' willingness to believe in such models that led to the financial crisis that still surrounds us today. Individuals continued to use bond ratings as a basis for investment thirty years after the New York City default crisis. Since we lack timely market-based information, we looked to ratings with the false belief that the ratings firms have full access to private information that we do not have. Of course, ratings firms do not have full access to private information and they were never riskless. Similarly, the data that risk management firms use to evaluate risk is not riskless. The algorithmic models that they use to measure risk are not perfect, and further, by claiming to offer fact-based solutions, they may even encourage more risky activity.

So, what may be concluded here? On one side, government and professional associations' concern over the expansion of new product forms into more retail-like products, marketed to less sophisticated investors, will reduce the chance that one is exposed to misleading marketing information and accounting details that are focused on the sale of products that may not be well-suited to your unique needs. At the same time, from an academic perspective, it is difficult to argue that retail investors should not have access to any of the more risky investments that benefit wealthier investors. One can debate if regulatory concerns over pricing, accounting, and investor fraud are, by themselves, a basis for preventing investor access to certain types of funds. Recent problems with security pricing and accounting are found in most markets. Deceitful communications and unscrupulous sales are present in both traditional and alternative investment markets. The question remains why retail investors should not be afforded the same risk diversification and return benefits that a wider range of investment alternatives provide affluent investors, as long as legal restrictions on certain actions are followed diligently.

If you take the time and effort to review, purchase, and even use one of the many risk management systems in the market, you must remember that they were created in a certain place at a certain time and, given the pace of the financial markets today, will be dated by the time you receive them. If you are going to continue to use such systems, make sure that you obtain current updates and realize that for all that the system does, you must also have a clear picture of what it does not do. These systems do not protect your investment from loss in all market conditions. At their best, they can only tell you when you might lose it. After that, it is all up to you. No promises.

**10. Final Question: What is the Central Message of Growing Wealth in A Complex World?**

**Final Answer: There is always a little truth in every myth and a bit of myth in every truth.**

In the previous sections, we have attempted to provide a condensed review of several primary questions that are often posed by investors. We are torn between the often simple, easy-to-act-on yet incorrect answer, and the more complex, costly, misunderstood, but correct one. If truth comes at a price, it could well be an expensive one. Many members of the financial community believe that they are offering investors products, asset allocations, and risk management tools that are based on the perceived needs of the investor. They seek to provide products and services that fulfill these needs within the context of their firm's overall business operations and under the watchful eyes of regulators. However, even within the best investment market, mistakes happen. Critical points are misunderstood. Wealth is lost. The financial industry is both to be blamed for whom it did not protect and to be credited for the benefits that it has produced. As noted previously, there may be some iteration of the world where riskless assets can produce riskless returns, but there is typically no free lunch. One cannot guarantee excess return to one set of investors without often taking returns from others. The inextricable fact of investing is that sometimes you will lose money—this is simply the flip side of the ability to make money.

While convenient, there is a strong argument that the onus of protection extends beyond these governmental and financial institutions and shifts onto the investor. In the end, investors should take responsibility for their own investment actions. That responsibility is not costless; it takes continuous education and the ability to embrace failure. The fact is that while many of us welcome the make money part of investments, we do not wish to accept the losing part. Unfortunately, investors continue to look to others for our financial salvation. In so doing, investors often accept simple solutions for complex problems. Target date funds based on simple age based glide paths which, depending on the age of the investor, may systematically overweight equities in a non-equity friendly market environment or overweight fixed income in a rising interest rate environments is but one example. At the other extreme, investors often blindly accept seemingly complex investment solutions which offer promises that can never be reasonably fulfilled. Dynamic asset allocation programs which promise absolute returns performance centered on a variety of historically successful asset reallocation algorithms but which are often ineffective in multiple market environments may fall into this variety. The very fact that investors are surprised when these programs fail to perform as promised is the real surprise. In conclusion, there may always be a little bit of fiction in the truth embedded in alternative approaches to growing wealth, as there is always a bit of truth in the myths of various investments. Whether investors directly manage their wealth or pass this responsibility over to others, investors have the responsibility of at least asking and understanding the underlying investment programs and processes. Simply put, whether you make or lose money, you should at least know why. Growing wealth in a complex world is not impossible—difficult—but not impossible. To believe or to behave otherwise is to subject your future wealth to hope over history and hope is not a plan.

**References**

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Professionally, he has more than forty years of experience in investment management. He has been involved in the creation and development of a range of investment vehicles, including fund-based investment structures, for an approximately $4 billion hedge-fund-managed account platform (Lyra Capital/Ursa). He has also been involved in the creation and development of a series of commodity-based products (ABCI –formerly Bache Commodity Indices) and a series of investible managed futures and mutual fund/hedge fund tracking products (White Bear Partners). He is currently a principal at S Capital Management, LLC, which specializes in private wealth management, and a managing partner at Quantitative Investment Technologies LLC, which specializes in risk-based asset allocation and investment strategy tracking/ programs. To find a list of his past and current publications, commentaries, and working papers, visit: www.trs-assoc.com.