Episode 101: Uncovering How Time Segmentation Actually Works

00:00
Bob French
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. With their push ups about out of the way, wade and Alex are ready to discuss whether they have the strength and fortitude to successfully implement a time segmentation strategy.

00:53
Alex Murguia
Hello, everyone. Welcome to the retire with Style Podcast. Post the century mark on our episodes.

01:03
Wade Pfau
Yeah.

01:03
Alex Murguia
What do you think, Wade?

01:06
Wade Pfau
I'm ready. Yeah, ready to go. We're actually at episode 102 at this point because our 100th episode became a two parter. We were happy to get so many questions from people who attended the live session. So thank you so much for that.

01:19
Alex Murguia
But I noticed Brie in our spotify. She still calls the previous one episode 100. So I think numerically, this is 101.

01:29
Wade Pfau
This is 101.

01:30
Alex Murguia
Yes. We're going to have to put an asterisk on this one. So ten years from now, we'll know.

01:36
Wade Pfau
What the heck happened, right?

01:42
Alex Murguia
Like your push ups. This is the second episode of our Arc on Ladders Time segmentation strategy, but like I said, like your push ups, which we'll talk about in a second, you're going to be carrying most of this episode. You're going to be doing some heavy lifting on this one. You good with that?

01:58
Wade Pfau
I'm good, yeah. This is a topic I've written about. So happy to play that role.

02:04
Alex Murguia
And how is that different from any other episode, by the way?

02:09
Wade Pfau
Well, if it's retirement focused, well, it's.

02:14
Alex Murguia
Called Retire with Style.

02:15
Wade Pfau
That's true. We do veer off since it's been a while.

02:21
Alex Murguia
It's been two weeks or so since we've actually been recording this, since we had a couple in the can. What's the number?

02:28
Wade Pfau
Well, I listened episode 99 last night as a review. I don't always listen to our episodes because I don't like to hear my voice, but I did listen to the previous episode at 2.2 times speed. That's my usual speed. And at that speed, it sounded pretty good. We covered everything well.

02:44
Alex Murguia
Do we sound like Alvin and the Chipmunks?

02:47
Wade Pfau
No, the podcast players don't do that. I don't know. It's some technology how they avoid making it sound like Alvin and the Chipmunks, but it sounds like your regular voice just speaking faster. You've never played around with that?

02:59
Alex Murguia
No, I just listened at 1.0. I don't know why. I tried sometimes at 1.2, but then I don't know. You see, you're so measured, and so I miss the nuances of your purposeful pauses. And actually, believe it or not, I listen to it regular speed, just in some valiant effort of improving. I try to say, okay, what can I do better or not? But I don't know how that's going. But I am happy to say on episode 99, you don't listen to these podcasts because you don't like to hear your voice as opposed to my voice?

03:33
Wade Pfau
No. At 2.2 speed, you sound very wise and knowledgeable.

03:37
Alex Murguia
Really? Let's crank it up to four.

03:43

Wade Pfau
Yeah.

03:45
Alex Murguia
So at least it'll be over quickly.

03:49
Wade Pfau
Get it over with. Yeah.

03:52
Alex Murguia
So just a quick recap since 99, I listened to it when it came out, but I haven't relistened to it and it's been a few weeks. What are some of those highlights that we can sort of on ramp into this episode?

04:04
Wade Pfau
Yeah, well, highlights we're talking about time segmentation, also known as bucketing. We talked about the idea that just if you ask 100 different people what time segmentation is, you would get 100 different answers that can make it complicated to start discussing. But then we used asset dedication, which is a specific and they don't consider themselves time segmentation, I think, because they don't want to be lumped in with all the other not necessarily sophisticated time segmentation methods out there. But I view them as the Platonic ideal in terms of how to explain time segmentation. You have a front end bond ladder, and then you have a growth portfolio earmarked more for longer term expenses.

04:43
Wade Pfau
And then to have a complete time segmentation method, you need to have some sort of mechanism for how you allocate from the long term bucket into the short term bucket as you spend from the short term bucket. And that's really what we're getting today is we didn't talk about those mechanisms. How do you decide when to allocate from the long term bucket into the short term bucket? We will talk about that in detail today. But that was the idea. The other aspect to review from the previous episode, a key idea of time segmentation is you don't really care what your asset allocation is anymore. It's going to be dynamic, it's going to bounce around because it falls out of, well, how much bonds did it take to build my short term bucket?

05:24
Wade Pfau

And then the rest goes in the long term bucket of stocks and whatever allocation that is in terms of what percentage stocks, what percentage is bonds, you don't really care. And that's a big part of what makes time segmentation different from a total return investing approach is you're not rebalancing to a fixed asset allocation. You're letting your asset allocation fluctuate. Because bonds and stocks serve different purposes. Bonds are used to meet expenses, and so how much bonds you have depends on how much expenses you're trying to meet with reliable income, stocks provide growth, and there's a belief in the idea of stocks for the long run. So you want to have as much as possible in stocks, and it's just everything that's not earmarked as reliable income for upcoming expenses goes into the stock bucket.

06:09
Alex Murguia
Okay, something that I think Bear is mentioning since know Risa Centric as well on this podcast, and we mentioned it and I'll have you maybe touch upon it, but what are the main factors? Because if someone's listening in, the obvious question is always not if someone the people that are listening in.

06:29
Wade Pfau
We might have a listener this week.

06:30
Alex Murguia
Yeah, I'm hoping it's going to happen at episode 101, Wade. It's going to happen. Just believe. Just believe. No, but for those listening, the obvious kind of thing, you're always thinking to yourself, what am I? Is this an option for me? Is this an alternative for me? Based on the research framework? Who would this apply to or who would this most likely resonate with? And then a side note, I'm always intrigued with time segmentation and the secondary factor of True Liquidity as just the final kind of FYI on the previous episode. Do you mind chiming in?

07:07
Wade Pfau
Yeah, absolutely. So time segmentation is one of the four styles. It's the style associated with it's one of the ones we call a hybrid because it's not as common in terms of the underlying preferences. It's your safety first, so you want contractual protections and you're optionality oriented. You want as much flexibility as possible. And so time segmentation evolved since the 1980s when different financial planners or advisors started thinking about how can we build strategies for clients in the real world. It kind of evolved from that idea of, well, let's use bonds for short term upcoming expenses. And then that's the safety first component. If I hold a bond to maturity, you can treat that as a contractual protection that I'll get the face value back at maturity as long as the bond doesn't default.

07:53

Wade Pfau
So I get my safety first protections through these short term buckets, and then I get my optionality through the longer term growth oriented buckets that provide me flexibility for when I reallocate. I have the opportunity to make changes, to change my spending goals and so forth. And so the flexibility and optionality comes from the long term buckets. And then, yes, indeed, time segmentation, being on the left hand side of the matrix, does have a correlation from the secondary factors for true Liquidity, which is there's more this sense of you're not just using a pot of assets to draw from for anything that might come your way, any sort of spending shock and so forth. You actually want to allocate different assets for different purposes.

08:35
Wade Pfau
And so there's more a sense of we're earmarking assets for our budget, and only by doing that can we then view any other assets as actual reserves available for other types of spending shocks. And there's more concerns for individuals in this half of the matrix about having reserves set aside for spending shocks like health care, long term care and so forth.

08:59
Alex Murguia
Yeah, no, I think that's relevant. Like, who would this apply to from that perspective? Because I think when you're going to get into these strategies, to me there's echoes of this foundational organizing principle of not guardrails. That's the wrong word. But I don't know, there's total return aspects to it in terms of these distribution rules, and there's rules with regards to bond laddering that are a little different to accommodate for that quadrant. But I think at heart, there are some similarities there, too. And so I just wanted to point out who does this kind of resonate with if you're thinking about a bucketing strategy for yourself, et cetera. And this is beyond just to me, bond laddering. This could be using MYGAs or this could be just holding cash for significant periods of time. I just view those as real short maturity instruments.

10:01
Alex Murguia
Six month CDs, right. I think falls in that realm pretty easily, but I think that's a good preamble. Wade, what do you think?

10:10
Wade Pfau
Yeah. And with that idea right now, with our inverted yield curve, where interest rates are pretty high on short term bond holdings like cash reserves or short term treasury bills, you certainly can view that as an option. That rather than having a specific bond maturing each year for the next eight years. You do kind of draw more from a short term type holding that you are real. Yeah. Rolling over time.

10:35
Alex Murguia
And I think this happens. Even people that have advisory relationships, I can say with our clients over at McLean, and we'll have Rob Cordot in our next episode chime in, but there's some clients that they're in a total return strategy with us, but we know full well that's almost an intermediary, because they're carrying, in effect, let's say, three years of cash. Or two years of cash outside. So by default, it's kind of a segmentation play as well.

11:05
Wade Pfau
Right, and that's an important distinction that, well, what is time segmentation and what is just having a big pile of cash on the sidelines? I try to treat those as separate things. Time segmentation is more your cash bucket is part of your portfolio. You view it as part of your asset allocation, it's part of your distribution strategy. Versus if you just have your total returns investing portfolio, but you happen to have a big pile of cash sitting on the sidelines that you really don't view as part of that portfolio, then I would frame that more as a buffer asset being used more as you might tap into that if the markets are doing poorly. But otherwise it's just sort of a cash reserve sitting on the sidelines.

11:47
Wade Pfau
I wouldn't classify that as time segmentation, but it's somewhere in the middle between someone who's on the Risa matrix close to the dividing line between time segmentation and total returns.

11:59
Alex Murguia
I agree. Cash reserve, I agree. I would say I just view all of that. You see it as a buffer. And yes, but as much as you can pretend it's not part of your allocation, the reality is, if you were to line up your assets, it is part of your allocation.

12:14
Wade Pfau
It's just oh, it definitely is.

12:18
Alex Murguia
You chose to hold cash as opposed to international emerging market, small caps, whatever.

12:26

Wade Pfau
But yeah, I think in that context, if you ask someone what's your asset allocation? If they forget to include the cash, then that's kind of the idea I'm suggesting of, okay, then they're not really thinking as part of their portfolio. But it certainly is. Yes, absolutely. At the household balance sheet level, the.

12:44
Alex Murguia
End of the day it's what you have right, that's good enough. So what are the ways to okay, let's say this is a segmentation strategy, is something you want to apply. How do you go about determining when to ladder it, when to replenish, when to refill, or whatever word we want to use?

13:05
Wade Pfau
Yeah. So we'll talk about three general methods to do that and then the first method we'll talk about is probably the most straightforward and kind of intuitive one, but it actually ends up working the worst in most contexts. But first, let's just talk about an automatic method where and let's put some context around this. Let's say we have a ten year bond letter. Okay? So we set up ten year bond letter. It could be ten years before retirement. We start buying a ten year bond each year so that when we get to retirement, we have bonds maturing for the next ten years. Or if we retired and we're suddenly, oh, I want to be time segmentation, we build out a ten year ladder at that point.

13:42
Wade Pfau
Now one year later, we spend that first rung of the ladder, we spend the first year bucket and at that point we'd have nine years left on our bond letter. So an automatic method would be every year we're going to replenish and buy a new ten year bond so that we always maintain that ten year bond letter. So we're automatically each year selling from the growth bucket to purchase a new bond to be the new last rung of the ladder. And it's like we're climbing up a ladder, we're building out rung by rung automatically each year. Okay, so with that, now what happens is this can actually increase your sequence risk and can cause your growth portfolio to deplete first, because if you're automatically always replenishing that ladder, you're not really paying any attention to is your growth portfolio doing well or not?

14:39
Wade Pfau
If there's a market downturn and if interest rates are, you get into this issue of, well, on the one hand I get to discount for ten years. If I'm going to take a distribution and cover my spending ten years from now, I don't have to take out the full amount I want to spend because with interest it's going to grow to match that. So when interest rates are low, there's not a whole lot of difference. I may be taking close to the full ten year spending out when interest rates are more normalized. You actually do have a discount on that. But you have to consider I'm taking that from a smaller chunk of the portfolio.

15:12
Wade Pfau
Like if I ended up being 40% bonds to build my ten year ladder, 60% stocks, I'm now taking the present value of a full year of distribution from that 60% portion of my assets. That could be a higher withdrawal rate. Kind of just have to work out whether or not like if I'm trying to use a 4% rule, well, I may be using more than 4% to take out that distribution from a smaller chunk of my portfolio so that can make it more vulnerable to the sequence of returns risk. And then what happens when you simulate an automatic ladder over time, eventually the growth portfolio depletes first. And when that happens, when you deplete your growth portfolio, you're now 100% bonds, you have a ten year bond ladder in place, then you spend it down and ten years later you run out of money.

16:02
Wade Pfau
So when markets don't do well because you're always automatically replenishing, it's the opposite of the rising equity line path. It's actually going to push you towards 100% bonds and lock in failure for your retirement plan.

16:17
Bob French
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16:42
Alex Murguia
It's funny you said it's the opposite of the rising equity glide path because when you were saying that, I was thinking this is where people get when you get to the middle of the risa matrix between probability and safety first, right? Rising equity glide path. Effectively what you would do is let's say you set up your bridge, your five year ladder or one time ladder and you just don't replenish it.

17:08
Wade Pfau
That's another yeah, I guess it could have started there.

17:12
Alex Murguia

No, but that kind of is that equity rising life path. It's almost like an initial bond ladder that doesn't get relattered or whatever. So that was going through my head when you were saying that.

17:27
Wade Pfau
So that one's not replenishing. So I did research in this area with Michael Kits and then he wrote a blog post about that calling it the bond tent idea, where, yeah, if you just had a ten year ladder at the start of retirement, you spent it down and then whatever your growth portfolio was, you maintained the asset allocation there. That's a practical way to implement the rising equity glide path because you're never replenishing the bond ladder.

17:50
Alex Murguia
But then at the end of that the only question because somebody could be thinking about this. So think about if you can talk about the calisthenics about this at the end of that, you don't want to end up with 100% equity portfolio either. So when you start this is your bond ladder the only exposure to a fixed income that you have, or do you just slowly rebalance it to increase a bond exposure? So at the end of, let's say if it was a seven year ladder, at the end of the seven years, you've kind of eased your way into some sort of balanced portfolio.

18:22
Wade Pfau
Are you talking about the bond tent.

18:24
Alex Murguia
Approach for people thinking about how to.

18:27
Wade Pfau
Implement sorry, so if you're doing the bond tent right, you probably wouldn't be 100% stocks in that growth portfolio. You'd choose what you'd like to get to as whatever your strategic asset allocation is that you should be using. With the bond tent idea, you start off with more bonds, but you spend that down in that laddered approach, and then once that's gone, you're now at your strategic asset allocation.

18:53
Alex Murguia
Conceptually, though, you're saying the robotic approach, which is just every year, just rinse, repeat, buy, new issue, et cetera, effectively doesn't work as well as the ease of the implementation because of sequence

risk. If you do this the first number of years and there's a negative return to your point to replenish the bonds regardless of market down, regardless of need for the actual cash, since you already earmarked your needs for the few years. But if you're constantly replenishing it, to replenish it, you could be distributing from that portfolio more than 4% just to buy the bond instrument. Hence couple a negative market return with like a five, six, 7% distribution, you're running into trouble. That's the downside that you've seen.

19:44
Wade Pfau
Yeah. At the basic level, you're taking a full year's distribution from a smaller chunk of your portfolio because you're taking it only from the gross part of the portfolio. Now you don't have to take out the full year distribution because you can take the present value. Whatever you take out, you're going to put in a bond that's going to include interest. And that's when interest rates are low enough, though you're probably still using a higher withdrawal rate from your growth portfolio to automatically replenish your bond letter. And that can be problematic. When I simulate these different approaches, the automatic approach does perform the worst. Yeah.

20:20
Alex Murguia
And when you say the present value is you don't need to buy a $10,000 bond if you need $10,000 in ten years, you can just buy, I don't know, a $4,000 bond. That seems like a lot that imply.

20:30
Wade Pfau
A pretty high interest rate.

20:32
Alex Murguia
Yeah, the number, whatever, something lower than that. Knowing that in ten years it'll hit that number.

20:39
Wade Pfau
Right, exactly.

20:42
Alex Murguia
All right, that's the first one. What's? Numero dose.

20:46

Wade Pfau
Numero dose.

20:50
Alex Murguia
There we go. There we go.

20:55
Wade Pfau
It's the market based approach. Yeah, the market based approach. It's using some sort of external trigger to decide when to extend the ladder. This could be anything, really, but we see a lot within maybe to back up another second. What I'm talking about right now with extending the ladder, these same methods I'm talking about get used all over the place in retirement income planning. Right now we're talking about when do you extend your bond ladder. But if you're using a variable spending strategy, the same method could be used to decide when should I cut my spending or when should I not cut my spending?

21:34
Alex Murguia
If you're using a point about the echoes of these spending yeah.

21:39
Wade Pfau
It's the same underlying kind of mechanisms that get used also with buffer assets. Like with the idea of I have a reverse mortgage sam by line of credit, when should I spend from the reverse mortgage, when should I spend from my investment portfolio? Or the same sort of approach with life insurance. It's the same thing. These methods I'm talking about right now get used in that context as well. And so when I say a market based approach to when you extend a bond letter, I'll talk about the one that gets discussed a lot in the context of not just this, but with like when I spent from a reverse mortgage and so forth. And it's did your portfolio increase in the previous year? So if your portfolio had a positive return in the previous year, go ahead and extend your ladder this year.

22:26
Wade Pfau
If your portfolio had a negative return in the previous year, do not extend the ladder this year. There's some flexibility about how you do this, but the way I model it is you're going to wait for a positive return again. So if you have two years of negative returns in a row, you don't extend the ladder for two years. Your ten year ladder is now down to eight years. If you get another negative return, you don't extend again, your ladder is down to seven years. Finally, there's a positive return in the market. You're going to go ahead and build that ladder back out to ten years. So that's the way I modeled the idea. And you see that used in other contexts as well. Like I was saying, should I take an inflation adjustment for my spending?

23:09

Wade Pfau

Well, I'll take it if the market was up or if my portfolio gained in the previous year. But if my portfolio was down in the previous year, I don't take the inflation adjustment or if the portfolio was down in the previous year, I'll cover my spending through a reverse mortgage this year. Same conversation. And that's the idea. It's market based. There's some market based external trigger that determines when you extend your ladder. Yeah.

23:32

Alex Murguia

And look, we could go over and over various approaches like this in a similar manner that I have somewhat of a disdain, if you will, for all these special rules with levers on sustainable distribution rates from a total return portfolio. I kind of see similarities here in the sense of folks kind of backing a consumer who's well read is up on the literature on distribution rates and that somehow doesn't sit well with them, let's say, and it doesn't resonate with them. And they're like time segmentation is the way to go because I want to have that kind of intermediary and they do that through these cash flows that bonds or Micas or whatever kick off. But then the issue of replenishing comes up and they apply similar type of levers, if you will. And I think these folks tend to get a fault.

24:33

Alex Murguia

Please bring it up. If I'm throwing a straw man argument up, I don't mean to, but I get the sense that they just back into things historically and say, okay, well, now this would have worked all the time. This would have worked 80% of the time. This would work 70% of the time. And this is why you have so many strategies. Right. And I just don't think scientifically that's the way to go about thinking about this. Sure, you can back into something that may have worked historically, but there's no real reason why something would work over the other. Even if you've seen it just happened to fall that way. And you know what? That doesn't really mean it's going to happen in the future. And so I think a lot of people have these false sense of security about this.

25:16

Alex Murguia

Or there's some magical method that they figured out for replenishing it. They write a blog post, whatever, with bucket graphics and off they go, right, showing how they've protected themselves. I don't think there's any magic to it and I don't think there's any panacea effects to it. There's no increase in efficacy just because they've done it in a certain way. I just think it's more the framing works better for them from a discipline standpoint. That's all I think you have there and that's valuable. I don't mean to discount the value in framing it properly to maintain discipline, but I don't think from an optimization standpoint, there's something magical going on here and I think that's a misconception that some folks have that there is some way to segment according to a special rules based market approach that is infallible.

26:13
Wade Pfau
Right. With that sort of method I was describing in the reverse mortgage context. I called it the naive approach and I realized afterwards that's maybe not the in front of the creator of that method in the reverse mortgage world.

26:28
Alex Murguia
Way to make friends. Way to make friends.

26:30
Wade Pfau
Yes. Right. There isn't naativity to it though, because it doesn't keep track of where you're at. Right. So the market was down 20% one year, the next year the market's down 15%, then the third year the market's up 5%. You're going to go ahead and fully replenish the ladder at that point, even though you're still net down whatever like 30% or whatever with the numbers I was saying. You're not really looking at the full financial situation with that when you're using these types of market based triggers. You're not really looking at the cumulative impact of what's been going on. And that's where you can probably do better than this. This does work better than the automatic approach because it's not always forcing you, especially when you're hit by the sequence of returns risk here. When you have the downturn, you don't replenish the ladder.

27:21
Wade Pfau
You're giving your portfolio a better shot at some recovery. So it does work better than the automatic approach, but it's not going to be ultimately the approach I would suggest to use. And as you were saying, right, you can back test all this stuff and figure out, okay, this particular method worked best in the past, but if there's no real theoretical reason behind it, you're really just torturing the data at that point. And you don't really have a clear explanation for why the particular explicit rule you decided on would be the one that works best in the future. So, yeah, you can over engineer this type of thing easily when you start digging into the weeds too much with it.

28:04
Bob French
Are you getting close to or are you in retirement? Well, investing during retirement is a little bit different than during your working years. Your investments are there to help you pay for retirement, and now is when they need to earn their keep. To make sure you're on the right track, download Retirement Researcher's eight tips to becoming a retirement income investor by heading over to retirementresearcher.com Eighttips again. Get Retirement researchers eight tips to becoming a retirement income investor by going to retirementresearcher.com Eight tips. That's the number. Eight tips?

28:43
Alex Murguia
I think so. I really think so. And these people are well intentioned, but I see it all the time, especially retirees that are more of the engineering bent, if you will. But to each his own. What do you feel is a better state of the art with regards to this? And can you introduce the number in Spanish?

29:03
Wade Pfau
Numero trace.

29:04
Alex Murguia
There we go.

29:10
Wade Pfau
Trace. It's the same conversation. We see this in the reverse mortgage world. We see it in different places. I really first learned about this method from asset dedication. They call it the critical path. And I'm forgetting if they use the term. I call it a personalized glide path. I forget exactly the term they use, but it's based on the critical path. The idea here is you work through some calculations in a spreadsheet. Given the assets you have today, and given what you want to do, like, do you want your portfolio to hit zero at age 105, or do you want your portfolio to still have $200,000 left at age 100? You decide, where do you want to be at in the future? Where are you at today?

29:56
Wade Pfau
And then with an acceptable rate of return that you find acceptable, you calculate, or you really may have to solve for the rate of return to do this, but you calculate a path. This is how. Much wealth I need to have each year for my entire retirement to be on track with the plan. Now, you're never going to precisely follow that critical path. Your remaining wealth is either going to be above that path or below that path. But that path becomes the triggering mechanism. And you can see this is more linked to your plan because it's not like I was saying, the naive approach with market based. If the market kept going down and then it had a small positive return, suddenly you think everything's better. That would not be the case with a critical path.

30:37
Wade Pfau
You may be well below your critical path, and then you have a good market return. You may still be well below your critical path. So you're still not going to take action at that point. But the idea is, if your

remaining wealth is above the critical path, you'll replenish the latter. If your remaining wealth is below, you don't replenish the ladder.

30:55
Alex Murguia
I would say this too, Wade, to.

30:57
Wade Pfau
Add to that.

31:00
Alex Murguia
This gives it a contextual relevance that the other two didn't have. And so even though maybe an economic reason or whatever, there's an economic reason here, and it's your personal economics at know that's the relevance that you're giving it now, and you're doing it from the standpoint of planning best practices, if you will. Now, if you're worried about if someone asked wade but what if I'm never above my critical path, right?

31:28
Wade Pfau
So this is where this strategy does test best. Because now in the research that I'm doing, I do use 100% stocks from my growth portfolio. When I do simulations about this in real life, your growth portfolio doesn't have to be 100% stocks. But what happens, yes, when you fall below your critical path, it's the opposite of the automatic approach. You stop replenishing your ladder, and at the extreme, your ladder goes down to zero. You're below the critical path. You're now like 100% stocks, because whatever's left in your growth portfolio, you stopped replenishing your ladder since you fell below the critical path. Now, another real world constraint, maybe you decide you're never going to let your ladder drop below three years in length then. Now you'd have at that point, an automatic rolling three year ladder.

32:19
Wade Pfau
But in the research version of this that I do, I let the ladder lengths drop to zero. I'm 100% stocks in the growth portfolio. So when you fall below the critical path and don't ever recover, you eventually get to 100% stocks and you have a rising equity glide path. And that's what helps this strategy to work better.

32:39
Alex Murguia
Now, I'm thinking someone saying, well, what's a little bit better? How much does this improve the other

ones by 10%? I know you can't answer it in that manner, but by an order of magnitude or is it just a little bit better?

32:53
Wade Pfau
Well, when I looked at this, I tracked the probability of success for the financial plan for up to 40 years. And this can dramatically improve the probability of success for the financial plan. But it's really just a function of and this is kind of well versed terrain or whatever the term is. We know from looking at Monte Carlo simulations and historical data that for the most part, even with sequence of returns risk, higher stock allocations work better than lower stock allocations. You get a higher probability of success with higher stock allocations. And so this is really just riding on the back of because it pushes you towards 100% stocks when your portfolio is in trouble. It's giving you the best probability that the plan will actually work out for you in a manner that's noticeable in the simulations.

33:42
Alex Murguia
No, I think it's significant. I think if this was a strategy that I resonated with, this is the manner I would do it simply because it's dropping in the contextual relevance of your personal situation to make a more informed decision on when to replenish the bonds, when to replenish the buckets or not. Simply because it also separates you from the temptation of timing the market. It's really based on something that's significantly more relevant and within your control. Now, you could be hearing all of this and a point that I think comes up is this is why the laddering strategy at heart, a time segmentation at heart is a bit of a hybrid strategy because yes, there is the safety of the actual short term money that's in very reliable instruments.

34:31
Alex Murguia
And when we're talking about bonds implicitly, we're always thinking in our heads either AA, but most likely government secured bonds like the risk free rate. We're not talking about the enron coupons right before it went under or anything like that for that, just put it in stocks. So from that manner we're thinking in that terms. But even then, because you want that optionality, you can only get those instruments short term. So you do have to dip into the equity markets to replenish it. So there is that piece of it where you're trying to satisfy a couple of opposing sort of anchors here. So that being said, even if listening to us, you're like, yeah, well, I want another laddering strategy. I'm time segmentation and I want another laddering strategy that is even better. If that's the case, then there's really nothing for you.

35:25
Alex Murguia
You really have to question am I really a time segmentation know? If this is not resonating with you, maybe you are income protection and this is where the Risa can come in and you can take the Risa and something I

didn't say that Bob would be clutching his chest if I don't say it. But we do have a critical path excel available for consumers on the retirement researcher membership. Is that correct?

35:48
Wade Pfau
Wade? That's right. Yeah, I wanted to mention that. So within the retirement researcher academy, you can do this in an Excel spreadsheet. And we've created a tool that's an Excel spreadsheet that lets you calculate a critical path. Now, most of these critical paths don't include taxes, and just at some level, you get relief because if your portfolio is doing poorly, it may also reduce your tax bills. And then you have now a variable spending strategy, but where it's lower taxes, it's helping to lower distributions. But yeah, you can use that critical path tool. But the other thing I wanted to say, and this was not an effort to over engineer, but I did test 16 different styles of decision rules not to data mine it too much.

36:32
Wade Pfau
But what I found from doing that was because an issue, you can use our Excel spreadsheet to create a critical path. But practically speaking, a lot of people will struggle with, how in the world do I create this critical path? I found an alternative version of the critical path that's actually easy to implement and as best as I can tell, seems to work just as well as a more complicated critical path. And that was simply you record what's the value of your investment portfolio at retirement, and you don't even have to worry about increasing it for inflation. You just have to remember that number. And then in years, when your portfolio has grown above that level, in nominal terms, spend from the portfolio. Or I'm sorry, in this context, it's extend your ladder, replenish your ladder.

37:15
Wade Pfau
When your remaining wealth has dropped below that threshold, do not replenish the ladder. And it's getting at the same idea, because if you plot out the real value of that number, over time, it would be declining with age, which is what a critical path is going to be doing as well. So it's maybe not truly the optimal way, but like were talking about earlier, you really can't define a truly optimal way. All I can say is this simple approach of remembering this one number and using it as a threshold seemed to work as well as any more complicated critical path method. Wade, but I'm 90 now, and I don't care what I had when I was retired.

37:50
Alex Murguia
And again, you could be listening to this, and you could be thinking, okay, this is the case that I'm about to say mazeltov or whatever, but let's say you retire and you have $5 million. Wait, but I'm 90 now, and I don't care what I had when I was retired. $5 million, I'm very comfortable below whatever, because I can't take it with me. What would be your comment there?

38:19
Wade Pfau
Well, so that's where it's not 5 million inflation adjusted. So in nominal terms, by the time you're 90, that 5 million number might only be worth 2 million.

38:28
Alex Murguia
What happens if you retired at 89 years old?

38:32
Wade Pfau
Well, then it's okay. Then it's a different situation. Then you can probably use a higher withdrawal rate if you're trying to spend your 5 million down.

38:40
Alex Murguia
I'm messing with you. No, that's a good point. Yeah. What's it called?

38:46
Wade Pfau
The actual purchasing power. Yeah, the purchasing power is different.

38:49
Alex Murguia
That's true. All right, anything else for today?

38:55
Wade Pfau
Well, yeah, to just kind of then summarize why this glide path approach works best. I said it before, it's because when you're falling behind, when you're losing hope, when you're running out of money, it pushes you towards 100% stocks and that helps it to provide a better outcome. And like for the asset dedication team, they're very bullish on the idea of stocks for the long run. So they're happy about this. They're happy about you want stocks because stocks should help you grow and achieve more wealth over time. And so what time segmentation does, we're pushing away from a static asset allocation. We don't care what our stock bond mix is, it's just we want bonds for the latter, we want stocks for everything else. And so you're going to have a dynamic asset allocation.

39:48

Wade Pfau
And when markets are not doing as well, when you're falling behind your glide path, it's going to be a dynamic asset allocation that pushes you more aggressive. And so if you then looked at your asset allocation and said, wait a second, markets are doing poorly, mostly I should be panicked and selling my stocks. No, I'm going to stay the course and hold on to my stocks and not deviate from that plan. I'm going to get more aggressive with my asset allocation even though everyone else looks like they're panicking. But then that's the behavioral side of it. That's what they're telling you want to do when markets are going down. You want to hold on to your stocks because the subsequent hopefully they'll recover at that point.

40:28
Wade Pfau
And this is how you build more opportunity to let your stocks recover because you don't sell from them to fund expenses. You just spend down your ladder with the idea that the market will recover before you've spent down your ladder entirely. And then once you get that recovery now it's quite possible for you to drop below your critical path and then go back above it again later. And then you go ahead and start replenishing at that point. And that does simulate a better outcome than just say, a static 60 40 portfolio in retirement or any of these other automatic or market based approaches.

41:05
Wade Pfau
So if you're comfortable behaviorally with that idea and kind of the motivation of using time segmentation is this is the story to help you be comfortable with that idea, then you can argue that time segmentation is a better way to invest. But at the end of the day, it's because it's pushing you to be more aggressive when markets aren't doing well. And that's what allows it to work better in these sorts of simulations. So if you're comfortable with that, by all means you've got yourself a viable retirement income strategy. I agree.

41:41
Alex Murguia
No, I agree. And for those that it resonates with, this would most likely be my method of you know, we talked about theory behind all of this and some sort of implementation components. I alluded to it earlier. In the next episode, we'll have Rob Cordot, an advisor in McLean, just talk about client stories and how this is done, because I think this is one of those that if you're listening in, you could be like, oh, I want to do this when I retire. But then, okay, how do I start? How do I actually start and arrange know, start playing musical chairs with my balance sheet, if you will.

42:20
Wade Pfau
So we'll move away from the abstraction of my Monte Carlo simulations and into a real world implementation.

42:28
Alex Murguia
Yes, but I wouldn't be so hard on yourself, Wade.

42:33
Wade Pfau
It wasn't pure.

42:37
Alex Murguia
I don't know, I was able to paint a clear picture in my head of what you were speaking about, so I wouldn't be too hard on yourself. But you didn't say at the beginning, I forgot. Just to wrap it up now. Push ups, where are we by?

42:53
Wade Pfau
I did do the 100 on the day of the 100th episode. I've not gotten up to 100 since then, but I'm still at least getting 20 to 50 a day. And, yeah, I need to focus on 100 every day. Eventually I'll get there.

43:07
Alex Murguia
Just mention. Man all right, everyone, thank you. Wade and Alex are both principals of McLean Asset Management and retirement researcher.

43:15
Wade Pfau
All right, thanks, everyone.

43:19
Bob French
Wade and Alex are both principals of McClain 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 a risk, including risk of loss. Past performance does not guarantee future results.