Demetri Kofinas: 00:00:00 Today's episode of Hidden Forces is made possible by listeners like you. For more information about this week's episode or for easy access to related programming, visit our website at HiddenForces.io and subscribe to our free email list. If you listen to the show on your Apple podcast app, remember you can give us a review. Each review helps more people find the show and join our amazing community. With that, please enjoy this week's episode.

Demetri Kofinas: 00:00:31 What's up everybody? I'm Demetri Kofinas and you're listening to Hidden Forces where each week I speak with experts in the fields of technology, science, finance and culture to help you gain the tools to better navigate an increasingly complex world, so that you're less surprised by tomorrow and better able to predict what happens next.

Demetri Kofinas: 00:00:54 My guest this week is Daniel Peris, a senior portfolio manager at Federated Investors in Pittsburgh where he oversees the firm's dividend focused products. He is the author of three books on investing, most recently Getting Back to Business: Why Modern Portfolio Theory fails investors and how you can bring common sense to your portfolio. Before transitioning into asset management, Peris was a historian focused on modern Russian history. He is the author of a book and several articles on the Soviet Union in the 1920s and 1930s. Today's conversation hits on two of my favorite topics: financial theory and financial history. In fact, the conversation is about the evolution of financial theory beginning with the rough and tumble world of the 19th century with its stock syndicates, market corners and curb exchanges, where big personalities like Daniel Drew, James Fisk and Jay Gould conspired and fought to take from Joe Public and from each other, the riches afforded by laissez faire capitalism and the industrial revolution.

Demetri Kofinas: 00:02:05 The conversation is broken into two parts. The world as it was before 1929 with its unregulated, unstructured and highly inefficient markets and after, where a confluence of forces, economic, demographic, institutional, and intellectual supported the procurement and distribution of a new set of financial theories that promised to explain away uncertainty and guide the allocation of risk in the pursuit of profit. How these theories came together to form the dominant ideological template of risk adjusted return measured against exposure to the broader market is the essence of today's conversation. It's significance can be found in the implications of equating diversification with correlation. Trading idiosyncratic risk for systemic risk and what happens when everyone is doing it. And with that, let's get right in to this week's episode.

Demetri Kofinas: 00:03:10 Daniel Peris, welcome to Hidden Forces.

Daniel Peris: 00:03:12 Thank you Demetri, happy to be here.

Demetri Kofinas: 00:03:14 It's great having you on the program. I wasn't going to ask you about this but I think we're going to have a good amount of time to go through this episode which I'm extremely excited about. For those who can guess it from the title, this is going to be an exploration of financial theory beginning with the qualitative universe that existed before the crash of 1929 and the inter war period. Then the quantification of that that happened afterwards with MPT and a lot of these other theories that became adopted and integrated into financial frameworks. But, why don't we start with your background. First of all, what do you do now? Just give us a general sense of what you do now and your academic background and how those things all work.

Daniel Peris: 00:04:01 Thank you Demetri. It's sort of an odd history, and I can't imagine or say that it was forecast to work out this way but I started out as a historian of the Soviet Union. I was trained in the late Reagan Cold War era of the 1980s fully expecting perhaps to become a diplomat or an academic. I got a PhD in Russian history, early Soviet history and then Russia collapsed, the Cold War collapsed, funding collapsed, enrollments collapsed, the world moved on to other areas and I made a decision to leave academia and go into business. I brought with me some competency in writing and research and through a series of jobs and unforeseen developments, I ended up doing financial research. One thing led to another and after a few years I had a second career. I have been at Federated Investors in Pittsburgh for the last 16 years and I oversee the dividend complex of equity funds and portfolios institutional accounts there.

Demetri Kofinas: 00:04:55 Your background is in Russian history, did you just always a general interest in history?

Daniel Peris: 00:05:00 Yeah, I still really primarily identify as a historian who happens to work in the capital markets by day and in the strategy that we employ and the products that I oversee, it's fairly historically rich and historically argued in this book and two prior ones that, "Hey, this methodology makes a great deal of sense." It's interesting because I work in a field finance and investments which I would argue has almost no historical sensibility, very few people know where the rules came from. That's why I wrote the most recent book. Whether that the context or the history of those rules matters now, I argue that they do. I'd like

to think that being a historian ironically brings some sort of competitive advantage to being a business owner through the stock market.

Demetri Kofinas: 00:05:42 That's an interesting point: where the rules came from. I am also fascinated in the story of origins. I remember when I was a kid, I would look at door frames and say, "Well, where did those dimensions come from?" When I started looking into things, I realized that there was often a very good reason for why something existed but that it was no longer relevant. I think that this holds true in spades for economic theory and financial theory.

Daniel Peris: 00:06:07 I couldn't agree with you more, that is, we are operating with some financial theories that are now 50, 60, 70 years old, were very clever at the time that they were created, met a pressing need at the time that they were created which we'll get to, but they're not everlasting, forever, perfect, immutable. I think investors too often just quickly memorize the rules and assume someone else has checked them out and that they're good to go. It's not the case, the rules do change over time and they need to be looked at.

Demetri Kofinas: 00:06:35 Immutable. There is this sense, particularly with economic theories, I don't know if it holds ... the financial community innovates, I think, much better than academia and government but there is certainly in the economic field this sense that the rules are immutable and that, as I said to you before we started this interview, most people think of economies as phenomena that are independent of the political system within which they operate which is completely not true. But let's go back to the world before the crash of 1929.

Daniel Peris: 00:07:08 Yeah.

Demetri Kofinas: 00:07:08 This universe that I describe as qualitative because you do a great job in your book, you are a great historian and I love financial history. Actually, I want to ask you before you even start, what draws you in particular 'cause financial history is such a unique type of history. I'd love for you to tell me what you love about it and how it separates from other types of histories that you study.

Daniel Peris: 00:07:31 Well, in many ways, almost all forms of history are about human behavior. You can see collective human behavior. You can see individual human behavior. But, the great variety of human behavior, emotion, rationality and irrationality. Behavioral finance talks about too much maybe about irrationality and

modern finance talks too much about rational behavior but the fact is it's somewhere in between and the history of the markets is just so colorful from Dutch tulips to the English and exploration to Louis Bachelier figuring out the French Bourse in the 1890s through just tremendous human stories and as a historian, that appeals to me. Then I go to my day job and I look and there's been a tremendous effort the last three, four, five decades to completely eradicate the human element to investing even though these are people's hard earned retirement assets, a lifetime spent and it's just swallowed up in some sort of algorithm and that's really what I'm pushing back against that the history of finances is intrinsically interesting and I think it's relevant when pushed up against these models and formulas that are supposed to take the human element out of our life. We are not all Dr. Spocks, Mr. Spocks or Lieutenant Data's and I don't know that I would want to be in a world in which we all were.

Demetri Kofinas: 00:08:45 It's funny that Spock didn't have a PhD. It was actually Mr. Spock. Of all people, you'd imagine that he would have a PhD. That he'd have multiple PhDs! You made some great points, one of which is that the history of financial markets is the history of individuals. That was true, I don't know how true it is today. It was true on an epic scale ...

Daniel Peris: 00:09:04 Indeed.

Demetri Kofinas: 00:09:04 ... in that period. Some of the most amazing personalities Gould, Fisk, Vanderbilt in the early days, Livermore, all sorts of fantastic individuals with fantastic--

Daniel Peris: 00:09:15 Groucho Marx. Don't forget Groucho Marx, the book opens with a Groucho Marx anecdote. How bad can a book be if it opens with a Groucho Marx anecdote? He was very interested in the markets. David Sarnoff, the ...

Demetri Kofinas: 00:09:25 RCAs CEO.

Daniel Peris: 00:09:26 ... RCA. All sorts of very interesting characters and they are the Jeff Bezos's of the day and to some extent also the Bernie Madoffs, I have to say. You are correct that the theories, the mechanistic non-individual theories have taken over the last 30, 40 years but there's still room for personalities. I argue and human behavior in current investing and it just comes out in that historic investing but the point is, what was that period like? It was dominated by personalities and individuals. What was characteristic and important from our perspective is that it was largely ruleless period. It was chaotic. It was whatever goes.

Demetri Kofinas: 00:10:03 There were actually fist fights between people.

Daniel Peris: 00:10:05 There were multiple markets on street corners. Everything was very personal.

Demetri Kofinas: 00:10:09 The curb exchanges.

Daniel Peris: 00:10:11 The curb exchanges. The exchanges in each city and it was a subjective characteristic of the markets as opposed to the black boxes and the machines which we now take for the functioning of the markets. Again, there's nothing wrong with the black boxes and the machines, but I'm just pointing out that's not always been that way and there is a price to be paid in removing the human element from investing and the getting back to business element of individual judgment. Listen, the challenge of life for all of us is decision making under conditions of uncertainty. What do we do? Where do we go to school? What job do we take? Whom do we live with? What choices do we make? That's the nature of life and successes and failures of decision making is what characterizes us as human beings. We don't usually get everything right. If you get 51% right, you've probably had a good life. The modern environment has removed a lot of that in favor of algorithms. We'll see how well that works out.

Demetri Kofinas: 00:11:03 Mm-hmm (affirmative). The black box. Yeah. You mentioned the curb exchanges and the way that things were done, there's this great book that was published in 1992 called Land of Desire by William Leach. I've mentioned it before. It's a history of consumer capitalism and one of the things it discusses is the growth, the birth and the proliferation of the department stores and to remember that before the department stores, before the plate glass windows and the sets, people would go to open air markets and go through hangers of clothing. But, you mentioned Groucho Marx, another great historical anecdote, because it touches on the brokerages but the way the brokerage used to be, right? Today, people don't even have ... it's like Charles Schwab, it's like your brokerage should count as a piece of software but then they were very different. What was it like ... first of all, how did someone ... let's say I lived in Oyster Bay or I lived in Great Neck or somewhere and I had the money to invest and it was the 1920s, my neighbor was making some money and I said, "You know what honey, I think I'm a smart guy. I think I can make some money." How did I go from the desire to invest in the stock market to being invested?

Daniel Peris: 00:12:08 Yeah, so, entirely different landscape than today and there may be some analog, maybe it's the coffee shop, or you and I,

Demetri, were talking before this taping but there were 10,000 different brokerages. 10,000 different ticker tape machines and thousands of different brokerage offices around the country in the 1920s. They were social places, they had the plush leather couches. They had the teenagers writing the share prices in chalk on the board. They had everyone sitting around and kibbutzing and talking about what's going to go up and what's not going to go up and what the government policy will be and the gold this and the gold that in foreign relations and trade and it was a social place to be. It certainly wasn't an academic environment of a rules based system, it was again, interwoven into the culture.

Demetri Kofinas: 00:12:49 It was like a clubhouse.

Daniel Peris: 00:12:50 It was a clubhouse.

Demetri Kofinas: 00:12:51 With a ticker, though. You said the ticker tape.

Daniel Peris: 00:12:53 With a ticker tape machine.

Demetri Kofinas: 00:12:54 That's how people were able to figure out what the price of the market was. Actually the only way they could do it was to go to their broker and look at the ticker tape.

Daniel Peris: 00:13:01 Unless they wanted to wait until the next morning when it was printed in the newspaper. Many of older listeners will remember when newspapers published share prices, it wasn't that long ago, it's only a few decades ago. But, certainly when I was growing up, that's how you learned about the share price was by looking in the newspaper. But, if you wanted to learn the share price before the newspaper came out, either the evening edition again, newspapers had evening editions, or the next morning you would have to get your in your ticker tape machine.

Demetri Kofinas: 00:13:25 I remember Livermore talking about how he had ... he was extremely wealthy at his peak, before he finally lost it all for the final time. But, he had a boat, I don't remember what the name of his yacht was.

Daniel Peris: 00:13:38 Yeah, I don't recall. It's listed in the book, in the famous account of him.

Demetri Kofinas: 00:13:41 Yeah, in the Reminiscences of a Stock Operator.

Daniel Peris: 00:13:43 Yeah.

Demetri Kofinas: 00:13:44 Didn't he have some access to telegraph machines on or near the boat. I don't know how he would have it on the boat.

Daniel Peris: 00:13:48 Yeah. Cruise ships, the way to get across to Europe was on cruise or not a cruise ship but just a steam ship and they had through telegram systems, they also had ticker tape machines on the boats in some of them and you could --

Demetri Kofinas: 00:13:59 But how did they access the cable?

Daniel Peris: 00:14:01 Yeah, I don't know, it must've been early wireless somehow, I don't know exactly.

Demetri Kofinas: 00:14:04 Anyway, somehow, I remembered that Livermore had that or he ... I don't remember how it worked exactly but he was as connected to the markets as anyone could be. A great book, obviously. Before we continue and leave this period, I am curious if you have any particular favorite stories. I think my favorite of all is when James Fisk and Daniel Drew and Jay Gould tried to corner the Erie and screw Vanderbilt out of the Scarlet Lady and of course, the gold ring with Ulysses S. Grant's a great one because that was just the fact that a president was involved in this process of speculators trying to corner the gold market and screw the government. Do you have any favorite stories from the time?

Daniel Peris: 00:14:44 The RCA story, which is described in my account is a good example of the environment which is where a bunch of well-placed investors and market makers could manipulate the share price for their own benefit. It wasn't illegal and it wasn't that hard to do. There are many other stories in the lesser literature of the day that don't involve the Fisk's and the Gould's that are more anecdotal about particularly involving mining items, mining propositions, mining shares and if you read the literature of the time, there are lots of advertisements for, "Hey, if you buy these shares of this mine, everything's going to work out just fine."

Daniel Peris: 00:15:17 Again, the economy was more oriented towards extractive industries and there was much greater risk associated with those ventures and again, everything was not listed. There was no reporting, there was no regulation. Most companies did not make quarterly reports. Few made annual reports. You really had to take it on trust that what you were purchasing made sense. There was little to any visibility into corporate governance, into corporate activities and again, you were lucky to get an income statement or a balance sheet once a year. It was a real, ruleless period. Nevertheless, I think it's important to

point out, capital was raised. Railroads were built. Factories were built. Utilities raised funds. The infrastructure of an industrial society advanced. It was helter skelter, but it advanced. It's easy to just look back and say this period was without rules and therefore ... and full of scoundrels.

Demetri Kofinas: 00:16:06 A romantic time.

Daniel Peris: 00:16:07 But still a lot of things got done. It worked, after a fashion but it was truly ruleless to the extent there were rules as I make a point in the early chapters, they were tended to be on the equity side around the health of a company's dividend but that was one way to test the health of a company because you had very little additional information to work with.

Demetri Kofinas: 00:16:26 You mentioned RCA, you just mentioned a dividend. They didn't issue a dividend, right?

Daniel Peris: 00:16:29 Yeah.

Demetri Kofinas: 00:16:29 They were one of the early stocks that actually didn't.

Daniel Peris: 00:16:31 Well, it was a tech stock. As Groucho Marx said, "Shouldn't it pay a dividend if it's having a lot of success?" You can ask the same question of a number of currently very successful businesses and if they're that successful, why wouldn't they pay a dividend? Now, they have an answer for that. That answer is sufficiently compelling to most investors in the 1990s and aughts and the current decade that they don't actually need to pay a dividend. But Groucho's question was I think simple in its premise if it's a successful business, why wouldn't it have a cash distribution?

Demetri Kofinas: 00:17:01 Guess you'd call that the Groucho's Paradox.

Daniel Peris: 00:17:02 Yes, indeed.

Demetri Kofinas: 00:17:03 You should coin that. That's the Dividend Irrelevance Theory, right?

Daniel Peris: 00:17:06 Well, the Dividend Irrelevance Theory which ... RCA's approach and Groucho's questioning it becomes then indirectly, of course, a Miller and Modigliani academics of the 1960s weren't engaging in debates with Groucho Marx, but we'll get to that in a moment.

Demetri Kofinas: 00:17:20 We'll get to that. Before we get to that, I want to close off one more thing when we're in this past period 'cause you mentioned on it, you touched it, about the information at this time. First of all, today, if you go out to Times Square and you ask any random person on the street, how's the market doing? Even if they don't know how the market is doing, they're not troubled by the question, right? They have some sense, if they could say, "Well, let me just check. I'll check the Dow, I'll check the S&P500." In this period that we're describing, there was no objective measure of market health. The people that could tell you how well the market was doing, were people that were actively trading it, people that were involved but this was a qualitative period, it was not a period yet where people had brought order to the chaos of the market. Can you give us the origin of the indices of quantification of the newsletter industry? How was this coming together, the informational side of this business, coming together before the crash?

Daniel Peris: 00:18:17 Yeah, so there was no way to keep score and that really became an issue as the stock market became more popular in the late 19th century. People wanted a way of keeping score. Interestingly, it doesn't come to individual accounts for a while, but there were homegrown small measures of market performance from the newsletter and from the journalists in the late 19th century, 1890s, and then continued into the 20th century. That's where the Dow Jones industrial average comes from that transports utilities. S&P didn't exist at the time, of course, but that which became S&P gets into the act in the 1922, 1923 and 1926 with various measures and you begin to be able to keep score on a daily or weekly basis as to how the market's doing. Prior to that, it is a subjective measure. The market's performance back to 1870 was subsequently figured out by guys at the University of Chicago, but at the time, nobody knew. Again, the newsletter writers, they would keep simple store. They'd take 10 typical railroads and come up with a simple arithmetic average that didn't include the dividend payments and they would track things that way but it was a very primitive way of doing that.

Demetri Kofinas: 00:19:26 What was the ... the early indices just had, what, industrials and railroads? What were the early stocks?

Daniel Peris: 00:19:29 Yeah, railroads and everything else.

Demetri Kofinas: 00:19:30 Railroads were the tech stocks at the time.

Daniel Peris:	00:19:33	Railroads dominated so it was railroads and everything else. Financial institutions were on the curb at that time, they were not inside. Literally on the curb.
Demetri Kofinas:	00:19:41	Yeah, they're outside.
Daniel Peris:	00:19:42	It was called the curb exchange then the American Stock Exchange and then it came inside. It was mostly railroads and a smattering of everything else including industrials and utilities but it was up here dominated by railroad stocks. This was all pre-1929. No rules, not no rules but very few rules. The rules were limited to the agreement that a company might've had with an exchange, a listing exchange. Very few ways of keeping score. Some ways, but very few. No overall theory of investing and certainly no portfolio theory.
Demetri Kofinas:	00:20:10	Certainly no efficient markets, they were very inefficient.
Daniel Peris:	00:20:13	Markets were very inefficient and there were no academics screaming and saying don't do this, do this. It was fascinating, it was very human and again, a lot of railroads and factories got built but from an investment perspective, it was catch as catch can and individual tales of success and failure.
Demetri Kofinas:	00:20:29	A great time for active managers. I'm going to pull a quote from John Moody and it refers to Carnegie's famous quote, "Put all your eggs in one basket and watch that basket."
Daniel Peris:	00:20:39	Correct.
Demetri Kofinas:	00:20:40	The philosophy of investing at the time I think was encapsulated in that quote of Carnegie which is that the best way to invest is to know what you're invested in, to watch it very carefully, right?
Daniel Peris:	00:20:50	Indeed.
Demetri Kofinas:	00:20:51	Here's a quote from Moody, John Moody, this is the founder of Moody's the derivative of the current ...
Daniel Peris:	00:20:56	Bond rating agency.
Demetri Kofinas:	00:20:56	... bond rating agency. "The average investor simply cannot watch the basket in the way implied by Mr. Carnegie and therefore it is a safe principle for him under all ordinary circumstances to limit his chances of loss to the greatest possible extent through a wide and judicious distribution of his

capital." I pulled that quote from your book because I was trying to think about where and when these early notions of diversity and diversification came into the public mind because of course this is a fundamental staple of Modern Portfolio Theory. I just wanted to put that out there. We're going to get into that in this phase. The crash of 1929 happens, we don't need to go into all of that, we could be stuck there forever, but out of the crash of 1929, I think in similarly to 2008 which has spurred the interest in theories of behavioral economics and alternative models for understanding complex systems analysis, nonlinear dynamic systems, as opposed to equilibrium which is what we've lived through for most of the post-war period. How did the crash of 1929 lead to the development of some of these models like Markowitz's MPT and the Efficient Market Hypothesis and things like this? How did that whole thing happen?

Daniel Peris: 00:22:20 Yeah, it's a great question and there's a lot there again, just on the diversification issue which we can follow as a thread as an example of how a ruleless period becomes a rule filled period and that is again, Carnegie's suggesting owning one, two, three, four stocks and matter of fact, that was considered standard at that time. You would invest in a very concentrated manner. Let's just remember that when Moody and the others, and there are other examples of what I would call common sense nonacademic diversification, maybe not even using that term, that our evidence prior to the post-war period when the academics come out in favor of this. But, they are responding to a period in which the alternative was a handful of securities. The issue the current investors need to keep in mind is that the argument of in diversification was never about owning 1500 securities in your portfolio. It was a response to Gerald Loeb and Andrew Carnegie about owning five securities in your portfolio. Harry Markowitz and the others and Moody even before are making an argument not about index funds and just owning the entire market, but pointing out the kind of common sense intuitive risk management that comes from not owning three or four securities ala Carnegie.

Daniel Peris: 00:23:35 How did this come about? What led to the shift from common sense rules of behavior for or guidelines for investing to this very rigid structure that we currently have today which is still built around Modern Portfolio Theory, a phenomenon of the '50s and '60s? The answer is that the crash really mattered and it affected politics, it affected economics, it affected investing and it affected academics. In the 1930s a number of high profile business people and academics said, "Boy, that was a mess." Ben Graham is one of them. John Burr Williams is another. John Maynard Keynes who is known for many things is involved as

well in trying to figure out the stock market. Why? Because the western world was in crisis. We had endemic levels of unemployment, there were competitive systems from the Soviet Union and Nazi Germany and what went wrong and what can we do to come up with a better system? That leads to John Burr Williams, Maynard Keynes and Benjamin Graham come up with their- I won't call them theories, but their observations in the 1930s. I write a lot about the contributions that they made because they were what I refer to as the founding fathers.

Daniel Peris: 00:24:43 Then the war happens and all this gets set aside. The academics in the 1950s returned to these issues, raised by Keynes, raised by John Burr Williams, raised by Benjamin Graham to say, "Okay. Let's go back to this, these guys did good work but it's incomplete." What they're bringing to the table, and this is some of the things that I think you wanted to touch upon, is they bring in the post-war period where there's prosperity, there's a lot of time for academic thought, they're bringing systems, theories, equilibrium theories though they wouldn't have called them that at that time, they're bringing macro-economic top down theories of human behavior based largely on what we now call Rational Actor theory, but again, they wouldn't have used that term at that time, to explain the markets and to try to come up with a system that would if not prevent then at least explain and largely allow people to side step the ups and downs of the market. There are a lot of examples in the books.

Daniel Peris: 00:25:39 1950s and '60s was filled with social science. It's filled with the moon shots, it's filled with televisions and the technology that televisions represent. I have a little anecdote about George Jetson flying around on your Magnavox television in your room. It was a period in which social science, instead of history and politics you now had social science meaning that human behavior could become rules based. That period of the 1950s and '60s, it began to be applied not surprisingly to not only economics but also finance and stock market behavior. You get to, we'll describe it in a moment, but you get to MPT and eventually the Efficient Market Hypothesis in capital, a surprising model as these simple formulaic explanations of human behavior based on Rational Expectations Theory, that would explain how markets work and finally provide an answer after roughly 30 years to what happened in the crash. Even again, Harry Markowitz, one of our characters and Bill Sharpe, another one of our characters, they wouldn't say and both of them are still alive, you can ask them.

Demetri Kofinas: 00:26:43 Are they? I didn't know that.

Daniel Peris:	00:26:44	Yes.
Demetri Kofinas:	00:26:44	How old are they?
Daniel Peris:	00:26:45	Harry Markowitz is in his early 90's and Bill Sharpe is not in his early 90's, he's younger.
Demetri Kofinas:	00:26:49	He was a student of Markowitz's, wasn't he?
Daniel Peris:	00:26:51	Yes.
Demetri Kofinas:	00:26:52	He was a graduate student of his.
Daniel Peris:	00:26:54	They're both and hopefully they'll continue to live long and prosperous lives. You know, they wouldn't--
Demetri Kofinas:	00:26:58	We wish them well.
Daniel Peris:	00:26:58	We wish them well.
Demetri Kofinas:	00:26:59	We don't wish them any ill.
Daniel Peris:	00:27:01	With the passage of time, I have to say, they both appear wiser and wiser it was what was done in their name that I have an objection to. But in any case, they would never say that they were explicitly dealing with solutions to the 1929 crash. But if you follow the intellectual history of what they're coming up with, it is a response to what seemed like utter craziness in the 1920s.
Demetri Kofinas:	00:27:19	I want to get into that. You mentioned Graham and Keynes and ...
Daniel Peris:	00:27:23	John Burr Williams.
Demetri Kofinas:	00:27:24	... John Burr Williams. Benjamin Graham and David Dodd published Security Analysis in 1934. Keynes published the General Theory ...
Daniel Peris:	00:27:31	1936.
Demetri Kofinas:	00:27:31	... in 1936. Then two years later, 1938 Williams published Theory of Investment Value.
Daniel Peris:	00:27:36	Correct.

Demetri Kofinas: 00:27:37 For example, I know one of the things you mentioned in the book is that if you compare Williams and Graham to Markowitz, their objective was expected return versus what would become Markowitz's focus which was mean variance. What were the important ideas or frameworks or theories that came out of those early works in the '30s of the authors I just described? Then how were they put to work in MPT by Markowitz and later by Jensen.

Daniel Peris: 00:28:10 Great. Great question. Ben Graham simply creates a framework for understanding companies that had not existed before, a long diligent process of sharpening pencils and doing all the work to understand companies and amazingly, that level of diligence for investing and for company knowledge passes from the term value investing. But what really his contribution was, take the time to study what you're doing and make the effort. If you don't want to make the effort, that's fine too, but successful investors will make the effort to know, understand the companies that they're investing in. That's his main contribution. Value investing is pretty simple, he said buy it underneath some intrinsic value that he arbitrarily determined had changed over the years but I think his contribution later is, and it stands in contrast to what Modern Portfolio Theory and efficient markets represents, but it's his lasting contribution is, you got to do the work, you can't be a brain surgeon if you don't know anatomy, you can't be a plumber if you don't know how systems work and that simple but difficult exercise is to all the credit of Benjamin Graham.

Daniel Peris: 00:29:10 John Burr Williams is discounted cash flows. You got to do the math. The present value of a security is determined by Irving Fisher, but who didn't do the math but comes out and makes it very clear 1906 is what the basis for any valuation of any business asset is, the future cash flows you can derive from it, the present value of any future cash flows. Irving Fisher says that 1906, it's self-evident.

Demetri Kofinas: 00:29:30 These are early notions of value investing here that we're talking about?

Daniel Peris: 00:29:34 Early versions of trying to put on a figure on an asset. Value investing is buy it cheaply, but actually putting any price on an asset ...

Demetri Kofinas: 00:29:40 Valuing an asset.

Daniel Peris: 00:29:41 ... valuing an asset is Irving Fisher--

Demetri Kofinas: 00:29:42 But the idea of intrinsic value, the idea that an asset has a value that's independent of its price.

Daniel Peris: 00:29:46 Yes. It's separate from its price.

Demetri Kofinas: 00:29:47 That can be determined objectively.

Daniel Peris: 00:29:48 Hard to make it fully objective, but yes, within a patina of objectivity, an effort in objectivity. John Burr Williams does all the math associated with that, with discounted cash flows, dividend discount models, what the present value of a security would be.

Demetri Kofinas: 00:29:59 Huge impact.

Daniel Peris: 00:30:00 Huge impact. Yes. Absolutely. He's not the most colorful personality, he's not the most livid writer and it was mostly quantitative but he again, establishes that which did not exist prior to that and therefore it's worth his attention and it does the math of the value is worth its future, the present value of its future cash flows.

Daniel Peris: 00:30:18 Then Keynes is fighting a bunch of other battles. Bunch of other battles. But what he contributes to this is the subjectivity, interestingly, 'cause at that point very much at odds with John Burr Williams but the subjectivity of the exercise that in the stock market, what is at stake and what's driving the stock market is expectations and investors' feelings. The animal spirits of --

Demetri Kofinas: 00:30:38 The preponderance of uncertainty.

Daniel Peris: 00:30:40 Uncertainty and how people will respond to uncertainty and there's a little bit of behavioral finance, irrational behavioral finance in that that people sometimes make strange decisions but the expectations. We talk about the market as a discounting mechanism about what we think the future's going to be like. 2018 is a perfect example of that. While the notion that you're thinking about expectations would influence decisions that you make today, capital allocation decisions, is what he's writing about in the General Theory. His one chapter, chapter 12 is specifically about the stock market. He's trying to figure out expectations as it applies to employment and spending levels and consumption, but as part of that, the stock market has a role. The notion that what lasts from Keynes is again, expectations. It's not just the net present value of the future

cash flows, it's about the expectations of what the future cash flows will be like and what people will pay for them.

Daniel Peris: 00:31:34 These three people didn't agree with one another. They were doing separate things.

Demetri Kofinas: 00:31:39 Also contributing in different ways.

Daniel Peris: 00:31:41 In contributing in different ways, Benjamin Graham is teaching people how to think about companies, John Burr Williams is working out the math of present values and Keynes is saying, it's not just about the neutral math, it's also expectations and how they play in a crowd environment. That's a good deal of behavioral finance in that.

Demetri Kofinas: 00:31:58 The feedback loops.

Daniel Peris: 00:31:59 Feedback loops and he gives wonderful examples which were quoted in the book but those three concepts survive the post-war period or the war and the academics, who in will call quieter times, the 1950s.

Demetri Kofinas: 00:32:14 The memory of the uncertainty of the 19 late ...

Daniel Peris: 00:32:17 '20s and '30s.

Demetri Kofinas: 00:32:18 '20s and '30s ...

Daniel Peris: 00:32:18 Correct.

Demetri Kofinas: 00:32:18 ... was beginning to dissipate.

Daniel Peris: 00:32:20 Yeah, the quieter times, it's Harry Markowitz enters our story in 1952 as a graduate student and the University of Chicago. It's peace time, it's relative prosperity and he's trying to figure out these clever riddles. They're not crises the way they were for Keynes and to some extent, Graham.

Demetri Kofinas: 00:32:37 Up until Markowitz, if you asked someone on the street, or not forget on the street, if you ask someone, I don't think you could even use the word financial professional before this time, but if you asked the equivalent of what would've been at the time a financial professional, "What is risk? How do you calculate risk?" What would that person have said?

Daniel Peris: 00:32:58 That's a great question because the answer is, it could be anything. There was no canonical definition of risk. One of my

great issues currently in the marketplace, in the book, in my engagement with other investors, with companies and with clients is the definition of risk. Modern Portfolio Theory gives you a singular definition of risk. It's not Ben Graham's definition of risk, by the way. It's certainly not the definition of risk of most business people and it's not even the definition of risk for many markets, developed markets around the world but a mean variance optimization, that is an outcome outside the expected variance, outside the expected return, is the definition of risk. Total return. That's technical and narrow, I object to it because it doesn't have to do with cash flows, it has to do with near term share price movements which is akin to me to gambling but that was a definition of risk that in 1952 and elaborated in 1959, in a book length version of his dissertation that Harry Markowitz worked out that a variance from an expected return and total return over any measurement period, whether it's a short one or a long one, that's fine. That's a definition of risk but it's not the only one.

Daniel Peris: 00:34:08 There have been other efforts at coming up with definition of risk. I come up with my own in the book about cash flows but the issue that I have with Modern Portfolio Theory and the Modern Investment Industry is that we're basically looking at share price movements almost on a daily basis and defining that as risk. For those of you who are fans of Warren Buffett, or fans of Ben Graham, Ben Graham very explicitly states that share price movement is not risk. Go look it up, it's in the book, it's in my book, it's in Ben Graham's book. I think we need to acknowledge that a definition of risk was not handed down from the mountain, it is not in some legislation, it's not in the genetic code. It's a choice by a 22 year old at the University of Chicago and you don't have to live by that definition of risk. You yourself as an investor or as a business person, will have your own intuitive definitions of risk and we are stuck with this framework of risk that I just don't think makes sense 60 years later.

Demetri Kofinas: 00:35:05 I'm going to quote you on that, it's a choice by a 22 year old at the University of Chicago. Great quote. I actually had asked Howard Marx, when he was on the program, what his definition of risk was and I believe he said, "The risk of permanent loss."

Daniel Peris: 00:35:18 Which is one of the --

Demetri Kofinas: 00:35:19 [Laughter] The --

Daniel Peris: 00:35:19 Yeah.

Demetri Kofinas: 00:35:20 The other thing I wanted to say though is because mean variance is the way we think of this in today's volatility and value at risk models incorporate a lot of this and have generated a lot of risk as a result of that, in terms of investment decisions that are made based on assumptions about our ability to quantify risk leading to situations where the entire portfolio can be under water and the entire bank can go under and banks use these models. But, just to stick a little bit more on Markowitz and flesh this out, I want to ask you what the key concepts of MPT was 'cause Markowitz developed this Efficient Frontier which a lot people are familiar with which balances risk with reward, right? It is a roadmap for optimal portfolio construction. You mentioned his 1952 paper Portfolio Selection, what are the key concepts of MPT?

Daniel Peris: 00:36:14 Yeah. In its simplicity and compared to what went before, it's very, very good. It is the simple notion that rather than, kind of Carnegie's definition of risk which is a few securities up and down that you should define risk in terms of overall expected return, and return in terms of overall expected risk and that would be the standard deviation which is a whole separate issue of price movement around and as you say, creating a spectrum of risk and return. The key insight of that is the diversification again, not owning 1500 securities through a bunch of index funds but not doing what Carnegie was doing of owning a couple securities but having a reasonable level of diversification was the way to get an optimal combination of standard deviation and return. That if you could only tolerate a low amount of risk and low standard deviation around an expected return, you would have to accept a lower return because those securities move around less which is fine. That if you wanted to achieve more, you would have to accept a higher risk, that is a higher standard deviation, a higher variance around the expected return, because the securities move around a lot more and the best way to achieve that would be through diversification.

Daniel Peris: 00:37:32 What it achieves is by whether 15, 20, 25 or in his example, he's using 10 securities including cash, is that rather than one or two, that you elevate diversification to a mechanism of achieving an optimal outcome. That was new. Full credit to Harry Markowitz.

Demetri Kofinas: 00:37:54 What is the relationship between diversity and correlation and how did Markowitz tackle that problem?

Daniel Peris: 00:38:01 With a pencil and a spreadsheet prior to Excel. The technical term is covariance and what you have a bunch of securities,

what you observe is they don't all move in the same direction at the same time. If you add a few more, then the covariances decline over time. That's where you get onto the Efficient Frontier is by having enough diversification so the covariance or the lack of correlation, the covariance of the securities you can mix and match. The covariance is to get an optimal outcome with an optimal level of risk. As long as securities don't move together, and generally speaking, not all securities move together at the same time, last couple months they have but that notion that you have that securities vary in their returns with other securities at different rates, covariance, that there was an optimal combination, an Efficient Frontier of securities that didn't move together with each other that would give you the desired return outcome because they didn't move together.

Demetri Kofinas: 00:38:58 Because absence of correlation implied absence of volatility or less volatility ...

Daniel Peris: 00:39:03 Less volatility.

Demetri Kofinas: 00:39:03 ... in the way that he was thinking about it.

Daniel Peris: 00:39:05 In the way that he was thinking about it, and the same thing if you were seeking higher risks, you would still want to have, to tolerate higher volatility of returns, but you would still be able to dampen the volatility by having a diversified portfolio because there, the covariances would still serve the lower covariances of a bunch of securities, would still dampen the volatility of just having a few securities.

Demetri Kofinas: 00:39:24 The idea being, also this is at a time when markets were just generally rising and this was an idea where inherent in this is that you're trading idiosyncratic risk, the risk of an individual security, for systematic risk or systemic risk, the risk of a market as a whole. The idea is really fleshed out more fully later?

Daniel Peris: 00:39:46 Yes. 10 years later.

Demetri Kofinas: 00:39:47 By Sharpe? By William Sharpe was it?

Daniel Peris: 00:39:49 By a number of people in the mid '60s and basically when you have the Capital Asset Pricing Model, you're separating market risk from portfolio risk and if you have a sufficiently diversified portfolio, you take out all the idiosyncratic risk.

Demetri Kofinas: 00:39:58 So, let's transfer there because this is where Markowitz was stuck, right?

Daniel Peris: 00:40:02 Yeah.

Demetri Kofinas: 00:40:02 It was the covariances and it was building the optimal portfolio, how could you actually do it? Here's a theory but how could you put it into practice?

Daniel Peris: 00:40:09 It required knowing the covariance of every security versus every other security, which was a very difficult proposition and at the end of his work, he says, "Listen, this is," he doesn't say it's a great idea, but he said, "this is actually really hard to do and we'll let someone else figure it out." That's where Bill Sharpe comes in.

Demetri Kofinas: 00:40:25 Just to be clear, what you're saying there for those that are listening is if there are 100 variables in the marketplace, the idea would be that every single variable would have to be compared to every other single variable individually in order to determine the covariances between variables and that was extremely mathematically difficult because it's an exponentially difficult data set to solve.

Daniel Peris: 00:40:44 Yeah, it's the securities themselves, that is their share price or total return movements vis a vis one another, the technology didn't really exist at the time other than just incredibly labor intensive to figure out the covariances of one security to another and that was very hard and if you have, even at that time, you had several hundred if not thousand practical investible securities, you can't really figure out the covariances of all of them versus another. You'd spend all your time doing that and no time owning businesses so it was a great concept that this Efficient Frontier elevating diversification to a mechanism of achieving a risk and return profile, but it was hard to do until about 10 years later when some other characters enter the stage and dramatically simplify it.

Demetri Kofinas: 00:41:25 Sharpe. Let's go to Capital Asset Pricing Model, CAPM, and William Sharpe and some of these other characters that you mentioned and the role that they played in taking this theory MPT and solving I think primarily the covariance problem.

Daniel Peris: 00:41:40 Yes. That's a fair assumption. There are other things going on 'cause Efficient Markets are also coming, not the Efficient Frontier, but Efficient Markets it's kind of a parallel dialog, but really what they were doing, Bill Sharpe was doing, and several others was coming up with a Capital Asset Pricing Model. It actually is not just an acronym, it's words that have meaning. How do you figure out what the price of an asset is and in doing so, they dramatically simplify Markowitz's theory because

instead of needing huge covariance table and figuring it out every security moves vis a vis one another. Markowitz suggested and Bill Sharpe with it that maybe there's a simpler way where instead of looking at every security versus every other security, you look at every security versus some underlying phenomenon, specifically an index. Which you needed that.

Demetri Kofinas: 00:42:23 A benchmark.

Daniel Peris: 00:42:24 A benchmark. Which was a great idea except they didn't exist at the time. So, in 1957, the S&P500 comes into existence. There had been precursors to it but from 1957 on you actually have something that's workable as a market benchmark and by the 1960s, Bill Sharpe can say, "Okay, instead of having 500 securities in the covariance of all of them," I think it's 125000 covariances you need for the numbers in the book, "well, let's just figure out what the sensitivity of each security is to the broader market." It's systemic risk measure and then you only need 500 numbers and an expected return for the market and suddenly it got a lot easier to create an efficient portfolio, that is a portfolio where you have a stated expectation of return and based on historical volatility numbers you have an expectation of what the volatility will be. You have to assume that those things are even true concepts, they're a little bit like Santa Claus, but at least the math was doable at that point and also 10 years later from the '50s to the '60s computers had come along to help you figure out what the Beta, which is an important --

Demetri Kofinas: 00:43:28 That's what people think...that is the exposure to the market. That's the Beta.

Daniel Peris: 00:43:32 That's the market sensitivity. You need 500 of them, they were very hard to calculate as well. Computers come along in the '60s, Merrill Lynch in particular is willing to tell you the Beta of securities and they suddenly--

Demetri Kofinas: 00:43:43 How closely they correlate to the broader market.

Daniel Peris: 00:43:45 To the broader market. The sensitivity to market movements, you can suddenly create Efficient Frontiers on the assumption that the Efficient Frontier exists, but you can create said portfolios in theory, due to the simplifications as we'll get to--

Demetri Kofinas: 00:43:57 It's interesting to note here something that's obvious but could pass unnoticed is how increasingly abstract this gets, right? This is what finance has become. It's become extremely abstract.

Whereas we started in a period where people were exchanging on the curb, stocks, physically getting into fights and in some cases fist fights and here we getting increasingly abstracted, where we're dealing with models where now, we're at a point where you're saying in order to construct the optimal portfolio, I want this portfolio to correlate as closely as possible to Beta, which is the actual market, which is basically like saying I want my portfolio to be the market.

Daniel Peris: 00:44:37 Well, if you want the market's return, then you're going to pick a portfolio that has a Beta basically of one, in theory. It might not work out that way, but--

Demetri Kofinas: 00:44:44 If I want the safest possible return with an equity premium.

Daniel Peris: 00:44:48 There you go, yes. You would choose the market's return which leads in a parallel development that comes out at almost the exact time the Efficient Markets hypothesis and the two dovetail together and get mixed all together 'cause the most efficient application of the CAPM, the Capital Asset Pricing Model, occurs in an Efficient Markets. But I want to go back to one of your points.

Demetri Kofinas: 00:45:05 Mm-hmm (affirmative).

Daniel Peris: 00:45:06 We've shifted from a fist fight on the curb to theories of systems in equilibrium and Capital Asset Pricing Models. What has been lost? What has been lost is ownership of companies. What has been lost is the cash flows. What has been lost is decision making under conditions of certainty. What has been lost is business stewardship. What has been lost is that you might actually own the asset and care about the asset. Once your investment decision is about Beta or at an earlier stage, just a covariance table, you don't care what the company does. You don't need to know. We had that experience in the late 1960s ...

Demetri Kofinas: 00:45:38 The abstraction, there's the abstraction.

Daniel Peris: 00:45:42 ... and then during the internet bubble. No one cared what the company did as long as the stock was good.

Demetri Kofinas: 00:45:47 Going up.

Daniel Peris: 00:45:48 Going up. That, we've had 50, 60, 70 years now of these abstract theories of investment. I am suggesting a less abstract theory of investment based on business ownership. This has

been a great and interesting and intellectually stimulating 70 year ride but we lost sight of the trees as we played around with the forest.

Demetri Kofinas: 00:46:15 I want to get there. I want to get to M&M and I want to get to Dividend Irrelevance Theory and the role of the dividend for Markowitz versus today and all that stuff, before we do though, I got a couple of questions. One is, when did this relationship emerge in peoples' mind between bonds and equities because that is a big part if you go to an investment advisor, "Well, how old are you?" Well, then you should be this much in bonds, and then you should be this way 'cause bonds are not correlated to equities. Where did this idea come from, because in fact for most of their history bonds have not correlated to stocks?

Daniel Peris: 00:46:50 Yeah, the Asset Allocation Models are also, which you're talking about the 60-40 equity bond split and depending on your age you adjust that, it's a pretty modern phenomena the past four, five decades. It didn't really exist, at least I'm not aware of it existing prior to that, the reason is that until the last 30, 40 years the perception of bonds and equities was different than they are. There was a spectrum of income. Bonds were guaranteed income but the coupon was flat. Equities had dividends. They don't now, many of them don't, leading stocks in the US market don't but in the time that we're discussing, stocks had dividends and you could judge the income stream of an equity, including the risk to the dividend with the income stream of a bond which was supposed to be guaranteed though they could also fail.

Demetri Kofinas: 00:47:34 Interesting.

Daniel Peris: 00:47:34 You could have a spectrum of income which is something basically advocated in my final chapter, that we return or go forward with a cash flow based portfolio theory that looks a lot like that but when bonds have an income stream and equities don't and then starting from the 1990s on, you're going to have this mix of assets to provide grandma with some income and then stocks for growth and you get that asset allocation approach that does occur, I don't cover a lot of the history of asset allocation but you have to have an investment theory before you can have an asset allocation theory and that really follows the development of MPT.

Demetri Kofinas: 00:48:09 Are you saying that because most stocks yielded a dividend when these theories came into practice that the relationship between bonds and equities was really one based on the fear or

risk of default, that a bond wouldn't default, a US government security was not going to default.

Daniel Peris: 00:48:26 Or a corporate.

Demetri Kofinas: 00:48:27 Or a corporate bond. Well ...

Daniel Peris: 00:48:29 A stock.

Demetri Kofinas: 00:48:30 ... but a stock could [crosstalk 00:48:31].

Daniel Peris: 00:48:30 A stock could not be its dividend.

Demetri Kofinas: 00:48:31 [crosstalk 00:48:31] Or they just decide not to issue a dividend.

Daniel Peris: 00:48:33 Yeah.

Demetri Kofinas: 00:48:34 That's interesting because now many people think of that relationship as dampening volatility, that if you want to dampen the volatility in your portfolio, you spread some risk between bonds and stocks. A lot of people think of those two as being anti-corollary.

Daniel Peris: 00:48:49 The notion that there was a spectrum of income when Harry Mark-- in the '20s, '30s, '40s, '50s, there was a spectrum of income and that the differences between bonds and equities was not as great and there was a huge community of preferred stock in between, by the way, which emerged in the late 19th century to raise more capital for railroads. There was a spectrum and one of the points that I would make about Harry Markowitz in that, when Harry Markowitz is coming up with a theory of mean variance optimization of returns including total return which is the share price change and the income component in any given measurement period. When Harry Markowitz is coming with I think it's incredibly important for people to realize, all stocks other than the most speculative had robust dividends. Right now, the US stock market is a 2% yield. At that time, the market had a four, five, 6% yield and none of the stocks that he uses in his 1959 book, it didn't have robust dividends.

Demetri Kofinas: 00:49:44 But one of your points if I understand correctly is that the equity risk premium was the risk that the dividend would go away.

Daniel Peris: 00:49:50 Dividend would go away or the risk and the expected additional return from dividend growth and the share price would follow the dividend growth so if you're going to get a return above the

risk free rate or say a bond rate, whatever the case may be, you had to take additional risk which could be reflected either in the share price or the fact that the dividend might never materialize. Remember? An equity dividend is not a promise, a bond is. Both can be broken but equity can be broken more easily than a bond.

Demetri Kofinas: 00:50:12 So, let's cover two more concepts before we move into getting deeper into the dividend and that's the creation of Alpha as a variable by Jensen and then I also want to cover the random walk hypothesis and its relationship to Brownian Motion and entropy. You see I have this great picture here of Maxwell's Demon, which is for me, the Alpha generating investor in this model if you were to take the physics to the extreme. Let's talk about that because they touch on two different areas that I find really interesting but let's start first with Jensen just so we can wrap up the most essential variables of this model.

Daniel Peris: 00:50:50 A Capital Asset Pricing Model is a model that says, "What would be the expected returns for an asset given its historical sensitivity to the market?" It can be a portfolio, not just an individual security or stock. Let's say you have the sensitivity of the market of 100% and you have a risk free rate of 2% and there's an equity risk premium which is itself a whole ‘nother book discussion of 5%. Then you would expect the return from that asset of 7%, two plus five. Well, what happens if that asset returns eight or nine? Or minus one or minus two? That is six or seven or eight or nine, 10. It returns more or less than the expected rate of return.

Demetri Kofinas: 00:51:26 Then you're fired.

Daniel Peris: 00:51:28 Well, one of those you're fired and the others you get a big bonus. Jensen just said, "Listen, it doesn't appear that the Capital Asset Pricing Model's imperfect. Most of the outcomes are not the exact predicted ones, is there some talent here in choosing, getting an excess risk adjusted? That's the key, risk adjusted return." If it is, he had to give it a name and the formula because it's an excess amount and it was Alpha, Jensen's Alpha, it's now being called Alpha. It's now passes for short hand for competence in the stock market where you can achieve an excess risk adjusted, how many times do I have to say that? Risk adjusted return. Unfortunately--

Demetri Kofinas: 00:52:03 On top of the equity risk premium.

Daniel Peris: 00:52:04 On top of the equity risk premium. Unfortunately too many people just interpret it as just beating the market. That is not

what, to be fair to the CAPM, Capital Asset Pricing Model, Jensen's Alpha implies it has to be adjusted by the risk that you took. Again, reasonable people will disagree over the definition of risk. Jensen's Alpha becomes what the entire modern financial services industry is about currently, even if they don't define it that way or don't define it correctly anymore, it's how do you generate Alpha? You can turn on CNBC and hear the word Alpha 50 times a day.

Demetri Kofinas: 00:52:32 Isn't there a conference, what's it called, Generating Alpha?

Daniel Peris: 00:52:34 Alphaville or something like that --

Demetri Kofinas: 00:52:36 No, well, Alphaville is a great FT blog. There's also Seeking Alpha which is great, but CNBC has a conference called something Alpha, I don't know what it's called exactly.

Daniel Peris: 00:52:45 Indeed and it's referenced in the book, I forget the name but again, Alpha's what it's all about. Alpha's a perfect example and I would argue much like the very sensible ideas of Harry Markowitz originally, the notion of Alpha originally, even the Capital Asset Pricing Model which it's gotten really dinged up over the last 40 years, but these were very sensible academic notions. What they've become in common parlance and in practitioners is something far, I won't call it sinister but far removed from the claim that, "Hey, risk and return are correlated," and that there's an ideal combination or that you can try for risk adjusted returns ala Alpha, those are okay concepts I may or may not agree with the underlying propositions but there's nothing wrong in theory with the concept but what they've become in the marketplace. How people define it. One of the big issues with Modern Portfolio Theory, mean variance optimization is when the asset's repriced on a daily basis, you get people chasing their tails and measuring using MPT statistics on a daily basis. Similar thing with Alpha that the people are using it not in terms of risk adjusted excess return but just excess return. That is not adjusting for risk.

Daniel Peris: 00:53:55 Great ideas, academic ideas, 1950s and '60s, reflecting the enthusiasm for social science and quantitative solutions to social problems, explaining the human animal, borrowing from the natural sciences of the 19th century that there are rules and the way systems work in the natural world is the way that humans work as well and that's how we're going to apply it and you get all these wonderful theories in the '50s and '60s. What they've become in the marketplace 50 or 60 years later is I think far less useful and that's what I'm trying to challenge.

Demetri Kofinas: 00:54:29 We did a great episode that I highly suggest to listeners. It doesn't fall into the category of economics. It's episode 19 with founder of the high energy physics group at Los Alamos, Jeffery West, on scale in biological versus social economic systems. Super relevant to what we're talking about now, I'm not going to go into further detail about that. I want to mention one thing before we move forward which is that we didn't really describe this, but it's worth mentioning, which is that Modern Portfolio Theory is built on top of an assumption about a normal distribution of outcomes and one of the things that anyone who's been, unless they've been living under a rock for the last 10 years, knows that markets have a tendency to deviate far beyond what is the statistical variance of a normal distribution, what are known as fat tails or kurtosis. We're going to get into that later because I want to just tie off this one part about the Random Walk Hypothesis and then I'm going to make the second half of our interview available to our subscribers. But, let's touch on this now, this point about how did these theories that compared markets to the motion of particles in a vacuum, the random motion, Brownian motion, explain this to me. Where did this come from?

Daniel Peris: 00:55:46 This is again, a similar but parallel track. A lot of the assumption that you can't beat the markets is part of Modern Portfolio Theory. They both come of age in the 1960s. There's a coming out party in terms of the Efficient Market Hypothesis but it was a parallel and separate development and there are lots of academic and quasi-practitioner works for the past century trying to figure out whether there are patterns in the numbers. If there are patterns in the numbers, then you can trade those patterns. If the numbers are random, then you really can't if the outcomes are random. Is this data set random or is it ... are there flags and tops and double tops and bottoms and trends that you can track? The Dow Theory's a trend theory. There are some fascinating stories that are separate from Harry Markowitz and Bill Sharpe. There's a great story of a French mathematician in the Bourse in the late 19th century.

Daniel Peris: 00:56:36 Louis Bachelier, who basically comes up with the Efficient Market Hypothesis 60, 70 years before Eugene Fama and the others bring it to the attention of others of Wall Street. There are a couple lines of thought there. One is mechanical and technical and it's physics about Brownian motion which is particles of pollen in water observed by an English botanist, Robert Brown. The other is just looking at data sets of commodity prices and share prices and government bond prices and subjecting them to the analysis that the 20th century calculations permitted and saying, "You know, actually, there's

no pattern here." Whether you get to an Efficient Market Hypothesis through this physical notion of Brownian motion or Random Walk or whether you get to it through just the hard labor of looking at all these prices on the ... cotton prices or share prices or bond prices on the stock exchange or commodity exchange, end up at the same place which is that the idea if you put enough participants to work in a market and everyone is paying attention, that's really key, because if everyone believes in Efficient Markets, I can guarantee one thing: markets are not efficient at that point. But if everyone believes they can make a buck ...

Demetri Kofinas: 00:57:42 Mm, a really great point.

Daniel Peris: 00:57:42 ... according to the Efficient Markets Hypothesis, if everyone thinks they can make a buck by outwitting their neighbor and they are active in the markets, you actually get in this theory, an Efficient Market. That history comes out and makes its way to the marketplace in the 1960s and '70s, notably by Eugene Fama, but it had a 60, 70 year history prior to that and Modern Portfolio Theory and Efficient Markets come to the fore at the same time and the Capital Asset Pricing Model, very interestingly joins the two, not as so much explicitly but simply the CAPM works best in an Efficient Market, at which point the best approach to take is to own the market, which was not feasible at the time. There was no Vanguard Product at that time that becomes later, about a decade later and that you would toggle risk with the amount of cash that you would have or money that you would borrow and so forth.

Daniel Peris: 00:58:30 These are two parallel structures and again what's lost in the Efficient Market Hypothesis? Business ownership. Decision making. It's just a mass of numbers. It doesn't care what the economic conditions are of the company or the commodity. It's just a blender full with numbers and you might as well not try to make any decisions about it. The Getting Back to Business makes the argument very simple, not trying to outwit everyone in the market but that you can own a business, you can make businesslike decisions based on cash flows despite being intimidated or confronted by academics saying, "No, you can't. There's no point to it."

Demetri Kofinas: 00:59:08 Well, we discussed Jensen, Michael Jensen before we were talking about Alpha. When he looked back he found Alpha, I assume that certain people believe that Alpha was possible to generate consciously, but there seem to have also been a school of thought that developed that saw it as a random outcome. Is there a distinction to draw there?

Daniel Peris:	00:59:28	Well, the big problem with Alpha in the early studies is that the way to measure it involved looking at active managers in mutual funds in the post-war period. '45 to '64 was one of the data sets. Bill Sharpe did the same thing Jensen, looked at these mutual funds, they only had 10, 15, 20 years of data and it was right after the World War II and the mutual funds had very high fees. They very appropriately looked at the returns after the fees. You didn't have the type of measurements that you now have with a much bigger data set and basically said you know in theory, this is kind of Samuelson, Paul Samuelson, the MIT economist, saying, "Listen it's possible to beat the market. It's very hard and after fees, it's even harder." The investment management fees in the 1950s and '60s were a lot higher than they are now. If you had Alpha, your fee would've taken it away. The net result for most investors is saying it's there but it's hard to achieve. Fees have come way down, of course the market you could argue is more efficient than it was in the '50s and '60s but fees have come way down.
Daniel Peris:	01:00:29	Now, going forward for the next couple decades, the question is, "Okay, in a low fee environment, we'll see whether Alpha generation is possible." I certainly think to the extent that you can make good businesslike decisions in the marketplace based on cash flows, which is again, not the definition of Alpha but it's my definition of sensible investing, that it is certainly possible and I think active managers certainly believe that they have and certainly in this lower fee environment have the ability to do so over the next couple decades.
Demetri Kofinas:	01:00:58	Daniel, I want to get into your definition of intelligent investing. How you invest. I want to get into Miller and Modigliani, I want to get into the evolution of MPT and its implications for today. I'd be curious to hear your macro view on the economy. I want you to stick around. This audio audience is going to be available through our Patreon subscription that you can do through our website. You can go to HiddenForces.io and we also are making transcripts and rundowns available for this interview which are full of notes and information and links to all the stuff that Daniel and I are describing. Thank you for coming on the show.
Daniel Peris:	01:01:34	My pleasure, Demetri.
Demetri Kofinas:	01:01:37	That was my episode with Daniel Peris. I want to thank Daniel for being on my program. Today's episode of Hidden Forces was recorded at Edge Studio in New York City. For more information about this week's episode or if you want easy access to related programming, visit our website at HiddenForces.io and subscribe to our free email list. If you want access to overtime

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