The 4% Safe Withdrawal Rule

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Keith: Welcome to the Empowered Investor. My name is Keith Matthews, and I'm joined by my co-host Lawrence Greenberg. Lawrence, how are you today?

Lawrence: I'm doing very well, thanks. It's great to be here.

Keith: This is now your fourth show, Lawrence. You did three amazing shows before. Remind the listeners exactly what you do here at Tulett, Matthews & Associates.

Lawrence: Yeah, thanks. So I'm a financial advisor here at the firm. I work closely with yourself, Ruben, Marcelo, and Jackson as front-facing client advisors. I work with five families, and I give financial advice. I've been doing that for three years here at the firm, and I've been a financial advisor for five years.

Keith: You're doing a great job, Lawrence. And I know that this is a big year for you on a couple of fronts. You've got CFA Level 3 coming, which is the last exam for the CFA. So it'll be hard, but you'll breeze through it. And then more importantly, in the summer, you have your wedding.

Lawrence: Yeah, it's very exciting. I got engaged this past year, and we have our wedding scheduled for this summer. I'm getting married to my wonderful fiancée, Danielle, and we're very excited.

Keith: I think you'll have a wonderful ceremony, and I want to wish you all the best for the year.

Lawrence: Thanks.

Keith: So listen, in today's show, we're going to be reviewing and discussing the 4% Safe Withdrawal Rule. We'll discuss primarily what the 4% Safe Withdrawal Rule is, why it's a relevant financial planning concept, how clients have adopted and embraced it, and then finally, we'll review whether we think it's still valid, whether there are challenges to the 4% safe withdrawal rule, or whether there are alternatives.

So, Lawrence, let's start with what is the 4% rule?

Lawrence: The 4% rule is an attempt to solve the retirement puzzle and figure out how much a retiree can take out of their portfolio sustainably and not run out of money.

Keith: It's opposite to the accumulator rule, which is the one that everybody knows: how much money should I put away each year? So you'll hear things like save 10%, save 15%, or save 20% of your annual income. This is the opposite. This is after you finish working, how much can you actually pull out of your portfolio safely? Exactly. What are the roots? Who discovered the 4% rule?

Lawrence: The 4% rule was discovered by a financial planner in the U.S. named William Bengen in 1994. He looked at historical stock, bond, and inflation returns and rates, and he found that through the historical data, a retiree at the age of 65 could comfortably take out 4% of their portfolio for 30 years. So, if you had a million-dollar portfolio at the age of 65, you could take out $40,000, or 4% of that million, in year one and increase that dollar amount every year by inflation for 30 years. Based on historical data, you would not run out of money. And that was a big finding.

Keith: Yeah. So William, as a financial advisor himself, was working with clients and trying to solve that puzzle. He was trying to come up with a rational way, a formula almost, where he could sit down with clients and say, "Listen, based on your current age, this is how much money you can take out of that portfolio safely each year."

Lawrence: It was revolutionary, right? Because there wasn't really a standard or a code of conduct, and the software they had then was not very robust. So it was quite groundbreaking, and it's been around for 30 years now. We're still talking about it. It gained even more momentum in '98 when a couple of professors at Trinity University—Cooley, Hubbard, and Waltz—wrote a paper reaffirming the same conclusions that Bengen reached. It gained a lot of traction in certain communities among professionals and was widely used and adopted as a rule.

Keith: You bring up a good point. So if this rule was discovered in the mid-'90s, this was before a lot of financial software was created. This was before Monte Carlo simulations could be efficiently run on computers. So this was a real breakthrough. He looked at a whole series of history. He looked at different periods. I believe it's 30-year rolling periods, and there was the one period that points to the 4%. Do you want to explain that to the listeners just a bit?

Lawrence: Yeah. Based on William Bengen's research, he looked at historical returns from 1926, a 50-year period. And what he did to land on this 4% rule was he found the worst possible 30-year period that a retiree could be taking funds from their portfolio. That ended up being in 1966, where a retiree that stopped working in that year and had a 30-year horizon of taking funds from their portfolio would have had the worst possible time. Yet that 4% rule still worked. And that's where it originated from.

Keith: I can see that's where it became nicknamed the 4% safe withdrawal rule—pick the worst period possible and make it safe, make it reasonable, make it livable within that budget. So, obviously, that's the worst period. In the best periods, the number's not going to be 4%, but we'll talk about that later in today's show. Lawrence, what about different horizons? What about an individual who's got, let's say, a 40-year horizon? They want to retire at the age of 50. Or conversely, someone who has a really short horizon—they may retire at 75 or even 80. What are the implications for safe withdrawal rates?

Lawrence: That's a great question. So, we've used a standard of 30 years of retirement, but that's not for everybody, right? So, if you had a longer retirement period like 40 years, you could take out something more like 2.8% of your portfolio comfortably, not the 4%. So it's significantly less because you have a lot more time and a lot more opportunity for risks, such as sequence of return risk, where you may get a bad decade early in your retirement. Conversely, if you have something like a 10-year period of retirement, so you work later into your years, it's something more like 9.5%. So it's more than double the 4% because you have less time to take your funds out of your portfolio.

Keith: So the fact that it's called the 4% rule doesn't mean that it's 4% in all situations. It's 4% for a certain age category. And then when you move that age category, that percentage technically changes. That's fascinating. Let's try to answer the question: why are people fascinated with this concept of the 4% rule? Why do people use it? Why does it connect with individuals?

Lawrence: That's a really good question. So, where we find ourselves in today's day and age is a lot of people are on the hook for their own retirements. If you look back a couple of decades, there were a lot of Canadians who had defined benefit plans, and they had pensions to rely on that would fund the majority of their retirement. Now, the burden is really on Canadians to accumulate funds over their working years and to sustainably take out those funds throughout their retirement and make it work. This is where this came from—this need for a simplistic rule to follow.

Keith: Absolutely. The irony is when this was first discovered in the mid-'90s, more and more people actually didn't need it. They had funded programs with defined benefits. As we move into today's day and age, fewer people have these funded benefits. And so they're struggling. They want to understand; they need clarity around their future. They need to understand how much they can spend. So you're absolutely right. I think it helps answer that question. And in the surveys we've seen around pre-retirees, what do those surveys suggest nowadays?

Lawrence: We are looking at a study done by the Ontario Securities Commission, and what they're looking at is a survey of pre-retirees over the age of 50. So in that sweet spot where they really have to get serious about their retirement and look at how things will look in the future, 56% of them do not have a retirement plan. So they're going into a major transition financially and personally with almost no clarity and no vision. And it's a scary thought.

Keith: Yeah. And I think in that same survey, even the number is a little higher about individuals who are stressed about their retirement. So you've got individuals who need clarity. And then there's this 4% rule that if you were to, as an individual, start Googling "how do I retire?" "how much can I spend?" invariably you'll end up with pieces of information that point to the 4% rule. Hence why it's such a fascinating financial planning concept.

Lawrence: Exactly. We're trying to answer the question, "Do I have enough money to retire?" And that is the golden question that everyone should be asking themselves. And obviously, something like a 4% rule would lend itself easily to just having something easy to grab onto to add some comfort and some clarity. But there are a lot of challenges in terms of planning for retirement. You have an unknown amount of time—you don't know how long you're going to live. It's hard for a lot of people to pinpoint how much they spent in pre-retirement and in retirement. So there are a lot of unknowns there, and you have to try to forecast the future, which is difficult if not impossible, where you have to give reasonable expectations for what stock returns may be, for what bonds may give you, and what future inflation looks like. Those are all really big wrinkles in the retirement planning process and why the 4% rule came about—let's try to give a nice, clean number to land on.

Keith: Those are really great points you mentioned, Lawrence. When I think about the 4% rule, I used to use it for the last 20 years but in a slightly different way. I would refer to this concept called the burn rate. And for any clients who are listening, they'll remember these discussions. The burn rate was really this idea of trying to figure out how much money you are going to burn through, and then let's figure out if you've got a sustainable plan in front of you. I would always start with how much money you need to spend on a monthly basis. So if I ask that question to you, Lawrence, how much money do you and Danielle need on a monthly basis to enjoy your lifestyle, to do the things you want to do? Do you think you'd have a pretty accurate idea as to what that number would be?

Lawrence: Yeah, I'd absolutely have that number.

Keith: The fact that you can answer so quickly like that—pretty much most people would say, "I have an idea of how much money I need." So I'd ask that question, and the person would say, "Okay, I need $7,000. I need $10,000." Whatever that monthly number would be, our starting point. And we say, "That's how much money you need and will burn on a monthly basis." Now we'll try to figure out how much money you will burn through on a yearly basis. So take that number, multiply it by 12, and that's the amount of money you need to burn to sustain your lifestyle in retirement on an annual basis. The next calculation that would be done would be, "Okay, so where are you going to get your money from?" The first sources are your private pensions that you might have or any government pensions that you would have. So I would ask the client, "What are your sources of pensions?" And they would give us the numbers, and I would say, "Based on these numbers, now let's do an after-tax rate." We'd calculate a tax rate, and we'd say, "This is the amount of money you're going to get from your pensions." So now we've got your burn rate. We've got how much money you are going to get from your pensions. We subtract the pensions, and now this is your natural burn rate that has to come from your portfolio. It's got to come from your investments because your pensions aren't covering it. So then I would say, "Let's calculate how much money, on an after-tax basis, you have in savings." So your non-reg account, we would do a tax calculation on your RRSP account, your tax-free savings account. We'd lump that entire amount of money into one pool of capital. Then we would say, "Let's take your burn rate, divide it by your capital, and see what that number is." And that was all intuitive. People could figure that one out. And then the idea was, "What is your burn rate?" If they're 65 and that calculation was that their burn rate was going to be around 7, 8, 9%, we would then be able to refer back to the 4% rule and say, "Look, that's not going to work." So that's how we introduced the safe withdrawal rate. It was quite effective in terms of communicating how people are going to pay for their retirement. And I would say that over the years, it's one of the methods that a lot of the clients we sat down with resonated with because they could understand, "How much do I need to burn?" "How is it going to work?" So that's how I first started using this concept of the burn rate. And that was always a target. We would tell a person, "Listen, you want to get your burn rate somewhere in the vicinity of 3 to 4% if there's a little bit of wiggle room at the age of 65." That would be a target.

Lawrence: Yeah. And the big thing that I take away from this, Keith, is that this isn't just a sweeping 4% rule based on historical data and big assumptions. This is a customized number that you're landing on based on their assets, based on their pension, based on their personal spending. You're really an innovator, Keith. You've been doing this for 25 years on a more customized basis to really try to help people understand if their retirement plan is sustainable or not. So you're taking the real numbers, and I think that gives people a landing point. It gives people some perspective on where they are in the spectrum.

Keith: Those are great points you raise. What I liked about it was that it allowed for a real conversation to occur. I could pull out a piece of paper and a pen and say, "Look, tell me about your life. How much do you spend on an annual basis? How much money are you going to get from pensions? What's the shortfall? How are you going to finance the shortfall?" You could see the gears in motion. They would understand and follow the whole process. Obviously, we wouldn't say base your retirement on this calculation because then we would need to actually do retirement simulations.

Lawrence: Exactly.

Keith: And we would use software programs to project. And that's a much more precise way to do things. But I will say those conversations are meaningful, and they work, and they're effective. So what are the risks? What are the issues? We've come across a Morningstar report, Lawrence, that really speaks about whether the 4% rule still works. Is it relevant?

Lawrence: That's a great question. So basically, where we've been with the 4% rule is these are research studies done in the '90s. This is when the data was accumulated and how these numbers were found. We find ourselves in a very different environment than we did looking back at the '70s, '80s, and '90s. Now we're in a very different environment in terms of stock expectations, bond yields, inflation—all that. So what I'll say is we have to readjust our expectations given the current market environment. So we've looked at the 4% rule, and now we're going to start taking it down a couple of notches. We're going to see where some of these holes are because it's a little too perfect, and there are some glaring flaws that have to be addressed. When I allude to the market landscape, a couple of things come to mind. First of all, stock valuations now in 2022 are a lot higher than the historical average looking back at decades. So if stock valuations are on the higher side compared to the long-term averages, future expected returns are therefore lower. So it may be possible that we have to lower our stock market return expectations for the future given where we are today.

Keith: That's a great point. So again, this 4% rule, this concept—what Morningstar is doing is suggesting that, based on today's current context looking forward, it may not land at 4%. I believe they're suggesting it lands a little bit lower than 4%, and then they've got some suggestions around what an individual can do. So they do mention you're absolutely right—higher stock valuations, which means lower future returns. They also mention negative bond yields and how that's very different than any of the assumptions that were used 20 and 30 years ago. I believe it's also U.S.-centric. So Lawrence, why don't you speak to that? What are they referring to there?

Lawrence: The 4% rule came about by looking at a portfolio of 50% bonds, so intermediate-term treasuries, and 50% U.S. large-cap stocks, so the S&P 500. So that is a very narrow view of a portfolio in our eyes. And when you look at a more global context, the results are not as generous. So there was a study done by Wade Pfau. He's a PhD and has a couple of books on spending in retirement. He ran a study looking at 1900 to 2015, and he ran the same exercise. He found that 18 out of 20 developed economies were not able to sustain a 4% rule. Only Canada and the U.S. were able to use a 4% rule and not run out of money. In 18 other countries like the UK, France, Italy, and Australia, you were not able to do it. So it's very concerning when you take the sweeping conclusion of 4%, but if you diversify in global stocks, as we encourage our clients to do and a lot of investors should do, the results are not as generous. It looks more like a 3.2 or 3.5% withdrawal rate.

Keith: Those are very good points. And if I could also add, I think the report alludes to the fact that all of these are pre-management fees, which have to be accounted for in projections. And they're also for those investors that are managing money on their own. It's the pre-do-it-yourself investment mistakes that we know by research show that investors don't actually get the return of the market. They lag those returns. So all these things—the 4% rule is a theoretical concept. It's got some practical applications, but it is still theoretical. So this Morningstar report really highlights five or six shortfalls.

Lawrence: Exactly.

Keith: What does it speak to with regards to alternatives? Lawrence, what is this concept of guardrails?

Lawrence: Once this concept came about—the 4% rule and a stable withdrawal rate for your retirement—there have been all these spinoffs and different versions coming about now to try to hone in on that perfect number. This school of thought of a more variable spending rate has come about. When I say variable, it's in contrast to the 4% rule, which says you have stable spending from age 65 to 95, and you only increase it by inflation. What these variable concepts are saying is, "What if you change your spending with the fluctuations of your investment portfolio?" If you have a couple of really great years in the stock market and your portfolio goes up more than expected, maybe you could take a raise on that 4%, and that 4% is more like 4.2 or 4.3%. The opposite is true, where if your portfolio does poorly for a couple of years, maybe you take a cut. Now, there are lots of versions on how much to cut and what kind of raise you take based on the fluctuations of the portfolio. But this is trying to find that middle ground of not quite perfectly steady and not 100% variable. Because if you take 4% of your portfolio every single year, there are a lot of fluctuations. You can't live off that on a year-over-year basis. If your portfolio goes down by 10%, it may be difficult for you to cut your spending by 10%. So it's trying to find that healthy middle of not quite steady and going with the ebbs and flows of the market.

Keith: Those are all excellent points. And I think one of the reasons why this variable spend pops up also is the fact that the 4% rule, if you think about it, way back then was developed off of the retiree that retired in 1966, I believe, or '67. The retiree that retired in 1981 saw two decades of incredibly strong market returns. It was a bull market. The safe withdrawal rates are significantly higher. That person, if they retired in 1981 and stuck to a 4% rule, would have been left with a bucket load of capital at the end of retirement. And that's also one of the big criticisms about the 4% rule, which is if you do find yourself retiring and having 15 strong years, you will end up shortchanging your lifestyle—not able to really have the money you wish to have to really do what you want to do with everything in your life. And so this variable spend is trying to solve that equation too, which is allow some flexibility to either increase spending or decrease spending based on how well the portfolio is doing.

Lawrence: Exactly.

Keith: I know that there's a tremendous amount of research on guardrails, and we're going to come back to that in future shows. But this is a really good point that you touch upon, which is really why it's there, what its purpose was, and how it was used. Let's start wrapping the show up, Lawrence, and really try to answer this issue, this question of how do we approach withdrawal rates? So now there's the 4% rule, which is nice to have a conversation around, and you can make calculations on the back of an envelope and have really some high-level discussions. But how do we think investors need to really plan their retirement cash flows?

Lawrence: It's really important to actually look at a case-by-case basis, right? These sweeping rules are nice as a rule of thumb, but the way we go to work with clients is we use financial planning software to build a proper plan and look at the whole picture on their personal assumptions, on their estate needs, on their tax profile, on their actual asset allocation—all these things. We load them up, and we project these assumptions into the future and work with our clients on finding a customized plan to really hone in on the most accurate numbers that we possibly can. And that's the big thing here—these rules of thumb are nice, but you really have to have access to a clear financial plan that is customized to your needs because every person is completely different. They have very different expectations on what their retirement may look like, what their spending might do. You want to stress test these things.

Keith: You're absolutely right, Lawrence. We really encourage all investors to do a proper retirement analysis, which means getting the software, either doing it themselves or working with a financial advisory firm to do those projections. One of the things that the 4% rule does not do very well—it assumes straight-line spending, and we know that life is not a straight-line spend. So it's not us that has coined the idea of "go years," "slow go years," and then "no go years." It was Michael Stein, a financial advisor, who put that together. But I think it's really powerful. What does that really mean, Lawrence, when we say your spend go years are different than other years?

Lawrence: What he's referring to and what we've seen with clients is that your spending is, of course, not linear. It's actually more of a Nike swoosh shape, where in the first couple of years are the go years of your retirement. So let's say 65 to 75, where you're more active, you're taking more trips, you're doing more activities, you're spending more of your money. And then in those middle years, the slow go years, you start to slow down a bit. You still pay your bills and your rent, but you're a little less active and require a little bit less capital from your portfolio. And then we have seen some cases with clients in the no-go years, where your spending actually ramps up at the tail end of a Nike swoosh, where you're requiring more capital from your portfolio because of health care costs and the possible needs you have there, where you ramp up your spending at the latter stages of your life.

Keith: Those are all excellent points. From what I've seen, definitely the go years are 60 to 75. For sure. People can travel. We're not traveling in the pandemic, but they can travel, they can be active. They're very generous with supporting their family. They want to encourage their kids and grandkids. They want to have family events. They want to pay for the events. They want to do things. They're very active. And you want to model that in your software. You want to model that in your projections. Sort of the slower years, the 75 to 85, you're absolutely right. Spending can go down quite a bit. And then the wild card is the last 80 to 90. You can either have years where the spend rates are quite low, or like you referred to, your spend years can actually increase quite a bit by healthcare costs. So nothing is straight-line about that. So the nice thing about putting it into software is that you can, in fact, model those cash flows into the software. So what's your takeaway, Lawrence? Takeaway for the 4% rule.

Lawrence: Basically, my takeaway from this exercise has been these rules of thumb are nice starting off points, maybe earlier in your life. There are nice targets to try to reach towards, but as you approach retirement and when you're in retirement, it's very important to have a more customized plan, to have a very firm understanding of your actual profile, your taxes, your estate needs, your investments, your pensions—all of this wrapped in together. That's where it becomes a lot more pressing to have a customized plan to have much more clarity and safety throughout your retirement.

Keith: Those are excellent points. What I would add to that is my takeaway would be the 4% rule is relevant. It makes sense. It's worth exploring. I actually would even prefer to say identify the burn rate concept. Understand what you need to spend. The burn rate will dictate everything. The more you understand about your spending patterns, the more clarity you're going to have about planning your retirement. So on that note, Lawrence, thank you so much for participating. You did a great job. Congrats on episode four for you. I really appreciate all your contributions and look forward to having many more with you during the year.

Lawrence: Thanks, Keith. And happy listening, guys.

Keith: And to our listeners, have a wonderful rest of the week, and we'll see you in two weeks. Thanks.

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