

## MicroCapClub Investor Transcript

### Morgan Housel

“What Other Industries Teach Us About Investing”

YouTube Presentation: <https://youtu.be/LXzr-Q6HyQ>

[MicroCap Leadership Summit](#)

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Morgan Housel:

Thanks, Ian. Thanks everyone for having me today. It's a great group to speak in front of today, and thanks to Shane and Brent for the presentations earlier. They really are really appreciated and well done. Shane reminding everyone that heroin has downsides, Brent reminding everyone that plying managers with alcohol is part of the diligence process. I appreciate ... We got some good insight this morning.

Let me start today with a story of two investors, neither of whom knew each other, but their paths kind of serendipitously crossed a few years ago. The first is a lady named Grace Grahner. Grace was born in 1909, just right outside of Chicago nearby. And she had kind of a hard life. She was orphaned as a child, she began her career in the bottom of the Great Depression. Finally found a career as a secretary, where she worked her entire life. Never married, never had kids, never learned how to drive a car. Lived almost her entire life in a one room house, not far from here.

By all accounts, she was a lovely lady, but lived kind of a sad life. And Grace Grahner died in 2010, she was 100 years old. And everyone who knew her was completely shocked to learn, when she died, that she had seven million dollars to her name, that she left all of it to charity, and that began kind of a search among the people who knew her, that said, "How does this humble secretary accumulate seven million dollars?" And her secret was, she really had no secret at all. She saved what little she could, she put it in the stock market, she let it compound for 80 years and that was it, end of story.

The second investor I want to talk about today is a guy named Richard. Save his last name, because you're not supposed to criticize people in public. Although I do a lot. Richard had almost the exact opposite background of Grace Grahner. Born into a wealthy family, went to the University of Chicago, got his MBA at Harvard Business School, went to work on Wall Street, worked his way up at some of the biggest investment firms, became the vice chairman of one of the largest investment banks and without exaggerating was one of the most powerful people in global finance.

The day after Grace Grahner died, Richard filed for personal bankruptcy. He told the bankruptcy judge that the financial crisis completely wiped him out, he had no more assets, no more income and he was fighting to save foreclosure on his house. And what's interesting about these stories, I think, is that in no other industry except finance are those stories possible. There's no other industry in which someone with no education, no background and no experience can vastly outperform someone with the best background, the best education, the best experience.

It's unthinkable that Grace Grahner could have performed heart surgery better than a Harvard-educated cardiologist, or built a skyscraper better than the best

construction company. It's completely unthinkable that that could ever happen, but it happens in investing. And what I think it shows is that investing is not necessarily about what you know, it's about how you behave. And behavior is hard to teach. It's not analytical, you can't sum it up very well, hard to measure, a lot of it is counterintuitive, and because of that you have some of the most important parts of investing, this topic of behavior, that gets kind of swept under the rug. Particularly, as we are taught investing in academia and in the professional setting.

So, what do we do about this? My friend Patrick, Patrick O'Shaughnessy, everyone knows, great podcast. Brent will frequently remind you that he has the most downloaded episode of Patrick's podcast. Good job, Brent. Patrick also has a book club that he shares with his friends. Patrick is a voracious reader. Shares a book club, shares book recommendations and whatnot. Sent around an email earlier this year and the title of the email was, "The Best Investing Books of 2016." Great. Can't wait to read the email, Patrick.

The first paragraph in the email said this, "Since it is more productive to read around one's field rather than in one's field, there are no investing books on this list." I thought, "What a great way to sum up, what an effective form of thinking." And I think this is a form of thinking that a lot of the world's greatest investors use, because investing is not really the study of finance. Or at least, that's just a small part of it. Investing's really the study of human behavior. And since it's the study of human behavior, it incorporates the lessons and rules from all kinds of different disciplines. Psychology and sociology, history, politics and math. Fields that we think of as separate standalone fields, but they all fall under the umbrella of, "How do people behave? How do people respond to incentives?" And that's what investing is.

And so, what I want to do today is share five stories, none of which have anything to do with investing, but I think you will see they all have a pretty clear investing takeaway that we can learn from. And the first story is, "What Nuclear Energy Teaches Us About Investing." The peaceful use of nuclear energy for nuclear power plants really started blossoming in the 1960s and 1970s and it's hard to exaggerate how big a deal this was, because nuclear energy promised to solve one of the biggest problems of human history, which was securing abundant energy that wasn't tied to your country's natural resources. So, this was a big deal, that most industrialized countries were moving towards in the 1960s and 70s.

And one of the countries that was pursuing that was Austria. 1974, the Austrian parliament came together and said, "We're ready for nuclear energy." And what they built was, this is called the Zwentendorf Nuclear Power Plant. It's about an hour outside of Vienna. Took three years to build, cost the equivalent of three billion dollars to build and when it was complete, it had the capacity to supply 15% of Austria's total power needs, which is massive for one plant.

Now, just before they turned the plant on in 1976, the Austrian parliament said, "You know what? We should start a public awareness campaign to teach Austrians what nuclear energy is, what the risks are and what we are doing to mitigate those risks." So, they began a series of town halls and newspaper editorials to teach people about nuclear energy and the idea was that they would make people feel more comfortable and more confident in this plan that was about to turn on in their back yard. Instead, the plan, these town halls and newspaper editorials, completely and utterly backfired and rather than making the Austrian people feel better about nuclear energy, it scared the hell out of them.

And there were so many protests around this time from the Austrian people about this nuclear power plant, that in 1977, Austria then held a referendum that simply said, "We have this power plant. Do you want to turn it on?" And the Austrian people voted "no." And that's held through this day. Zwentendorf has never produced a single watt of energy. It's used as a training facility now, for German engineers.

And what I think is fascinating about this is that at the same time this was going on, the United States and the UK and Germany and Sweden were all building and using, enthusiastically using, nuclear power plants. Japan, which understood the risk of nuclear energy better than anyone else, was enthusiastically building and using nuclear power plants. The Austrians had the same data, the same engineers as everyone else and they came together and said, "It's not worth the risk." At the same time, much of the world was saying, "It is worth the risk. We should do this."

And what I think it shows is that, when people think about risk, they don't necessarily do it in an analytical way. They do it in a cultural way. What you think is risky and how you think about the topic of risk is heavily influenced by the culture you live in, the generation you were born into. The values instilled in you by your parents. All of which are not only outside of your control, but differ vastly across all of us. And we want to think about risk as a force of nature that applies to everyone in the same way, and it is, but that's not how people actually think about risk in their own lives. Particularly, I would say, in investing.

This I want to show you, this is what US stocks did in your teens and 20s, young impressionable years, very important time in your life, when you're learning a foundation about how the stock market and the economy works based off of what year you were born. If you were born in 1970, in your teens and 20s, stocks went up about nine fold. That's real returns, including dividends. Great return. If you were born in 1950, stocks during your teens and 20s went nowhere, in real terms.

Now, I would ask you, just by looking at this, do you think these two generations took with them, for the rest of their lives, the same idea about how risk in the stock market works? Do you think they think about risk in similar terms, based off of this experience that they had earlier in their life? We'll see in a second,

but I'm pretty sure the answer's no. And this is just different years, based on what year you were born. It's a completely different experience for everyone that sticks with you for the rest of your life.

Now, this is true for inflation as well. This is average annual inflation in the United States in your 20s. For my parents, who kind of came of age in the 1970s and 80s, inflation averaged about 8% a year. For myself, in the 2000s, it averaged about 2% a year. For my grandparents, let's say around the time of the Great Depression, it was about negative 2% a year. In Germany, in the 1920s, inflation was one quadrillion percent. Some think it's more, but that's plenty of zeroes, you get the point.

And here I would ask, too, do you think these generations went through their life thinking the same thing about the risk of inflation? I don't think so, and one of the areas where we saw this was gold as an investment in the last decade was extremely with one demographic. It was baby boomers who came of age in the 70s and 80s, when inflation was really high. Most people from my generation couldn't understand what they were thinking about, because we haven't experienced inflation. So, you have people who have completely different views about what is happening in the investment world, not based off of better data, better models, better calculations, just different life experiences that were outside of their control.

Now, about 10 years ago, there was a group of researchers from Stanford University who crunched a bunch of data and they really wanted to see, analytically, how does this impact how people invest? And what they came up with, they said, if you grew up during the Great Depression, you are half as likely to invest in stocks, compared to those who grew up in the 1960s, at the same period of your life. If you grew up in the 1970s, you are a third as likely to invest in bonds later in life, compared to those who grew up in the 1950s. If you grew up in the 1980s, when the market was prospering, you are more likely to buy stocks, compared to those who grew up in the 1970s, when the market was pretty poor.

And their big summary from all this is, they said, "Our findings suggest that individual investors' willingness to bear risk depends on their personal history." Personal histories that are largely outside of your control, but influence how you think about the world.

About three years ago, when I was still working at the Motley Fool, we interviewed Daniel Kahneman. Of course, everyone knows here who Daniel Kahneman is, and we asked him about this. How does this, our individual experiences, how does that influence how we think about how the world works, going forward? And he had an interesting response, this is what he had to say.

If I have problems remembering the past and I'm fooling myself, how does that shape my view of the future?

Daniel Kahneman: The main mistake that people make, it's not so much in remembering the past, it's in thinking about the past. Whenever something happens and we feel we understand it, we're surprised occasionally, but by and large, the world makes a lot of sense to us. And it makes a lot of sense, because when things happen, we find their causes and it's okay. Except that, if you compare our ability to explain the past with our ability to forecast the future, the difference is really quite dramatic.

I mean, we explain the past with the greatest of ease and we're really crummy at forecasting the future. Hindsight, the ability to explain the past, gives us the illusion that the world is understandable. It gives us the illusion that the world makes sense, even when it doesn't make sense. That's a big deal in producing mistakes in many fields.

Morgan Housel: Later during this conversation, Kahneman mentioned that he was the most pessimistic person he had ever met. He said, no one is more pessimistic about life in general than he is. And I said, "Wow, that's interesting. Are you a pessimist because you have all these insights into human behavior and all the different mistakes and biases that we make?"

And he said, "No." He said, "I'm a pessimist because I grew up in Nazi-occupied France." And he said, "I saw from an early age how evil people can be."

And obviously, that's not an experience that I had. I doubt it's an experience that anyone in this room had, but that's his life experience and it's stuck with him and how he thinks about risk for the rest of his life. And maybe that's an extreme example, but I think we all have something like this. A unique life experience, whether that was the generation we were born into or some other experiences that influences how we think about markets and economies and investing for the rest of our lives, without realizing that it is a very unique and specific viewpoint specific to our lives that maybe doesn't have a bigger impact and influence on how markets work broadly.

So, we asked Kahneman what we can do about this, as in investors, as investors, and he had three ideas. The first one was, "Talk to as many people as you can." I think the great thing about an investment community is that's what we're doing. We're talking to different people, sharing ideas, hearing their inputs, rather than just sitting at home by ourselves and thinking about it through the filter of our own mind and nothing else.

His second point was, "Talk to people who you disagree with." Confirmation bias is, I think, one of the biggest devils in investing and everyone in this room knows what confirmation bias is. Every seasoned investor knows what it is. Very few people go out of their way to fight it, because it's hard to fight it. It's uncomfortable to fight it. But I think if you have a strong investment thesis, it is incumbent on you to understand the other side's view as well as they do. It's really difficult to do, particularly with something like money, that is emotional, it's impacting your own, personal life. To have someone argue against that and

tell you that you're wrong is not something that most people want to deal with. It's much more comfortable to only talk to people who agree with you and confirm your views. But if you can actively fight about that, fight it off, that's how you expand your horizons to see what else is out there in the world.

And number three, he said, "Talk to people who are in different emotional states than you are." This is really important, too. Money is emotional for everyone. It's impacting how you live, when and where you might retire, maybe your kids' education. It's very difficult, even for the most level-headed people, to truly think about it in an unemotional way. And if you have someone who is not tied to your personal life, not your spouse, not your brother, not your kids, who you can pass your investment ideas off of who can think about it just, with a little bit more equanimity than you can, it's a hugely valuable skill for everyone to have.

So, that's the first story. The second story I want to talk to you today, is what the war on cancer teaches us about investing. The war on cancer as we know it today, really took off in the 1970s. Richard Nixon signed the National Cancer Act, I think, in 1971 and there was a big burst of scientific optimism around this time. We just landed on the moon, we were making huge strides at wiping out a lot of the biggest scourges of the previous century, like polio, and it was really a time that we had this general idea in the country that if you put your heads together, you can solve the biggest problems.

So, we came together in the 1970s and we said, "It's time to solve cancer. It's time to cure cancer." Huge boost in funding and research around this time, and here's what's happened in the decades since, these are the age adjusted mortality rates. You can see, for virtually all of them, they're down and down by a lot, over time. Even lung cancer, which is one that's rising for most of this period is now declining.

So, we made huge strides in the war on cancer that has saved and extended tens of millions of lives. But about five years ago, the director of the National Cancer Institute, his name's Harold Varmus, gave a presentation at the annual meeting for the National Cancer Institute where he said, "The cancer community needs to confront an unfortunate truth, and that is, despite the progress that we've made in the war on cancer, we haven't been able to solve it like we once thought possible. To cure cancer in a way that we've eradicated or nearly eradicated diseases like polio and whatnot, it just hasn't happened with cancer. We've made big strides, but there's still a long way to go."

And what he said is that if we are honest with ourselves, we need to open up a new front in the war on cancer and that is prevention, because we know about half of cancers in the United States are tied in some way to diet or lifestyle. And he said, if you really wanted to improve these numbers even more, what we really need to do is focus more on prevention in the cancer community.

And what happened next, I think, is pretty interesting. And that's that it's very difficult for the medical community, the research community and politicians, to take cancer prevention very seriously. Hard to get funding for it, hard to get doctors excited about it. Now, there's a great documentary by Ken Burns on the war on cancer and in the documentary, he interviewed an MIT cancer researcher named Robert Weinberg, one of the top cancer researchers in the world, and Robert Weinberg had a really interesting comment about why it's so difficult to get the cancer community interested in cancer prevention. Here's what he had to say.

Robert Weinberg: If you don't get cancer, you're not going to die from it. And that's a simple truth that we sometimes overlook, because it's intellectually not very stimulating and exciting.

Persuading somebody to quit smoking is ultimately a behavioral, a psychological exercise. It has nothing to do with molecules and genes and cells and so, people like me are essentially uninterested in it, in spite of the fact that stopping people smoking will have vastly more effect on cancer mortality than anything I could help to do in my own lifetime.

Morgan Housel: This is interesting, right? You have one of the top cancer researchers in the world who's saying, "I could make a bigger impact by doing this, but it's not intellectually stimulating for me to do." And you could make the argument that people like Robert Weinberg should not be focusing on cancer prevention. He adds value in his own area and he adds a tremendous amount of value and that's what he should do, but there's a fundamental disconnect in the war on cancer and that is that treatments that are very effective but simple are not taken as seriously as other treatments that are complicated but substantially less effective. And that is also true in investing. There's so much evidence in investing that we tend to promote and put more emphasis on the techniques and strategies that are more complicated, based off the assumption that if it's more complicated, it must be more effective.

We effectively know how to succeed at investing, it's not terribly difficult. You spend less money than you make, you save the difference, you buy a diverse portfolio of great companies and you be patient. I mean, that's not even the distilled version, I truly think this is about 90% of what most people need to know in order to become successful investors. Do you think this is how investing is taught in school?

I have a college textbook, a college finance textbook left over. There's a chapter in the textbook called, "The Assessment of Confidence Limits of Selected Values of Complex-Valued Models." And it has that in there.

And I would say, you know, the left side of this table is the "Get some exercise and eat a healthy diet and quit smoking" side of the equation. It's very effective. We know it's effective. We know it's going to have a big impact on outcomes, but it's not very intellectually stimulating. Especially for the smartest

professionals to take that seriously. The right side of this is what is intellectually stimulating, and if you are a brilliant researcher, a brilliant finance PhD, this is what you want to spend your time doing. And good for you for wanting to do that, I'm not criticizing that, but we know it's going to have less impact on peoples' investment outcomes than what is simple but discounted.

This I want to show you, this is Warren Buffet's office on Omaha, Nebraska. He's worked in this office for, I think, 60 years, something like that. There's a picture of his dad behind him, there's a filing bucket on the top of his desk. I don't know if you can see it, but it says, "Too hard," on it. It's his too hard bucket, when he puts stuff in there and it comes across as too hard. But I think what's interesting about this is what's not in there. There's no Bloomberg terminals, there's no TVs, there's no analysts sitting behind him. There's not a lot of information, it's as simple as it could possibly get, where he can sit down and read about companies and make his decisions right there.

This is the mortgage trading desk at Lehman Brothers right before they went bankrupt in 2008. Guy has eight monitors in front of him. Poor guy next to him only has three. Probably has no idea what's going on in the world.

I'd say, if you are getting into finance out of school, what looks more intellectually stimulating to you? This or this? If you're trying to prove value for your clients, what do you want to show them? This or this? Brent and I were talking about this last night, about an investment firm that he knows that he went to visit and they had a team of PhD researchers, and kind of inquiring about what the researchers do and, effectively, the answer is, "They're here for marketing." They don't really do that much. They're doing the research, but if we have them on our team, it looks great to show people. And I think ... That's an extreme example, maybe it was exaggerated, we had a lot of wine last night. But I think that happens in the investing world, where there is just so much emphasis on what looks complicated versus what we know works, even if it's simple.

You know, talking about Warren Buffett and Berkshire Hathaway, there's a 30 year period where the average private equity fund did about 14% a year, Berkshire did about, let's say, 19% a year. So, this is Berkshire's out performance, something like 5% a year over the average private equity fund over this 30 year period. I think it was 1980 to 2010, is I'm pretty sure the period was.

Now, there are 2,200 books on Amazon devoted to Warren Buffett and what he's done, picking apart how he values companies, how he sizes up management, how he thinks about the economy and going to ... Grand strategies and whatnot. But here's something that I want you to think about. The average private equity fund, of course, charges two and 20 as a fee structure. Berkshire effectively charges no fees. Buffett's salary is \$100,000 a year, which I calculate is what Berkshire makes every nine and a half seconds.

Just that one fact alone, the average private equity firm is charging two and 20 and Berkshire's charging, effectively, no fees, over time equates to about four percentage points of out performance, over their competitors. Now, you could say, "You shouldn't compare Berkshire to the average private equity fund, differences in size, holding period," you can poke holes into this, but I have never once seen, in any of the 2,200 books that are written on Buffett or anything else that I've read on Buffett, anyone point out how big of a difference or how much of his out performance over time is made up by fees. And this is especially true when, during Buffett's partnership days, he was charging, I think, a 25% carry. So, he did have that back in the day when he was out performing by lots. This is not to criticize Buffett at all, but in recent decades, how much of his out performance is just fees? It's a tremendous amount and I think everyone analyzing Buffett's performance tends to overlook that, because it's not very intellectually stimulating.

This is not whatsoever to say that Buffett's not talented, that I'm disparaging any of his other skills, investing in moats and long term investing. I think that we, as investors, analyzing how he's done it, tend to overlook the simple factors that do make up a big part of what he's done.

Munger, several years ago was asked by a journalist, "If what Berkshire has done is so simple, why haven't more people copied it?" And it was a question asked in kind of a probing way, like, "Haha, got you, if it's so simple, [inaudible as you say, more people would do it." And Munger answered, he said, "More investors don't copy our model because our model is too simple. Most people believe you can't be an expert if it's too simple."

Later in the conversation, he said, "How did Berkshire's track record happen? If you were an observer, you'd see that Warren did most of it by sitting on his ass and thinking." Reading, excuse me.

One of my favorite examples of this is Harry Markowitz, who won the Nobel Prize for creating the capital asset pricing model, a model that shows you how much of your assets you should have versus stocks versus bonds and other assets, based off of risk and risk tolerance and whatnot. Very mathematically complicated formula, won him the Nobel Prize in economics. Just last year, the New York Times interviewed Harry Markowitz and they said, "Mister Markowitz, you have ... You won the Nobel Prize for CAPM, how do you invest your own money?"

And Harry Markowitz said, "I visualized my grief if the stock market went way up and I wasn't in it. Or if it went way down and I was completely in it. So, I split my contributions 50/50 between stocks and bonds." This is the guy who won the Nobel Prize for CAPM and for his own money he went, "Nah, that's not ..." And to me, this is as close as you can come to an admission that things like CAPM were done because it was intellectually stimulating. Did it have that much relevance into how people actually invest? Maybe, I don't want to disparage it

too much. But what really works for people and their own money tend to be the most simple strategies.

And why I think that's important for this group is most of us in here are sophisticated if not professional investors, is I think that the more education that you have, the more likelier you are to discount the simple techniques, even when we know the simple techniques are going to make the biggest difference over time.

So, to sum this up, I think my advice from all this is take a simple idea and take it seriously. I think that's the best investment advice that anyone can give, particularly as you become more advanced and more successful in your investment career.

The third story I want to talk about today is, What Terrorism Teaches Us About Investing. Something pretty obviously happened right after 9/11, and that's Americans stopped flying as much as they were before. Flying in 2002 declined about 30% over 2001, pre-9/11, which has devastated the industry. Huge drop in air traffic in the years after 9/11. What's interesting is what they didn't do during this time. Even though they weren't flying as much, they didn't stop traveling. Miles driven by car in the United States surged after 9/11.

This is the year over year change in vehicle miles traveled in the United States. That's 9/11 right there. A big, statistically significant increase in driving after 9/11. And what's interesting around this time is, there was a recession in the United States around this time. Normally in a recession, miles driven by car decline, because people go on fewer vacations, fewer trips to restaurants and whatnot. But during this time, in 2002, when the economy's weak, miles driven by car surged, which was a good indication that people were driving more because they were flying less. People who otherwise would have been on airplanes were now saying, "Airplanes are too dangerous, too risky with terrorism, I'm going to drive instead."

Now, as this was happening, there was a researcher in Germany named Gerd Gigerenzer, who was looking at this and he said, he understood that something pretty tragic was going to come from this, and that's because driving is orders of magnitude more dangerous and more deadly than flying. More Americans die every 11 days in car accidents than have died in the past 35 years combined in commercial aviation accidents, including 9/11.

So, what Gerd Gigerenzer said is, if we have a big uptick in miles driven by car, we should expect a big uptick in auto fatalities. And it took a few years for the data to come out, but when the data did come out, I think it was 2004, he crunched the numbers. He showed, these are motor vehicle fatalities, the red line is 9/11. Based off of trend from previous years, so the increase or decrease above the trend that we should expect, and he calculated that there was a pretty large and statistically significant increase in auto fatalities after 9/11. So much so that Gerd Gigerenzer said, and this is based off of averages, it's not

precise, but it is likely that more Americans died in 2002 trying to avoid terrorist attacks than died in 2001 from terrorist attacks.

And what Gerd Gigerenzer said is, there are two types of risk. There is direct risk, which in this case is the actual terrorism, and then there is indirect risk, which is when our behaviors and actions to respond to that risk backfire on us and it's hard to wrap your head around the idea that we can take actions that we think are making ourselves safer but is actually injecting more risk into our life, but we see it all the time in investing.

I just want to show you, these are the average annual returns, 94 to 2014, stocks in America did about 9% a year, bonds did about 6% and the average investor during this period did something like 4% a year, during a period when inflation was something like two and a half percent a year. So, you have a 20 year period where markets in general do quite well, produce big returns, and the average investor doesn't. And a lot of focus and energy has gone into why this happens. Some of it is fees or some other factors that go into it, but what we know by far, the bigger cause from this is poor behavior based on how people respond to volatility in the market.

This sketch from Carl Richards of the New York Times, I think, is one of the best investment sketches ever made. Greed high and fear sell and repeat until broke.

You know, I think where a lot of this comes from is just how we think about volatility in the stock market in general. This is the S&P500 during about the last 60 years, and this is really the picture of success in America. The last 60 years in America, despite recessions and financial crisis have been incredibly prosperous, probably the most prosperous 60 year period in the history of the world. So, this is the picture of success. The S&P, I think, we up about 200 fold during this period, including dividends. This is about as good as it gets. And if we can repeat this over the next 60 years, great for us, that's about the best outcome that we could wish for.

This I want to show you, this is the periods when the market was in a 5% drawdown from its previous high. That's when it's in a 10% drawdown. And that's when it's a 20% or more drawdown. So, you start with the picture of success and then you layer on the nuance of what happened in-between and you get a totally different picture. And even when investors go into investing, knowing the history of the stock market and the wealth that it's generated, at every point in these times, particularly at a 10 or 20% drawdown, you have a large legion of investors that say, "This is wrong, this is broken and I need to make myself safer and get out." And really important, they do that with the mindset that they are making themselves safer. They're making their families money, their retirement money, their kids' college money, they're injecting safety into their life. Without realizing what they're almost certainly doing is reducing their long term returns, which is one of the biggest risks that they can take as an investor.

And I think if you study the history of the stock market, volatility is not the risk. Volatility is par for the course in investing. And in fact, the reason that market's produced high returns over time, have historically, is because of volatility. That's the cost of admission that it demands that you pay. But that's just not how people look at it. They're always trying to view it as something is wrong and I need to make myself safer.

This is even more true for individual stocks. The top performing stock in the last 20 years is Monster Beverage. It's up about 211,000%. The chart is in scale, but it's just been an incredible beast over the last 20 years.

This, I want to show you, are drawdowns over the same period, over 20 years. I mean, you had a half dozen 50% drawdowns, one 70% drawdowns, countless 30% drawdowns. So, how many people do you think actually were able to withstand the volatility of Monster Beverage over the last 20 years? During the period where it was up 200,000%, this is what you had to pay for for getting it. And a lot of people just don't want to pay that price. It seems too risky and they try to cling towards safety without realizing that this is the cost of admission for returns.

And so, to summarize this, one of my favorite quotes is Eisenhower's definition of a military genius. Someone that's asking him, he said, "A military genius is the man who can do the average thing when everyone else around him is losing his mind." And I think that's so true in investing. You don't need to make a lot of great decisions in investing, you just have to not screw up when it matters most and take actions that you think are going to help you but that are actually breaking your long term strategy that's going to keep you on course.

The fourth story I want to talk about today is What Politics Teaches Us About Investing. The State of the Union address every January, I think is a really interesting event, because the president's job, no matter who the president is, is to really pander to the mood of the day. And most presidents are pretty good at doing that, that's what they want to do, is how are Americans feeling? Obviously, you want to rub that in their face. For better or worse, that's what they do. And also, what's great about the State of the Union is that they're done in a standard format, they're all archived in the same area, so you can go back and, I think, watching these gives a really good glimpse about what people were thinking at that period in time. How people felt, what the mood of the country was at that period in time.

So, this is what Bill Clinton said, January of 2000, this is from his State of the Union address.

Bill Clinton:

We began the new century with over 20 million new jobs. The fastest economic growth in more than 30 years. The lowest unemployment rates in 30 years. The lowest poverty rates in 20 years. The lowest African American and Hispanic unemployment rates on record. The first back to back surpluses in 42 years, and

next month, America will achieve the longest period of economic growth in our entire history.

Morgan Housel: 10 weeks after this, the stock market peaks and then began to fall about 50%. And I think what's interesting about this is that none of that was hyperbole. The whole economy was great in the year 2000 and when we think about the dot com bubble and how crazy things were, it's easy to frame it today as everyone was just out of their mind and it was irrational, but there was a lot of tangible, concrete things in the economy in the year 2000, pointed towards things going really well. Unemployment, wage growth, growth, poverty, and if you want to think about the market intuitively, a lot of people looked at that and said, "This is why the market is doing what it's doing. This is why stocks have done so well, because the economy is great and that makes sense." And that's how they justified stock prices at the time.

This I want to show you, this is what President Obama said, January of 2010.

Barack Obama: 1 in 10 Americans still cannot find work. Many businesses have shuttered, home values have declined, small towns and rural communities have been hit especially hard. And for those who'd already known poverty, life's become that much harder.

Morgan Housel: I mean that, too, wasn't hyperbole. The economy was a mess during that time. High unemployment, low or negative wage growth, and if you were thinking about the stock market rationally, you had these tangible, concrete things to hold on to that would say, "This is why I shouldn't be investing at the time." It wasn't based off of feelings or pessimism, it was tangible and concrete. "The economy is a mess, why do I want to be a holder of equities?" Of course, everyone knows what's happened since then. The market's up 170% during that period.

And I just bring this up to make the point that there is so much evidence that the way we think the market should work in theory is just vastly different from how it actually works in practice. A few years ago, there was a group of researchers that looked at a bunch of economic and financial variables that we can calculate today and they calculate it and say, "How do those variables correlate to what the market does over the next five years?" So, they crunched a bunch of variables, GDP growth, profit margins, interest rates and so on, dividend yields, and say, "How does that correlate to future market returns five years hence?" And you have things like the PE ratio and evaluations that do an okay job explaining returns over the next five years, but still a minority of returns.

But then you have all these variables on the right side here. GDP growth, earnings growth, corporate profit margins, that have literally zero correlation to what the market is going to do over the next five years. Effectively none. One of the researchers got clever and they included rainfall in the category. That's what it sounds like, it's actually ... It's average nationwide rainfall. It explains more of

market returns than things like GDP growth and earnings growth over time. They both explain roughly nothing.

And what this does to us as investors is it just makes the market incredibly hard to forecast, when how it actually behaves in practice is different than how we think it should work in theory it makes it very difficult to forecast what's going to happen next.

Barron's, November of 2009, they put out an article, they said, "The Easy Money Has Been Made." Everyone knows what this saying means. It means the market returns up until this point have been obvious, everyone could've seen them coming, but going forward it's going to get much more difficult.

One year later, Morningstar, December 2010. They said, "The Easy Money's Been Made." Market kept rallying of course. One year later, MarketWatch, they said, "The easy money has already been made." There's like six more of these. It just keeps going. I actually have, I think, 29 of these. I should include all of them in the next presentation.

You know, when you think about forecasting investing, there's actually a very simple formula that everyone can use to know exactly what the stock market's going to do in the future. All you need to know is, the dividend yield, plus earnings growth, plus or minus the change in valuations. If you know those three variables, you know exactly what the stock market is going to do next. Ben Graham was actually one of the first ones to talk about this formula.

The dividend yield is pretty easy to know. We know what the current dividend yield is. We can make a very reasonable assumption of what the future dividend yield is going to be based off of the equities that we own. Something like earnings growth, a little bit more difficult, but we can still make a pretty good, educated guess about what future earnings growth is going to be, particularly across a diversified portfolio.

Plus or minus the change in valuation? Who the hell knows. What the change in valuations is in the future is basically the change in how people feel. It's the change in people's moods and how could we ever know that? If I sat here and I said the S&P500 is going to be up 10% in the next three years, people might say, "That seems reasonable. He's an analyst, he did his analysis, that's what he came to." If I sat here and I said, "In the next three years, US investors are going to be in 10.2% better mood." You would say, "Well, how do you know that? There's no way you can know that." And I think that is fundamentally why markets are so difficult to predict. It's this last part of the equation that's always going to be difficult to predict, because it's based off of human behavior. It's not analytical, it's hard to measure and it's just based off the mood of the day.

And so, this kind of bothered me for a long time as an investor, that if we are making forward looking decisions and predictions, how do we operate as

investors if, as someone like myself believes, it's so difficult to predict what's going to happen next? And I came across a great quote from Ben Graham that I love. He says, "The purpose of the margin of safety is to render the forecast unnecessary." And I think that just sums up so much of what good investing is, that if you have a margin of safety not just in your portfolio but in your career, with your friends, with how much cash you hold on the side, flexibility in your career, flexibility in your time horizon, that's how you can forego making the predictions that are so difficult to make.

And finally today, the last story I want to talk about, What the Wright Brothers Teach Us About Investing. Everyone knows what this picture is. This is the first second of the first flight in human history. The Wright Brothers, down in Kitty hawk, December 17th, 1903. And it's hard to over-emphasize how big a deal this was, because the airplane changed everything. If you had to make a list of the most important inventions of the 20th century, or let's say even the last two or three hundred years, the airplane would probably be in the top five, maybe even number one, I would say, because the airplane changed how we think about wars. It started world wars, it ended world wars, it changed politics, it changed commerce, it changed transportation. There's almost no part of the world that was not vastly affected by the airplane and this is where it all began, at this second.

And what's interesting about the airplane, too, is that anyone watching this without any scientific background knows how amazing this is. There's a man flying through the air. You could be a five year old kid and you instantly know that that's amazing. Versus something like mapping the genome, where you kind of have to have a scientific background to grasp what that even means. This was apparent to everybody. So, you can imagine how big a deal this was, when the Wright Brothers finally flew. Everyone came together and said, "This is amazing, man has conquered human flight, this is going to change history." You could imagine how wild the press went at this moment.

Except, that's not really what happened at all. This is the New York Times on the day that the Wright Brothers first flew. Small print but you can take my word for it, there's not a single mention of the Wright Brothers anywhere. The next day, December 18th, no mention. 19th and the 20th and the 21st and the 22nd, no mention whatsoever of the Wright Brothers. By December 22nd, the Wright Brothers had completed, I think, 19 flights, one of which lasted for 59 seconds which, for what they were doing, was absolutely incredible. No mention whatsoever.

I dug these up from the Library of Congress in Washington, DC, and as I was looking for them I found something that I think is even more interesting and that's in the New York Times, two years after the Wright Brothers' first flight, two years after, they interviewed a German hot air balloon tycoon. During the time, hot air balloon flying was very popular, during this era. And they asked him, they said, "Do you think humans will ever fly in airplanes?" They called them flying machines back then, they said, "Do you think we will ever master

the flying machine?" And this is what he said in the New York Times, he said, "In the very, very, very, very far future, there may be flying machines, but not now, not now."

This is two years after the Wright Brothers were flying and what I think is so fascinating about the Wright Brothers story that now, in hindsight, we know is one of the biggest scientific achievements ever is that people just didn't pay attention at the time. There was, in fact, one newspaper that covered the Wright Brothers' story, it was the Dayton Herald. The Wright Brothers were from Dayton, Ohio. They covered it at the time and I just love how it's framed. "Dayton Boys Solve Problem," like they won a science fair or something. A couple kids tinkering around in the back yard.

Even more interesting, the editor of the Dayton Herald, his name was Luther Beard. Years later, they asked him, they said, "Luther Beard, you were the only journalist to cover the story. Why did you cover it?" And he gave, I think, such a fascinating response. He said, "I used to chat with them," the Wright Brothers, "in a friendly way because I sort of felt sorry for them. They seemed like well-meaning, decent enough young men, yet there they were wasting their time day after day on that ridiculous flying machine."

So, the only journalist to cover the Wright Brothers did it out of sympathy. When they left Kittyhawk, they went back to Dayton, Ohio, and this is where they really mastered flying. They mastered the two most difficult parts of flying, which was turning and landing, and the Wright Brothers really mastered this in Dayton. And Dayton, at the time, was a pretty populated area and they were flying around town, where everyone could watch them.

David McCullough, in his biography of the Wright Brothers, talks about this period when they went back to Dayton. He says, "Not one reporter bothered to attend during this time. Nor did public interest increase. With few exceptions, there seemed to be no public interest at all, no local excitement or curiosity or sense of wonder over the miraculous thing happening right in Dayton's own backyard."

And of course, in due time, the Wright Brothers got what was owed to them. People caught on. But it took years. Not weeks or months, it literally took five to seven years before people were really catching on to what they were doing. And to me, the most fascinating story about the Wright Brothers is that they were not the best engineers. They didn't have the most amount of money. In fact, of all the groups that were trying to build a plane at all, they were probably the least qualified and the poorest of the ones doing this.

The reason that they succeeded is because they had the most patience. They were just willing to grit it out for longer, both in building the plane and after they'd built it before they got attention. I think most people in this situation that this was happening, probably would've effectively given up. This was their dream and they finally built it and people just thought it was a dumb little toy

that they were building. But The Wright Brothers just kept plugging away at it, and when we think about entrepreneurialism and invention, we think about traits like creativity and ingenuity, but we often don't think about traits like patience and long-term thinking, but it is absolutely integral to anything that you do, because no matter how much book knowledge that you have, if it's not coupled with an appropriate amount of patience and long term thinking, you're not going to get very far.

And really, to sum all this up, what I think from the Wright Brothers' story is that when innovation is measured generationally, results shouldn't be measured quarterly. One of my favorite investing stories was the CEO of BlackRock, his name is passing me, someone shout it out so I don't want to embarrass myself.

Audience: Larry Fink.

Morgan Housel: Larry Fink, thank you. Larry Fink was having lunch with the CEO was one of the largest sovereign wealth funds and the CEO of the sovereign wealth fund said, "Our goal as investors is to think generationally. We're not thinking about this quarter or next year or even the next 10 years, we're thinking about the next generation and the generation after that." And Larry Fink said, "Great, how do you measure returns?" And the CEO said, "Monthly."

And I think there's just so much disconnect between people who want to be long term thinkers and what long term thinking really means in investing. And I think what it really means in investing is not months or years, it's decades or multiple decades. This I want to show you, this is the SMP500, total real returns. What is the maximum and minimum annual returns you could've held that you could've earned during this period since 1871, based on different holding periods? What's the most and least you could've earned annualized, based on one year, two year, five year, 10 year holding periods?

And you can see, it slips down pretty perfectly over time. If you're holding stocks for one or two or five years, you might do really well on an annual basis, you might do pretty poor. This is just the SMP500, just broadly held without any tactics in it. But I think what's interesting about this, this chart, is that it's not until you hold stocks for 10 or 20 or 30 years that the odds of success have truly fallen in your favor, to where the odds that you will gain money, any money on a real annual basis, are strongly in your favor. It takes 10 or 20 years. Versus, I meet so many investors who think they're long term investors and they're talking about one or two or maybe five years. And historically, you're still in the flipping the dice mode in that zone.

And so, when you're talking about something like long term investing and patience, it's something that everyone in this room knows. This is not insightful for many people. But I hope what this does is just resets your expectations of what long term is. It's not a year, it's 10 or 20 years. And I think one of the biggest mistakes that investors make is they say, "I don't have 20 years, I need to own stocks for the next two or three or five years." And they try to come up

with tactics around that. But the market doesn't care how much time you have. I think it's really, it's truly a long term game based off of decades. And if you don't have that, that's the cause of a lot of bad experiences in the stock market.

And so, to wrap this up today, I think I've been pretty abusive with my time here. To wrap this up, I think if there is something that underlines all of these stories today, it's that the biggest risk to you as investor is yourself and your own biases, your own misconceptions, your own behaviors that impact your returns as an investor. When people talk about risk, they talk about, what is the economy doing? What is the Fed going to do? What is the CEO of the company I own going to do? And those are all risks. I think they absolutely compare to the risks that you yourself pose to yourself as an investor.

And for some people, that's kind of a difficult realization, to know that you are maybe taking all these actions that hurt yourself. To me, I think it's one of the most optimistic realizations in investing, because you can't control what the economy's going to do next. You can't control what the Fed is going to do next. The only thing you can control in investing is your own behaviors. And when you realize that the one thing you can control is the thing that makes the biggest difference over time that, I think, is a pretty optimistic realization.

So, I want to end today with a quote from an investor named Bill Bonner. He says, "People don't get what they want or what they expect from markets, they get what they deserve." Thanks very much.