

Episode 168: Funded Ratio vs. Monte Carlo: Which is Better?

Wed, Mar 05, 2025 9:12AM • 45:18

SUMMARY KEYWORDS

Retirement income, funded ratio, Monte Carlo simulations, financial planning, retirement goals, asset allocation, liability management, present value, conservative rate of return, retirement income challenge, essential expenses, discretionary spending, variable spending strategy, tax calculations, retirement risk.

SPEAKERS

Wade Pfau, Briana Corbin, Bob French, Alex Murguia

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.

Briana Corbin 00:41

Remember when your math teacher swore algebra would be useful one day? Well, they were in line. At least not when it comes to retirement planning. Today, Wade and Alex are breaking down the funded ratio a simple yet powerful way to measure if you have enough for retirement, forget rolling the dice with Monte Carlo simulations. This is your financial report card, and class is in session.

Alex Murguia 01:04

Hello everyone. Welcome to retire with style. I'm Alex, and I'm here with my good and trusted companion, Wade Pfau, hello everyone.

Wade Pfau 01:20 You didn't say your last name,

Alex Murguia 01:24 you would do? Yes, I do more. No, hey, Wade, how are you man?

Wade Pfau 01:27 Awkward, pause. Living the life, living

Alex Murguia 01:32



the life, nice, nice. What kind of life is that? Life? The best, the best? Are you living the best possible version of yourself? That's right, yes, good. Did you do your gratitudes this morning, things that you're grateful for? Or do you do that at night? Still

Wade Pfau 01:47

haven't played pickleball? You still have it, no, but now we're getting closer to that. Actually, this is we're going to be in San Diego, and this episode releases, we may be playing pickleball at the same bring your paddle. Bring

Alex Murguia 02:02

your paddle. I can bring your paddle because I'm gonna catch up with Lee and LA. So we'll be playing, all right,

Wade Pfau 02:12

all right. We got American college horizons conference, if any, that's more intended for advisors, but anyone in the San Diego area might like to join, there you go. March. 3 through fifth.

Alex Murguia 02:24

All right. And what else do we have coming up, actually, that will know this. This little episode today will be a nice precursor for you. Want to maybe talk about that a little bit, the retirement income challenge

Wade Pfau 02:35

coming up, yeah, yeah. We're going to be talking about the funded ratio and Monte Carlo simulations and comparing them. Yeah, in preparation for March 10 to 13th, which is going to be next week, we're doing our retirement income challenge now that one's intended more for the end consumer, not necessarily for the financial advisors in the audience, but we're going to walk through it's two hours a day, from 12 to two eastern time each day, Monday through Thursday. March 10 through March 13, we're going to walk through getting you a financial plan by the end of the week, the RISA retirement income style awareness, using the funded ratio tool, helping you see how that all works and how to put that all together into again at the end of the week, having a basic financial plan in place. And also talk about the non financial aspects of retirement that week as well. So anyone who wants to join us, the link we've been discussing in past episodes has been retirement researcher.com/ric and you can sign up and join us march 10 to 13th for the Retirement Income Challenge,

Alex Murguia 03:35

yeah. And for those listeners that haven't taken us up on one of these, please join us. It's one of those things that we enjoy immensely doing. Do it about three to four times a year, depending on how busy we get. But each time we do this, three 400 plans go through the works. And so it's one of those that it's a great way for us to simply play it, pay it forward, if you will. And with that, let's talk about the funded ratio. We've done this in previous episodes. We're looking at it, and it was really one of the first ones, Episode 20 ish or so, when we had Dave Blanchett on and we talked about the funded ratio and Monte Carlo and the differences. So I think it's, it's time to maybe have a refresh on that. You want to, you want to start it off. Wade, why? What is a funded ratio to begin with, and how does it work?

Wade Pfau 04:25



Yeah, so the funded ratio, it's it's really, you've got options here. You've got the Monte Carlo based financial planning software, or you've got a funded ratio. And they're both trying to answer the same questions. They're just coming at it from a different angle. The funded ratio, at the end of the day is looking at, do you have enough assets to fund all of your liabilities in retirement, where liabilities are simply the expenses you've estimated associated with your four L's for retirement financial goals, longevity or essential spending, lifestyle or discretionary spending? In Legacy goals, and then liquidity for the unexpected spending, shock surprises that you want to be prepared for in your retirement. So then you position your assets reliable income, diversified portfolio, reserve assets. Do for assets that are available for retirement? Do you have sufficient assets to meet those expenses assuming a conservative rate of return, that's the discount rate factor, and if you do, that means your assets are greater than your liabilities, so you're more than 100% funded, or you have a ratio of one, that means you're funded or or if the ratio is greater, you're prepared for retirement. If that ratio is less than one, you're underfunded, and you can include as an asset future income if you're still working. So then it's really a matter of, well, if I do continue to work, am I on track? Do I am I funded in terms of, once I get that salary in the future, I'm on track to being funded for my retirement.

Alex Murguia 05:59

And could you give just for because folks that may be listening to this for the first time, it's hard to conceptualize what would be a dead simple example with numbers like, assets are X amount, liabilities are X amount.

Wade Pfau 06:12

Voila, yeah, when you do a funded ratio, you might look wealthier than you think, because it does include the present value of your lifetime Social Security benefits and different cash flows, and you may have \$800,000 of lifetime Social Security benefits available if you live through your planning age and retirement. So I think for a typical kind of mass affluent type household that may be listening having assets in that two to \$3 million range, even if your investment portfolio is nowhere near that large, might be typical, and then having liability. So I guess simply, if your assets are 3 million in your liabilities, in terms of all the spending you want to be able to prepare for in retirement, adds up to 2 million. You'd have a funded ratio of 3 million divided by 2 million or 1.5 or 150% either those numbers expressed as the same idea, you're significantly overfunded for that retirement. If your assets added up to half a million dollars, and your liabilities were a million, your funded ratio would be 50% or point five, and that would be a cause for concern, because you have about \$500,000 of liabilities you'd like to be able to cover in retirement, but that you don't have any assets ready to provide that spending power.

Alex Murguia 07:30

So, so let's take the Social Security comment, and I want everyone to make sure they understand this, simply because, if you're retiring, if you're retired, you're you know you're taking Social Security, you're 75 and you want to figure out what your asset base is, assume a certain end of life, and you're going to get a revenue stream from Social Security until that point. And so what you do is you bring it back. You bring those future income streams back to a present value. There's a present value calculation that's needed, and that's why it looks inflated, because the value of those social security checks that come in, they have a present value, just to say something \$1,000 every month for their 15 years, has has a worth right now that's that's greater than that. You want to maybe talk about that a little bit Wade so folks understand



Wade Pfau 08:23

that. Yeah, and if it helps to have something to read this, we're talking about Chapter Three of the retirement planning guidebook, now available in the 2025 edition. And this is also something we'll talk about quite a bit in the retirement income challenge. So if it helps you to have visuals and everything too, we'll have that as part of the retirement income challenge. But, yeah, that's the idea. The way I like to explain present value, it's how much would you need to have set aside today, so that if it grew with whatever interest rate, discount rate you're assuming, you could take distributions from that to meet what we're talking so in the case of Social Security, if I'm getting \$1,000 a month, I need, how much assets would I need to have set aside a day where, if it's growing at, say, a 4% a year, whatever the discount rate is, I could take the distribution covering that \$1,000 a month, and I would not run out until precisely the end of the financial plan and the present value of my social security, or how much that Social Security is worth today, would literally just be the exact amount needed to fund the future social security benefits with my assumptions about longevity and interest rates.

Alex Murguia 09:33

So, so is it safe to say what you're kind of fundamentally asking with the funded ratio is, if you could stop everything right now, if you could theoretically, theoretically now take all the future income that you're going to have, plus your assets. And your assets are your statements really, you know, if, from an investment asset standpoint, you just look at your statement and it is what it is at that in that moment in time. So you could take all of that. To turn it into someone and exchange it for paying off your bills until you die. You know, if you're above that ability, then you're good. You can, like, stop immediately, because you have enough to fund your lifestyle going forward. Is that? Is that an accurate more you know, is that an accurate

Wade Pfau 10:21

answer? Yeah, yeah. And I use the expressions current value and present value, which sound like synonyms, but current values are things like your your brokerage account statement, how much do you actually have in your brokerage account? How much is in your IRA 401, K, those are all part of the asset base. And then the term present value just applies to anything that's a cash flow that you don't already have today, but that will arrive in the future. And so you convert those future cash flows into a present value in today's dollars. And yes, if you do the funded you can include future earnings. So if, like, if I project I'm going to earn \$60,000 a year for the next 10 years, I could include that as an asset as part of the funded ratio. Now, if I need that to actually have enough assets to retire or to meet my liabilities, then I wouldn't simply be able to retire today. I do need to assume I will earn that salary first. But yeah, if you're funded without any including anything about future earnings, then, yeah, the idea is you have sufficient assets already with a conservative rate of return assumption to meet your lifetime expenditures. And so if you'd like to, you're you're kind of on track to retire at that point. Well,

Alex Murguia 11:33

two things. The first one is, it's the phrase that you've said and you quoting someone else. I think it's Curtis cloak, no, somebody that you quote when you say, if you won the game, stop playing.

Wade Pfau 11:44

William Bernstein, there you go.



Alex Murguia 11:47

You know it's true, and that's what you're ultimately getting at. You're figuring out if risk is a preference as opposed to a necessity, you know, to a large extent, to increase your asset base. The other

Wade Pfau 11:58

Yeah. I mean, that's a corollary, like if I if my plan works, assuming a conservative rate of return assumption, then I know I can meet my goals without taking risk. And that's a useful input in deciding, well, do I want to take risks? Of course, you can you, but it's you don't have to, so to speak, if you're already funded with a conservative rate of return assumption. The

Alex Murguia 12:20

other the other point I'd like to put out there, and I probably should have said it at the beginning, really, but the funded ratio is actually, uh, an actuarial concept that's used by pension funds. This is, this is what you see. This is what they do on corporate balance sheets to see how, where the how well their pensions are doing. And so this is something that, if you can take this concept to the individual, I think it becomes very powerful. And it's not just another planning this is what you know corporations, when they have to make their projections and make their quarterly earnings to the penny, they bring out the old funded ratio. Wade,

Wade Pfau 12:59

yeah, yeah, it's the present value of all those future asset, cash flows and expense. Like with a pension fund, they're projecting what's going to be coming in each year. What are they going to pay out each year in terms of benefits? And looking at is their plan funded? Do they have enough assets, including those future inflows, to meet their planned expenditures. And, yeah, it's absolutely the household investor retiree Can, can use the same concept, yeah, household

Alex Murguia 13:27

balance sheet. One phrase you said in there, and I want to make sure people understand it, because they could have done the wait, wait, what about this? You said, with conservative return assumptions. Now conservative return assumptions, it's that's all baked in when you're taking present value, when you're getting the present value calculation right now, we're just thinking, Okay, what's the risk free rate? What's, you know, inflation potential, or something like that, bring it down to present value. But you have some wiggle room where you can play around with that discount rate. Yeah,

Wade Pfau 13:58

you can change the discount rate the way we like to set things up. And so in retirement planning guidebook for 2025 at the start of the year, we like to base it on tips and treasuries. And where the market was. The real interest rate on treasury inflation protected securities was about 2.25% and when you look at the difference between traditional treasury bonds and tips, the projected markets are only expecting inflation over the long term at around two and a half percent. So two and a half percent inflation, 2.25% real rate of return. When you do the precise calculation of blending those together, that's a 4.8% or 4.81% interest rate, and that's the discount rate I use in the book. We will be updating the numbers. It's going to be something close to that, because interest rates are pretty similar right now, but yeah, with a retirement income challenge next week, I'll explain what the the discount rate is for that. But yes, at the end of the day, then, if you're using that sort of bond return, it's you're simply a. Assuming your investments are going



to earn a bond like rate of return, that you're not going to get additional risk premium from investing in equities, and you're seeing if your plan will work. Now, if you use a higher discount rate, which you you can do, you can use any discount rate you want. It's just that's going to introduce risk into the equation, because the higher the discount rate you use, the harder it is to actually achieve that rate of return on average over the long term. And so it would lower the chance of the plan staying funded throughout that retirement horizon. Usually, most people, a lot of their assets are current values. They already have the account values today. Their liabilities tend to be more backdated, because it's okay, my my essential spending over my lifetime, my discretionary spending over my lifetime, a legacy goal at the end of retirement. So they, if we get into bond terminology, the duration of their liabilities is higher than the duration of their assets. And if that's the scenario which the only thing that might counteract that is if you're expecting a really big inheritance at some point as an asset, or maybe a huge life insurance death benefit at some point. Other than those rare cases, for most people, their liabilities are more backdated, and so as you increase the interest rate to assume a higher rate of return, the value of their liabilities will decrease by more than the value of their assets, and that will increase their funded status. And it's like, well, if I get a higher rate of return, it's easier to fund your retirement, because you're assuming your assets are going to earn higher rates of return throughout retirement.

Alex Murguia 16:36

So then wait, interestingly enough, if just to pick a little bit of a step back. So you have \$105 in assets. The present value of your assets are \$105 and the present and current value of your liabilities are \$100 then your funded ratio is 1.05 you're in you're in good shape, right?

Wade Pfau 16:57

And you're a cheap date, yeah, right.

Alex Murguia 16:59

If it's the other way around, if it's if it's point 95 the present value of your assets are point 95 and your liabilities are \$1 you're under. You're 95 you're a point 95 now I want, I want everyone to appreciate how point 95 what that means. And think of a gas tank now, right? I think people use a lot of graphics, especially from the Monte Carlo standpoint, where they'll do 95% on track, you know? And you see a dial and it goes to 95 whereas the funded ratio, if you see point 95 it means something different. Yeah, it does not

Wade Pfau 17:41

percent success rate, that they're completely different concepts. But

Alex Murguia 17:44

I but I think the, I think the, let me backtrack a little bit about Monte Carlo here, when you see 95% missing Monte Carlo, they're going to do 1000 runs simulations on your goal. You know, what are your goals? What are your assets? What's the expected return, volatility, etc, etc. And they're gonna run, let's say, 1000 runs on this simulations. And if 950 of them are successful, that's 95% probability. If 50 are unsuccessful, you know, that's why you're not 100 they're they're failures, right? But failure could be by \$1 and it's still not successful. So what I really so I don't like that 100% especially when starting a retirement income plan. What I really do appreciate with the funded ratio, and chime in, Wade, what you personally think is by saying point 95 is your funded ratio. It gives you a sense of you're almost there. You know, you're not



out of the woods, but you're almost there. It gives you a sense of what you need for completion, what you need to get above that Bogey, which I don't, I don't, for me, the Monte Carlo doesn't do it in that sense. Wait,

Wade Pfau 18:51

yeah, yeah. And so maybe coming at it from another angle. So Monte Carlo is more fancy. It doesn't mean it worse, like no judgment of Monte Carlo. It's a perfectly fine approach. But the reason I prefer the funded ratio as a starting point and just more broadly, it like I started by saying they're coming at the problem from just a different angle. With the funded ratio, you're deciding what rate of return to use. That's the discount rate. That would correspond to a probability of success. But you don't know what the probability of success is. You'd have to kind of reverse engineer that, and it'd take a lot more work and ultimately translate it into a Monte Carlo. On the other hand, with Monte Carlo, you're coming from the other direction. You're deciding on average market returns in volatilities, you're running the simulations, seeing how frequently they work, and then you're targeting some success rate like it's usually people are not comfortable with a 50% success rate from their financial plan if they want a 90% success rate. This is where, implicitly. Okay, there is a fixed rate of return that would correspond to that, and that rate of return will be lower, because 90% of the time the realized pattern of simulations coming out of the Monte Carlo had to have given you a higher return than that for the plan to work. 10% of the time the realized simulations might have given you a worse outcome, so the plan did not work, but you're working with a lower rate of return, and that's where we don't know what that number is. You can reverse engineer it. And then some of my past books that got into some of the more technical details I talked about that process of reverse engineering. What is a fixed rate of return assumption associated with a particular success rate from the Monte Carlo, but that's the whole point. You don't know what that is. And I think sometimes with Monte Carlo, that that tends to be a tool favored more by the probability based world, the total return type world, where you just think about your average returns and volatilities, and then they'll say, Well, why would you ever assume a bond like return on the funded ratio, that that returns too low. I'll get higher than that. But what they don't may not realize, and it depends on what they're shooting for there maybe the fixed rate of return, corresponding to a 90% success rate, implies an even lower rate of return than we're using in the funded ratio. You just won't know what that number is without reverse engineering it, and I think it's not. It's tough. If I don't know what kind of rate of return I'm assuming, I think that's more challenging. I think it's just easier to conceptualize, okay, if my plan can work with this particular rate of return, which, with the funded ratio, means I'm funded for my retirement, then I feel pretty comfortable that that's that return hurdle is something I can meet. The Monte Carlo is just much more abstract about what is the rate of return. You're assuming I

Alex Murguia 21:47

I fully concur. And just anecdotally, we've done these in our retirement income challenge, where we go through this process with folks, and they all do, of Well, I don't have every single one, but a preponderance of people that participate in a challenge. Do the do a funded ratio? Like I said, every time, about three to 400 funded ratios get done, and I can say, hand over my heart, at least anecdotally, that they seem to intuitively grasp the concept of what's happening there. I've done enough Monte Carlos, and in fact, Wade and I created a Monte Carlo financial planning software in a prior in a previous life at this point. And that's not as understandable, frankly, to to consumers, to individuals, than a funded ratio, which a funded ratio is simple assets over liabilities, more coming in than going out, you know that that kind of thing. And if it's more



coming in, you're in the green. More coming out, you're in the red, simple as that, and and that seems to be appreciated a lot more. And if you're underfunded, underfunded being your assets are under liabilities. If you're underfunded, you get a sense of how much you're underfunded from and what you need to do to get there Now, granted, you can make the case. Oh, but if the market goes up one year and your assets went up such and such by 15% that changes the funder ratio, yeah. And it could go both ways. But to me, and wait, I know you concur, because we've said this many times, the plan is never a one time thing. A plan is always a living document in which you're constantly course correcting. And so that issue is prevalent with Monte Carlo as well.

Wade Pfau 23:27

Oh, yeah, yeah, even that software we developed would provide alerts, because every day it would rerun. Like, if there's a great day on the market and you have a lot more assets when you run your probability of success the following day, it's going to be higher. If the market drops 20% today, and you rerun the plan the following day, the probability of success will be lower. So it's fluctuating on a daily basis, as would be your funded ratio, as the value of your assets, and fluctuating on a daily basis. And that's

Alex Murguia 23:53

just the world we live in, so that there's nothing wrong with that or good with it. It's just how it is from that vantage point. And what I really like about the funded ratio too, among many things is that it takes away the need for all of these crazy assumptions. You would be surprised. I've been speaking to enough advisory firms in the like at this point in my career. How many wasted hours are spent trying to fine tune a return assumption for Monte Carlo, for some crazy model portfolios that they have, you know? And you know, when you have all these asset classes, you ultimately have to assume what's the expected return and standard deviation for each asset class? What's the correlation, what's the correlation between them? And let me tell you that's that's simply putting your finger in your mouth and then putting it up in the air and see what happens. Because it's you might as well use a divining rod for those kind of things. But they give themselves this false sense of precision. It's fine to be directionally on target and stuff like that. I get it, but people go really in the weeds with that, and then they you end up losing the. The forest for the trees when, when you start thinking like that, and the funding ratio is just so simple and intuitive that as a starting point, I definitely think it's the way to go. Yeah,

Wade Pfau 25:11

and I wrote that article with Massimo young for advisors perspectives, where he kind of motivated it more, where he collected all these capital market assumptions from different financial firms, and showed how dramatically different the Monte Carlo financial probability of success for a financial plan varies based on small differences in those capital market assumptions, like if I'm assuming bonds will average 10% a year instead of 9% that can have a big impact on what the probability of success is with the financial plan, and so there's so much uncertainty, especially as you're talking about multiple asset classes. What are the returns? What are the volatilities, what are the correlations that can get kind of messy, and that's maybe another reason why just a simple funded ratio might be a more intuitive starting point. Listen,

Alex Murguia 25:59

we're coming at this from the far side of simplicity, or is it the first set of complexity here? Right? We've been we've done them. We've come full circle with all of this stuff. And we realize it's this



is the way to go on, on many levels, at least as that that starting point, Wade, what would you say? When would Monte Carlo be appropriate?

Briana Corbin 26:23

Time's almost up. The retirement income challenge starts next week, and you don't want to miss it, this free four day event running from March 10, from 12 to 2pm eastern each day, will walk you through building a rock solid retirement income plan, plus you'll get exclusive access to the funded ratio tool. That's a game changer for understanding. If you're truly on track for retirement, the spots are filling fast, so don't wait. Sign up now at resaprofile.com/podcast before it's too late. That's r i s a profile.com/podcast l'll see you there.

Wade Pfau 27:01

I think maybe what you're going for there based on the

Alex Murguia 27:06

words in my mouth, man,

Wade Pfau 27:09

go. We've got lots of tools in our retirement researcher Academy. And so we prepared a payroll calculator, which allows you to, you know, do a variable spending strategy for any kind of various so well with to be clear, but the funded ratio, you're not you can't implement a variable spending strategy in your funded ratio, you're just assuming this is how much I'm going to spend every year with Monte Carlo. Now most commercial financial planning software doesn't do this, and that was one of our big innovations back with that tool you and I first worked together on more than 10 years ago, we had variable spending strategies in there. That's still something. I know there's some firms today that have introduced that, but it's still rare to see a variable spending strategy. But that's where it's the spending, the amount you're going to spend, is based on market performance. If markets do well, you increase your spending. If markets do poorly, you decrease your spending. And there's a whole host of variable spending strategies that have been offered on how to best manage those fluctuations. So we created a payroll calculator that lets you look at that. That's a good use of Monte Carlo, but that would be something you would tend to use more for your discretionary spending, because the whole idea with longevity and lifestyle, you don't have that kind of discretion to fluctuate the essential expenses. Those are fixed expenses you have to meet. But when it comes to expenses that are more discretionary, if markets do well, I'll go to nicer restaurants and go on another vacation. If markets do poorly, I'll tighten my belt for the next year.

Alex Murguia 28:42

Is that why the Sizzler? The other day,

Wade Pfau 28:46

no markets have been doing well, I should be not at the Sizzler. Gotta go to someplace fancy, like Denny's. Denny's, I thought you were a waffle house guy, Applebee's. But yeah, that's the idea there that Monte Carlo could help with a more variable type strategy that would be more for the discretionary piece, not not necessarily for the overall spending goal.

Alex Murguia 29:09



All right, Wade, and if somebody's thinking about putting a funded ratio together, obviously, look, we're going to do this in the Retirement Income Challenge, sign up. I mean, take advantage of this. We're going to be there hand in hand with you. But if someone is like, I don't got time for that, I can do this on my own. What type of information do they need to gather? So

Wade Pfau 29:29

95% of the work with developing a funder ratio tool is the tax calculations. They are massive headaches, especially if you're trying to pay taxes in the same year, because you have the problem that you have to pay taxes on the amount you distribute to pay your taxes, but then you have to pay taxes on the amount you just distributed to pay your taxes, but then you have to pay taxes on this there's a loop. And it makes it do not ever

Alex Murguia 29:53

go to do not ever engage a Sicilian in a land war.

Wade Pfau 29:58

Yeah. It makes it very. Complicated the all the other cash flows are present values, and that's not all that complicated. To calculate those present values, you can use the NPV function in Excel. It's the tax calculations that are going to drive you to madness, and that require 95% of the efforts with with the funded ratio tool creation.

Alex Murguia 30:22

All right, so there you go. Join us make your life a lot easier. And there will have, we'll have a calculator for you where you know you have your your shoe box of statements, and off you go. You should be able to get a good sense of it. Now, What? What? What do you do with that? Let's say you're you're a consumer, you're an individual, and my funded ratio is 105, 105% right? But then you you break down your discretionary and your essentials. You want to just look at your essential expenses. You want to look at your discretion. At your discretionary expenses. So you have a number, you have a general funded ratio, but then within that, you have, for discretionary, you're pretty good, but for essentials, you actually have a significant shortfall. And add one more wrinkle, your reso profile is income protection,

Wade Pfau 31:20

right, right? And this is where the reason we include the retirement income style awareness or resa as part of the retirement income challenge, is that what that's what speaks to if you have shortfalls. And yeah, the typical scenario is for people who have some savings, they may be underfunded, with reliable income assets to meet their longevity or essential expenses, but then they're overfunded with the diversified portfolio when it comes just to meeting their discretionary expenses and legacy goals. And so what do they want to do in that scenario? Well, if your income protection, if your total returns, you may not, you just want to look at the totals of those. But if your income protection, that's where having a conversation around like a commercial annuity product might be meaningful as a way to reallocate some of that diversified portfolio into reliable income so that you're fully funded for your essential expenses, and if that helps you sleep better at night and be less worried about outliving your assets, that can be A very powerful approach to take. And so the funded ratio tool lets you see that breakdown at least ours, our fund ratio to it lets you see that breakdown between funded status, essential, reliable income to essential, diversified portfolio to discretionary and legacy, and then also reserve assets to contingencies or spending shocks.



Alex Murguia 32:41

And this is a tie in to the last episode where we talked about the retirement income optimization map, where your assets by, sorry, you stack your assets with like the central expense, you know, assets earmarked for essential expenses, assets earmarked for discretionary expenses, and then assets earmarked for reserves. And so you want to make sure those are all congruent with with potential liabilities around that. And so there's a global funded ratio. And then you take many funded ratios to make sure those those categories are aligned properly. And so we'll break that down for you as

Wade Pfau 33:17

well. And also, just to be clear, the funded if you're 100% funded, that's not a guarantee of retirement success, because we already noted how your funded ratio can fluctuate based on if markets go down. Suddenly, your assets are worth less. You're not funded anymore. So it's really the funded ratio incorporates Retirement Risk, longevity you put in the planning age, whether that's 95 or 100 you're an age that you you're assuming you're not going to outlive the market volatility. You manage that risk by assuming you're not getting higher returns in the stock market. You'll just get a bond like rate of return. And then the spending shocks are you can enter your contingency liabilities, whether I want to be prepared for like, with a long term care event and so forth. And of course, the any contingency could end up being more expensive than you had planned for. But then, based on what you've entered as your liabilities, and based on your planning age, and based on the discount rate, that's where you're seeing at this moment in time, do you have sufficient assets to meet your liabilities? And the higher that funded ratio is, going back to the Monte Carlo again, the higher your probability of success would be. It's just, you don't know exactly what the probability of success is. Yeah,

Alex Murguia 34:29

I don't think you're personally, I don't, and there's no like, magic number here, but personally, I would like to see it tipping 115% you know, reading a little easier, that's my own self. What do you what about you with? Well,

Wade Pfau 34:46

yeah, I mean, we'll talk about guidelines around that, that we talk about you're still constrained, even if you're up to 105 or 110% Yeah, and that's just a matter of, I don't think there's anyone fixed answer. Sir, but it's another kind of round of cushions, or reserves of, well, I want to be a bit overfunded to help build in a buffer that if markets do go down, I don't want to flip to underfunded. Wait, I've

Alex Murguia 35:13

got an interesting question here that I think it's interesting. We'll see. But okay, consumers could be thinking, you know, if I go to my Schwab site, if I go to Fidelity, if I go to whatever Dinkytown calculators and the like, I don't see anything for a funded ratio, but I see a lot of like, simple Monte Carlo runs, that kind of thing. So the fact that there isn't a funded ratio here makes me think that what we've just said is hooey, because, look, all these people aren't doing it, and frankly, I have an advisor, and my advisor just shows me Monte Carlo runs, never a funded ratio. And if what you're saying is true, then logic would dictate then that I would have been presented a funded ratio by all of these so called sort of professionals, if you will. What's your an advisor's listening thinking, I don't even know one commercially available, funded racial



software for advisors and markets work. And if this was a solution that I should be looking into, I would think they would already have an offering for me,

Wade Pfau 36:24

fair enough, I don't I guess there's been some hurting towards it was there was an article published in the Journal of Financial Planning in 1997 that encouraged advisors to start using Monte Carlo. And there's nothing wrong with Monte Carlo, to be clear, but I think, yeah, that led to a lot of software development in the Monte Carlo space. It's just a different way of looking at things, and Monte Carlo can go wrong. That's where some of those simplistic calculators that you may find on financial service firms, websites, I'm thinking particular Vanguards, nest egg calculators guilty of this. They just base everything on historical data. You plug in historical average returns volatilities, calculate a success rate on a spending stream. It's much less comprehensive than a funded maybe that's part of the problem. The funded ratio lets you really input all your assets, all your liabilities, most of the simple Monte Carlo based planning softwares that you might find on different websites are really just more the 4% rule style put in a spending goal. Maybe you can put in simulate market return assumptions, but probably not. They may just be baked in, and they may not even show you what they are very easily, and then it tells you the success rate for that spending goal based on the amount of assets you have most Monte Carlo software like that as well. Completely ignores taxes from the ratio does include taxes. It's, yeah, I guess you make a good point. It does seem like the profession did go in the direction of using Monte Carlo. Maybe it's time to course correct. And yeah,

Alex Murguia 37:58

no, my, my answer, frankly, is I don't care. I've done the research. We've done the research. We've created Monte Carlo plan, you and we were I really there's other there's a place for it every so often. But the reality is, we've done enough of these that we feel very good about this. And frankly, when the when it's no longer an accumulation based thing, and you're talking about retirement income, I draw the analog to these huge corporations that have pensions that they can't get it wrong. They literally cannot get it wrong. They have to get it right for compliance, reasons for earnings, reasons for business. You know, they're billion dollar decisions here. And frankly, they fall back on funded ratio. They don't go into Monte Carlo based plans for funding their pensions or not. You know, bottom line now, you know, follow the money right, and when you're talking now, the importance of being right is seminal. Funded ratio is the way to go, as far as I'm concerned, at least as that starting point

Wade Pfau 39:02

and the fund ratio is connected to reality. I was just talking to a reporter about going back a few years with tips. We had negative real yields like it was late in late 2021 you had, like, a the long term average tips rate was about negative point 6% which translated into a 30 year sustainable spending amount of just slightly over 3% today, tips yields are around that 2.3 2.4 range, talking about a 4.6 to 4.7% initial withdrawal rate being sustainable over 30 years, a huge gap from 3% to 4.6% that should impact how easy it is to fund your retirement, and the funded ratio incorporates that, whereas most of the simple Monte Carlo tools, if you start searching around, don't make any sort of change for the reality of where interest rates are today, they'll give you the same probability of success in late 2021 as they would give you right now. And the reality is no for. For a given asset base right now, the success rate should be higher today than it was in late 2021 beyond that as well. I mentioned earlier just if you run just what you don't know what market returns are going to be in the future. So it's very sensitive to the inputs. One calculator



might report a 95% success for the plan. The next calculator is lower return assumptions, it might report a 55% success rate for the plan. You still you don't know what that means, because you don't know what the implicit rate of return is for your plan to work at a given success rate. The Monte Carlo lays that all out in the open. The Monte Carlo obscures that behind the scenes, not and again, not that there's anything wrong with Monte Carlo. We do have the payroll calculator. We do use Monte Carlo tools as well. I just really have become a fan of for the baseline retirement plan using a funded ratio approach instead, especially

Alex Murguia 40:51

as you're starting to take out retirement income and the way it breaks down discretionary by essentials, and the way it just aligns nicely with the retirement income optimization framework. I think that's a wrap. Wait, anything. Oh, the questions. Yeah,

Wade Pfau 41:06

yeah. So we have a listener named Kep, I believe, who at the YouTube we talk about, most people still listen to the podcast through a traditional podcast app. YouTube gets some some viewers, nowhere near the the podcast, but it has the nice feature, it lets you make comments. And so we did get a question there from a previous episode where we're talking about Roth conversions, and kept asks. So while someone is still working and at 30 plus years away from retirement, does it make sense to do Roth conversions. That's the question. The answer is, whether or not it makes sense to look at the question, whether or not you end up doing it is a different matter, but probably when you're still working the corollary of the Roth conversion question is, do I add my new savings to a tax deferred account or to a Roth account? And it's the same principles, if I have opportunities, I'm gonna have to pay taxes someday, but if I can pay at a lower rate today, then I might have to pay in the future. Then if I can pay at a lower rate today, then I put into the Roth account, whether that's my new contributions go into a Roth or whether that's doing a Roth conversion on other tax deferred assets that I have. It's the same sort of calculation. It's just if you're still working, the odds are more in favor of the idea that the tax rates I'm paying today may be higher than I would have to pay in the future, and therefore I'm I'll do the analysis, but I may come to the conclusion that it would not be worth doing a Roth conversion at this particular point, it's just having work income gives you a higher threshold to get over before you get to the Roth conversion decision, and that may make it harder to ultimately decide to do Roth conversions while you're working. But no, just because you're 30 years away from retirement, there's no penalty on doing a Roth conversion as long as you're doing a direct transfer to the Roth. So yes, you can absolutely still be doing that. But again, it's maybe more a matter of, do I contribute to my Roth or contribute to my tax deferred account? You wouldn't contribute. Well, you could. It's just contribute to your tax deferred account and then Roth convert. It's first I would contribute to the Roth account. Or if you have the situation with the backdoor Roth, that's really an indirect way of making a Roth contribution, by first making a non deductible contribution to your tax deferred account. But at the end of the day, yeah, yeah. I mean, if you're contributing to the Roth, you're still relatively low income level. You think your tax rates that you'll experience will be higher in the future, you might decide to do some Roth conversions, even when you're still working again. It's just it's a tougher hurdle to get over, to decide that it's worthwhile to do the Roth conversions, but it could always be a consideration.

Alex Murguia 43:56

And with that, that's a wrap.



Wade Pfau 43:59

Thanks everyone. Catch you next time on retire with style. Wade

Bob French 44:03

and Alex are both principals of McLean Asset Management and retirement researcher. Both are SEC registered investment advisors located in Tysons, 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. The