

Episode 30: Can We Assume the 4% Rule Provides A Safe Withdrawal Rate For Retirement Income?

Bob French 00:00

The purpose of Retire with Style is to help you discover the retirement income plan that is right for you. The first step is to discover your retirement income personality. Start by going to risaprofile.com/style and sign up to take the industry's first financial personality tool for retirement planning. Is three and a half percent the new 4% rule? It is if you wear black.

Alex Murguia 00:46

Hello, this is Alex here coming to you live from Retire with Style and I'm here with Wade, how are we doing today? Wade.

Wade Pfau 00:58

Yeah, great. You got your man Jack radio voice?

Alex Murguia 01:04

As good as I can do it. What did you think we'll catch you by surprise?

Wade Pfau 01:10

We're ready for the morning.

Alex Murguia 01:13

That or you know my high school used to do kind of this. during spring break, there was always like this carnival that would come by. And there was this ride called the Gravitron. Do you Does that ring a bell at all?

Wade Pfau 01:28

No, what did it do it?

Alex Murguia 01:29

That's the one you go inside. Like it's flying saucer ego. It's a like a flying saucer looking thing. And it just spins and centrifugal force kind of puts you on the wall. And the guy would kind of say do you want to go faster? That kind of. That's, that's that's that's my Gravitron there you have it. So Wade, what's new since the last recording? What's that? What's new in your life?

Wade Pfau 01:58

Yeah, I've already covered everything. Yeah, I think you have a funny story.

Alex Murguia 02:04

That was a little preamble. I actually we're recording this right after the previous episode. The joke is nothing is really happening. But I was telling Wade, I went to get coffee. Real quick between episodes and my youngest son, Luke. And he's 13. Right. And his older brothers are playing, you know, their PC gamers. And they're, they're still well rounded children. They really study they play an instrument athletics. So they're not just, no kidding they're playing video games all the time. And so, you know, the little brother is it's finally gotten tired of asking his brothers to play on their computer, then they've gotten tired of letting him play their computer until he finally saved the money and he bought one. And it's coming in today. Then the whole day. He's been like waiting for it almost like Christmas in August, right. And so he's been tracking it on Amazon and this and that. And he's just very vigilant. And so in between, I noticed he was kind of upstairs just waiting. And I got one of these big cardboard boxes, I put it up on the porch and he knocked on the door and just ran real fast away from that. And he just comes shooting down opening a you know, coming down and shooting that going to the porch opening. And the moment he picks up the box and realize it was empty. He just he knew it was me. And he looks for me. He's just looking at me with this this. This countenance of disappointment Wade is the best thing to do. But hey, it was a hell of a moment. That was a moment of bad moments because I got to him. That's all that matters. The rest of the days only going downhill

Wade Pfau 03:40

gonna go appeal for you now, because that's really important.

Alex Murguia 03:46

That's right, that's right, here we go. Where did we leave off man? Where are we? What's the what's the

Wade Pfau 03:56

kind of we're in episode three of our quote unquote season in terms of we've talked about what's the sustainable spending level from investments and how it's easy to answer if you know what the returns will be what the time horizon is how much you wanted to live at the end. Then we talked about sequence of returns risk and how that can really throw a wrench into the gears so to speak

Alex Murguia 04:18

a couple things what happens if you use a service called vector vest that kind of gives you a green light red light or yellow light when you should get in and out of them when they were doing that when they were doing the the safe max.

Wade Pfau 04:40

A full scale sustainable spending strategy that incorporated an effective marketing that's on the agenda

Alex Murguia 04:50

is riveting. Riveting.

Wade Pfau 04:52

Oh, are you serious?

Alex Murguia 04:54

There's this commercial.

Wade Pfau 04:56

Well, I mean, I don't know if I remember the name right. But we won't get into that today. Is that I think it's like a vector vest or something like that.

Alex Murguia 05:02

I don't know how they put commercials on commercials like that. But whatever. It's not my it's not my it's not within my purview of decision making to decide what goes on as I leave that up to the FCC. I think it's because they're not technically registered advisors, you can kind of say whatever you want. I get that vibe, but whatever. Where are we? Sorry? Wait, I really went up too deep in that.

Wade Pfau 05:34

Yeah. So we are today we're going to talk about what I refer to as the spend conservatively strategy. Although I there's definitely a bunch of caveats that go along with that name. And then we're gonna actually get into today, but I think you objected to the name in general, without even getting into caveats. So we'll let you air your grievance first. And we'll get into just really the foundational research that gave us what's known as the 4% rule. And all the assumptions that go into that research. That's our focus. Yeah, before

Alex Murguia 06:06

my little prank on my 13 year old son. And we ended the last episode, Wade was referring to the safe Max as the conservative rate. And I said, after we hung up, obviously, I wasn't going to cross Wade live. As saying, Wait, I don't think that's a conservative strategy, largely. Because once you set your rate at 4%, whatever for, you know, four, three and a half or whatever, once you set your rate, it's a nominal number. And you adjust for inflation and come hell or high water. It is what it is you take that amount out no matter what. And as you'll see, that's that that dynamic, is actually quite aggressive, relative to other potential strategy. So I was like, were other potential sustainable withdrawal rate strategy. So I was like, Wade, I don't? I don't, you know, I don't I don't think that's conservative, in my view. And then Wade had a had a response that he was just looking at it from another point. But

Wade Pfau 07:08

yeah, go Yeah. And you're right, like it, you play this game of chicken, it's not a realistic strategy, because no one would actually do this in real life anyway, they just keep spending and spending even as your portfolio plummets towards zero. But you're right, that's not very conservative. But what I mean by spin conservative is, it's kind of the way you approach the question of what's a reasonable time horizon? What's a reasonable rate of return type of an assumption. And so the span conservatively, strategy, I just mean, let's figure out a reasonably conservative time horizon, a reasonably conservative

type of rate of return. And then that means we're going to be spending less. And when we get to the point where we're comfortable, that spending is low enough, that we're not going to outlive our assets, or we're not going to have to adjust our spending, then we're fine. And that's how we proceed with our retirement. And so what we're talking about today, starting with the 4% rule, is based on living in 95, which was viewed as highly unlikely. And it was based on calibrated to, I should say, the worst case market performance in the US historical data. And so that was also viewed as conservative, if I'm picking the strategy that's supposed to work. In the worst case, it's supposed to last Age 95. If I'm 65 years old at retirement, that's what I mean, by the term spend conservatively, but we'll dig into all the assumptions that go into that. And ultimately, what the implications are, if you change those assumptions to, in many cases, make them more realistic, and what that means for the spending.

Alex Murguia 08:46

Okay, and how did the study occur to begin with, what's the methodology? Because, you know, we talked in the two episodes ago, just the whole payment rule, which is, you know, you take these five variables, you know, portfolio value, expected value, return money, you take out how long you're gonna live, and voila, there you have it. But that's a very straight line one time shot. How did he review and incidentally, this is just the US markets, Wade actually cut his teeth initially by looking at this kind of dynamic beyond the US market, but by just looking at the US market, how did he go about even figuring out what that lowest potential, you know, number was?

Wade Pfau 09:34

Right, really his Genesis was people miss applying the that PMT function, or that payment rule that kind of the thought process in the early 1990s was to say, well, the s&p 500 averaging 7% After inflation is an arithmetic mean. So I build myself a little spreadsheet, I plug in a 7% rate of return My Portfolio grows 7%, I can take 7% out that seven percents going with inflation, my spendings going with inflation, I never even really depend on my principal, I just kind of spend this fixed 7% Return off of my portfolio every year. And building and recognize that's ridiculous. And so really his study uncovers this sequence of returns risk and the potential impact it can have. Because he's recognizing you don't get the average return every year. markets are volatile. And so how he approached this, he got a hold of the Ibbotson. Morningstar data, it's very common popular data source that people like to use with stock and bond returns going back to 1926. He mentioned how he decided on a 30 year horizon. So he said, Well, what if you had retired hypothetically, in 1926? So you got the market returns from 1926 to 1955? How much could you have sustainably spent in that retirement? Then what if you had retired hypothetically in 1927, got the returns from 27 through 56? And so on, and so on. Until now, today, we're at 1992 through 2001 would be that most recent 30 year period that we have the complete data for?

Alex Murguia 11:18

Do you know offhand how many how many periods? That is? I don't want to sit and think about it?

Wade Pfau 11:23

Yeah, we're getting close to I know that there's close to 100 total years, and then you have to subtract the 30.

Alex Murguia 11:30

So okay, the only 70. But the only thing was, I'm going with 67 years,

Wade Pfau 11:37

or 37, rolling 30 year period

Alex Murguia 11:39

in 67, or rolling 30 at birth. My issue with this right off the bat, if I was like, you know, if I'm like talking to my dissertation professor, and I'm saying, Hey, I've got this study, and I'm going to be doing this and that, and I don't know about economics, but in psychology, I would definitely get this feedback. I wouldn't be allowed to do this not be allowed maybe too strong a word. But I'd be forewarned that this is not a good methodology to begin with, because of a thing known as autocorrelation. Like if you're if you're taking these rolling returns, the correlation between the first sample and the next sample, there's only a one year difference, you know, and so forth, and so forth, and so forth. So the comment that I would have from a pure scientific query basis is the 67, SAP or whatever it is, whatever you said, 60 plus samples aren't really 60 independent samples.

Wade Pfau 12:37

Right? There's 67 independent, there's really only two all right, yeah,

Alex Murguia 12:41

exactly. Honestly, this is this is a huge, this is kind of, I don't know what to say, Wade, this this is like, so besides that, how was the play Mrs. Lincoln? kind of moment? You know, for me? No, really? Because it's

Wade Pfau 12:57

the whole episode before we get.

Alex Murguia 13:00

No, I don't mean it like that. I mean, it would love. Sorry, I'll be quiet. That'd be good. But no, it's just, it's just, I just don't like it when people say, Oh, I've looked at 67 years of returns. And look, it's never failed once. You know, in theory, I get it. And it's fine. And over, it's just a matter of time, I'm sure you'll get something similar. But I don't like the certainty people pose this with as I guess what I'm getting at. Because these aren't independent samples, you're looking at

Wade Pfau 13:30

seven rolling 30 year periods with overlap the first and second periods overlap of 29 or 30 years, there was a so the statistics of this are beyond my skill set. But there was a Princeton professor who looked at the kind of what's the true sample size with overlapping data. And it's going to be a lot less than 67, it would be more than two to the two side than the 67 side. In terms of how many real how much information can you

Alex Murguia 14:01

then form a normal distribution? What do you need? What 27 Central limits? Don't you know, you know, you need something around 30 plus or minus 27 Plus or minus. I don't know if it gets left on you. But let me let me stop there. Continue.

Wade Pfau 14:17

Well, and we'll get into this too, with the later episode with the international data. This is all based on the 20th century us when the US became the world's leading superpower and our stock market capitalization rose to be 50% of the world's total by the year 2000. Everything else associated with that but that's we're not we're not there yet. That is a potential critique of this methodology though I can definitely acknowledge that but I thought I was the one who was supposed to be critical before. Good. You digress. Okay. Everything else us set aside, at least this is going to be better than plugging in that 7% return into a spreadsheet. Hopefully we can both agree a better methodology than that.

Alex Murguia 15:10

And the baby out with the bathwater, I just, I'm just going off the little caveat of, oh, look at all these numbers, seven years of data isn't there. And that's what that's

Wade Pfau 15:19

it 67 Rolling 30 year periods. Okay, but he looked at, okay, if he had retired in each of these different 67 years, but he I'm sorry, he didn't even have that in 1994, his data went through 1992. So he only had this is really gonna make you mad. For him 1963 through 1992 would have been his most recent 30 year period. So he really only had, you know, 35, I'm not doing some under less than 40 Rolling 30 year periods. Only one truly independent 30 year period. But okay. With that aside, I'm talking about just extending his methodology to the present. So to give us more data points here, nonetheless, the worst case scenario happened far enough back that it's not impacting what we're describing. But he looked at then, what could I have sustainably spent if I retired, and each of these years is a hypothetical retiree, and he defined that percentages, I'll take out that amount in the first year. And then I'll just keep spending that same amount plus inflation growth for the next 30 years. And so in a particular year of 6%, was the number it meant, I started with a million, I could have taken out 60,000, increase that 60,000 for inflation each year. And I would have hit zero right at the end of year 30. So that was the maximum spending rate that I could sustainably spend over 30 years where I

Alex Murguia 16:49

just want to say that one more time, because I think a lot of a lot of folks get confused professionals and consumer, when people say the 4% rule. And I think it's because title is 4%. But if you notice, just to be clear, what you're doing is \$100 portfolio. 4% is \$4. So I'm going to take out \$4 Why \$4 and not \$5 and not \$3. Because \$4 was the lowest amount that you can safely take out. I mean, at the height with

Wade Pfau 17:21

the one that was the highest, the

Alex Murguia 17:24

highest lowest birth year, yeah, highest number you can take out in the worst case scenario. Yeah, right, get confused, you know, that you can take out once you end the whatever percentage that is that

is. But once you determine that nominal amount for dollars, then in year two, you don't take out 4%, you just take out \$4 plus or minus what inflation was that year. And then it resets every year nominally relative to the inflation amount. So it's not a percentage on an ongoing basis. It's just what the percent was in year one. And then it and then it resets nominally, according to inflation. That that little caveat is is I think, lost by many, because I don't know if anyone's ever just taking the time to just say it like that.

Wade Pfau 18:11

Yeah, and I don't remember which publication it was. But that's even been confused. And one of the major like consumer personal finance publications where the the 4% rule, it's an initial withdrawal rate, and it's a constant amount of strategy. You could say, well, why isn't the 4% rule, I'll just take out 4% of what's left every year 4% Of the remaining portfolio balance? That is the opposite. I mean, it's 4%, but it has completely different retirement spending strategies. And that's not what's meant by the 4% rule. Yeah, 4% of what's left every year is a constant percentage strategy that's going to change the amount every year based on portfolio performance. But that's another thing a constant amount of strategy. That's like allows the withdrawal rate to fluctuate over time.

Alex Murguia 19:00

That's like Dr. Strange Welcome to the multiverse.

Wade Pfau 19:05

Get into that, though, because that's the heart and soul of starting the conversation around variable spending, because the 4% rule is not an example of variable spending. You decide how much you're going to spend in year one. And then you just go with it, you increase it for inflation, but you don't ever adjust it based on how your portfolio so nominal

Alex Murguia 19:25

said it said, Okay, that's why we'd said earlier, it's kind of like you're playing chicken with a market.

Wade Pfau 19:33

Yeah, it's, if you're in a scenario where your portfolio starts plummeting towards zero, you just, oh, I'm not going to adjust my spending. I'm sure I'll die before I run out of money. It's that's the assumption. Now. It's not a realistic assumption. Ultimately, the 4% rule is not a realistic retirement income plan. It's more just to get a sense of what is sustainable, and nothing more. But that's what it is. It was specifically A well depends asset allocation, we'll get into that a little more to but with a like a 50%, stock allocation is 75% stock allocation. It's generally 1966 is the year that triggered this worst case scenario in the US historical data, that if I had a 50/50 portfolio of s&p 500, and intermediate term government bonds, I could have taken out just slightly more than 4%. If I'd read a hypothetical retiree in 1966, taken out 40,000 from a million, increase it for inflation, and then I would have run out of money at the end of 1995, after a 30 year long retirement. That's where the 4% rule comes from.

Alex Murguia 20:46

And if you notice that, it's, and a lot of those, a lot of those four percenters, it's the lowest one, but a lot of a lot of them cluster, a lot of other 4% being the lowest point cluster around that 9066 range, you know, hence the

Wade Pfau 21:01

right, yeah, you get lower. So the Great Depression is not the source of the 4% rule. And this gets into an inflation type issue as well, there was deflation during the Great Depression, the price level actually dropped by around 25%. Stocks did not do well, but bonds actually doubled in purchasing power during the Great Depression. So the 4% rule is not triggered by the Great Depression, at least with a 50/50 asset allocation. It's triggered more by that 1960s world where markets were more highly valued, wasn't even an issue about low interest rates, but also higher inflation. So rough market environment, high inflation. That's what really led to those lowest withdrawal rates in the US historical

Alex Murguia 21:46

Wade, how many people are listening to that phrase that you just said, roof market? Thinking, yeah, that's

Wade Pfau 21:56

sounds a bit like 2022.

Alex Murguia 22:00

You're welcome, everybody. And

Wade Pfau 22:01

that's been a saving grace of the 4% rule in the recent past, it's just we've had low inflation for a while. And that really helps because it puts less pressure on increasing spending over time. But if that goes away, and if inflation gets higher, it's it's another concern. Okay. And you said, that's also jumping a bit ahead that

Alex Murguia 22:19

you said earlier? Wade, and I don't know if you want to really unpack that. But you were saying 4%. And you know, what, you just you just hinted at Portfolio allocations. You kind of said, very briefly 50% to 70%. Equity. And how that ranges What, what's your view on that? Because, in the previous episode, we spoke about how, you know, your allocation can play a role in this, as well. So what what's your thoughts are on that? Okay, for 4.03. That's where that 50% allocation if I'm, if I'm correct, or no 50%.

Wade Pfau 22:57

That's kind of stick to build Lincoln's research, and talk. So when we talk about asset allocation, my opinion for anything, I got to talk about building guns research today, but But yeah, let's talk about asset allocation. And also, I think it's worth the, in the past, the previous episode, I said sequence risk, amplifies investment volatility, we can get a nice taste of that with the actual 4% rule. So it was based on the market returns from 1966 to 1995. If I had put \$1 in the market in 1966, and just watched it grow for the next 30 years, in this 50/50 allocation, it would have grown at 4.2%. Real compounded growth rate. So it's a growth rate of 4.2% plus inflation, it's pretty high. It's not a bad average return for a 30 year period. I mean, it is lower than the overall average. But it's not that bad. But, I mean, if I had just got a fixed real return of 4.2%. plugging that into the PMT calculator, that would imply a 5.9%

withdrawal rate. And the 4% rules, not a 5.9% rule. That's where volatility comes into play. If I had been spending every year, it puts disproportionate weight on that late 1960s, early 1970s period, after 1982 markets do great, and that's the back half of that retirement. If you'd retired in 1982. The withdrawal rates actually close to 10% with this 50/50 portfolio, but it's really too late at that point for the 1966 retiree. There, we're on track for the worst case scenario, the 4% rule implies that they only earned a 1.3% real return on their investments, even though the average investment portfolio or investment performance was 4.2% real. So that sequence of returns risk and action. When I'm spending from my portfolio, it's like I was only earning 1.3% sent from a portfolio that if otherwise had been left alone would have been earning 4.2% real.

Alex Murguia 25:06

So Wade, is it fair to say that if you're in the your probability base optionality oriented and, and strong into the total return approach, you have to open yourself up to the possibility that you may be unlucky, in the you know, in the first part of your retirement, it just is what it is. It has nothing to do with smarts, it's just some, it's just your particular cohort, or you're retiring into this type of economic or whatever stock market cycle. And you just have to come to terms with that. That's not a value statement. It's just an observation. Is that a correct statement, though?

Wade Pfau 25:44

It is, and, and the bill bank in response to that would be that, though, recognizing past performance is not a guarantee of anything. The fact that this did always work historically, and putting aside your concern, that there's not that many data points to base this off of, but, uh, because it's worked historically, and I fundamentally feel fine, that it will work in the future as well. Okay. So that that would be the response to that,

Alex Murguia 26:15

yes, that the reality is, you're 15 you're still getting it handed to you. And you have no idea of the markets are going to turn around. But you need to have almost blind faith that it will

Wade Pfau 26:30

happen if he appeared, that's really, an assumption of the 4% rule is just Yes, you're, you're going to be okay, because you're comfortable basing this on history and in history, you would have been okay. Okay, so yes.

Bob French 26:46

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Wade Pfau 27:10

Okay, you mentioned asset allocation. So it's worth mentioning. So in his 1994, article, Bill baingan, said, in a quote, I think it is appropriate to advise the client to accept a stock allocation as close to 75%

as possible, and in no cases less than 50%. Now, this is something that whenever you do this kind of research, it's always coming out like this. For this sort of spending strategy, you need to invest fairly aggressively. And the what led him to that conclusion was really just comparing what was the safe? Yeah, we've used this term safe Max a few times that is safe max is the maximum spending rate. In the worst case scenario, the safe Max doesn't really get all that much lower, as you increase the stock allocation. But with a higher stock allocation, on average, you're gonna do a lot better, you're gonna leave a lot more money behind at the end. And so, because a higher stock allocation doesn't really impact the safe Max negatively, and it just gives you all this upside, why not just invest more aggressively,

Alex Murguia 28:23

it's effectively the probability working out the probability but is working.

Wade Pfau 28:29

And in an article, so he had a series of four articles over the next several years after 1984 and a later one, he broke it down into 5% increments, and then found the 4% rule historically worked between anywhere from 35 to 80% stocks. So you could extend his first article is only looking at 25% increments. So with that broader approach, you could say, well, reinterpreting the statement, I think someone should invest as close to 80% stocks as possible, but in no circumstances less than 35% stocks. Because the safe Max was always the same in that range. If you want less than 35% stocks, there is no 4% rule. Historically, the withdrawal rate gets lower with 0% stocks with his preferred intermediate term government bonds, it was about a 2.4% safe Max. If it was again, if it was all bonds. At 100% stocks, it's a little bit less than 4% as well. But just a little bit less than not a lot less than 4%. And so again, it's kind of why not just invest more aggressively, based on historical data, you're not taking more risk, you're just getting a lot of reward most of the time. And so that that's the the asset allocation story coming out of this, this kind of spin conservatively strategy is it's not invest conservatively, it's invest pretty aggressively, but just calibrate your spending to be low enough that you're not worried you're gonna outlive it So that's the 4% rule. And that's the asset allocation. There's a few variations on that bill BankIn, wrote in 1994, there was something that's colloquially called the Trinity study that was published in 1998. And Scott Burns was talking about that study in the Dallas Morning News. And that's where this kind of research really started to enter the public consciousness. But it framed the problem a little bit differently, where it just instead of focusing on a safe Max, it was focused on the question of what's the probability you'd have a high the spending was higher than any sort of number you're looking at? So for example, with Philip Jenkins data, we could say, like, how safe is the 5% rule? What if I use a 5% distribution rate? And then historically, if you count up all the times that withdrawal rate was at least 5%. So we're back to the historical rolling data 48 times the withdrawal rate was at least 5%. With this 5050 portfolio, out of the 67, total rolling 30 year periods. So then you would say a 5% distribution rate has a 72%.

Alex Murguia 31:14

So let me let me just say that one more time, because I want I'm sure everyone gets it. So 4% rule, it was successful 100% of the time out of the 67 Rolling periods. Well, now it's 67, whatever it was back when he did it, it worked 100% of the time. And so a way to say and what some people started playing around with that, okay, fine, 100% of the time, but that's, that's a lot less a lot of safety there. I'm fine

with something that worked 80% of the time. And that's where, okay, instead of 4%, I did 5%. And voila, that worked. Whatever 80% is of the total number. It's kind of what you're saying. I just want to make sure that's understood. Because yeah, you're giving yourself more flexibility around that.

Wade Pfau 32:02

Yeah, the Trinity study looked at different asset allocations, different retirement lengths, different withdrawal rates, and just counted up the historically the number of times that withdrawal rate worked for that set of factors. And if we want to really dive into the weeds a little bit, so I mentioned the intermediate term government bonds, this is like about a five year maturity, treasury. It's the sweet spot for bonds. Short term bills are less volatile, but they don't give enough yield. So they're not going to support as high of withdrawal rates. Longer term, government bonds, corporate bonds do have higher yields. But they are more volatile, and historically don't support his higher withdrawal rates. The for the intermediate term government bonds, five years is the sweet spot to give you the highest withdrawal rates. The Trinity study, though, switch the bond index, they used long term corporate bonds instead of intermediate term government bonds. And with that, there were two historical cases, I think it was 1965 and 1966, where the 4% rule did not work. And therefore they said the 4% rule had a 95% success rate. And I think that led to a lot of confusion for everyone, because then it sounds like a in statistics, you talk about like a 95% confidence interval and things and it's just a coincidence with this 95% number, but then sentimentally somehow, the interpretation became, oh, if you use 4%, it'll work 95% of the time. And not not then putting together two and two, which isn't that's just historically it would have worked 95% of the time and with Brandon's data would have worked 100% of the time. But I think that was just that 95% is kind of had a worse impact on everyone than if it had just been 100% because it almost introduced this kind of

Alex Murguia 33:57

level of precision and rigor that wasn't there. Yeah.

Wade Pfau 34:02

Yeah. And so that's, that's the Trinity study was all about these portfolio success rates instead of safe

Alex Murguia 34:09

were these academics that did the study, or were these like practitioners that did the study.

Wade Pfau 34:15

Know that the Trinity study was actually academics. It's called the Trinity study, because they learned something there. Two, three, the three or all three were faculty members at Trinity University, Antonio, Texas, Cooley, Hubbard and waltz. Okay, you want to deep dive into my memory banks on three offers?

Alex Murguia 34:35

Okay. I don't know I when I've looked at it, I remember when I looked at it the first time. And this is and again, I'm not knocking. I'm just kind of providing maybe I'm purposely trying to provide a counter view more than anything and really to drum up discussion because I do think that this can work. There's there's no issue with it. My personal comment in terms of looking at this and maybe this has to do with

my The background and then when I got into the investment piece, you know, coming at it from the investment side, and, you know, why is there a potential risk premium? Is it? Is it a cost of capital sort of economic argument or not, you know, etc. I look at this, and I, whenever I look at studies like this, you know, they, I see this as, as more engineering exercises way. And what I mean by that it's, you know, they're just having fun with Excel, frankly, and trying to parse a lot historically, what's worked? And then, you know, extrapolating what because it did that it should, it should do that going forward. My biggest issue with this, and again, I say, issue more to kind of spark conversation than anything is that why, what is the economic reasoning of why this should work? Again, going back to why there's a risk premium, you can make the case well, stocks are riskier than bonds, hence, you should have a higher expected return, and you even take it back to its cost of capital piece, right? I'm having trouble looking at these studies, and assigning an economic reasoning why a 4% rule should work, you know, relative to a 3.9% rule, relative to a four and a half percent rule. Other than seeing this as just a bunch of engineers kind of like figuring this stuff out. I don't see a lot of scientific rigor behind this from a, from a theory perspective. Other than, you know, a fancy game of Jenga on a on a, you know, on a spreadsheet, I'm kind of being cute, a little bit by half and you know, admittedly so. But what would be your response? If somebody was there? What would they tell me? Other than to go?

Wade Pfau 36:48

Yeah, I got a legitimate point there. But I think the response would be, and I think a lot of people would give this response that ultimately, because we, I mean, we don't know what's going to happen in the future. But the best information we have is the historical data. And so why not take full advantage of parsing out the historical data, and also being very distrustful of anything besides historical data? And being comfortable? Again, kindness. We're almost at 100 years now, since main end with Robert Shiller, you can go back to 1871.

Alex Murguia 37:27

Yeah. No, I don't Well, okay, fine. I don't subscribe to the independence of the data being 100 years, but that's fine. That's me. That's not That's fine. That's not an issue here. I'm just I just put it you see, but when people say okay, stock should outperform bonds, you can make the case look, historically, it's been there, you know, and then I have to shut up, right? But beyond that, you can economically see why stocks outperform bonds, because they're, they're riskier, and you know, you need to be compensated for taking on that extra risk. And like, again, go back to cost of capital, right? If I go to the bank for a loan versus Bill Gates goes to the bank for a loan, and it's the same, I'm gonna get charged a higher rate than Bill Gates, because I'm a riskier bet. Right. And so I can see that in the risk premium to a large extent. I don't see that here other than the argument of okay, it's worked before. That's fine. I'm just

Wade Pfau 38:27

I guess it's just an extrapolation, it's, well, I believe stocks will outperform bonds. This is really just an engineering exercise of will stocks outperform bonds soon enough that you can benefit from it? And then, yes, historically, you think it will, I guess, and you can draw

Alex Murguia 38:46

sustainable withdrawal rate from it. Absent the comment you made before, not absent, that's the wrong phrase. But in consideration of the comment you made before with a caveat that there is no safe withdrawal rate from volatile assets. It's just a probability bet that you're making. And if you're a probability based, that's fine in the world, the world will continue to spend that

Wade Pfau 39:13

I hope that's a fair representation of the viewpoint that every this is, this is an appropriate methodology for understanding or obtaining useful advice on how to spend in retirement, don't ever

Alex Murguia 39:27

I think it's viable. Like I said, I'm trying to I'm trying to be a little bit of the contrarian here for the sake of being a country.

Wade Pfau 39:35

Fair enough. Yeah. No, I think that would be the response. It's, it's it's just really this big engineering exercise of, we believe stocks will outperform bonds. Someone might say, well, they might not outperform in time for your retirement. As you say, the market does not owe you a retirement. But then they say, Okay, well, let's look at the historical data. And historically, the market did provide for those retirements but but

Alex Murguia 39:59

yeah, Okay, all right. All right. That's fair man. Again, just wanted to put it out there, because I wanted to make sure it's all. Yeah, okay.

Wade Pfau 40:11

You're, you're a troublemaker here enough. So I think that we'll wrap things up, let's just really, a lot of this has come up already. But what are the core assumptions of the 4% rule? Because then with our next episodes, we'll start digging deeper into what happens if you start changing some of those assumptions. So if you can entertain me on that, me to just list these. Okay, I mean, that's the philosophy of the 4% rule. If you really focused on we talk a lot about longevity and lifestyle, you really focus more on the lifestyle, you want to meet your overall lifestyle goal. You want smooth spending, but your tolerate volatility, you define failure as depleting your investment portfolio, you are comfortable investing with a total returns investing strategy. You manage longevity by just planning for a long retirement, you really you manage spending shocks by just calibrating your spending to a worst case scenario with then the idea would be if you're not in a worst case scenario, you'll have some reserves to cover spending shocks. And so the the basic assumptions of the 4% rule, and this is where in future episodes, we're going to begin to, as you change these assumptions, why might the 4% rule be too high? Or why might the 4% rule be too low? And that's about when we look at changing these basic assumptions. So the basic assumptions, this is when it's come up a lot today, US historical data provides sufficient precedents for future outcomes for understanding the range of future outcomes. Retirees will earn the underlying index to market returns, retirees invest with a total returns approach

Alex Murguia 42:05

let me let me let me I need to jump in. Yeah,

Wade Pfau 42:08

I mean, we're gonna get into this is what we're really gonna start digging into. Okay,

Alex Murguia 42:13

I think everyone that, but I think you say, retirees are an underlying market index returns. And we take that for granted. And I think readers read that it mean, listeners hear that and say, Okay, check, easy. That's, that doesn't happen. Doesn't happen. So just and we can, that's a whole nother arc. And we could talk about reasons why. But that's a very important assumption that the sorry,

Wade Pfau 42:41

reason why the 4% rule might be too high. We'll talk about that more next week. But yeah, just moved on retirees is a total return investing approach. That means they're not investing for dividends and all that sort of thing. Specifically, there's this whole tax issue, and the 4% rule ignores taxes. So with a taxable brokerage account, there isn't there's no 4% rule because you have to pay taxes on ongoing investment growth. If you have an IRA, it's just your taxes have to be paid out of the 4%. But taxes have an impact. And retirees are willing to deplete their portfolio

Alex Murguia 43:21

and Wade, I got 78,000 reasons why taxes may be important going forward. Okay, you don't remember that they just hired like 80,000 70,000 IRS agents.

Wade Pfau 43:37

Okay. To keep filing more audits?

Alex Murguia 43:40

Yeah, exactly.

Wade Pfau 43:43

But retires, they're willing to deplete their investment portfolios. So that's just when we talked in the first episode of this season about, do you want to spend your portfolio down to zero or have some sort of buffer at the end, you are willing to spend it down to zero with the 4% rule. You do want your spending to grow with inflation throughout retirement. That's another assumption. 30 years is a sufficiently long retirement planning horizon for the 4% rule. And so it's a basic assumption. And then, with retirement asset allocation, it pretty much is limited to simple stock bond type asset allocation strategies. It's not a broadly diversified portfolio or it doesn't include any other types of like sophisticated asset allocation strategies. And that's the basic assumptions that will in subsequent episodes, dive deeper into to talk about why might the 4% rule be too high? Why might the 4% rule actually be too low? And there's reasons for that as well. So that's going to be what's coming up next in the series.

Alex Murguia 44:50

Yeah, the only tautology, I think it's a tautology, what I'll say is, but it also assumes that you're going to be spending this amount all the time. Like you're going to be spending the same aim at 95 as your when you're 65

Wade Pfau 45:04

Yeah, yeah, that was that's absolutely very important I wrapped that into they want inflation adjusted spending but yeah that that's a good that's what I mean by that. And you said that much better.

Alex Murguia 45:16

This is recorded right. I gotta take my wins when I get him doesn't have enough. Na, na you're absolutely right. Yeah the I guess the QC here we have a lot of fertile ground for for discussion. We were 40-45 minutes in what do you think man?

Wade Pfau 45:40

Yeah, I think it's time to call it a wrap and we'll we'll pick up with just digging deeper into these assumptions in the next couple episodes.

Alex Murguia 45:46

All right everyone. Thanks everyone. Yeah, thanks.

Wade Pfau 45:49

Bye. Have a great week. Bye.

Bob French 45:52

Wade and Alex are both principals in McLean Asset Management and retirement researcher. Both are SEC registered investment advisors located in Tyson's Virginia. The opinions expressed in this program are for general informational and educational purposes only and are not intended to provide specific advice or recommendations for any individual or on any specific securities. To determine which investments may be appropriate for you. consult your financial advisor. All investing comes with risk including risk of loss. Past performance does not guarantee future results.