Mental Gymnastics

July 2022 – Explorations

The mind is a powerful thing. We have heard the saying, we know it to be true, and we can find evidence of it in various walks of life. The scientific world grapples with this concept in testing new drugs. One method of testing a medicine's efficacy is to provide one control group the actual drug and the other group a placebo – typically a sugar pill. The problem is that many times the placebo has a positive effect! In fact, one study examining the placebo effect in 84 trials of nerve pain treatments over the last 23 years shows that the placebo effect has become remarkably stronger in the United States, though not in other countries. Speculation is these results may be due to drug advertising in the U.S.

Interestingly enough, just reading the negative side effects of a medicine can cause us to feel them – a phenomenon called the "nocebo effect."¹ The nocebo effect shows that our *expectations* can have a dramatic effect on our experiences.

If a sugar pill or a list of negative side effects can fool us, what are our chances against the mighty, dynamic, and complex financial market?! Especially when our personal experiences have such a meaningful and material impact on our investing approach – or at least our initial gut investing approach. Add in the sophistication of the Wall Street machine, the complexity of today's investable products and the large sums of money spent on marketing financial products, and today's investor has a much more difficult time investing based on reason and rational analysis.



As if this all were not enough: The world is seemingly aflame, with inflation hitting levels not seen in decades, Russian aggression and China fears creating all sorts of world order concerns, and general fixed income and equity markets having some of their worst 6 month starts ever.

Investors today are exposed to more data and information than ever before. How do we digest all this information and create an informed decision, both for the present and our future self (which hopefully measures in decades)?

What Is Your Risk Score?

Topics of Exploration:

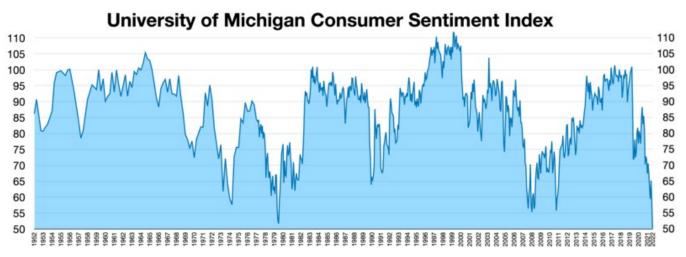
- The Personal in Investing By Bryce Bednorz
- The Professional in Investing
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 - Exit the Largest Asset Class in the Planet?
 - Tax Audits Statistically!
- Charts and Thoughts on Long-Term Market Investing

¹ The placebo effect: Amazing and real - Harvard Health



Risk is an interesting phenomenon in the investing world, as it can carry a different meaning for investors in a positive performing market than in a volatile one. It is only natural that during times like this – with global equity and fixed income markets having experienced losses – we find ourselves refocusing on the concept of risk. As a participant in investment markets, we must, whether consciously or not, accept the reality that investing is inherently accompanied by some degree of risk. Given its inevitability, the question becomes, how do people assess the level of risk they can (risk tolerance) or should (risk capacity) take?

The financial services industry is littered with tools that aim to help answer that question. Most of them share a common trait – they seek to make assessing risk as simple as possible. Typically, they will have you answer a set of hypothetical questions on topics like your investing preferences, time horizon, and how you might react in various market environments. Beneath the hood there is some quantitative methodology which uses your answers to provide a simple output which theoretically represents your "risk tolerance". One version of this output, which has become increasingly popular, is what is known as a "risk score." A risk score is a single number within a particular range – say, from 1 to 100 – that indicates how much risk is suitable for you. This magic number would then serve as a basis to guide the construction of your portfolio. While this simple method may sound great in concept, in practice there are numerous shortfalls.



A central issue with this approach stems from the inability to predict our future behavior. We are ill-equipped to anticipate our thoughts, feelings, and reactions in any other situation beyond what we are currently experiencing or what we have experienced in recent history (for further reading on the topic, see the <u>FAM Explorations piece from Q3 2021 about Biases</u>). Let's say, for example, I'm asked how I would react to a 20%+ decline in markets. My answer would likely be that I would A) not reduce the risk level of my portfolio, and B) add money to portfolio to capitalize on the downturn and invest at lower prices. In reality though, it is much more difficult to follow through with these decisions while living through the tumultuous, uncertain, and sometimes anxiety ridden experience of watching markets drop sharply. This is on top of living with the scary events and associated news cycle that are causing the drop. We instinctively cling to the belief that we know ourselves well enough to accurately predict our behavior in situations yet to occur. The truth, however, is that it is exceptionally difficult to know how we will behave until those scenarios come to fruition. To quote Mike Tyson, "Everyone has a plan 'til they get punched in the mouth."

This problem is further exacerbated by our tendency to misperceive risk. Our interpretation of risk is often shaped by the most recent market events, whether positive or negative, and can result in either over or under estimation.



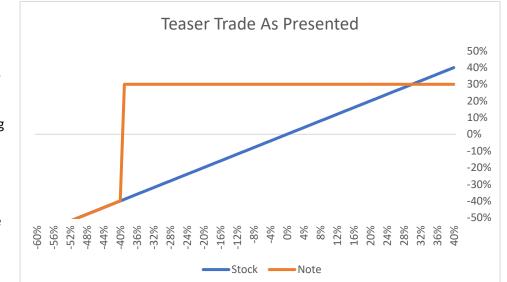
Despite these shortfalls, let's assume the risk score is an accurate representation of your risk tolerance as it stands today. We now face another issue – your risk score is a static measure. Over the course of time the world around us experiences an infinite number of changes. Equally as important is the fact that we, too, are constantly changing – our perspectives, emotions, financial circumstances are all dynamic. Thus, it is very unlikely that a risk score which reflects only a single moment in time will ever be representative beyond the immediate future.

In summary, this approach to risk assessment asks us to operate in a capacity for which we simply aren't built. We have an underwhelming ability to predict our future behavior, our perception of risk is easily skewed, and we exist in a constant state of change. So how then should we approach the task of determining the appropriate level of risk? I don't believe there is a magic bullet, and I don't think it's a simple answer.

The assessment of risk is best structured as an ongoing discussion. It is something which should be addressed on a recurring basis so that as the world changes, and as your perspective changes, your portfolio, and the risk it carries adjusts accordingly. While quantitative elements like those used to determine a "risk score" can serve a useful purpose, they shouldn't comprise the entire process.

A mathematician would likely struggle to paint a masterpiece rivaling the works of artists like Van Gogh or Monet using only their quantitative skillset. Conversely, it would be incredibly difficult to solve complex theoretical physics problems using only the tools of a painter. Some problems – like assessing risk – are best solved with both art and science.

Teasing Investor's Proclivities



"30% Annual Yield tied to performance of APPLE / AMAZON / TESLA with **40%** downside protection offered by a major bulge bracket investment bank."

today. A "very attractive trade" gathering "tons of interest from RIAs." "30% yield paid out monthly." (That 30% is an annual rate, so 2.5% a month.²)

That is the header of an e-mail I received

The more popular products, especially among retail and a subset of advisors, include an enhanced teaser rate where your "only" downside is after a significant drop in the underlying stock – 30%, 40%, maybe even 50%. Investors typically have a real hard time assessing these products: the yield looks great, and the risk looks far off – until it occurs.

² Who is their compliance officer? To be fair to the bulge bracket firm that I do not name, this is a third party selling the product, but still....



The problem:

- If all stocks up: Receive 7.5% and product redeemed
- If any of the stock are down: Product continues, but risk has now increased (most likely dramatically) that you hit the downside
- High likelihood of capturing 7.5% or product coming under significant stress

The reality is that these products are not shams. But they are not half as good as they seem, and Wall Street take a rather large fee for the service of putting one in a seemingly straight forward exposure that in reality is quite complex when looking under the hood.

The bigger point, though, is that it is easy to attract someone looking for an enhanced yield into these products and I for one am skeptical that participants really understand the probabilities / risks of the strategies – it is a teaser. It's a sugar cube.

Should We Exit the Largest Asset Class on the Planet?

As inflation roils markets and the Fed raises rates in their attempt to bring the US back to a very specific 2% inflation rate, fixed income investments have taken a loss – depending on investment characteristics, significantly so. Fixed income is supposed to be the ballast for the portfolio. When markets are under pressure there is supposed to be a move to safety – good old US Government bonds. You would be down roughly 9.5% if you had invested in a basket of US treasuries with a duration of 7-10 years³.

Now my inbox is filled with the news that the 60/40 portfolio is dead. Fixed income is good no more. I do not remember getting this warning last year. Though to be fair, we would not pay much attention to it then, either.

The fixed income market is considerably larger than equity markets.

- Governments borrow money (no equity)
- Consumers borrow money (equity is frowned upon⁴)
 - OK, celebrities can raise equity (e.g., Elton John⁵)
- Companies borrow money and raise equity

Fixed income is also quite broad. There is short term, floating rate, consumer debt (e.g., credit card debt) and longer term, fixed rate consumer debt (e.g., mortgages). Even within a specific sector, like home loans, an investor can take on a very conservative or very risky exposure. Through the financial wizardry of Wall Street, one can take a conservative slice or more aggressive slice of the same loan – how is that for service!

⁵ Elton John signs with Universal 'for the rest of his career' | Reuters



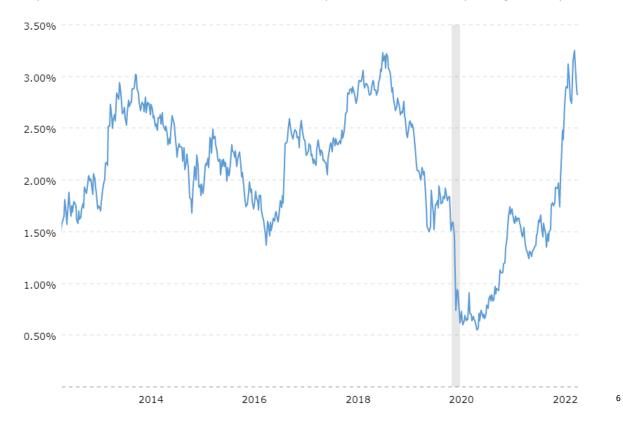
³ Based on IEF year to date performance through July 5, 2022. IEF is an ETF issued by iShares that seeks to provide exposure to 7-10 year Treasury Bonds. We do not use IEF in any of our models. If there is a position in IEF within an account we manage, it is purely incidental. We selected this ETF based on a Google search and solely to illustrate our point.

⁴ As an aside, once in a while there is an article on some concept of equity for consumers like offering college for free in exchange for some percent of future earnings – people really do not like this concept due to the gaming and moral issues involved.

The point is, that this is quite a significant part of the market to bias against. It is also quite a varied investment type that can provide all sorts of opportunities and risks. It should always be a portion of a well-diversified portfolio.

It should be a portion of a well-diversified portfolio not because it provides universal, continuous ballast to a portfolio – it does not – but because there are varied opportunities across the risk / reward spectrum that contribute to both diversification and the ability to best match a longer term planned market exposure.

But the knee jerk reaction may be to exit due to recent losses right when longer-term metrics are starting to look quite reasonable relative to both recent and longer-term fixed income market characteristics. Risk free rates are near highs for the last decade, while the spread over risk free rate for riskier fixed income products has widened quite significantly.



Of course, the reason for yields increasing is due to both inflation and the Fed's attempt to knock it into submission. Spreads are increasing for riskier investments due to the twin threats of inflation and recession. You do not get an increase of opportunity without an increase in risk; they go hand in hand.

⁶ <u>10 Year Treasury Rate - 54 Year Historical Chart | MacroTrends</u>





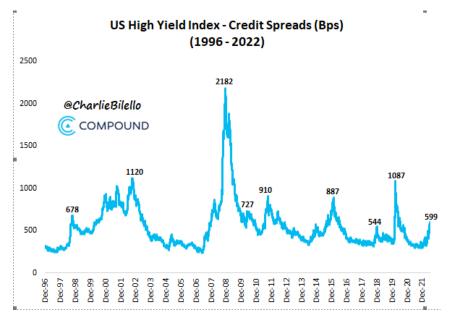
Interestingly, if I widened the historical view, perhaps we would decide that rates are actually quite low:

We need to wrestle with what is happening now with respect to current characteristics, vs what happened in near history and those characteristics, as well as what has happened over the long arc of history.

The same goes for when credit spreads may look reasonable. The chart to the right shows the spread over risk-free rates for high yield which gives a reasonable view of more vs less expensive levels in recent history.

On its own, though, the chart does not show the changing dynamics that lead to how companies are classified "high yield." Is a high yield spread of 600 today really equivalent to that of '98?

If we use basketball as an analogy, are the numbers today's players put up (points scored, assists, and so on) a fair comparison to players of past generations? Who is really better? Lebron James or Michael Jordan or....



⁷ 10 Year Treasury Rate - 54 Year Historical Chart | MacroTrends



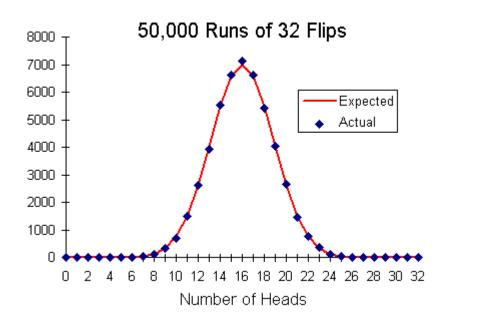


Comey and McCabe Audits: A Statistical, Not Political, Statement

The NY Times wrote an article titled "How Unlikely Is It that the Audits of Comey and McCabe Were a Coincidence? A Statistical Exploration."⁸ Ignoring any and all biases, it is an interesting article from the context of how one views events *after* they happen, as well as how problems are *framed* in the first place.

"If you flipped a coin 20 times, your specific sequence of heads and tails is extraordinarily rare, about one in a million, but it did happen. And *some* sequence of flips will always happen. It's a surprising coincidence only if that's the sequence you set out to get before flipping."⁹

It is definitely not our goal to figure out what *will* happen. But we are fully interested in the odds and seeing how we can stack them favorably, if possible.



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How do we define Mr. McCabe and Mr. Comey – not politically, but statistically? How do we frame the problem?

We are just backward fitting by lumping these two people together. What are their actual characteristics and how many other people have those same characteristics?

One frame may be well known Republicans who disagreed at some point with former president Donald Trump. The odds increase dramatically if that is the reading – perhaps somewhere between 0.1% and 1% (broadly speaking).

The bigger point is that the fact that it happened and has now been put in the 100% probability bucket in hindsight does not change the original probabilities about its likelihood. But sometimes it feels like it does!

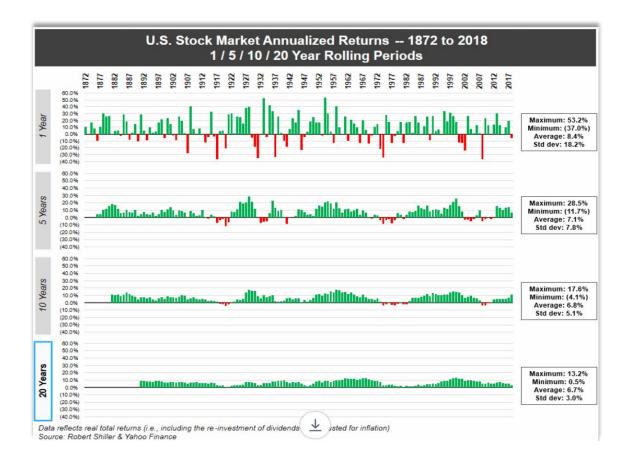
⁸ https://www.nytimes.com/2022/07/07/upshot/comey-mccabe-tax-audits.html?referringSource=articleShare
⁹ https://www.nytimes.com/2022/07/07/upshot/comey-mccabe-tax-audits.html?referringSource=articleShare
¹⁰ https://www.fourmilab.ch/rpkp/experiments/statistics.html



In Summary

The goal is to marry personal investing with professional investing; personal experiences with a non-emotional, goal-oriented approach. To contribute our expertise and analysis on both a personal planning context and an institutional level portfolio management context to your ride through life –past, present, and future.

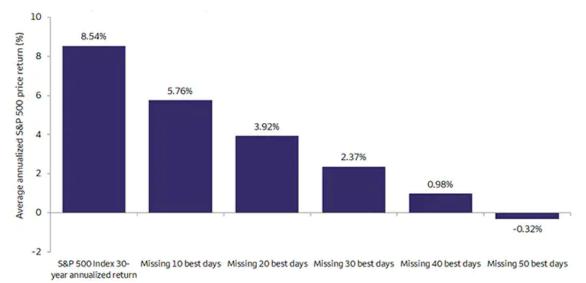
When it is really ugly out there, sometimes the instinct is to cut and run. But what is your timeframe? Here are some charts to look at that may help on those tough days:



Historically, long term investing has worked out. We believe one of the reasons for this is due to the long arc of innovation. Innovation brings true real wealth to the world. Walking – the wheel – harnessing animals for riding – bikes – trains – cars – planes.







Sources: Bloomberg and Wells Fargo Investment Institute. Daily data: September 16, 1991 through September 15, 2021 for the S&P 500 Index. Best days are calculated using daily returns. For illustrative purposes only. An index is unmanaged and not available for direct investment. A price index is not a total return index and does not include the reinvestment of dividends. **Past performance is no guarantee of future results.**

Timing is a fool's game – we simply do not know when that "best day" will come – which, as can be seen from the above chart, can seriously alter one's long-term returns.

Equity market bottom	GDP bottom	Days in between	Equity market return by the time that GDP bottomed	
3/31/2020	6/30/2020	91	20%	30%
2/28/2009	6/30/2009	122	25%	44%
10/31/1990	3/31/1991	151	23%	22%
7/31/1982	9/30/1982	61	12%	31%
9/30/1974	3/31/1975	182	31%	50%
12/31/1957	3/31/1958	90	5%	13%

And perhaps the most relevant for the moment.

By the time we are positive we are in a recession, the equity markets may have already moved on. Some market pundits already believe a mild recession is priced in. The takeaway is that the equity markets are known as a "leading indicator," which mean they are typically ahead in moving down before a recession, and likewise may already be moving up on the next positive cycle before it's clear the positive cycle has arrived.

IMPORTANT DISCLOSURE: The information contained in this report is informational and intended solely to provide educational content that we find relevant and interesting to clients of Fountainhead. All shared thought represents our opinions and is based on sources we believe to be reliable. Therefore, nothing in this letter should be construed as investment advice; we provide advice on an individualized basis only after understanding your own circumstances and needs.

