Rodrigo:	**00:06**	Hello everyone and welcome to ReSolve's 12 Days of Investment Wisdom mini-series, where Michael Philbrick, Adam Butler, Jason Russell, and myself, Rodrigo Gordillo, will explore timeless evergreen principles that will help you and your clients achieve long-term investment success. From the importance of asset allocation, thoughtful portfolio construction, and maximum diversification, our aim is to offer you a comprehensive framework for a more thoughtful investment approach that may change the way you view the complex arena of investing altogether. We hope that you enjoy the series as much as we enjoyed putting it together.
Disclaimer:	**00:42**	Mike Philbrick, Adam Butler, Rodrigo Gordillo, and Jason Russell are principals at ReSolve Asset Management. Due to industry regulations they will not discuss any of ReSolve's funds while on this podcast. All opinions expressed by the principals are solely their own opinion and do not express the opinion of ReSolve Asset Management. This podcast is for information purposes only and should not be relied upon as a basis for investment decisions. For more information visit investresolve.com
Mike:	**01:10**	Welcome back. Wrapping up the last podcast (laughs), where we talked about the idea of maximizing risk-adjusted performance is a function of making sure you have some skill but also maximizing the diversity of opportunity, i.e. breadth in the portfolio. And there is more diversity amongst asset classes than can be found in individual securities, if you'll recall that. And recall we, we talked about those fundamental economic drivers as well. And so you know, what we want to expand on today is the question of are there other diverse drivers of long-term returns that we can bring to bear in this goal of trying to achieve, you know, sort of maximum risk adjusted performance?
Rodrigo:	**01:53**	Today what we're gonna do is we're gonna try to expand a little bit on that idea of adding diversification, adding to breadth. And we talked about asset classes and asset allocation and creating a better way of weighting those asset classes. Now we're gonna get into adding some style premia, in order to push that boundary even further. And to do that, we're going to bring up our Warren Buffett bet, which-
MIke:	**02:14**	Yeah.
Rodrigo:	**02:15**	We wrote just after Ted Seides came out in Bloomberg saying ... September 2017?
Mike:	**02:20**	One of our most popular posts.
Rodrigo:	**02:21**	That's right. Where basically he said for all intents and purposes, I've lost the bet. He had a few months left and then went about explaining why, uh, the rationale of the bet, what had happened, the history of it. And with that, we parlayed that into our own Buffett bet, trying to use all the concepts that we've already talked about-
Mike:	**02:40**	Mm-hmm (affirmative).
Rodrigo:	**02:41**	And then add some, some twists that we're gonna go through right now. But just the history of the Buffet bet was basically, it was, it started in January 1st, 2008, and the

bet was: Will the S&P 500 outperform a diversified group of alternative managers, a fund of funds? This is when Ted was in Protege Partners. And over that 10 year period, I mean it was perfectly timed you would have thought at the beginning. January 1st, 2008, markets just get destroyed and you have the fund of funds doing significantly better, up until 2014, of course, when the S&P 500 started to catch up and pull away. But it took that long to catch up, right? And the reasons, and rationale, behind doing this bet was the fact that at that time the S&P 500 was more expensive, or it was around like the 10th percentile of expensive in the last 140 years. So it made sense to put that bet in place.

So fast forward to 2017, the S&P 500 is up annualizing at 8%, and the fund of funds portfolio is only doing 3%. So let's put that into perspective. The first thing is that it was just the S&P 500 that we're talking about, right? At that point in time, had you done the same analysis against any global market, I mean the, the average of all the global markets from January 1st, 2008 to September 2017 was annualizing a 1.7. So, it actually did significantly better than the, the global equity markets. It was only that one market, and that one S&P 500 market that allowed Warren Buffet to win that bet.

And another interesting thing is that from a risk-adjusted perspective, so from the fact that a fund of funds portfolio did 3% with around, I think the volatility was around five, six percent.

Adam: 04:30 A little lower, I think. Yeah, four to five, yeah.

Rodrigo: 04:31 The S&P 500 runs at 15% during that period. Annualized volatility. So we like to think at ReSolve, and we're gonna get into this later in a later podcast, but we like to think of things is how much return can you get for the volatility that you take? Had Ted been able to size his allocation to match the volatility of the S&P 500, 15%, let's assume that it's, that the fund of funds with a five. Triple that return, right? Maybe take off some for borrowing. He might've actually outperformed the S&P 500 from a volume of …

Adam: 05:03 It would have been a much closer race.

Rodrigo: 05:04 Right? So with all of this in mind, we kind of put our brains together and decided to come up with a novel approach to a new Buffett bet over the next 10 years. So maybe you can bring us into that, what we decided to do there Adam.

Adam: 05:16 Yeah, I think this is completely fascinating because here you have a very thoughtful, experienced investor, Ted Seides, recognizing that markets are expensive, prospects for stocks are poor over the next decade, particularly poor at that point. He puts on this bet. Basically his bet is, I bet that a diversified exposure to alternatives is going to beat a concentrated exposure to stocks. And he, he, I mean the outside view on a bet like that is that diversity beats concentration. When you back it right up to 40,000 feet, that was the bet and it was particularly timely because of course that concentrated exposure to U.S. equities seemed to have particularly poor prospects. But just without that, it still made sense.

The challenge for Ted is that over that horizon, diversification failed in a way that it has rarely failed at the past. And so if you go back, what Annie Duke calls "resulting", perform resulting on that, then you'd say, well, Ted made a bad call and Buffet was a genius. But really, ex ante, you know, operating off the information that we had at the time, Ted's bet over the long run should be very competitive against a concentrated bet in one particular market or factor.

Mike:	**06:45**	But they didn't equalize for the risk.
Adam:	**06:49**	Absolutely. If you, so having strong risk-adjusted returns is not very useful unless you scale your risk to provide the required returns that you need. A very, very important point.
Rodrigo:	**07:02**	Yeah, the, the point here is that if you had 10,000 alternate universes for this bet to play out, the likelihood is-is that it was, it was a good bet.
Adam:	**07:11**	Mm-hmm (affirmative).
Rodrigo:	**07:12**	And a large percentage of those he would have still lost.
Adam:	**07:13**	Yep.
Rodrigo:	**07:14**	A large percentage of, just from the pure outside view, understanding the value diversification, understanding how diversification works over time quite a bit, you would have been better off in that multitude of universe scenario.
Adam:	**07:28**	Exactly, and every other stock market over the same period, essentially went nowhere, one to two percent per year. And Ted's performance even at his lower volatility would have been extremely competitive with any other market over the same horizon. So just a bit of good luck.
Mike:	**07:43**	Yeah, and I, and I think something to, to keep in mind when we're talking about these very entertaining bets, they are entertaining. At the same time, you've gotta scratch the surface a little deeper on these things and understand that you have a 15 to 20 vol product like the S&P or a, you know, dominant global stock market, fine. So that's gonna have a fair bit of randomness around those annual outcomes. And so there's, if you're betting a, a five vol strategy against a 15 vol strategy, there's a lot of luck that is gonna enter the fray into that bet, based just simply on the higher volatility. Yeah.
Adam:	**08:19**	Luck will play a larger role.
Rodrigo:	**08:20**	But it was well-thought out, because you're thinking, I'll take low volatility when the S&P 500 is at the high.
Adam:	**08:25**	Sure. Yeah.

Rodrigo:	**08:26**	Like, similar valuations as we saw-
Adam:	**08:27**	Sure.
Rodrigo:	**08:29**	In the Depression, not as bad as we saw in the 2000-
Adam:	**08:31**	Yeah.
Rodrigo:	**08:32**	And it's still pretty high, right?
Adam:	**08:32**	Yeah.
Rodrigo:	**08:33**	It wasn't, I'd take that bet.
Adam:	**08:34**	Yeah. Yup.
Rodrigo:	**08:35**	Even without the vol sizing. I'd prefer the vol sizing.
Mike:	**08:37**	I just think that if I'm me and I make the bet, and I'm like, of course I make the bet, valuations are high, 10 years I still think I win. I look at it and put myself in Protege Partners' seat and, uh, say, well I want equal vol.
Adam:	**08:52**	Right.
Rodrigo:	**08:53**	It's zero, zero chance that Buffet takes that bet. (laughs).
Mike:	**08:55**	I want, I want equal vol. Well yeah, because he's a pretty smart guy. (laughing). He's, he does not lose many bets.
Adam:	**09:01**	Doesn't have the history of taking on too many losing bets.
Rodrigo:	**09:04**	You're absolutely right.
Mike:	**09:05**	Too good. So now how, how can we improve on that? So in, in the article, we dig into, uh, well okay, And this is obviously for fun, and we state that at the beginning of this very popular post. But how might we formulate a bet that would have a much higher likelihood of coming out on the winning side against, uh, Mr. Buffet?
Adam:	**09:25**	Well, as always, we want to stack the odds in our favor, and as we've been talking about through this entire narrative arc, the best way to stack your odds in your favor is to maximize diversity. And so really this particular discussion is about, well, we've talked about how to maximize diversity across traditional global asset classes, and how that diversity is rooted in meaningful, fundamental, economic drivers. And so today we're gonna talk about other sources of diversity in markets, other sources of long-term excess return that are driven by different behaviors and structural

phenomenon in markets, and where we've got a very long history of success from these alternative sources. And I refer back to Larry Swedroe, who I think did a great job of describing how to identify the most promising alternative sources of return. And when I say alternative sources of return, I mean, uh, strategies like value. So, buying the cheapest securities and going short the most expensive, momentum, buying the stocks that have gone up the most over the past short terms.

So, sort of the past few months and expecting them to continue to go up over the next few weeks. And the opposite, selling short the stocks that have been performing the worst recently. Defensive, which could be buying high quality stocks, stocks with high ROE, low investment, low leverage factors, high earnings stability, low market beta or low volatility, all of these different ways to measure the defensiveness of a security. And then carry, which is just the idea that you want to buy securities where you're going to earn a return even if the price of that security doesn't change. So if you think about equities that carry, it’s their dividend yield for bonds, It’s their coupon. Commodities also have a carry, it's the roll down yield on backwardated commodity futures.

So you get all these different diverse sources of return. There are strong economic and behavioral intuition that drives our expectation for the persistence of these returns. And so Larry Swedroe described how one might-

Rodrigo: **11:44** Can I just, before you get into that.

Adam: **11:45** Yeah.

Rodrigo: **11:45** So in the article we actually show these factor returns, both on the equity side which is super popular, and on the multi-asset side. Right? So just head over to the article, and take a look at a 10% volatility size and the excess return that you get from that.

Adam: **12:01** No, it's a, it's a critical point. We've been talking about asset allocation and these, a lot of people talk about these factor premia or alternative style premia, or whatever you want to call them, purely in the domain of security selection. But it's not isolated to that. The exact same effects play out in the multi-asset space, as well. So buying asset classes that have strong momentum or strong trend or strong carry, well that has exactly the same, and in, in many cases an even more powerful effect over the long-term than we, than we see in the security space.

We're talking about the factors with, that are most pervasive. So we see them everywhere in every geography, in, uh, across different security types and asset classes. They're persistent. In other words, we can go back and look at each decade through time and we observe that that effect has played out. They're robust. So when we talk about buying value stocks, we don't just mean stocks with high book to market, but also high earnings to market, high EBITDA to enterprise value, all these different ways of specifying that. And there's different ways to specify carry, and trend, and momentum. And as we talked about, defensive.

And we also want them to have an intuitive grounding, right? We want to know who are the suckers on the other side of this bet and why are they behaving the way that they are? Or what is the excess risk that those investors are accepting, who are earning that premium? And also we want to make sure that they are, they are implementable. So the factors or the old premium, premia, that we identified for this Buffet bet in order to expand our diversification frontier are, they meet all of these criteria, and they pass them all with flying colors and, uh, with very strong historical performance.

It's interesting to note, maybe I'll just sort of carry through and talk about how we put these all together. Remember in our previous discussion, the “day 3” discussion, we talked about it's not sufficient to have diversity, to have all of these different sources of return, but we also have to have balance. So if you've go, 50% stocks and 50% bonds in a portfolio, the stocks are completely gonna dominate the character of that portfolio. So if two things have very different risks, then the investment with the lower risk should have a higher capital allocation, and the investment with the higher volatility should have a lower capital allocation. And this is just the idea of risk parity, and if we go through all of these different alternative style premia, they all have a different natural risk character. We need to ensure that we're allocating to all of these different sources of risk and return so that they're all able to contribute the same amount of risk, and therefore the same amount of diversification benefit to the portfolio.

And so when we drill down, we sort of say, well, let's take about 40% of the risk and we'll allocate it to a global diversified risk parity portfolio of traditional asset classes. Another 40% allocated to diversified, so called style premia where we include value, defensive, carry, and momentum. These are all what we call concave strategies, so they're all pro cyclical. So when stocks go down or when, when risk is elevated, all of these different style premia tend to kinda not do well at the same time.

So what we wanted to do is also add in a bit of a special premium called trend following, which has a natural structural character and historical, we've observed this character through time, that trend following strategies tend to per, put in their best quarters and years when all of the other markets are, are at their worst. So we wanted to have a little bit of an extra allocation to trend following, so about 20% of risk.

Rodrigo: **15:53** Yeah. It, it doesn't hurt that it's also suffering from its worst five year performance in history.

Adam: **15:58** That's true. I mean, we're contrarians, right? And, uh, if you go back through, we've got at least 100 years of high resolution monthly returns for diversified trend following strategy. Other papers and authors have gone back several hundred years. And, Kathryn Kaminski, who is on our webinar series this year, her study went back 800 years. So we know that this is one of the most persistent phenomena in markets. And if you go back 100 years, we can see that the-the-the past 10 years has been about the worst as it's ever been for trend following and being value investors. Maybe not, that's not the right word, but contrarian investors. We know how to spot a good deal.

Rodrigo:	**16:38**	But from other periods uh, there was, there was another period similar to this. I mean, everybody says that a lot of people are saying that trend is dead. You just posted a little tweet showing from a specific point in 1929 to a specific point in 1939 that the return …
Adam:	**16:51**	Well the point is that the 1930s were a very challenging period for trend following as well, and we talked a little bit about why that might be the case. And maybe it warrants a future discussion on trend following in particular and why we think we're in the situation we're in, and why we think it's especially exciting to invest-
Rodrigo:	**17:07**	Mm-hmm (affirmative).
Adam:	**17:08**	In trend following strategies at this point in the cycle. But just, yeah.
Rodrigo:	**17:12**	Yeah, so, so to recap, we basically are doing 40% of the risk allocation in risk parity, so traditional asset classes. 40% allocation to style premia, and 20% to-
Adam:	**17:22**	To trend following.
Rodrigo:	**17:23**	To trend following. Right?
Rodrigo:	**17:24**	Yeah.
		And, uh-
Adam:	**17:26**	What does that translate to capital-wise to?
Rodrigo:	**17:28**	Yeah …
Adam:	**17:29**	So keep in mind, right, when we put all these together in risk parity, well if we were just to hold a fully invested portfolio in these, you actually only get to about a six percent volatility because the different moving parts are so uncorrelated with one another.
Rodrigo:	**17:44**	So this is going back to the idea of Ted and the fund of funds getting the right risk contribution. We didn't decide to match the S&P 500. We think it, it would be too much of an advantage to get the exact same long-term volatility (laughs).
Adam:	**17:59**	Well we just thought it was prudent and-
Rodrigo:	**18:00**	When it, we want to give it a little bit of edge.
Adam:	**18:01**	And a little bit more approachable-
Rodrigo:	**18:03**	A handicap.
Adam:	**18:05**	For, for us to cap our, our leverage exposure at two times.

Rodrigo:	**18:08**	Yeah.
Adam:	**18:09**	Right? So well, we just took our, the fully investment portfolio with an ambient long-term volatility of around six percent. We just doubled it up. So targeting a 12% volatility, we deducted pretty conservative expectations in terms of borrowing costs and came out with a, uh, a final portfolio with the target volatility at 12%. And you can go back and dig into the article, but the long-term historical performance of this combination of premia over the very long term at a 12% volatility after deducting pretty conservative borrowing costs, is still in the 17% range.
Rodrigo:	**18:46**	Yeah.
Adam:	**18:48**	So, um, so, so very, very competitive. Even if it does half as well over the next 10 years-
Rodrigo:	**18:50**	Mm-hmm (affirmative).
Adam:	**18:53**	As it has historically, it should still be highly competitive with a traditional, right? So. And I-
Mike:	**18:59**	Right. And as you, as you think about that from the standpoint of, you know, this whole concept you guys were talking about earlier, is trend following dead or ... Is diversification dead?
Adam:	**19:06**	Right.
Mike:	**19:08**	Because one would argue the same thing. If you were to simply observe what the returns to asset classes have been since the great financial crisis, uh, in particular the last five years. They're generally zero or very negative for commodities, and then very positive for one equity market in the world, which is the US market.
Adam:	**19:28**	Correct.
Mike:	**19:29**	And so to my mind, it's not, you know, it's not so much that I would say that we are contrarians.
Adam:	**19:33**	Mm-hmm (affirmative).
Mike:	**19:34**	I think we're more consistent. So we'll, we'll review the evidence. So let's look at the evidence that you mentioned earlier with respect to trend. There's, you know, there's hundreds of years of evidence that, that kinda works. Are there periods like this where we have this long drawn out low performance draw down experience? Yes, absolutely. That's how you get the premia. You have to live through that in order to, you gotta take the good with the bad diversification. It's the same thing. If we look at the impact of diversification to portfolios over the last 10 years, it's not been particularly robust.

		And so I think we're, we're harnessing that as part of the long-term outside view against, uh, the S&P 500. And, uh, happy to have a fictitious bet-
Adam:	**20:27**	Yeah.
Mike:	**20:28**	With Warren Buffet for a dollar like the guys in Trading Places and, and Mortimer and whatnot.
Rodrigo:	**20:32**	And we, and we're, we're starting in the complete opposite reality than Ted Seides
Mike:	**20:35**	Yes.
Rodrigo:	**20:36**	Than Ted Seides was, right?
Mike:	**20:36**	Yeah, you're exactly right.
Rodrigo:	**20:38**	'Cause we are coming into this. We did it in 2017. That was a pretty bad year (laughs), of course.
Adam:	**20:42**	A catastrophic time to start that bet for sure. Yeah.
Rodrigo:	**20:44**	Against the S&P 500. So the S&P is starting strong, we’re at, where are we now? December the 5th?
Adam:	**20:50**	6th.
Mike:	**20:51**	6th.
Rodrigo:	**20:52**	6th? Six? Not looking good. (laughing)
Mike:	**20:55**	The race is long, my friend.
Rodrigo:	**20:57**	Yeah. I hear ya. So, so just to talk about the, uh, so, so what does it, what does it look like in terms of allocations? Roughly 100%. 100, so if it's 200 levered, 100% goes to risk parity, 60% goes to, um, diversified alternative.
Adam:	**21:12**	Diversified alternative style premia.
Rodrigo G.:	**21:13**	And 40% goes to the trend.
Adam:	**21:16**	Yep. Yep.
Rodrigo G.:	**21:18**	Right. And these are, you can access these. There are players out there that are, that are putting these style premia together and there's risk parity mandates. We do all of them through separately managed accounts or Evolution Program. So there, there's

ways of doing, of creating this portfolio if you really want to. Um, and uh, we're gonna see. We're gonna update it once a year-

Adam: **21:37** Yep.

Rodrigo: **21:38** And see where we're going.

Adam: **21:39** I'm excited.

Mike: **21:52** Me too. And that, I think, brings us to the end.

I think that the arc we've been talking about has been very heavily investment related. How might we increase the opportunity for risk-adjusted performance? Something we say around here at ReSolve all the time is what, what do we want to be in the hall of fame for? Well, we want to be in the hall of fame for realized, risk-adjusted returns, right? That's what we want. We want to make sure people can stick with it for the long run. And I think that's, that's where we're gonna get into the conversation about how you can harness this whilst planning for long-term, very important goals, and how this helps sustain, uh, systematic withdrawal rates, and it helps reduce the opportunity for bad luck to undermine your, your retirement opportunity or your education opportunity. Um. Again, funds with long-term allocations and long-term goals, in particular those that might be drawing an income from them. You know, these are very important concepts and we're gonna tackle how these relate to all of those topics.

Rodrigo: **22:48** Thank you for listening to our 12 days of Investment Wisdom mini-series. You will find all the information we highlighted in this episode in the show notes @investresolve.com/12 days. You can also learn more about ReSolve's approach to investing by going to our website and research blog at investresolve.com, where you will find over 200 articles that cover a wide array of important topics in the area of investing. We also encourage you to engage with the whole team on Twitter by searching the handle @investresolve and following Adam, Mike and myself. If you're really enjoying this series, please take the time to share us with your friends through email, social media, and if you really learned something new and believe that our series would be helpful to others, we would be incredibly grateful if you could leave us a review on iTunes. Thanks again and see you next time.