EPISODE 48

Current Investment Topics: Market Efficiency, Grossman-Stiglitz Paradox, and the Home Ownership Debate

[INTRODUCTION]

[00:00:05] Benjamin Felix: This is the Rational Reminder Podcast, a weekly reality check on sensible investing and financial decision making for Canadians. We are hosted by me, Benjamin Felix, and Cameron Passmore.

[00:00:15] Cameron Passmore: Episode 48.

[00:00:16] BF: Yup.

[00:00:17] CP: A bit of a combo to kickoff, listener question and bad advice of the week, which was pretty interesting.

[00:00:22] BF: Yeah, it was interesting.

[00:00:24] CP: Then a couple other topics. One is on the huge shift in the industry in the U.S. in terms of fund flows into index funds and out of active mutual funds.

[00:00:34] BF: Yeah.

[00:00:34] CP: And things are nearly as scary as we thought, or some think.

[00:00:37] BF: Yeah. Before we get into the episode, I do just want to say that we know we've gotten a handful of new listeners recently just based on the number of downloads that have been happening, and we appreciate everyone that's listening. We appreciate everyone that's sending in questions and comments. It really helps us prepare for each show. We've also gotten a couple of really nice new reviews on iTunes, which, yeah, we always appreciate getting those.

[00:01:00] CP: And also a two-star rating.

[00:01:02] BF: We did get our first two-star rating.

[00:01:03] CP: First two-star rating.

[00:01:04] BF: With no associated comments. We don't know why.

[00:01:06] CP: Fair enough. That's fine. That's fine.

[00:01:09] BF: All right. So we'll get into the episode.

[00:01:10] CP: All right.

[EPISODE]

[00:01:16] CP: Welcome to episode 48 of the Rational Reminder. So off the top, we get some very technical information that you get from Ben, who with his kids has become a bit of an expert in Monster Trucks, or what do you call them?

[00:01:29] BF: It's RC, remote control vehicles. I'm not an expert though.

[00:01:32] CP: Yeah, but you mentioned 7,000 kilowatt or whatever it is.

[00:01:36] BF: KV.

[00:01:37] CP: KV. See, I'm not an expert.

[00:01:39] BF: Thousands of RPMs per volt applied to the motor. We got a very fast motor for a remote control monster truck. The thing is terrifying. It probably goes 75 miles per hour.

[00:01:49] CP: And your kids are how old?

[00:01:50] BF: Well, they don't drive it on full speed.

[00:01:53] CP: You put on a limiter on it?

[00:01:54] BF: Yeah, there's a limiter on it.

[00:01:56] CP: Must be hilarious to see.

[00:01:57] BF: When it goes full speed, it's honestly terrifying. I don't think I've ever made it go full speed.

[00:02:01] CP: It's kind of like me and my drone. Taking that off was absolutely terrifying.

[00:02:04] BF: Yeah.

[00:02:04] CP: You can kill someone with it.

[00:02:06] BF: Yeah.

[00:02:07] CP: I have to get my license for the drone by June 1st.

[00:02:10] BF: Wow! Yeah.

[00:02:11] CP: Taking it up a notch.

[00:02:12] BF: You stick the drone up one day and film the RC cars.

[00:02:14] CP: Yeah. That'd be kind of cool.

[00:02:16] BF: Before you have the license requirement. We got a couple of days, right?

[00:02:18] CP: Just 1st. I'd better get on that course.

[00:02:21] BF: Anyways. So this is our episode. So we're going to do kind of a combo to kick it off, which is a current topic/bad advice of the week. Should we comment on the downloads? We've mentioned last time we had our own episode that we're almost going to had 10,000 downloads that month, and we ended up falling short last month. But we're already at 12?

[00:02:44] CP: 12,000 or 13,000. I mean, largely, I think – I mean, it's organic growth, we know that. But I'm thinking that some must have come from your video, because your video went viral last week.

[00:02:53] BF: Yeah.

[00:02:54] CP: We'll actually talk about that topic, the 5% rule. But you are up to what? 450,000 downloads?

[00:02:59] BF: It's 420 or something like that.

[00:03:01] CP: Unreal.

[00:03:02] BF: That was kind of neat.

[00:03:02] CP: And 22,000, 23,000 subscribers I think to your YouTube channel?

[00:03:06] BF: Yeah. There's a lot of growth on the YouTube channel. I agree. Some of it probably translated over to the podcast to.

[00:03:12] CP: But then we're about 2,500 downloads per week on the podcast, which is nice. So you got a listener question last week.

[00:03:17] BF: I did get a listener question, and I actually wanted to just comment on listeners questions, which I've been getting a lot of, and I always say how much I love it, and I do. But, I mean, my LinkedIn, Twitter, email, they're all backlogged with questions from people. So if I haven't answered you, I will. It's just that there are a lot of them right now.

[00:03:38] CP: Or email me. You seem to get them all.

[00:03:39] BF: That's true. You can email Cameron too. Yeah. So someone emailed me saying that they listened to the Burn Your Mortgage Podcast, which I'm aware of, but I don't actually listen to it. The guest that they had on the podcast that our listener wanted us to comment on

was talking about using dividend stocks to pay down your mortgage quickly, but the guest had a lot of very strong opinions on dividend investing, but also on index investing.

So I listened to the episode because I wanted – Our listener asked us to comment on it. So I figured I'd give it a listen and see if there are any comments to make, and there were.

[00:04:16] CP: A lot of passion though. I would give the commentator that. You can tell that he really loves dividend investing, which is our main point all the time.

[00:04:24] BF: I do want throw there before we get started on this, that we don't want to be mean to anyone. That's not our goal, and we were fully aware of what it takes and how it feels to put your ideas and thoughts out there for everybody to listen to, but anyway. So into our commentary.

So one of the things that the guest on this episode said was that – Again, I don't want to be mean, but this is completely absurd. They said that once you collect enough dividends from a stock, you've eliminated your risk. So you don't have any more risk, or at least dramatically reduced.

[00:04:52] CP: Because you've gotten all your money back.

[00:04:53] BF: So you put some money into the stock. But once you've collected that amount or more back from dividends, you now don't care about the price. There's no risk anymore, was the comment. We always have to think about markets from a framework, and if we're thinking about them from the framework that markets are efficient, that's even not running market efficiency. When a company pays a dividend, the capital is reduced by the amount of the dividend. That's not even efficient market. Efficient market is just that being reflected in the price. But it is a fact, that when a dividend is paid, the value of the company decreases by – That's a fact, regardless of market efficiency, whatever.

[00:05:25] CP: Yeah. Many of your followers will disagree, but it is a fact.

[00:05:29] BF: No, they're not. I wouldn't call the dividend crowd my followers.

[00:05:32] CP: I was being polite.

[00:05:32] BF: Okay. Yeah. So anyway, if we reframe it in that context, think about a stock that doesn't pay a dividend. If you put some amount into a stock and then every time it increases, you shave off some of the capital. Once you've been able to shave off enough capital that you've recouped your initial investment, it doesn't mean you're not taking risk anymore.

[00:05:53] CP: Of course not. You have that capital still in the stock.

[00:05:56] BF: Well, you maybe took it out and put in cash, but there's economic risk to holding cash. What are you doing with the dividends? But even still, the capital portion of the stock, that's still risky. The idea that you can hold a dividend stock, collect dividends and then you're no longer taking price risk, doesn't make any sense.

[00:06:12] CP: Doesn't make any sense.

[00:06:13] BF: Total return is the only thing that matters to an investor.

[00:06:16] CP: Let me give an example of taking the dividends to pay off your mortgage and you could, in this example, pay off your mortgage five years faster, and who wouldn't want that? Well, of course, you're just taking basically money out of the portfolio and putting it towards your mortgage.

[00:06:28] BF: It doesn't matter if it came from dividends.

[00:06:29] CP: Money is money.

[00:06:31] BF: You could do that.

[00:06:31] CP: Yup.

[00:06:32] BF: People do that, but it doesn't have to come from dividends.

[00:06:34] CP: Then I got a kick out of the host of the show asked about, "Well, what do you think about index funds? Because I have some index funds." He said, "Well, index funds are getting a lot of publicity, and it is better than leaving the money under your mattress." So it's nice to know that our belief system is better than having your money under a mattress, and 50 years of modern portfolio theory is better than money under your mattress.

[00:06:55] BF: 60 years.

[00:06:56] CP: 60 years. Anyways, so we went through a bunch of issues that he has with index funds.

[00:06:59] BF: Four. Not a bunch. He had very specific four, "These are my four issues with index funds."

[00:07:04] CP: Yeah, number one, he described as – He prefers to buy stocks that are undervalue, because clearly that's not hard to do. A little bit of education, you learn how to buy undervalued stocks. You are unable to do that with an index fund. You'd buy the SMP 500, you have to buy the ones that are overvalued as well as the ones that are undervalued.

[00:07:20] BF: Just for some context, the guest on this podcast was talking about how he uses the current dividend yield of a stock compared to its average dividend yield historically, and that's how he identifies an undervalued stock.

[00:07:33] CP: It's also why he said he didn't like DRIP programs, because he rather have the DRIPs paid in cash. We can use the dividends to buy the undervalued shares. I don't want to reinvest in a company whose share price has gone up with that dividend. That's why he's opposed to DRIPs.

[00:07:46] BF: Right. [inaudible 00:07:47] index funds. You just mentioned one. You're buying stocks that are overvalued and undervalued. Now, of course, in an efficient market, there are no under or overvaluations. So that's not something that we would agree with obviously. Then out of the 500 stocks in the index, not all of them pay dividends. So you're just relying in the price to go up.

[00:08:07] CP: Can you imagine the horror?

[00:08:09] BF: No dividends. Yup! Can't even imagine. It really blows my mind that – Anyway, dividends – It's like I said on my video on dividends. Dividends don't matter. When we're talking about the total returns of the market, dividends do matter, because when you take them out, you're not accounting for those distributions of capital overtime.

[00:08:27] CP: As I said earlier, it's his passion around this I believe is leading him to become probably a good investor, because he loves this so much. I'm sure he's saving money to put into more dividend paying stocks.

[00:08:37] BF: When he talked about his strategy, he's buying value stocks that are profitable, which are, to be completely fair, those are two of the factors that do drive returns. Now, when you're picking a handful of stocks, you're not that likely to actually get the expected outcome. But still better than picking random stocks and getting in and out of the market at the worst possible times.

[00:08:56] CP: So I think we picked off a bunch of his issues. I think we picked up the four.

[00:08:59] BF: No.

[00:09:01] CP: You want to go through them one by one?

[00:09:02] BF: Well, we've already gotten through most of them. Oh! So he also said that he wants to invests in companies that are recession proof, and with the SMP 500, you're getting some companies that are and some companies that aren't. Recession proof isn't a thing, by the way. There are defensive companies, like low beta companies, which we talked about in the previous episode. But there's no such thing as recession proof. There are companies that will go bust in a recession regardless of their business model, which you can't predict. But the last one was probably my favorite of all of them, was that you're still paying fees with an index fund. Especially as you get into larger dollar amounts, the fees on index funds start to become very impactful. That's true. But would you tradeoff the five basis points you're going to pay for an index funds, 10, whatever it is, with the lack of diversification from owning individual stocks? There's no comparison.

[00:09:48] CP: Yeah. In the last company I bought index funds was a lot of index funds. He says reinvest dividends. You don't actually see the dividends, which isn't good. It's better to see the dividend being paid into your brokerage account.

[00:09:58] BF: Right, which was not – When we're talking about ETFs, I don't think that they do that, right? ETF is big. You're going to get cash distribution.

[00:10:04] CP: [inaudible 00:10:04] index funds, or index funds like the TD e-Series.

[00:10:06] BF: Index mutual funds?

[00:10:07] CP: Or reinvest a dividend, of course.

[00:10:09] BF: But you're going to opt for that or not.

[00:10:10] CP: You can opt out, paid in cash if you like.

[00:10:12] BF: Anyways, the best thing to do is to start educating yourself and then leads to learning how to identify undervalued companies. That said – [inaudible 00:10:20].

[00:10:20] CP: It's really quite easy. It also is business to teach that.

[00:10:24] BF: Yeah, you're being fastidious obviously. It is scary that there are providers of information out there who are effectively spreading misinformation. There is an understanding of how financial markets work and the academic literature, which apply directly to – I was talking to somebody about this actually on the weekend. Someone who is – They are an academic, or they come from academia. They now work in technology. But they were talking about how people in industry will often say, "Oh! Well, the academic research, you can't apply that in real life." He was like, "What do you think the researchers are basing their research on? Do you think they're just making up numbers?"

[00:10:59] CP: Yeah, and you've had that comment a lot in your comments on YouTube.

[00:11:02] BF: Research is done based on real-world implementation, real-world results. That is what is being researched. Anyway, so there's this understanding of how markets work and there's this research, body of research. Yet there are people out there like this person here, and like a lot of the people who answered that global mail article in the comments who are literally spreading information that is wrong based on our understanding of financial markets. They're telling a great story and a lot of them are selling it, like this guy.

[00:11:27] CP: So you want to move on to another current topic? Things that are going right?

[00:11:30] BF: Yeah. This one is fascinating. In the U.S., and this is not true in Canada, and we'll talk about that more in a sec I guess. But in the U.S., index funds and active funds have reached parity in terms of assets.

[00:11:43] CP: In terms of fund flows.

[00:11:45] BF: In terms of assets.

[00:11:46] CP: And fund flows I believe.

[00:11:47] BF: Fund flows have been, well, the opposite.

[00:11:49] CP: You're correct. Yes. So fund flows are massively going from active funds into passive funds.

[00:11:55] BF: Yeah, they've reached – It's anti-pit. Whatever you'd call that. They're inverse.

[00:11:58] CP: It's the inverse. Correct. That's what I meant.

[00:12:01] BF: So fund are leaving –

[00:12:01] CP: There's a massive shift in the U.S. marketplace.

[00:12:03] BF: The big story is that they're now, in terms of fund assets, they're half index and half active. There's a big deal in Canada for fund assets. We're still 90% active.

[00:12:15] CP: But one of the takeaways is that not a huge part of the market is actually in managed money. That's the chart that really got me. When you look at how much the marketplace in the U.S. is still – Because the question comes up a lot. Well, if everyone indexed, what's going to happen with price discovery?

[00:12:29] BF: Yes. We're talking about a couple of different charts here. So the Morning Star had their asset flows report, and that's where the story of the amount of assets in passive. That's where that came from, from Morning Star's fund flow commentary for U.S. funds. But then we've a couple of other charts here that we're looking at, and we are going to post these on – We have a website. A few might not know that, because this is a podcast. People probably find that on iTunes and stuff. But we have a website called rationalreminder.ca where we do post all the episodes, and we will post the charts that we're talking about that today on that website. Rationalreminder.ca if you want to –

[00:13:00] CP: But the cumulative fund flow chart is something. Showing you since the great – 2009, so just after the global financial crisis. $1.5 trillion of fund has gone from active over to passive.

[00:13:12] BF: It's amazing. So that's one story. But then within this whole concept of now it's an equal split between active and passive, the other chart that you're talking about came from a different report from the Investment Company Institute. So that's again looking at U.S., U.S. fund asset. Well, U.S. assets in general. The way that that relates to the story that we're talking about now is that even though fund assets are now equally split between active and passive, total assets, like when you look at total U.S. market capitalization, it's still over 70% not in funds. So that's securities held directly or held by institutions or whatever it is.

[00:13:45] CP: Pensions or –

[00:13:46] BF: But not in funds. So when you look at the overall market cap weight of index funds, it's probably closer – Well, for the investment companies to do it, it was end of 2018. At that time it was 13%.

[00:13:58] CP: So 13% of the U.S. market cap is in index funds. That means price discovery is being done by 87%.

[00:14:05] BF: Well, yeah. I mean, there's more data on that that I wanted to talk about as well. There's a study from Vanguard in 2018, and they showed that in terms of trading activity, index funds make up 5%.

[00:14:24] CP: Because the turnover is probably a lot less.

[00:14:26] BF: Well, they said a lot of the transactions in index funds are happening on the secondary market. So it's not index funds going and buying securities directly. It's people who already own index funds units trading them with each other. So there's no primary market. ETFs aren't going and buying and selling stocks most of the time. It's people buying and selling ETF units from each other, which does not result in creation or redemption.

[00:14:50] CP: Fascinating.

[00:14:51] BF: Yeah, and this was done in 2018 when index funds were still not quite 50%, but a very large proportion of fund assets.

[00:15:00] CP: That's amazing. 5% of the market's trading activity is done by index funds. It's nowhere near a problem.

[00:15:07] BF: But I think that the concern, like when you see, "Oh, well. 50% of the market, of the fund assets," which people initially think as the market, which we just debunked. But say it is 50% of the market, of the overall market. The thing people start to worry about is price discovery, like you mentioned a second ago, and price discovery just means like if no one is doing the research on individual companies and actively investing, then how can market prices be correct in the first place?

[00:15:31] CP: But it's really 50% of the 30% of the marketplace.

[00:15:33] BF: Right. So it's not even close to being an issue, but say it was.

[00:15:36] CP: Yeah.

[00:15:37] BF: Say we were closer, and it was a real concern. This whole ties into something called the Grossman-Stiglitz Paradox, which a couple of guys named Grossman and Stiglitz wrote about in their 1980 paper.

[00:15:47] CP: And you did a YouTube on it with –

[00:15:49] BF: That was a while ago, yeah.

[00:15:50] CP: Plain Bagel.

[00:15:50] BF: Oh, yeah. Plain Bagel. Yeah. That's right. So they basically said that if markets are efficient, then you can't beat the market consistently. In that world, indexing is the smartest way to invest. But markets can only be efficient if there are enough people trying to beat the market. So that creates a paradox, because if markets are efficient, no one is going to be active. But if no one is active, markets can't be efficient.

[00:16:13] CP: Right.

[00:16:13] BF: So I think in practice, it ends up being more like an equilibrium than a paradox, where if it really did happen that too many people started to index and there was not enough price discovery, that would create an opportunity for active managers to exploit. As soon as they exploit it and made profits, everybody else would rush back and active. So that's always going to be – I think should be at least self-correcting.

[00:16:36] CP: But knowing the number of people and the number of companies that we do know, you just can't even imagine going that far.

[00:16:42] BF: Yeah, you can't. I agree. [inaudible 00:16:44] French looked at this in a 2005 paper and they talked about at what point would prices be – Could prices no longer be set by the market? How much indexing would it take? Their commentary was that if the misinformed and uninformed, like the bad act that managers turned passive, then market efficiency will actually improve. So as the unskilled or lucky and then unlucky active managers leave, because

they're no longer successful, if the remaining active managers are truly the really skilled good ones, markets are actually going to be more efficient, because there are less bad active managers to exploit.

Then they also said that even if an active manager with good information or a skilled active manager turns passive, the effect could be negligible, as long as there are still enough skilled active managers competing with each other. But that kind of ties back into my comment, where as long as there – Or if there are at some point opportunities to exploit and there are some skilled active managers to exploit them, well, I guess that creates opportunities if too many people index, which makes maybe more active managers rush in, which takes away the opportunities.

[00:17:49] CP: Yup.

[00:17:50] BF: And that's like it should always continue going no matter how big indexing gets. Keeping in mind that indexing is still tiny relative to overall U.S. market cap. That's in the U.S., where they are at parity for fund assets. But I mentioned in Canada, we're still 90% active.

[00:18:06] CP: Nowhere near like the U.S.

[00:18:08] BF: So I wouldn't say this is something to be concerned about. I think it's generally a good thing, because people in the U.S. anyway are saving a ton of money on fees, but not at this point.

[00:18:16] CP: Anyways, something to be worried about in terms of market efficiency. So we've had a question quite a bit lately, and this is our portfolio management topic of the week. So we had a few new people come through with assets, and the question we've had I think two or three times just this past week alone is, "The markets are high. Shouldn't we just be holding our investments as cash for now until there's a correctly that we buy-in then?" Which certainly has an appeal? Sounds easy enough. Sounds almost like it's predictable. Some sort of mean reversion.

I thought the answer you gave in one of our meetings this week was a good one, which like you may want to touch the fact that there have been studies on this in the past, but there's not enough reliable data to be able to persistently time when to get into the market.

[00:19:00] BF: Kind of. There is an update, and it's a little bit more nuanced. So I think that there are studies that have shown a relationship between prices and future returns. So when prices are high, like they are now, future returns tend to be lower. That's true. That is a fact.

[00:19:16] CP: But they're mainly high in the U.S. given the run we've had in the U.S. market for the past decade. Not necessarily high around the world. Not necessarily high in different –

[00:19:24] BF: But they say they were high. Say they were high everywhere. When you look at the data on that, that relationship is pretty strong. But AQR did a paper on this a while ago, and their comment which was really interesting, is that you can look at that data and you can see the relationship, but when people look at that data, they usually look at the full dataset and sort stocks by their relative price based on the full dataset.

When you're sorting by the full dataset, you're cheating in terms of modeling an actual investment decision, because us today, we don't have the full dataset from now until the future. We only have the dataset from now into the past.

[00:19:58] CP: Right.

[00:19:59] BF: So AQR showed that, clearly, like monotonic relationship between price and future returns, where high prices equal lower returns, lower prices equal higher returns in the future. They showed that very clearly. But then they redid that example using only – So for each period that they reconstituted their expensive and cheap quintiles, they used quintiles in their study. For each period, they only used the historical data. So they didn't use any future data to do their sort, only historical data, and the relationship between future returns and price weakened. You could still see there the relationship on the chart, but it definitely weakened. Then in the same paper, what they did is they said, "Okay. Well, let's build a market timing strategy using this information."

So we know that when prices are high, future returns tends to be low. So let's build a strategy and try and exploit it. So they did that in the paper, not a real portfolio. But they did that in the paper, so using the historical data sort. So at each point in time, they over or under weighed stocks.

[00:21:07] CP: Based on recent performance.

[00:21:09] BF: Based on the current price Shiller CAPE relative to the past.

[00:21:12] CP: Okay. So it was based on the metrics from Shiller CAPE. Not based on recent performance.

[00:21:15] BF: This was all Shiller CAPE. Yeah, we didn't even talk about that, but Shiller CAPE and Vanguard did a paper on this a while ago. Shiller CAPE is by far the most reliable metric for forecasting future returns. So we're talking about prices being high. People are generally talking about Shiller CAPE. That's a cyclically adjusted price earnings.

[00:21:33] CP: So, anyway, where was I there? Okay. So I did this study. They built model portfolios based on the Shiller CAPE.

[00:21:41] BF: Right. In their market timing strategy, they found that over the full period from 1900 through 2015, it added value. So you're better off using their market timing strategy over that full period than you were just holding the market. So that's a pretty interesting finding.

[00:21:55] CP: There must be a but coming.

[00:21:56] BF: Yeah, there is.

[00:21:57] CP: There's a but.

[00:21:59] BF: So they then found that from 1958 through 2015, for that period specifically, the strategy underperformed.

[00:22:07] CP: No way.

[00:22:08] BF: Just holding the market. So 1900 through 1957, it outperformed enough that over the full period you outperformed.

[00:22:14] CP: Why would that be?

[00:22:15] BF: Yeah. So this is kind of, at least in my – From when I read the paper, what I took away as the main point was that over very long periods of time, prices can look cheap or expensive relative to the past. So you can have 50 years or, well, 60 in the case of 1958 through 2015. You can have these huge number of years, of decades, where prices for the full period are high relative to the past.

So if 1958 through basically now, prices have been high, and increasingly high relative to the past. So if you're doing a market timing strategy based on Shillar CAPE, you were, as in the paper, their strategy was, under invested for the whole time.

[00:22:54] CP: Because you're always looking high all the way through that era.

[00:22:57] BF: That's right. So their main takeaway was that you can't – Without the ability to predict the future, without the ability to see what valuations are going to be in the future, you cannot say prices are high. You can say prices are high relative to the past. You cannot say the prices are high objectively today.

[00:23:15] CP: Going forward.

[00:23:16] BF: You can't say it's high today, because we don't know what the future valuations are going to be. Without that information, there's no way to say prices are high. Prices are high relative to the past.

[00:23:24] CP: I wonder what the driver is. Is it the falling interest rates over the past 30 years?

[00:23:28] BF: I'm not an economist. I don't know.

[00:23:28] CP: Which just to try to – Or is technologies giving more information to more people? People becoming more market participants, wanting to take on the risk with the great de-marketization of markets?

[00:23:39] BF: Larry Swedroe did a post a while ago talking how the Shillar CAPE needs context, and I should have read that post for our conversation today. I didn't, but there were a bunch of reasons that Larry gave. Some of them being increased liquidity, which deceases risk, but there's also some accounting changes. So there are a bunch of reasons that Larry gave for why it's reasonable for prices to be higher today relative to the past. So that's a whole other topic. Is Shillar CAPE the right metric to use till based on these changes that Larry Swedroe was talking about? Maybe, maybe not. But even if it is, the AQR paper is saying that without the ability to know what the future valuations are going to be, we cannot make investment decisions today based on the current price earnings.

[00:24:19] CP: So a lot of people that have the cash will often ask us, "Well, could we average in to the marketplace?" So say $100,000, you could do $10,000 a month for 10 months. Of course, once you're fully invested, you've got the same risk exposures if you invest it today. So you kind of ease in to avoid regret for perhaps those 10 months, but once you're in, you're in.

[00:24:37] BF: Well, I have this conversation with people. I use the Vanguard study as a talking point, because they looked at this. They looked at what if you dollar cost averaged as supposed to doing a lump sum? They looked at I think U.S., U.K., Australia maybe. They looked at three different markets and they did dollar cost averaging versus lump sum over, I believe it was 10 year horizons. I believe. Don't quote me on that though, but they tested these two lump sum versus dollar cost averaging in these different markets over the full dataset that they had available at the time. They found that in about two-thirds of their sample trials, lump sums beat dollar cost averaging.

[00:25:17] CP: Right.

[00:25:19] BF: And that's generally because markets tend to be increasing about two-thirds at the time. So, anyway. The way that I explain this to people is that the statistically optimal decision regardless of what the world looks like or what prices are or whatever, the statistically optimal decision is to invest in a lump sum. That's where your expected returns are the highest,

and that's what's been statistically optimal in the past. But if that makes you feel nervous, then dollar cost averaging is a perfectly fine alternative. Much better than trying to get the perfect time.

[00:25:46] CP: There's also cost of scars. So I've talked to people who did invest, for example, beginning of 2008, and they temporarily have the market hit them and values dropped and they're scared for live on that, "I'll never do that again."

[00:26:01] BF: I think that there are a couple of other data points that are interesting on this topic. There's one from 1977 through 2018, the SMPTSX returned 9.72%. But if you missed the 15 best trading days, your annualized return drops to 7.44%. So that's 15 of all the trading days from 1977 through 2018 You miss the 15 best, and your annualized return drops to 7.44%. That's pretty crazy, but it just speaks to the importance of being in the market if you want to get the market's returns.

[00:26:30] CP: [inaudible 00:26:30] argument is if you missed the 15 worst days, you'd had a better return too.

[00:26:35] BF: Yeah, it's true, and it's probably just as hard to miss the best days it is to –

[00:26:40] CP: Well, so many people said, "Well, I'll buy back in when things look better." When things look better, prices will probably be higher. What signals will you be using to decide when to buy back in?

[00:26:50] BF: I did a blog post in 2015 that I should probably update. But anyway, I looked at what if you had lump sums? I think it was like $1.5 million to start and you did $500,000 on March 1st, 2000, right before the tech crash. $500,000 on June 1st, 2007, right before the financial crisis, and $500,000 on July 1st, 2011, which we had a relatively small dip, but still a little dip. By the end of 2015, when I was writing the post, the portfolio which in my perfect hindsight had been invested at the worst possible times. It had a money weighted return of 5.82% per year, which isn't bad.

[00:27:27] CP: For the worst possible time to buy in.

[00:27:29] BF: You couldn't have had worst times to invest, and that's over a 15-year period. Actually, largely because U.S. stocks weren't so great for that full decade from 2000 through 2010, this portfolio that I was hypothetically investing, it was a global portfolio. That 5.82% return, money weighted, including investing at the worst possible times, actually beat the SMP 500 in time weighted return, just because U.S. stocks didn't' do well over that time period. I guess that speaks the importance of diversification. Well, it actually probably speaks to the importance of small cap and value as well.

[00:28:03] CP: And giving it a proper time horizon.

[00:28:05] BF: And giving it a proper time horizon. Yeah. That's actually – The small cap and value thing is interesting, because in the U.S. market, over that time period, 2000 through 2010, U.S. market was flat. U.S. small cap and value actually had great returns.

[00:28:16] CP: Absolutely.

[00:28:18] BF: That's important context. My global portfolio that was invested at the worst possible times was global and tilted towards small cap and value and it smoked the SMP 500 despite being invested at the worst possible times.

[00:28:29] CP: On to the planning topic. Talk a bit about the subject that your recent YouTube video went viral on. I thought it was really interesting how you framed the decision between should I rent or should I buy. So many people don't have the proper framework around that and don't capture all it costs.

The anecdote as someone who has a house out of nowhere. I had a $2,500 cost hit me when I had, as you know, a raccoon move in to my attic. So it's one of those examples where all of us own a house, put so much money into things like that, but that came out of nowhere, a $2,500 cost.

[00:29:04] BF: Yeah.

[00:29:04] CP: That never ends up in a spreadsheet anywhere to find out did you make money on your hour or not.

[00:29:08] BF: No. I think this is sort of related, but not exactly the topic that we're talking about here. But when people evaluate how have they done on their house. You know what you paid for it. You know what it's worth when you sell it, and that number is often pretty attractive, but that never takes into account the costs of property taxes, the cost of maintenance cost overtime. If you factor those things in your returns, it'd be much lower, but people don't evaluate their real estate returns based on that. They say, "How much did I pay? How much is it worth now?"

[00:29:33] CP: I listened to a podcast this morning with Tim Ferriss. Interviewed – I can't remember his name. Phenomenal interview. A guy from New York City who does financial advice and talked about how if you're going to be in a house less than 7 to 10 years, just the cost of acquisition and that real estate fees on the sell side, unless you're committed for 7 to 10 years, in his opinion. It makes no sense at all.

[00:29:54] BF: I'd say the same thing. I say 10 years. Anyway, I think the reason that this video blew up was that – Because I've covered this topic before twice in past YouTube videos, and they've done okay overtime, but nothing like this one. I think that the real hook was that I made a very, very simple decision tool to think about the housing decision. I just said that if you take 5% of the value of the home that you're looking at, so 5% of the value, divided by 12 to get a monthly number. If you can rent for that amount or less, then renting is financially an equivalent decision.

It's useful. We just rented a new house, signed a three year lease. But in doing that, I actually used this decision tool. I thought, "Okay. For the amount of rent that I'm paying, times 12, divided by 5%," and that gives you the equivalent value of the home that I am taking on the costs of something equivalent to this price of the home. That was useful. It's like, "I know what I'm getting. I know what I'm getting myself into a financial perspective."

[00:30:57] CP: So what did your ratio come out to be?

[00:30:59] BF: Well, it's 5%, or I haven't said that yet. Have I not? Yeah, the 5% rule. That was the whole thing.

[00:31:04] CP: So your example was 5%. Your rent is 5% of the house value.

[00:31:08] BF: Well, I don't know what the house value is. I'm just saying you can use the 5% rule to figure out what the equivalent value of a home is in terms of the unrecoverable costs. We should probably talk – We haven't even dug into what this is about. So the whole point of this 5% rule thing is that you have – As a home owner, you have unrecoverable costs. Rent is like a super easy on recoverable cost to understand, because you pay rent. The money goes away and you –

[00:31:31] CP: The money is gone.

[00:31:32] BF: But when you own a home, you also have three main sources of unrecoverable costs. You have property taxes, which are roughly 1%. You have maintenance cost, which I say 1%. I've had homeowners tell me –

[00:31:45] CP: Oh, it's all of that. It's all of that. Absolutely. I can tell you unequivocally, it is all of that.

[00:31:49] BF: Yeah. People often tell me that 1% is too low.

[00:31:51] CP: When you take into account all these stuff that happens, the painting, to the roof, to the hot water tank, depends on the age of the house. But in the past few years, I have AC, furnace, roof, raccoon, painting. Seriously, it doesn't stop. But most people don't account for that, don't think about that.

[00:32:09] BF: I agree. Then the last one that people really don't think about is the cost of capital, and that's the biggest one. So 5%. 1% property tax, 1% maintenance costs, and then 3% is what I'm using for my cost to capital estimate. What that's based on is when you have debt, you've got a 3% interest cost. But when you have equity, and this is the real big one, because people think when I've paid off my home, I don't have any more housing costs. It's wrong. Mortgage payment is not your housing cost.

[00:32:38] CP: No.

[00:32:38] BF: A mortgage payment is a mix of interest cost and savings. But once you have – Say, you've got a $500,000 home that's completely paid for, that's $500,000 that you could be using for something else, like for example, investing in stocks. If we assume a 6% return on stocks, nominal return, 3% nominal return on real estate, which is in line with what real estate's done globally over the last 120 years. That's a 3% opportunity cost. So you've got money in a house earnings and expects a return with 3% while it could be in stocks earning an expected return of 6%. That's a 3% economic cost. Even though you don't see that coming out of your bank account, that is a real economic cost that you are taking on as a home owner.

So property tax, maintenance cost, cost to capital, 5%. That's kind of it. Some of the comments in there, like thousands of comments on that video, but one of them that came up quite a bit. To be clear, the 5% rule is a major over simplification. There are lot of other things that go into it. Some of which I'm going to talk about right now.

But one of the comments that came up to the top a lot was that with leverage, if you put down $100,000 to buy a $500,000 home and then you get a mortgage, yes, you've got a 3% interest cost, but you've also got – You're getting the 3% expected return on the real estate on way more money than you actually had, because you're putting down the $100,000, but you got a $500,000 –

[00:33:55] CP: You're amplifying the returns.

[00:33:57] BF: You're amplifying the returns. Now, that goes both ways. Obviously, leverage is not a risk-free way to increase your returns. But the other big one, and this is where I'm going to have to do another video to go into the details of the numbers, but because the mortgage creates a cash flow cost, he owner ends up with – From a cash flow perspective, mortgage payments, which is not all the cost. That's a cash flow expense, because only the interest is a cost. A portion of the mortgage payment is a principal repayment.

[00:34:26] CP: Which is creating equity.

[00:34:27] BF: Which is creating equity. But from a cash flow perspective, we have a mortgage payment. We have property taxes. We have maintenance cost, which we can estimate as a cash flow cost of 1% per year. Then one of the other ones that isn't in the 5% rule – Well, it's not

in my explanation in the video, but it is baked in the rule, is property home insurance. So for a home, like how much do you pay for home insurance?

[00:34:48] CP: It's like a thousand bucks a year.

[00:34:49] BF: So it's much, much cheaper for renter's insurance. Much, much cheaper. So those are all cost that go into it. But to kind of verify the simple rule, I use my old rent versus buy model, which I have built in Excel and modeled a $500,000 home with 20% down and 10% it does for a $10,000 in closing costs. I use a 25-year mortgage, 3% mortgage interest, 1% property tax, 1% maintenance, like we've been talking about. I used 150 per month in home insurance and a 3% nominal real estate growth rate. So the monthly mortgage payment with a $400,000 mortgage, 3%, 25-year, all that stuff, is $1, 893. But the total cash flow expenses are closer to 3,500 for all those different things that we just talked about.

So to own that $500,000 home, you got $3,500 a year in cash flow costs. Then the renter, therefore, comparing side by side, the renter could have taken that down payment and those closing costs, $110,000 dollars, and invest them in stocks.

One of the big things here is taxes. If we're assuming a 6% return, that's a 6% pre-tax return. So if our renter her has RSP and TFSA room, the 6% is probably going to be 6%. Well, it's 6% pre-tax, 6% after tax. However, if they're investing a taxable account and they're taxed at the highest marginal rate, 6% might be like 4.5%. So that does affect the 5% rule, and the 5% rule was based on a tax-free investor.

Another interesting – Well, we've about this in the podcast before. The cost of owning a home increases if you have RSP and TFSA room available, because your cost of capital is higher. Your cost of equity capital is higher when you have tax-free room.

Anyway, the renter has $110,000 to invest. Say it's in a tax-free account. They earn 6% on stocks. They pay $283 per month in rent, which is 5% of 500,000, and we assume rent increases. This is another thing that came up in the comments of the video, is that I didn't take into account rent inflation, but it is in there. So we assume rent increases at inflation with 1.7%. So their renter's total cash cost is $25,000 in the first year. Going up a bit each year, just like the home owner is going up a bit each year as well. So the big assumption though, the biggest

assumption, is the renter is taking that difference in cash flow costs and investing it in a portfolio.

[00:37:09] CP: Behavior.

[00:37:10] BF: Yeah. So when we're talking about rent versus buy, I think that the single biggest factor is if you cannot be a disciplined saver, you should buy. Because it forces you to save.

[00:37:20] CP: 100%

[00:37:20] BF: You're not going to miss that mortgage payment.

[00:37:21] CP: Much like being in a defined benefit plan.

[00:37:24] BF: Yeah.

[00:37:25] CP: Or divine contribution for that matter. You're forced to put money away.

[00:37:28] BF: Anyway, if the renter does take that $10,000 difference per year increasing a little bit each year and invested into their portfolio. Now, assuming it's still a tax-free portfolio, which isn't done reasonable if they've got enough income to create RSP room, plus TFSA, you could keep investing that amount on a tax-free basis.

Under those assumptions, we end up with a home and a portfolio with nearly identical values. So I guess the reason for going through that was it was like a verification of the 5% rule, take into account some of the other variables that I didn't talk about in the video. In general, you can do this. You can take 5% of the valuable home if you're considering buying and estimate that your total unrecoverable cost are going to be, yeah, 5%.

[00:38:12] CP: I guess it also helps you too if you want to invest in properties for an investment standpoint as a rental property. If you can get more than 5% as rental income, maybe that means the housing market is undervalued, maybe.

[00:38:24] BF: This is true for the rental market too. If you're a renter on the other side of that equation, you can – The house that I'm renting now based on my 5% calculation is a great deal, which means that the rent is underpriced. The house is worth more than –

[00:38:37] CP: Because your rent is nowhere near the 5%, or is below the 5% of the value.

[00:38:41] BF: Correct. To buy this house would cost much more than my estimate of the value based on the 5%. I think I would love to study this or to see someone study this. But I think that landlords – I don't know if this true globally, but landlords, at least anecdotally, will underprice or even take losses on rentals because they have capital appreciation expectations that are unrealistic.

When you look at the global returns on real estate going back as far as we have data, they've outpaced inflation by 1.3% on average. If we're assuming 1.7% inflation, that's 3% nominal return. But landlords will take a net rental yield of zero or even a negative number because they want to have – Like you want to buy a condo in Toronto or whatever it is. But you have to have that.

That's another thing. When you look at investing in real estate, it's been a really good investment long-term globally, but that's been 3% roughly capital, 5% net rental yield. So if you give up that 5% net rental yield, all of a sudden real estate is not so attractive.

[00:39:39] CP: Because you're doing only for the capital appreciation side.

[00:39:41] BF: Right, which I think landlords will often have unrealistic expectations for. Now in my case, it's different, because the people that are renting the house from, they left the country because someone got a job and they're going to be gone for five years. So they probably didn't have unrealistic expectations for capital. They just needed someone to live in their house.

[00:40:00] CP: Super interesting model. Love it. Anything else?

[00:40:01] BF: No. I think that's good for this week.

[00:40:03] CP: Be back with another guest next week.

[END]