Joss
Financial
Group

Evidence Based Investing

A PRIMER

DANIEL JOSS

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Introduction.

Are you ready to become a better investor or enhance your understanding of the most important principles that drive the creation of wealth? EB Investing has become a buzzword for some. EB Investing has been around a long time. Some call it passive investing. Other's call in indexing. EB is more than indexing, more than passive investing. EB Investing is based on academic research and is being perfected on Wall Street. Over these next several short articles, I'll explain what EB investing is and how it can work for you.

Each insight will take a couple of minutes to review one of the very few essential investing concepts, with an emphasis on ensuring that evidence, not emotion, guides the way. Before too long, I'll have introduced you to a dozen or so solid principles, based on more than a half-century of peer-reviewed inquiry into how capital markets deliver long-term wealth to patient investors both efficiently and effectively.

Don't worry, unless you specifically ask me, I'll skip the Greek calculations and multi-factor modeling. Instead, I'll translate each insight into its meaningful essence: the *"So what? Or What does this do for me?"* If you are a JFG investor, you'll see how these principles are used in your portfolio construction. If not, you'll need to know these principles so you can apply the science of investing yourself.

You see, being a better investor doesn't mean you must have an advanced degree in financial economics, or that you must be smarter, faster, or luckier than the rest of the market. It means:

- Knowing and using the principles available from those who *do* have advanced degrees in financial economics. You don't have to know everything; you need to know people that know everything.
- Structuring your portfolio so that you *use* rather than *fight* the market and its natural forces. This is kind of like martial arts when you use the weight of the opponent against themselves.
- Avoiding your own most dangerous behaviors – that tempt you to make the worst financial decisions at the wrong times. JFG's first guiding principle is "Get good counsel."

I trust you will consider becoming a better investor on these terms.
Dan

Market Pricing

Chapter 1. The Markets, the Prices, and You and Me

When it comes to investing (or anything in life worth doing) it helps to know what you're facing. In this case, we face "the market." On a side note, I smile when I hear people talk about "the market." My first response is to wonder *what* market they are talking about. When I construct a portfolio, I diversify by investing in *many* markets; bond, US Stock, Real Estate, etc...

Nonetheless, our question should be, "If we can achieve wealth by investing, how do we do it?" How do we actually buy low and sell high in a crowd of highly resourceful and competitive players? The answer is to work *with* rather than against the crowd, by understanding how market pricing works.

And on that note, while some can get rich overnight, most do not. For most, wealth accumulation is a long-term proposition. An old Proverb states, "A faithful person will have an abundance of blessings, but the one who hastens to gain riches will not go unpunished."

The Markets: A Working Definition
There are markets for trading stocks, bonds, sectors, commodities, real estate and more, in the U.S. and elsewhere around the world. For now, you can think of these markets as a single place, where opposing players are competing against one another to buy low and sell high.

And, this "single place" is huge, representing an enormous crowd of participants who are individually AND collectively helping to set fair prices every day. That's where things get interesting.

Markets Integrate the Combined Knowledge of All Participants

World Equity Trading in 2014

	Number of Trades	Dollar Volume
Daily Average	60 million	$302 billion

The market effectively enables competition among many market participants who voluntarily agree to transact.

This trading aggregates a vast amount of dispersed information and drives it into security prices.

Source: World Federation of Exchanges. Global electronic order book figures gathered from the 59 WFE member exchanges. 17

You and Me: Group Intelligence
Before the academic evidence showed us otherwise, it was commonly assumed that the best way to make money in what seemed like an ungoverned market was by outwitting others at

forecasting future prices and trading accordingly. This provides us with several difficulties of course. We need to get the right price before others. Then, we need others to get the price so we benefit. Finally, we need to profit enough from the price changes so we can repeat the process over and over.

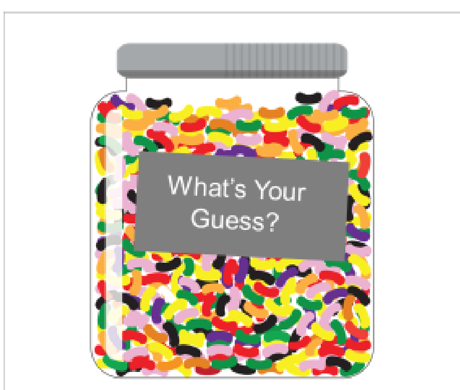
Unfortunately for those who are still trying to operate by this outdated strategy, a simple jar of jelly beans illustrates why it's an inherently flawed approach. Academia has revealed that the market is not so ungoverned after all. Yes, it's chaotic, messy and unpredictable when viewed up close. But it's also subject to a number of important forces over the long run.

One of these forces is **group intelligence.** The term refers to the notion that, at least on questions of fact, groups are better at consistently arriving at accurate answers than even the smartest individuals in that same group … with a caveat: *each participant must be free to think independently, as is the case in our free markets*. (Otherwise peer pressure can taint the results.)

Writing the Book on Group Intelligence
In his landmark book "The Wisdom of Crowds," James Surowiecki presented and popularized the enormous body of academic insights on group intelligence.

Take those jelly beans, for example. In one experiment, 56 students guessed how many jelly beans were in a jar that held 850 beans. The group's guess – i.e., the aggregated average of the students' individual guesses – came relatively close at 871. Only one student in the class did better than that. Similarly structured experiments have been repeated under various conditions; time and again the group consensus was among the most reliable counts.

Together, We Know More Than We Do Alone



Participants were asked to estimate the number of jelly beans in a jar.

Range: 409-5,365

Average: 1,653

Actual: 1,670

Illustration based on voluntary participation at client event hosted by a financial advisor, August 2013. Results audited by advisor.

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Now apply group wisdom to the market's multitude of daily trades. Each trade may be spot on or wildly off from a "fair" price, but the aggregate average incorporates all known information contributed by the intelligent, the ignorant, the Wall Street executive and the Main Street barber, and your local library's investment club. Current prices set by the market are expected to yield the closest estimate for guiding the next trades. No, it's not perfect. And yes, it represents the most reliable estimate in our imperfect world.

So what? What does this do for me?

Instead of believing the old and discredited notion that you can regularly outguess the market's collective wisdom, you are better off concluding that the market is doing a better job than you can at forecasting prices. This makes your work easier. You have less to worry about.

Take the slow road, be the tortoise, and use their forces to your benefit. Don't guess with your wealth. "A faithful person will have an abundance of blessings, but the one who hastens to gain riches will not go unpunished." *Your* job is to control what you can control (more on that later) and efficiently capture the returns that are being delivered.

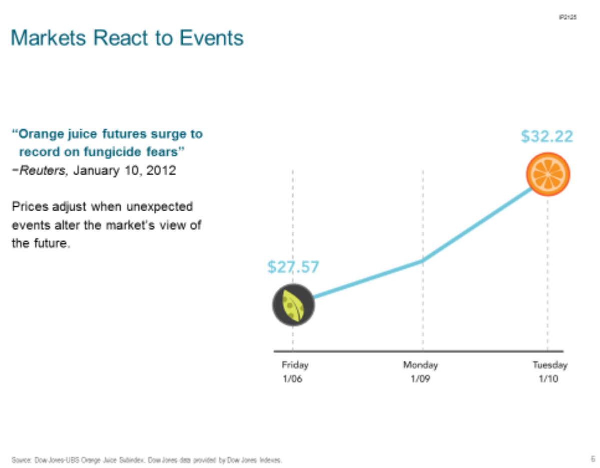
Market Pricing

Chapter 2. The White Noise of Daily Market Pricing.

In the last chapter, we explored how group intelligence is important to the governing of relatively efficient markets (as well as jelly bean jars) in our imperfect world. Let's look at how prices are set moving forward. This, too, helps us understand how to work *with* rather than *against* the "wisdom" of the market, as you seek to accumulate wealth.

News, Its Just News

What causes market prices to change? It begins with the never-ending stream of news informing us of the good, bad and ugly (recently mostly bad and ugly) events that are forever taking place. For example, when there are reports that a pending outbreak of fungus roya in Central America, coffee futures may soar, as the market predicts that there's going to be less supply than demand. Similarly, note this real world Orange Juice example from a few years ago.



This is news; but is it good or bad. And, what should you do with this news with regards to your portfolio, if anything? Before the news tempts you to jump into or flee from breaking trends, it's critical to be aware of the evidence that tells us the most important thing: ***You cannot expect to consistently improve your outcomes by reacting to breaking news.***

Great Expectations

How the market adjusts its pricing is why there's not much you can do in reaction to "breaking news." There are two principles to bear in mind here.

Not Any News, Only Unexpected News

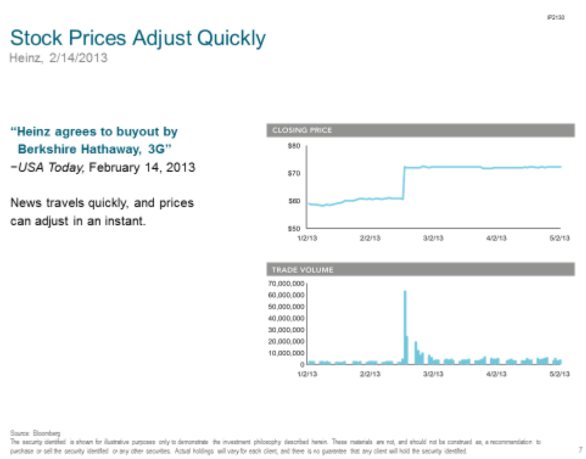
When a security's price changes, it's not whether something good or bad has happened. It's whether the next piece of good or bad news is better or worse than expected. If it's reported that the aforementioned fungus roya is continuing to spread, pricing changes may be minimal; everyone was already expecting the worst. However, if an ingenious new fungicidal treatment is released, prices may change dramatically in reaction to the *unexpected* resolution.

Thus, it's not just news, but ***unexpected*** news that alters pricing. By definition, the unexpected is impossible to predict, as is how dramatically (or not) the market will respond to it. Once again, group intelligence gets in the way of those who might still believe that they can outwit others by consistently forecasting prices.

The Barn Door Principle

The second reason to consider breaking news "white noise" with regards to your investing is what we call "The Barn Door Principle." ***By the time you hear the news, the market already has incorporated it into existing prices, well ahead of your ability to do anything about it.*** The proverbial horses have already galloped past your open trading door.

This is especially so in today's micro-second electronic trading world. In his article, "The impact of news events on market prices," CBS MoneyWatch columnist Larry Swedroe explored how fast global markets respond to breaking news. Pointing to evidence from a number of studies among several developed markets, the universal response was nearly instantaneous price-setting during the first handful of post-announcement trades. In the U.S. markets, it was even faster than that.



Unless you happen be among the very first to respond to breaking news (competing, mind you, against automated trading that often respond in fractions of milliseconds), you're setting yourself up to buy higher or sell lower than those who already have set new prices based on the news – exactly the opposite of your goal.

So what? What does this do for me?

This means you can relax. Rather than trying to play an expensive game based on ever-changing information and cut-throat competition over which you have no control, a preferred way to position your portfolio is according to a few "market factors" that can work for and with you. But first, you may be wondering: Even if you aren't personally up to the challenge of competing against the market, you may think you can select an expert to compete for you. Next up, we'll explore the strikes against that approach as well.

Market Pricing

Chapter 3, Financial Experts and Other Make believes

Let's explain why you not better off hiring a "financial expert" to pick stock for you. As Morningstar strategist Samuel Lee has described, managers who have persistently outperformed their benchmarks are "rarer than rare."

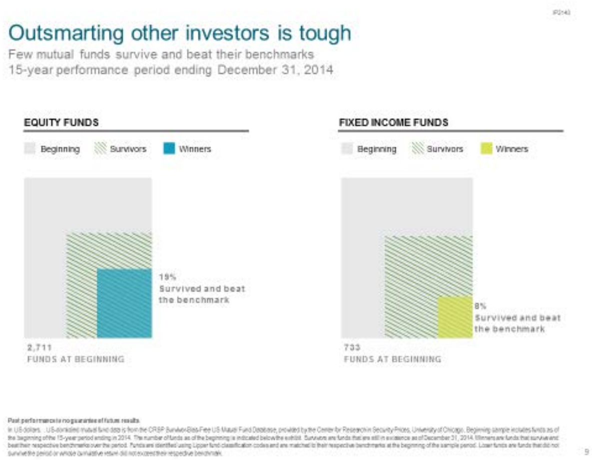
Group Intelligence Beats All
As we covered in "**The Markets, the Prices, and You and Me,**" independently thinking groups (like capital markets) are better at arriving at accurate answers than even the smartest individuals in the group. That's in part because their wisdom is already bundled into prices, which adjust with great speed and relative accuracy to any new, unanticipated news.

It seems obviously then, "experts" who specialize in analyzing business, economic, geopolitical or any other market-related information face the same challenges you do if they try to beat the market by successfully predicting an uncertain reaction to unexpected news that is not yet known. For them too, particularly after costs, group intelligence remains a prohibitively tall hurdle to overcome. As mentioned previously, Forecasting is difficult, especially about the future.

Need Proof?
But maybe you know of an extraordinary stock broker or "better than everyone" fund manager, or "talking head" who strikes you as being among the elite few who can beat the odd. Maybe they have a stellar track record, impeccable credentials, a secret sauce or brand-name recognition. Should you turn to them for the latest market tips, instead of settling for "average" returns? A short side note here. If they were that good, wouldn't they charge you higher fees for the better than average performance? Wouldn't you? So, if they could beat the market, could you get those market beating returns after their fees? Answer? Slim to none.

Let's set aside theory for a moment and consider what has actually been working. Bottom line, if investors who did their homework were able to depend on outperforming experts, we should expect to see credible evidence of it.

The body of evidence suggest otherwise. Star performers – "active managers" – often fail to survive, let alone persistently beat comparable market returns. A 2013 Vanguard Group analysis found that only about half of some 1,500 actively managed funds available in 1998 still existed by the end of 2012, and only 18% had outperformed their benchmarks. Dimensional Fund Advisors found similar results in its independent analysis of 10-year mutual fund performance through year-end 2014.



Across the decades and around the world, a multitude of academic studies have scrutinized active manager performance and consistently found it lacking.

- Among the earliest such studies is Michael Jensen's 1967 paper, "The Performance of Mutual Funds in the Period 1945–1964." He concluded, there was "very little evidence that any individual fund was able to do significantly better than that which we expected from mere random chance."
- A more recent landmark study is Eugene Fama's and Kenneth French's 2009, "Luck Versus Skill in the Cross Section of Mutual Fund Returns." They demonstrated that "the high costs of active management show up intact as lower returns to investors."
- In the decades between, there have been as many as 100 similar studies published by a who's who list of academic luminaries, echoing Jensen, Fama and French. In 2011, the Netherlands Authority for the Financial Markets (AFM) scrutinized this body of research and concluded: "Selecting active funds in advance that will achieve outperformance after deduction of costs is therefore exceptionally difficult." Even the famed investor Peter Lynch found it difficult to find a successor.

The difficulties of a active management are simple. There are higher costs associated with active management. Research costs money, office visits with company leaders cost money, there is an added layer of expense that leads to "successful" money management. It is those fees that make it harder beat the average. To be profitable, they need to beat the average by at least their expenses. Additionally, great performance leads to new money for management by new investors hoping for those same above average returns. That new money makes it more difficult to beat the average. Great fishermen in small ponds are not necessarily great fishermen in big ponds.

Do hedge fund managers in the rarified environments have better odds? Evidence dispels that notion as well. For example, a March 2014 *Barron's* column took a look at hedge fund survivorship. The author reported that nearly 10% of hedge funds existing at the beginning of 2013 had closed by year-end, and nearly half of the hedge funds available five years prior were no longer available (presumably due to poor performance).

So what? What does this do for me?
So far, we've been assessing some of the investment obstacles you face. Group intelligence is a force to be reckoned with. You can't beat a team you are on. Let that force *work for you*, not against you. There is no such thing as new news. Market prices quickly adjust to unexpected news. Don't try to outguess the future.

The good news is, there is a way to invest that enables you to avoid obstacles and let market do what it does best for you. In our next installment, we'll begin to introduce you to the strategies involved, and your many "financial friends." First up, an exploration of what some have called the closest you'll find to an investment free lunch: Diversification.

Diversification

Chapter 4. An Intro to Diversification.

In the last chapter, "**Financial Experts and Other Make Believes**," we concluded our exploration of the formidable odds you face if you (or your hired help) try to outsmart the market's lightning-fast price-setting efficiencies. Particularly in the U.S., our investment world seems to be built on the idea that we can beat the market. While there are successful money managers out there, the odds are certainly not in their favor. Let's focus for the next several installments on *what we should* do if we decide to join the market and not fight them in efforts to create our wealth.

As King Solomon wrote many years ago, "Send your grain *overseas*, for *after many days* you will *get a return*. *Divide* your merchandise among *seven or even eight* investments, for *you do not know* what *calamity* may happen on the earth." He is making several points in these two short sentences.

First and among your most important points or "financial friends" is **diversification**. Diversifying your investments to seven or eight places seems a reasonable thing to do. After all, we don't know what will happen. King Solomon was talking about exporting and selling to several places. He expected his returns to vary depending upon the final buyer. We can apply this "diversification" recommendation in a variety of ways. Investment in seven or eight foreign cities may have been sufficient for King Solomon. Seven or eight building projects or foreign seas expeditions may have also worked. We choose seven or eight "different kinds of investments" as a recommended approach in today's investment world.

After all, what other action can you take to both reduce your exposure to a variety of investment risks and potentially increase your expected return? While they may seem fanciful, in recent years the benefits of diversification have been well-documented and widely explained by many years of academic inquiry. Its powers are both evidence-based and robust.

Global Diversification: Quantity AND Quality
What is diversification? In a general sense, it's about spreading your risks around. In investing, that means that it's more than just ensuring you have many holdings, it's also about having many different kinds of holdings—dividing your investments.

If you've seen the television commercial of the guy with eight or ten different drivers in the golf bag. That analogy fits here. Not only should your golf bag have different kinds of golf clubs; a driver, a few wedges, a putter, etc… **Think Quantity**. You should also be able to use those clubs in different ways. **Think Quality**. A good player can use an eight iron hit a golf ball 150 yards or more from the middle of the fairway. A good player may also use it to chip onto the green from off the fridge. Great players will also draw or fade the ball depending upon the risks and opportunities presented by their current situation.

While this may make intuitive sense, many investors come to me believing they are well-diversified when they are not. Upon recently reviewing a new client's "current" portfolio, we

discovered the many mutual funds in several different accounts were mainly invested in the same large U.S. company stocks. Without much discussion, they could see they were not well diversified and certainly not as much as they were led to believe.

In future installments of our series, we'll explore what I mean by "different kinds of investments." For now, think of a concentrated portfolio as the undiversified equivalent of a golf bag with a bunch of drivers. No putter, no wedges, just a bunch of drivers. Over-exposure to what should be only one club among many in your financial golf bag is not only unappealing, it can be detrimental to your financial "game."

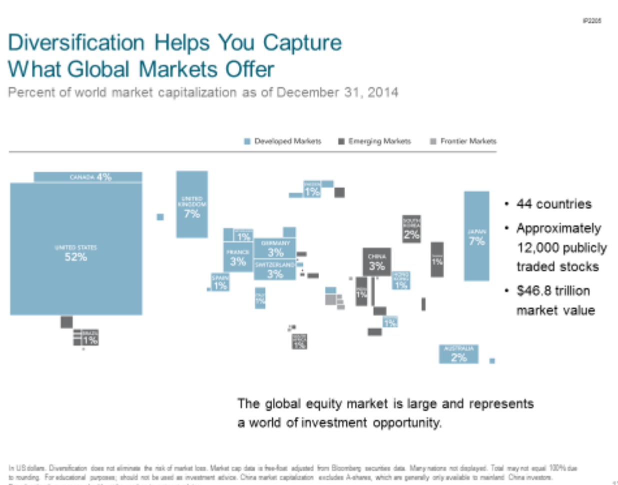
Lack of diversification:

1. Increases your vulnerability to specific, avoidable risks
2. Creates a bumpier, less reliable overall investment experience
3. Makes you more susceptible to second-guessing your investment decisions

Combined, these three will generate unnecessary costs and fees, lower your expected returns and, perhaps most important of all, increase your anxiety. In a letter to a church in Philippi, Paul reminded his audience to "Be anxious for nothing." Since we cannot know what calamity will happen on earth, it certainly doesn't help to worry about it. If you do, then you're back to trying to beat the market instead of having the market work **for you**.

Sending Your Grain Overseas

Consider that there is a wide world of investment opportunities available these days from well managed mutual funds intentionally designed to facilitate meaningful diversification. They offer efficient, low-cost exposure to capital markets found all around the globe. While the U.S. stock market used to represent about 70% of total world



So what? What does this do for me?
To best capture the full benefits of what global diversification has to offer, I advise turning to the sorts of fund managers who focus their energies – and yours – on efficiently capturing diversified dimensions of global returns.

In our last piece, we described why brokers or fund managers who are instead fixated on trying to beat the market are likely wasting their time and your money on fruitless activities. You may still be able to achieve diversification, but your experience will be hampered by unnecessary efforts, extraneous costs and irritating distractions to your resolve as a long-term investor. Who needs that, when diversification alone can help you have your cake and eat it too?

In our next chapter, we'll explore in more detail why diversification is sometimes referred to as one of the only "free lunches" in investing.

Diversification

Chapter 5. Diversifiable Market Risk

In chapter 4, "**An Intro to Diversification**," we described how effective diversification means more than just holding a large number of accounts or securities. It also calls for efficient, low-cost exposure to a variety of capital markets from around the globe. Let's expand on the benefits of diversification, beginning with its ability to help you better manage investment risks.

There's Risk, and Then There's Risk
Before we even have words to describe it, most of us learn about life's general risks when we tumble into the coffee table or reach for that pretty cat's tail. Investment risks aren't as straightforward. Here, it's important to know that there are two, broadly different kinds of risks: ***avoidable, concentrated risks*** and ***unavoidable market risks***.

Avoidable Concentrated Risks
Concentrated risks are the ones that wreak targeted havoc on particular stocks, bonds or sectors. Even in a bull market, one company can experience an industrial accident, causing its stock to plummet. A municipality can default on a bond even when the wider economy is thriving. A natural disaster can strike an industry or region while the rest of the world thrives.

In the science of investing, concentrated risks are considered avoidable. Bad luck still happens, but you can dramatically minimize its impact on your investments by diversifying your holdings widely and globally, as we described in our last post. When you are well diversified, if some of your holdings are affected by a concentrated risk, you are much better positioned to offset the damage done with plenty of other, unaffected holdings.

Unavoidable Market Risks
If concentrated risks are like bolts of lightning, market risks are encompassing downpours in which everyone gets wet. They are the persistent risks that apply to large swaths of the market. At their highest level, market risks are those you face by investing in capital markets in any way, shape or form. If you stuff your cash in a safety deposit box, it will still be there the next time you visit it. (It may be worth less due to inflation, but that's a different risk, for discussion on a different day.) Invest in the market and, presto, you're exposed to market risk.

Risks and Expected Rewards
Hearkening back to our past conversations on group intelligence, the market as a whole knows the differences between avoidable and unavoidable investment risks. Heeding this wisdom guides us in how to manage our own investing with a sensible, evidence-based approach.

Managing concentrated risks – If you try to beat the market by chasing particular stocks or sectors, you are exposing yourself to higher concentrated risks that could have been avoided with diversification. As such, you cannot expect to be consistently rewarded with premium returns for taking on concentrated risks.

Managing market risks – Every investor faces market risks that cannot be "diversified away." Those who stay invested when market risks are on the rise can expect to eventually be compensated for their steely resolve with higher returns. But they also face higher odds that results may deviate from expectations, especially in the near-term. That's why you want to take on as much, but no more market risk than is personally necessary. Diversification becomes a "dial" for reflecting the right volume of market-risk exposure for your individual goals.

So what? What does this do for me?
Whether we're talking about concentrated or market risks, diversification plays a key role. Diversification is vital for avoiding concentrated risks. In managing market risks, it helps you adjust your desired risk exposure to reflect your own purposes. It also helps minimize the total risk you must accept as you seek to maximize expected returns.

This sets us up well for our next piece, in which we address another powerful benefit of diversification: smoothing out the ride along the way.

Diversification

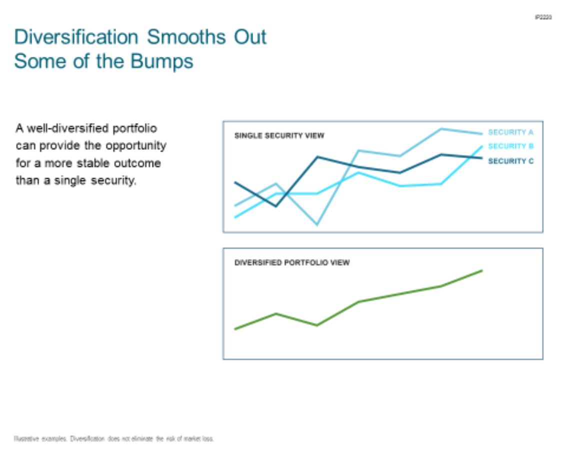
Chapter 6. The More The Merrier (or Smoother).

In chapter 5, “**Diversifiable Market Risk**,” we described how diversification plays a key role in minimizing *unnecessary* risks and helping you better manage those that remain. Now, I’ll discuss an additional benefit to be gained from a well-diversified stable of investments: creating a smoother ride toward building wealth.

Diversification Makes it Smoother

As you would expect, near-term market returns are characterized more by periods of great volatility than by a steady-as-you-go “average returns.” Diversification helps reduce the volatility of the portfolio and the associated “ride.”

When you crunch the numbers, diversification is shown to help minimize the leaps and dives you must endure along the way to your expected returns. Imagine several rough-and-tumble, upwardly mobile lines that represent several kinds of holdings. Individually, each represents a bumpy ride. Bundled together, the upward mobility remains, but the jaggedness along the way can be dampened (albeit never completely eliminated).



If you’d like to see a data-driven illustration of how this works, check out this post by CBS MoneyWatch columnist Larry Swedroe, “How to diversify your investments.”

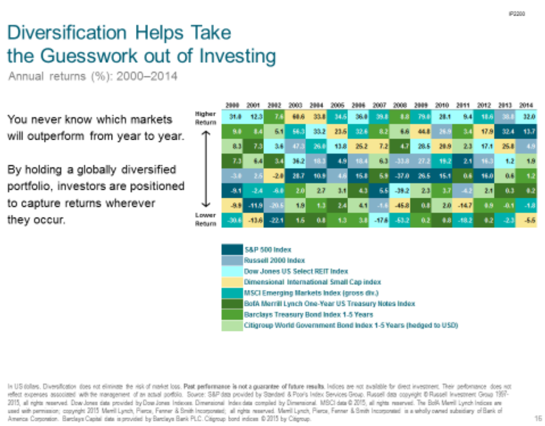
More Markets is Better

A key reason diversification works is related to how different market components (or different markets) respond to price-changing events. When one type of investment (consider the S&P500) may *zig* due to particular news, another (consider the commodities index) may *zag*. Instead of trying to move in and out of favored components, the goal is to remain diversified across a wide variety of them. This increases the odds that, when some of your holdings are underperforming, others will outperform or at least hold their own.

This is also a frustrating experience. When we see one outperforming, we are inclined to want more of that investment. And, when one is underperforming, we strongly feel we should sell. However, if we succumbed to those feelings and sell the underperformers, we will, given enough time, have no investments left. I'll discuss more of this later in behavioral finance posts.

The results of diversification aren't perfectly predictable. However, positioning yourself with a blanket of coverage for capturing market returns where and when they occur goes a long way toward replacing guesswork with a coherent, cost-effective strategy for managing desired outcomes.

The Investment "Periodic Table" is a classic illustration of this concept. After viewing a color-coded layout of which market factors have been the winners and losers in past years, it's clear that the only discernible pattern is that there is none. If you can predict how each column of best and worst performers will stack up in years to come, your psychic powers are greater than all others.



So what? What does this do for me?
Diversification offers you wide, more manageable exposure to the market's long-term expected returns as well as a smoother expected ride along the way. Perhaps most important, it eliminates the need to try to forecast future market movements, which helps to reduce those nagging self-doubts that throw so many investors off-course. It also better enables you to rebalance your portfolio. Looking back over a period of time it is easy to see the underperformers and outperformers. A simple and effective rebalance would trim some of the outperformers and add those proceeds to the underperformers. You are not guessing which investment or market will do better next time, you are looking back and recognizing which fared better and worse last time. And the odds are, performance won't repeat.

So far in EB Investing Insights, we've introduced some of the challenges investors face in efficient markets and how to overcome many of them with a structured, well-diversified portfolio. Next up, we'll take a closer look at some of the mechanics of solid portfolio construction.

Return Factors

Chapter 7. What Drives Market Returns?

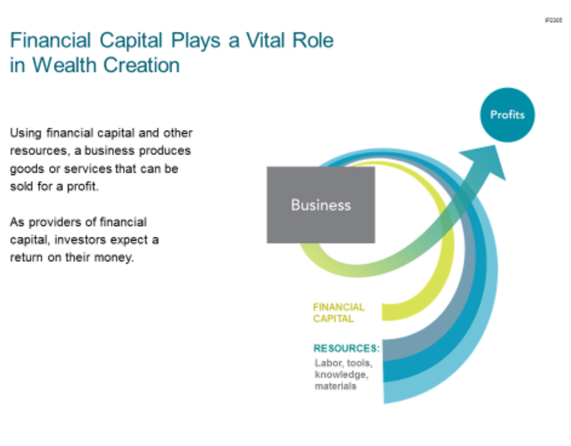
In chapter 6, **"The More the Merrier (or Smoother),"** we finished a three-part mini-series regarding the benefits of diversifying your investments to minimize avoidable risks, manage the undiversifiable risks that are expected to generate market returns, and better tolerate market volatility along the way. The next step is to understand how to build your diversified portfolio for effectively capturing those expected returns. This now calls for knowing where returns really come from.

The Business of Investing

With all the excitement over stocks and bonds and their ups and downs in headline news, there is a key concept often overlooked. ***Market returns are compensation for an investor's willingness to delay gratification and invest for future wealth.***

Five things are needed to create wealth. Knowledge or new ideas, people to do the work (human capital or labor), tools with which the people can work, raw materiel (natural resources), and money (financial capital). Consider a small business entering the whisky making business. To run a successful distillery, you need many things. For this example, we'll keep it simple. We need an idea (something we can produce that isn't already on the market), chief distiller (the guy that knows what to do), distiller (the machine) and bottles, grain and water, and money to buy the water and grain, the distiller and bottles, and pay the distiller. That money is where we as investors come in. Because nothing has been distilled or sold yet, we'll need it before we can begin.

When you buy a stock or a bond, your money (financial capital) is put to hard work by businesses that expect to succeed in whatever endeavors they enter whether it's making automobiles, growing corn, running retirement communities, or selling lemonade. You, in turn, are not giving your money away. You are becoming partner or owner (shareholder) and can expect to receive your money (capital or investment) back, and then some (profit).



Company Profits Aren't Investor Returns
A company hopes to generate profits. Investors hope to earn generous returns. You would think that, when a company succeeds, its investors would too. But actually, a company's success is only one factor, at best, among many others that influence its investors' expected returns.

In my distillery example, an investor cannot expect returns immediately. It may be several years before a company sells enough whisky to become profitable. Consider all the effort that goes into making a product successful. Producing a good product takes time. Then, whisky drinkers need to discover it. Store and restaurants need to hear about it first. People need to try it. Then buy it. They tell their whisky drinking friends. More people buy it, and on and on. All the while, the distiller needs to keep producing more and more and keep the quality at the same level drinkers have come to expect. The more they distill, the more they sell, the more their needs grow. More grain in needed, more employees, more regulation, etc… You can see it isn't he easiest of endeavors. Even so, after we begin to make a profit, we have other business concerns that could use those profits. Shall we invest the profit back into the growth of the company? Shall I give our employees raises? Shall we repay some of our debt? Should we keep some in case grain costs increase? You get the idea that a company's profits aren't necessarily or automatically paid to shareholders and investment returns.

At first, this seems counterintuitive. It means, for example, that even if business is going well, you cannot necessarily expect to reap the rewards simply by buying more stock in that same, company. (As we've covered before, by the time good or bad news is apparent, it's already reflected in higher-priced share prices, with less room for future growth.)

Expected Portfolio Returns
So what drives expected portfolio returns? There are a number of factors involved, but among the most powerful ones are directly related to how your portfolio is designed or the makeup of your portfolio. Consider two of the broadest market factors: **stocks (equities)** and **bonds (fixed income)**. Most investors start by deciding what percentage of their portfolio to allocate to each. Regardless of the split, you are still expecting to be compensated for all of the capital you have put to work in the market. You can expect less return from bond investments because you are taking less risk. And vis versa. If you take more risk by being an owner, you can expect more return. In short, a portfolio that has more stock can be expected to both, have higher returns and have more risk than the portfolio than has more bonds. So why does the allocation matter?

Bond Returns…are Lower
- Your risk and therefore returns are less because you are **lending** money to a business or government agency, with no ownership stake.
- Your returns come from **interest** paid on your loan.
- If a business fails, you are closer to the **front** of the line to be repaid with any remaining capital.

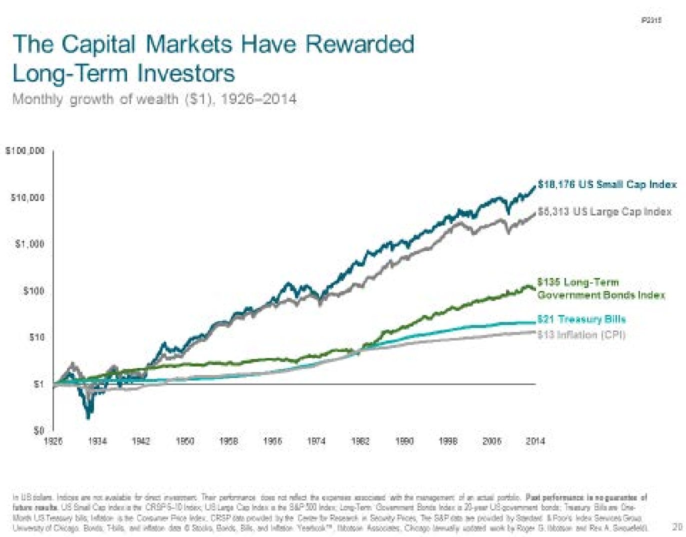
Stock Returns…are Higher

- Your risk and therefore returns are higher because you become a **co-owner** in the business.
- Your returns come from **increased share prices** and/or **dividends**.
- If a company fails, you are at the end of the line of creditors to be repaid.

In short, stock (company) owners face higher odds (risk) that they may not receive their expected return. They may even lose their investment. This is why stocks are *generally* considered riskier than bonds and have *generally* delivered higher returns than bonds over time. An old Proverb reminds us that investing is a long-term process. A faithful person will have an abundance of blessings, but the one who hastens to gain riches will not go unpunished.

This outperformance of stocks over bonds is called the **equity premium**. The precise amount of the premium and how long it takes to be realized is far from a sure thing. That's where the risk comes in. But viewing stock-versus-bond performance in a line chart over time, it's easy to see that stock returns have handily pulled ahead of bonds over the long-run … but also have exhibited a bumpier ride along the way. Higher risks AND higher returns show up in the results.

Another Proverb reminds us that we should invest in several types of investments because we don't know the future or what will happen. Divide your merchandise among seven or even eight investments, for you do not know what calamity may happen on earth. I believe stocks and bonds are two, or arguably more, of those different types of investments. The chart below shows the various returns for several types of stocks and bonds.



So what? What does this do for me?
Market risk exposure has long been among the most important factors contributing to returns. At the same time, ongoing academic inquiry indicates that there are additional factors contributing to returns, some of which may be driven by behaviors other than risk tolerance. Next up, we'll continue to explore market factors and expected returns, and why our evidence-based approach is critical to that exploration.

Return Factors

Chapter 8. Constituting Evidence-Based Investing.

In the chapter, “**What Drives Market Returns?**” we explored how markets deliver wealth to those who invest their financial capital in human enterprise. But, as with any risky venture, there are no guarantees that you’ll earn the returns you’re aiming for, or even recover your stake. This leads us to why we so strongly favor **evidence-based investing**. Grounding your investment strategy in rational principles helps you best determine which course is best and then stay the course toward your financial goals, especially when your emotions threaten to take over.

So what constitutes evidence-based investing?

Market Return Factors: EB Investing—The Basics
Since at least the 1950s, a “Who’s Who” body of scholars has been studying financial markets to answer key questions such as:

- **What drives returns?** Which return-yielding factors appear to be persistent over time, around the world and across a range of market conditions?
- **How does it work?** Once identified, can we explain why particular return-yielding factors exist, or at least narrow the list to the most likely causes?

Financial Scholar vs. Financial Professional
Building on this level of academic inquiry, fund companies and other financial professionals are tasked with an equally important charge: ***Even if a relatively reliable return premium exists in theory, can we capture it in the real world – after the implementation and trading costs involved?*** I recall studying finance at USC and this was a basic question of us students. The professor would wax eloquently at the front of the classroom about theory and then stutter in response to students that asked about trading costs, taxes, and other real world issues.

As in any discipline from finance to medicine to quantum physics, it’s academia’s interest to discover the possibilities; ***it’s our interest to figure out what to do with the understanding***. This is in part why it’s important to maintain the bifurcated roles of financial scholar and financial professional, to ensure each of us are doing what we can do best in our field.

Academic Rigors
In academia, rigorous research calls for considerably more than an arbitrary sampling or a few in-house spreadsheets. It typically demands:

An Objective, Disinterested View – Rather than beginning with a point to prove and then figuring out how to prove it, ideal academic inquiry is conducted with no agenda other than to explore intriguing phenomena and report the results of the exploration.

Robust Data Analysis – As they say, you can make statistics say anything. An analysis should be free from weaknesses such as:

- **Too little data** that is too short-term, too small of a sampling to be significant, or otherwise tainted
- **"Survivorship bias,"** in which the returns from funds that were closed during the study (usually because of poor performance) are omitted from the results. I discussed this previously
- **Apples to oranges**, such as using the wrong benchmark against which to assess a fund's or strategy's "success" or "failure"
- **Insufficient advanced mathematics** like multi-factor regression, which helps pinpoint the critical factors from among an otherwise confusing, noisy mix of possibilities

Doing it Again and Again – Academic research requires results to be repeatable and reproducible by the author and others, across multiple, comparable environments. This strengthens the reliability of the results and helps ensure they weren't just random luck.

Peer Review – Last but hardly least, scholars must publish their detailed results and methodology, typically within an appropriate academic journal, so similarly credentialed peers can review their work and agree that the results are sound or rebut them with counterpoints.

So what? What does this do for me?
As is the case in any healthy scholarly environment, those contributing to the lively inquiry about what drives market returns rarely agree. Still, when backed by solid methodology and credible consensus, an evidence-based approach to investing offers the best opportunity to advance and apply well-supported findings; eliminate weaker proposals; and, most of all, strengthen your ability to build and/or preserve long-term personal wealth according to your unique goals.

Return Factors

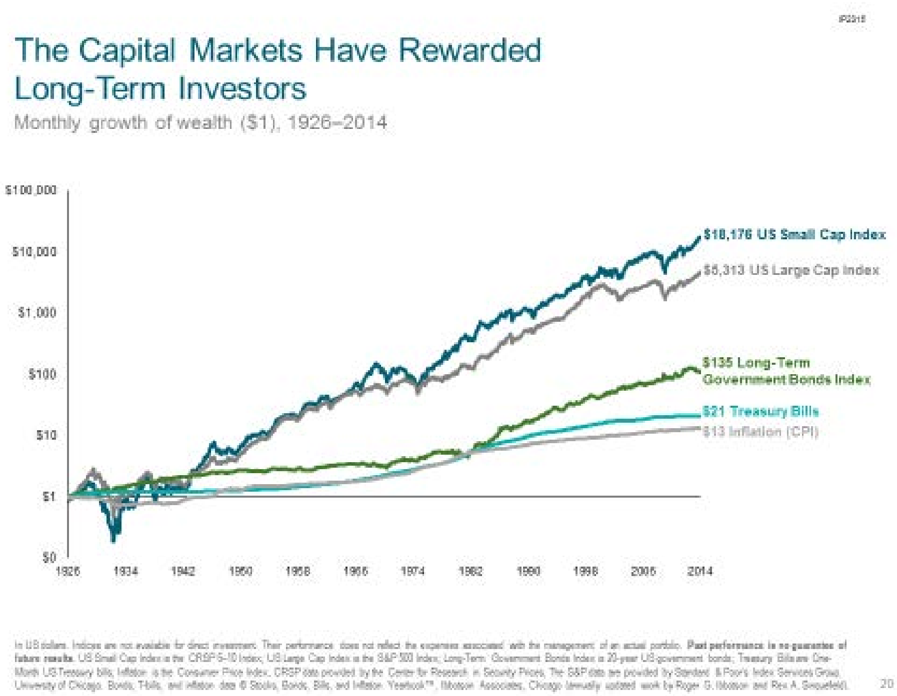
Chapter 9. Return Factors That Impact Your Portfolio.

In chapter 8, "**Constituting Evidence-Based Investing**" we explored what we mean by "evidence-based investing." Grounding your investment strategy in rational methodology gives you confidence to stay on course toward your financial goals, as we:

1. **Assess** existing factors' capacities to offer expected returns and diversification benefits
2. **Understand** why such factors exist, so we can most effectively apply them
3. **Explore** additional factors that may complement our structured approach

What Does the Evidence Indicate?
An accumulation of studies dating back to the 1950s through today has identified **three stock market factors** that have formed the backbone for evidence-based portfolio construction over the long-run:

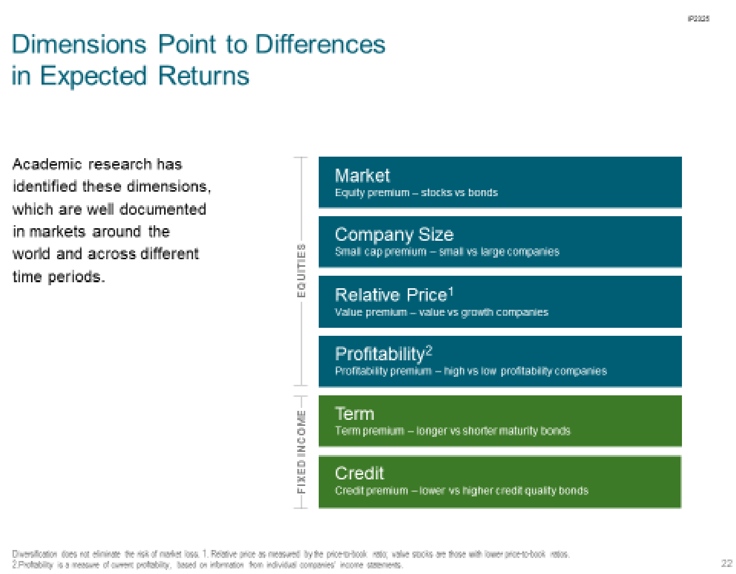
1. **Equity premium** – Stocks have returned more than bonds, as we described in "What Drives Market Returns?" They have been riskier than bonds and have historically or complete market cycles paid risk takers with excess returns.
2. **Small-cap premium** – Small-company stocks have returned more than large-company stocks. Smaller companies can double and triple is size much easier than large companies. Additionally, small companies can go out of business easier too. Think of the late 90's dot com bust. And, recall this chart:



3. **Value premium –** Value companies (with lower ratios between their stock price and various business metrics such as company earnings, sales and/or cash flow) have returned more than growth companies (with higher such ratios). These are stocks that, based on the empirical evidence, appear to be either undervalued or more fairly valued by the market, compared with their growth stock counterparts. Consider than growth companies have the best products and employees. It stands to reason that any expected returns are already priced into the stock. In fact, the stock may be overpriced given the relatively low risk they have, given their better employee and product bases.

If you ever hear financial professionals talking about a "three-factor model," this is the trio involved. Similarly, academic inquiry has identified two primary factors driving fixed income (bond) returns:

1. **Term premium –** Bonds with distant maturities or due dates have returned more than bonds that come due quickly. Obviously there is more risk associated with longer term bonds. More bad things can happen in a longer period of time than a shorter period of time.
2. **Credit premium –** Bonds with lower credit ratings (such as "high yield" or "junk" bonds) have returned more than bonds with higher credit ratings (such as U.S. treasury bonds). Again, risk and reward are correlated. There is less risk loaning to a "safer" government or entity. And, there is less risk loaning to the federal government than a corporation.



Understanding the Evidence

Scholars and practitioners alike strive to determine not only *that* various return factors exist, but *why* they exist. This helps us determine whether a factor is likely to persist (so we can build it into a long-term portfolio) or is more likely to disappear upon discovery.

Explanations for why persistent factors linger often fall into two broad categories: **risk-related** and **behavioral**.

Risks and Expected Rewards
It appears that persistent premium returns are often explained by accepting market risk (the kind that cannot be diversified away) in exchange for expected reward.

For example, it's presumed that value stocks are riskier than growth stocks. In "Do Value Stocks Outperform Growth Stocks?" CBS MoneyWatch columnist Larry Swedroe explains: "Value companies are typically more leveraged (have higher debt-to-equity ratios); have higher operating leverage (making them more susceptible to recessions); have higher volatility of dividends; and have more 'irreversible' capital (more difficulty cutting expenses during recessions)."

Behavioral Instincts
There are also behavioral weaknesses at play. That is, our fear of loss (and basic greedy nature), often play against otherwise well-reasoned financial decisions. As such, the market may favor those who are better at overcoming their impulsive, often damaging gut reactions to breaking news. Once we complete our exploration of market return factors, we'll explore the fascinating

and quickly expanding field of behavioral finance in more detail, as this "human factor" contributes significantly to your ultimate success or failure as an investor.

So what? What does this do for me?
Factors that figure into market returns may be a result of taking on added risk, avoiding the self-inflicted wounds of behavioral temptations, or (probably) a mix of both. Regardless, existing and unfolding inquiry on market return factors continues to hone our strategies for most effectively capturing expected returns according to your personal goals. The same inquiry continues to identify other promising factors that may help us augment our already strong, evidence-based approach to investing.

Return Factors

Chapter 10. What Has Evidence-Based Investing Done for Me Lately?

In Chapter 9, "**Return Factors That Impact Your Portfolio,**" we introduced three stock market factors (**equity premium**, **value premium** and the **small-cap premium**). We also introduced two factor for the bond market (the **term premium** and the **credit premium**). These five factors form the backbone for basic portfolio construction. Regardless of market timing or index (or passive) investing, most investment or market returns can be explained by a combination of these five factors. The unexplained returns can be considered "dumb luck" or are still be discovered.

As with any field of study, the work continues. The field evolves and grows. What is "new" in this field of study? Recently, academics have found additional possible market factors at play, with additional potential premiums (which also seem to result from accepting added market risk, avoiding ill-advised investor behaviors or both). The most prominent among these are **profitability** and **momentum**:

- **The Profitability Factor –** As proposed by Robert Novy-Marx, Profitable firms generate significantly higher returns than unprofitable firms, despite having significantly higher valuation ratios. Read more here.
- **The Momentum Factor –** Stocks that have done well or poorly in the recent past tend to continue to do the same for longer than random chance seems to explain.

A Closer Look at Newer Factors

Before we get ahead of ourselves, let's discuss a few caveats. These possible factors are still hotly debated in some circles. As you can expect, those who may profit from these ideas are busy marketing them and putting them out to the investing public. Academics are debating and trying to better understand them. Regulators aren't addressing them yet.

- **Wet Paint Warning –** While these "new" factors may or may not have existed for some time, our ability to isolate them is more recent. As the ink still dries on the research papers, some among the evidence-based community are still assessing their staying power.
- **Cost versus Reward –** Just because a factor exists in theory, doesn't mean it can be implemented in real life. We must be able to capture an expected premium without generating costs beyond its worth. This is no small feat and goes to the core of what makes market timing so difficult and generally a losing effort. Knowing something and financially benefiting from knowledge are two very different things.
- **Dueling Factors –** Sometimes, it can be difficult to build one factor into a portfolio without sacrificing another. For example, as Jared Kizer explains in his Multifactor World blog post, "One generally can't tilt toward both value and momentum at the same time, because the two strategies tend to be highly negatively correlated." Benefits and tradeoffs must be carefully considered at the fund level as well as for your individual goals.

Opinions vary on when, how or even if profitability and momentum should play a role in current portfolio construction. We would be happy to speak with you individually about our evolving approach. To help you assess whether they may make sense for you, let's explore how to think about investment information.

On One Hand, and The Other: Investment Information

As time marches on, relentless questioning from scholars and practitioners alike has been essential to evidence-based investment theory and application, dispelling illusions and laying the foundation for the insights we now routinely harness.

Similar inquiry must continue to pave the way to future improvements. But one need only glance at daily headlines to notice a never-ending stream of ideas from competing, often conflicting voices of authority. **While being informed is helpful, being overloaded by it can do as much harm as good to well-intended investors.** Even when the news is solid (which is never a given), hyperactive reaction can strip away all the advantages of an enlightened investment approach.

Choose Your Advisors Carefully: Investment Reality

My first Guiding Money Principle is the retain good counsel. How do you know what to heed and who to ignore? ***This is where we believe an evidence-based advisor relationship is critical to your wealth and your well-being.*** Calls to action that erupt overnight based on scant evidence and concentrated events are unlikely candidates for building into a durable investment discipline. As we outlined in, "**Constituting Evidence-Based Investing**," whenever we assess the validity of existing and emerging market insights, we ask pointed questions that can take years to resolve:

- **An Objective, Disinterested View and Robust Data Analysis** Is there robust analysis, not only from industry insiders but from disinterested academics? It becomes obvious that someone is trying to sell something.
- **Doing it Again and Again** Have the results been replicated across factors, over time and around the world? It is repeatable? Can you benefit from it over time?
- **Peer Review** Has it survived extensive peer review, if not unscathed, at least free of mortal wounds? Have others looked at it and found similar results?

So what? What does this do for me?

I attend industry conferences and listen to a great deal of talk and study. I see new investment opportunities on a regular basis. Particularly after 2007-2009, the industry exploded with new ideas that would both increase safety and returns. By considering each new factor according to strict guidelines, our aim is to extract the diamonds of promising new evidence-based insights from the considerably larger piles of misleading misinformation. Next, we turn to a factor we have mentioned but have yet to explore, even though it may be the most influential one of all: you and your financial behaviors.

Behavior

Chapter 11. Our Own Worst Investing Enemy.

In Chapter 10, "**What Has Evidence-Based Investing Done for Me Lately?**" we wrapped up our conversation about ways to employ stock and bond market factors within a disciplined investment strategy, as well as how to extract the diamonds of promising new evidence-based insights from the larger piles of misinformation. Let's turn now to another significant factor in investing, ourselves. We are many times our own worst investing enemy. Why is the human factor our enemy? That is the object of several recent studies and an increasing body of academic and scientific research. In short, our own impulsive reactions to market events can easily trump any other market challenges you face.

Human Factor Explored
Despite everything we know about efficient capital markets and all the solid evidence available to guide our rational decisions … we're still human. We are imperfect. We've got things going on in our heads that have nothing to do with solid evidence and rational decisions. We were created emotional beings. We move from greed to fear and back again.

The one who loves money will never be satisfied with money. Ecclesiastes.

We react to news and events with little thought. We let our emotions get the best of us. Dr. Eyal Winter say, "The impediment for making financial decisions is not cognitive but emotional."

Rapid reflexes serve us well. But in finance, where the coolest heads prevail, many of our instincts cause more harm than good. If you don't know that they're happening or don't manage them when they do, your brain signals can trick you into believing you're making entirely rational decisions when you are in fact being overpowered by ill-placed, "survival of the fittest" reactions.

Behavioral Finance
To study the relationships between our heads and our financial health, there is another field of evidence-based inquiry known as **behavioral finance**.

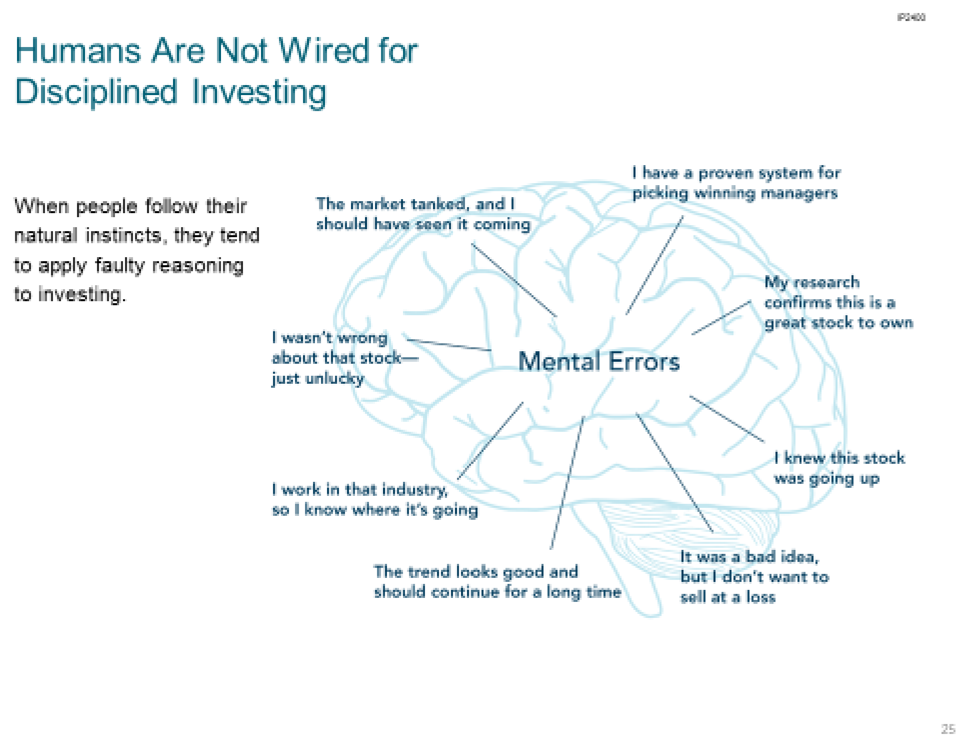
Wall Street Journal columnist Jason Zweig's "Your Money and Your Brain" provides a good guided tour of the findings, describing both the behaviors themselves as well as what is happening inside our heads to generate them. To name a couple of the most obvious examples:

- **When markets drop –** Your brain's amygdala floods your bloodstream with corticosterone. Fear clutches at your stomach and every instinct points the needle to "Sell!"

- **When markets rise –** Your brain's reflexive nucleus accumbens fires up within the nether regions of your frontal lobe. Greed grabs you by the collar, convincing you that you had best act soon if you want to seize the day. "Buy!"

Managing the Human Factor

Beyond such market-timing instincts that can lead us astray, our brains cooks up plenty of other harmful biases to overly influence our investment activities. To name a few, there's confirmation bias, hindsight bias, recency, overconfidence, loss aversion, sunken costs and herd mentality.



So what? What does this do for me?

Managing the human factor in investing is another way a financial advisor can add value. Zweig observes, "Neuroeconomics shows that you will get the best results when you harness your emotions, not when you strangle them." You should be aware you are not perfect. And, what you don't know can harm you. A good advisor or counselor will be able to point out harmful behaviors before those behaviors cost you. In our next piece, we'll explore some of the more potent behavioral weaknesses investors face.

Behavior

Chapter 12. Behavioral Biases – Why I Believe I'm Right When I'm Not.

In Chapter 11, "**Our Own Worst Investing Enemy**" we explored how our "fight or flight" and "greed or fear" instincts generate an array of behavioral biases that may trick us into making significant money-management mistakes. In this segment, we'll familiarize you with a half-dozen of these more potent biases, and how you can avoid sabotaging your own best-laid, investment plans by recognizing the signs of a behavioral booby trap.

Behavioral Bias #1: Overconfidence
Garrison Keillor made overconfidence famous in his monologue about Lake Wobegon, "where all the women are strong, all the men are good looking, and all the children are above average." Keillor's gentle jab actually reflects reams of data indicating that most people (especially men) believe that their acumen is above average. On a homespun radio show, impossible overconfidence is quaint. In investing, it's dangerous. It tricks us into losing sight of the fact that investors cannot expect to consistently outsmart the collective wisdom of the market (as we described in "The Markets, the Prices, and You and Me"), especially after the costs involved.

Behavioral Bias #2: Loss Aversion
As a flip side to overconfidence, we also are endowed with an over-sized dose of loss aversion, which means we are significantly more pained by the thought of losing wealth than we are excited by the prospect of gaining it. As Jason Zweig of "Your Money and Your Brain" states, "Doing anything – or even thinking about doing anything – that could lead to an inescapable loss is extremely painful."

One way that loss aversion plays out is when investors prefer to sit in cash or bonds during bear markets – or even when stocks are going up, but a correction seems overdue. The evidence clearly demonstrates that you are likely to end up with higher long-term returns by at least staying put, if not bulking up on stocks while they are "cheap." And yet, even the *potential* for future loss can be a more compelling emotional stimulus than the *likelihood* of long-term returns.

Behavioral Bias #3: Herd Mentality
Herd mentality is what happens to you when you see a market movement afoot and you conclude that you had best join the stampede. The herd may be hurtling toward what seems like a hot buying opportunity, such as a run on a stock or stock market sector. Or it may be fleeing a widely perceived risk, such as a country in economic turmoil. Either way, as we covered in "The White Noise of Daily Market Pricing," following the herd puts you on a dangerous path toward buying high, selling low and incurring unnecessary expenses en route.

Behavioral Bias #4: Recency
Even without a herd to speed your way, your long-term plans are at risk when you succumb to the tendency to give recent information greater weight than the long-term evidence warrants. From our earlier piece, "What Drives Market Returns?" we know that stocks have historically

delivered premium returns over bonds. And yet, whenever stock markets dip downward, we typically see recency at play, as droves of investors sell their stocks to seek “safe harbor” (or vice-versa when bull markets on a tear).

Behavioral Bias #5: Confirmation Bias
Confirmation bias is the tendency to favor evidence that supports our beliefs and gloss over that which refutes it. We’ll notice and watch news shows that support our belief structure; we’ll skip over those that would require us to radically change our views if we are proven wrong. Of all the behavioral biases on this and other lists, confirmation bias may be the greatest reason why the rigorous, peer-reviewed approach we described in “Constituting Evidence-Based Investing” becomes so critical to objective decision-making. Without it, our minds want us to be right so badly, that they will rig the game for us, but against our best interests as investors.

Behavioral Bias #6: Sunken Costs
We investors also have a terrible time admitting defeat. When we buy an investment and it sinks lower, we tell ourselves we don’t want to sell until it’s at least back to what we paid. In a data-driven strategy (and life in general), the evidence is strong that this sort of sunken-cost logic leads people to throw good money after bad. By refusing to let go of past losses – or gains – that no longer suit your portfolio’s purposes, an otherwise solid investment strategy becomes clouded by emotional choices and debilitating distractions.

So what? What does this do for me?
Here you have six behavioral biases that can affect our investment performance. There are many more available for exploring in Zweig’s and others’ books on behavioral finance. I have a copy of Jason’s book on my shelf. I read a chapter every occasionally, to refresh these basic concepts. I recommend you take the time to learn more. First, it’s a fascinating and expanding field of inquiry. Second, it can help you become a more confident investor. In fact, the insights you gain may enhance other aspects of your life.

But be forewarned. Even once you are aware of your behavioral stumbling blocks, it can still be devilishly difficult to avoid tripping on them as they fire off lightning-fast reactions in your brain well before your logic has any say. That’s why we suggest working with an objective advisor, to help you see and avoid collisions with yourself that your own myopic vision might miss.

In the next and final installment of Joss Financial Group’s EB Investing Insights, we look forward to tying together the insights shared throughout the series. Of course, there’s no need to stand on ceremony. If you have questions or ideas you’d like to explore right away, feel free to reach out to me today.

Chapter 13. A Summary: Bringing the Evidence Home.

We hope you've enjoyed reading our series as much as we've enjoyed sharing it with you. Here are the key take-home messages from each installment:

1. **The Markets, the Prices, and You and Me**– Understanding group intelligence and its effect on efficient market pricing is a first step toward more consistently buying low and selling high in free capital markets.

2. **The White Noise of Daily Market Pricing** – Rather than trying to react to ever-changing conditions and cut-throat competition, invest your life savings according to factors over which you can expect to have some control; Amount of risk, Diversification, Expense and Turnover, and Minimizing taxes.

3. **Financial Experts and Other Make Believes** – Avoid paying costly, speculative "experts" to pinch-hit your market moves for you. The evidence indicates that their ability to persistently beat the market is very rare.

4. **An Intro to Diversification** – In place of speculative investing, diversification is among your most important allies. To begin with, spreading your assets around dampens unnecessary risks while potentially improving overall expected returns.

5. **Diversifiable Market Risk** – All risks are not created equal. Unrewarded "concentrated risk" (picking individual stocks) can and should be avoided by diversifying away from it. "Market risk" (holding swaths of the market) is expected to deliver long-term returns. Diversification helps manage the necessary risks involved.

6. **The More The Merrier (or Smoother)** – Diversification makes the rider through bumpy markets, which helps you stay on track toward your personal goals.

7. **What Drives Market Returns?** – At their essence, market returns are compensation for providing the financial capital that feeds the human enterprise going on all around us. If we take more risk, we can expect greater potential return. And conversely, if we take less risk, we can expect smaller returns.

8. **Constituting Evidence-Based Investing** – What separates solid evidence from flakey findings? Evidence-based insights demand scholarly rigor, including an objective outlook, robust peer review, and the ability to reproduce similar analyses under varying conditions.

9. **Return Factors That Impact Your Portfolio** – Following where robust evidence-based inquiry has taken us so far during the past 60+ years, three key stock market factors (equity, value and small-cap) plus a couple more for bonds (term and credit) have formed a backbone for evidence-based portfolio construction.

10. **What Has Evidence-Based Investing Done for Me Lately? –** Building on our understanding of which market factors seem to matter the most, we continue to heed unfolding evidence on best investment practices.

11. **Our Own Worst Investing Enemy –** Behavioral finance helps us understand that our own, instinctive reactions to market events can easily trump any other market challenges we face.

12. **Behavioral Biases – Why I Believe I'm Right When I'm Not –** Continuing our exploration of behavioral finance, we share a half-dozen deep-seated instincts that can trick you into making significant money-management mistakes. Here, perhaps more than anywhere else, an objective advisor can help you avoid mishaps that your own myopic vision might miss.

So what? What does this do for me?
When we began our series, we promised to skip the technical jargon, replacing it with three key insights for becoming a more confident investor.

1. **Understand the Evidence.** You don't have to have an advanced degree in financial economics to invest wisely. You need only know and heed the insights available from those who *do* have advanced degrees in financial economics.

2. **Embrace Market Efficiencies.** You don't have to be smarter, faster or luckier than the rest of the market. You need only structure your portfolio to play *with* rather than *against* the market and its expected returns.

3. **Manage Your Behavioral Miscues.** You don't have to – and won't be able to – eliminate every high and low emotion you experience as an investor. You need only be aware of how often your instincts will tempt you off-course, and manage your actions accordingly. (Hint: A professional advisor can add great value here.)

How have I done so far in my goal to inform you, without overwhelming you? If I've succeeded in bringing evidence-based investment ideas home for you, I would love to have the opportunity to continue the conversation with you in person.

Blessings to your future,
Dan