

EPISODE 71:

Everything that you could ever know about ETFs with Dave Nadig

[INTRODUCTION]

[0:00:05.3] 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.

[0:00:15.0] Cameron Passmore: On this week's show, we have a great guest with Dave Nadig, this is someone who I saw speak at the Wealth Stack conference last month in Scottsdale, and he gave a terrific presentation and he's the managing director of ETF.com which is described as the world's leading authority on exchange traded funds and it's been around since 2001.

Before that, he was director of research at the FactSet research systems and before that, he was managing director at Barclays Global Investors. He's basically been in the ETF space since day one going back into the 90s.

[0:00:46.1] BF: Before that, when he was with Cerulli which he started, he was doing research on fee based financial advisers which at the time weren't really a thing, like it was just starting to become a thing. His knowledge of product, the evolution of the industry toward fee-based advisors, the value financial advice and how that affects investor outcomes, his knowledge on those things is just fantastic.

But he also heads up the content and education work of CBOE. His ability to communicate as you'll hear in the episode is just fantastic.

[0:01:14.9] CP: Yeah, and amazing big picture perspectives on where the industry is going. Things like direct investing or direct indexing I should say was spot on I think. There's going to be some huge changes coming.

[0:01:25.5] BF: Yeah, it was a great discussion

[0:01:26.7] CP: He'll talk about his grand challenge which I thought was really interesting.

[INTERVIEW]

[0:01:34.5] BF: Dave Nadig, welcome to the Rational Reminder podcast. We really appreciate you being here.

[0:01:37.8] Dave Nadig: Well, thank you for having me.

[0:01:40.3] BF: You head up the content and education work of etf.com's parent company, CBOE global markets and you've created a ton of content. I've watched a bunch of your videos, you've also written a ton of great blog posts and you appear on podcasts like this. How do you think about the role of content and education in improving investor outcomes?

[0:01:58.2] DN: I actually think it's probably the most important part. I think that investing as sort of a science is a fairly solved problem, there are some folks out there who are still poking around the edges and figuring out new ways to do things but honestly, I think that the biggest detriment most investors have towards – to their success, is themselves.

It's their understanding of the markets, it's their understanding of their own behaviour. Sometimes it's even just their own understanding of their risk tolerance and their capacity to produce income and save and so I think those kinds of education which are really more about behaviour and more about context than they are about what is a preferred or something like that.

I think that kind of education is absolutely fundamental and it's the kind of education which never goes away. I think it's very easy to think – I mean, I've been in ETF business for over 25 years at this point. I feel like if I have to tell somebody how creation redemption works one more time, I'm going to take a spoon to my eyeballs.

But the reality is, there's a whole new crop of investors today who are sitting down at their computers and looking at what is an ETF for the very first time and for them, it's mind-blowing new information. Tomorrow, there's another hundred thousand investors who are going to discover it for the first time.

I feel like education's a bit of a Sisyphean process where you never finish educating people about markets, about themselves, about investing, about prosperity.

[0:03:26.2] CP: Obvious next question, how do you explain to those people that are just learning about this right now on this podcast? What exactly is an ETF?

[0:03:36.9] DN: Well you know, it's always good to know what the reference point is before you start talking to somebody and I think for most people, the reference point where they start from is they have some understanding of how some market works. Maybe it's mutual funds. Maybe it's the S&P500.

What I usually do is figure out what that reference point is. Most people if you say, "Hey, have you heard about the S&P500?" They'll say, "Yeah, sure. It's the biggest 500 stocks in the US." I think that's pretty common knowledge and from there, you can say, "Hey, instead of trying to figure out either which one of those things to buy or to find some guy to go buy them for you, wouldn't it be easy if you could just trade those all at once? Just put in one trade for a hundred bucks and buy all stocks in the S&P500?" They say, "Yes," and then I say, "Great!"

That's what an ETF is. It's just a wrapper, it's just a package you stick a bunch of stuff into and then you trade it the same way you traded stock. Fundamentally, that's all what ETF's are. They're just this vehicle that you pile a bunch of clowns in and then you drive around the circus and that's it, that's all an ETF is, everything else is just details.

[0:04:38.0] BF: Now, I don't want you to dig your eyeballs out with a spoon here but can you explain how the creation-redemption mechanism works for ETFs?

[0:04:46.1] DN: Yeah, sure, I mean the short hand is pretty simple, right? With a mutual fund, again, you have to start this way – with a mutual fund, you get the three of us, we get together, we decide we want to have our own fund, we go hire some smart guy to run it because we think we're all idiots, we all pull our money together, we use this thing called unitized accounting so you put in a hundred thousand dollars, I put in a hundred thousand dollars. Now we've got \$200,000, we decide we're each going to have one share instead of keeping track of the dollars. Congratulations, we now have a mutual fund.

We go hire somebody to run it, you're done. If we want to put more money in, well okay, the next guy walks in the door, Barry walks in the door with his hundred thousand dollars, we just give him one share too but if the price has moved because everything doubled, now, maybe it's \$200,000 to buy that one share.

That's just what a mutual fund is. An ETF is exactly the same, the only difference is that you and I don't give our money directly to the pool, we have somebody in the middle called an authorized participant and their job is to go buy up all the stocks that the pool needs in order to stay fully invested.

That's what that authorized participant does. They make new shares or when the opposite happens, they get rid of those new shares and they do all the hard work of buying and selling all those stocks in the marketplace on a day to day basis. That's basically it. That's what an ETF is and then those shares are available to trade on an exchange and that's how we get access to them.

The more interesting question is, why would somebody do that? And the reason is because it's Wall Street, it's because everybody's greedy and so those AP's, those authorized participants make money in that process, they make money because most of the time, they can sell that ETF share in the open market for a penny or two more than it cost them to create it by buying up all the underlying shares.

That profit motive is what keeps ETF's trading very close to their fair value. As soon as they get away from fair value, there's more money for those authorized participants to make, there's competition so they tend to only let them drift by a few pennies.

[0:06:42.0] BF: When we think about where revenue is coming from in the ETF world, I mean, obviously, MER's are getting extremely low, how much of a profit centre is that little arbitrage that you're talking about?

[0:06:50.8] DN: You know, I would argue that at the smaller level, those authorized participants and market makers make more money than the folks who actually run the ETF's, you know, if you're running a small upstart ETF company with 50 or hundred million dollars in one fund, chances are, that's a hobby, you know?

That's not what you're doing to pay rent. If you are a relatively small arbitrageur working for relatively own authorized participant, working on doing what we just described, this arbitrage creation redemption on handful of ETFs, chances are, you're making pretty good money. You know, on smaller, less liquid ETFs, there is real money to be had on the trading side of things. Obviously not a lot of people are sending kids to college by arbitraging out the price discrepancy and SPY, you know, because it's a penny if you can find the penny.

Everybody in the world is trying to arbitrage out the same penny so there it's a lot tougher but there's still a lot of room in the market.

[0:07:46.3] BF: Okay, I think listeners probably have somewhat of an idea of how ETFs work just from the way that you've described it. One of the things that we hear a lot is that ETFs are going to cause or at least exacerbate the next stock market crash. Is there any merit to that point?

[0:08:00.9] DN: No, but people have been saying this since 1993 when we first started trading these things. Apparently, they haven't been tested, that's the other thing.

[0:08:09.0] BF: ETF's haven't been tested.

[0:08:10.0] DN: Because there had been no stock market activities that mattered since 1993 apparently. Which I understand. I'm an old white guy too and 1987 hurt real bad. Yeah, nothing hurt like '87 so I guess ETF's haven't been tested. Look, the reality is ETF's are just a wrapper, that's all they are. They're just wrappers that hold stocks just like mutual funds are wrappers that hold stocks and bonds or SMAs or closed in funds or you know, terrible annuities. All of them are just wrappers for holding other securities.

The reason people get hung up about ETF's is because you can end up in a situation where you have a very liquid, very well-known ETF that owns a lot of very illiquid, very unknown securities and junk bonds are the sort of poster child for this, the two big ones there, HYG and JNK and you know, both of those individual funds have vastly more liquidity on a daily basis than most of the underlying bonds, they hold trade in in gear, so there is this paradox of liquidity.

Now, people see that and they think that, “Oh well, that means that when everybody decides they want to get in on junk bonds, there’s going to be this huge disconnect between what you can do in the underlying market and what you could do with the ETF,” and they’re not wrong about that, there will be and there has been a disconnect.

But that doesn’t mean that you’ve somehow broken the market. What you’ve actually done is add a vector for price discovery into a market that would otherwise lock up. For example, when Orange County was going bankrupt, the muni bond market locked up. You could not get a bid on high yield munis anywhere in the country. Nobody wanted to touch the darn things.

The ETFs that help those bonds traded like water, all the way through that hiccup and you know, did they trade down? Of course they traded down. I don’t remember off the top of my head but imagine they trade down 20%, right? Blood bath of a day. And then supposedly, that’s not a ‘fair’ price because the last price those bonds traded at might have been 20% higher because those bonds haven’t traded it since, say, last Thursday.

So you end up with this huge timing disconnect between when you can trade the ETF and when you can get a good price on the underlying. That timing disconnect appears as a pricing disconnect so everybody assumes that the world is broken. What actually happens is, when everybody comes back to their desk after lunch and they look and see that the world is not over, the muni bond market opened up and lo and behold, it traded to precisely where the ETF was trading.

So yeah, you can get huge disconnects during market events, there’s nothing magical about the ETF that removes the beta risk of whatever thing you’re holding. But the ETF is much more likely to give you a price discovery mechanism in a crisis than the underlying bonds. We’ve seen that over and over again whether it was Egypt in the Arab spring or junk bonds in 2010.

[0:11:07.2] CP: That’s really interesting. So it’s giving you more efficient timing of price discovery in eloquent markets. It’s not necessarily giving you a major loss or a disconnect, just looks like a disconnect because of the timing.

[0:11:17.2] DN: Exactly.

[0:11:18.3] CP: Yeah, that's interesting. Now, on that same sort of train of thought I guess, somebody recently came out and said that ETFs are causing a price bubble in large cap growth stocks and small cap value stocks are being forgotten which is an argument about them, ETFs, affecting price discovery. Is there any merit to that one?

[0:11:34.9] DN: Well, I don't think – you can just remove ETF from that input and put in anything that's popular. You could say Twitter is creating bubble in growth stocks, you could say Tesla is creating like a bubble in growth stocks. ETFs have won the battle for public opinion (today). Ask me in three years, who knows what it will be down the pipe.

Because of that, people are expressing their investing opinions in ETFs more than anywhere else, right? Since the financial crisis, it's been two point something trillion dollars into ETFs, money out of traditional mutual funds. This is where everybody is playing. Consequently, yeah, if everybody is continuing to invest and you're looking at the bottomless bid market that we have which is one that we do, which it seems like there's never a way to have a sustained down turn. Yeah, that is the market that we're in.

ETFs are piece of that market but I would actually argue, the real issue is 401(k) plans. The number one way most people invest in this country is through some form of dollar cost averaging, putting money in week after week, month after month and some sort of payroll deduction. That is the bottomless bid. That is the person who is showing up every week to buy more stock.

Because people don't read the headline and say, "Amazon had a bad quarter, I'm suspending my 401(k)." Nobody does that, no rational human being does that, not even most irrational people wouldn't know how to do that. That bottomless bid has created part of this illusory market where we feel like that's just going to go on and on forever because eventually, those things do stop. So I feel, that's probably much more of what's behind this sort of seeming top heaviness and this seeming endless growth in the market, almost despite the signals we see out of the core economy.

As far as whether ETFs are exacerbating that, it's inarguable that we have headline ETFs, the big, large cap ETF's that suck in tons of money. It's an irrelevant amount of money when you consider the amount

of money in mutual funds and sovereign funds and SMAs. You know, it's maybe five, six, 7% of the buying on any given month. It's not actually that big a mover. If it went away, would that be a downer? Sure, that would be negative, right? Anytime you remove buyers.

But the idea that somehow flows into SPY and a handful of other large ETFs are, what's our – driving the fang stocks and meanwhile, everything else is forgotten. That's the same story people said about Magellan. When Magellan was Peter Lynch's baby and was destroying the world with performance, everybody was like, "Well, yeah, but if your stock's not on Peter Lynch's list, there's no price discovering happening here because nobody's trading it." Okay, we all know how that planned out, right?

This is just a continuous argument for people, particularly contrarians who feel like their bets haven't come out.

[0:14:19.3] CP: Such a great answer. Last month, Dave, I saw you speak at the Wealth Stack conference and I thought the presentation was excellent. One of the things you said that struck me was that you believed investing is largely solved. Can you talk about how someone like you who is so deep in the ETF part of the business would say that?

[0:14:40.8] DN: Yeah, sure, what I mean by that is that you know, I tend to think of the world in very broad strokes. I think about grand challenges, right? The idea of grand challenges like, "Get a man to the moon in this decade," as Kennedy said. Or, you know, understanding human consciousness, that's the great challenge of neuroscience, right? Or, self-driving cars, that's the grand challenge of Tesla right now.

So I love these grand challenges. I think they focus the mind and for a long time, investing was kind of this grand challenge and starting you know, going all the way back to the Fama French and then all the amazing work that's been done, you know, Jim Simons. All sorts of people over the years have teased apart what really makes market works, to remove as much uncertainty from it and while it is not still a science in the sense that I can tell you precisely what set of inputs is going to reveal what set of results. I feel like it is incredibly well-understood

And the pieces that we don't understand that get knocked down in the academic journals once a year are very small. The pieces – people are now talking about scraping five basis points of alpha from better

trading strategies or timing strategies or you know, arbitraging sub-second price discrepancies and information flows. That's the deep end of the pool, right? That is fundamentally a solved problem, the way that building a building is to solved problem and we're just arguing about what you're putting on the roof.

So from that perspective, I just don't think that there's that much 'interesting' left in the core science of how investing works. It doesn't mean it's easy, it just means it's largely solved, there's lots of solved problems that are not easy and the reason I put that out there was because I think the more interesting challenge, the real grand challenge, is human beings and how we interact with money and how we plan for a lifetime.

The idea – people who are actually in the financial advice business going on a journey with their clients, from 30-year-old junior executive at Nabisco or something like that, through estate planning. That journey? That is a grand challenge and the number of variables that come into that process, the number of opportunities to screw it up and have that person on the street, the number of opportunities to get something really right and make a difference between having their kids struggle to get through college and just have a free ride through college because your parents saved enough. Those are huge meaningful, challenges.

There's almost no good work being done about how to do that job and how to understand how human beings interact in positions of uncertainty. I'm much more interested in the work of people like Dick Taylor who really try to tug at behavioural issues in investing than I am about folks that are finding factor number 27.

[0:17:30.9] BF: I think that the product expression of what you're talking about, when we're talking about investing being solved, has been these smart beta or factor products and there are tons of these now, tons of factors but also tons of products that are trying to implement the different factors.

Do you think that all of these products appearing in the marketplace is a good thing for investors?

[0:17:49.6] DN: Well, I mean, on the one hand, you know, I think choice is a good thing and there are you know – the challenge is that ETFs are there for everybody. So if you said this is a good thing that all

these products show up in my 401(k), that would probably not be a good thing because then you end up with a paralysis of choice.

I think it's a good thing for the overall market but we got to recognize, ETFs get used by all kinds of investors, right? The Norwegian sovereign fund is using ETFs very differently than my mom is. Some hedge fund on the Connecticut short line is using ETFs very differently than Calsters. There's room in the ETF market for all of those participants but I think we got locked into this mentality that ETFs belong to the class of investors that look like me. That same sort of self-selection bias we take into the world all the time.

So if I see an ETF and I say well, "God, I'd never buy that," it's real easy to then say, "therefore, it is a dumb and stupid ETF that should not exist." There's somebody who that is probably the perfect product for. You know, whether that's folks that are really concerned about whether their gold is being held in a Swiss vault or a London vault. Doesn't make a darn bit of difference to me but there's somebody out there who probably has a pension fund mandate that says all the assets have to be held in Switzerland.

I mean, all these products have their places if they have any success at all.

[0:19:10.0] BF: Yeah, that makes sense. You had one video in your ETF university series, I think it's called on etf.com, where you talked about how you can take two different equity ETFs, that are tracking an index that sounds like it should be the same thing. But you can get a materially different package of assets under the hood, so you were talking about different geographic allocations and different indexes. But I think this extends to like, different value indexes can be materially different.

[0:19:36.2] DN: God yeah.

[0:19:36.7] BF: Can you talk a little bit about that?

[0:19:38.6] DN: Yeah, to me, the biggest, cleanest example doesn't exist now but for a long time, the two giant emerging market ETFs: EEM from iShares, VW from Vanguard, tracked quite literally the exact same headline index. Which was the MSCI, emerging markets index, this – the core index. They had, I want to say – this was 2009, 10, 11. Annually four or five or 6% different returns which doesn't make any

sense. These are two of the biggest best index managers in the world, how could they track the same index and end up with this huge five fingered percent difference in returns.

The answer was, well, one of them was optimized and one of them was full replication, right? iShares's product was just an ETF, it was relatively small all the time, now it's you know, 50 billion dollars or something like that. Vanguard's was a share class of their giant mutual fund. Vanguard's fund could and did own literally every single security in that index.

iShares fund held a few hundred of the however many thousand stocks that theoretically were supposed to be in that fund. It was extremely heavily optimized. It had to be. It was a portfolio managers' choice. There was no other way to do it. You ended up with radical differences in how those funds performed, despite tracking the same index.

Now that's, I think, people have gotten smarter in the last decade about analyzing index performance of while that was great fodder for me to write about at the time, those stories are largely gone. Now, what you end up with is much more headline risk. Funds that say, "I'm a dividend fund." Well, just look at the dividend funds, you'd think they'd all just go by high dividend stocks.

Well, they don't. You end up with funds like Global X SuperDividend (SDIV), which sort of mechanically just buys the highest yielding stocks in the world and so consequently, ends up with a portfolio that looks pretty darn junky because most of the time, it's because the numerator changed, not the denominator or the other way around, the denominator you know changes right, the basket based shrink because everybody's sold off because something horrible happened, so it's a value trap.

Versus something like, what is it? The NOBL, the ProShares Dividend Aristocrats fund which doesn't care what the current yield is, it just wants stocks that have been paying dividends for 40 years. It looks like this old school widows and orphans blue chip fund. Radically different portfolio. Just crazily different portfolios. Both of them show up at the same – on the same list, even on our own website of dividend-focused ETF's because they both have a lot of money in them and they both have dividend in their investment strategy.

You really got to look under the hood. The narrower and the weirder the thing you're chasing, the more likely you really have to look under the hood, right? I mean, if you're going to invest in you know, a cannabis stock ETF of which there are now six or seven, shocking to me. Yeah, they may only be 50 viable cannabis companies but the portfolio still looks surprisingly different. There are notable differences between those funds.

[0:22:35.8] BF: Can you just elaborate a little bit more on like – when we're talking about factor investing which we were just chatting about and you think about value as being a factor. People that want to add value to their portfolio, how much difference could there be between two different value of ETFs?

[0:22:49.4] DN: A fair amount actually. There's a company called Style Analytics that I really like the way they do their break downs on factor analysis. We also have now on etf.com, the MSCI factor box breakdown which is sort of the very top level, like how much value is in this fund? How much growth is in this fund? Sort of the big eight, six I think. Even there, if you just stack up all the value funds, the difference between the most value-y fund and the least value-y fund is stark. It actually inverts, right?

If you do this sort of on a Z score space, the most value-y funds are going to have a Z score of about a one, meaning that there's portfolios sort of a standard deviation away from a benchmark portfolio. The least value-y fund claiming its value actually has negative exposure to value when you actually roll it all together because their methodology takes into a whole bunch of other stuff other than say price to book or whatever naïve approach we might think value means.

Maybe it's much more of a quality discipline, it's looking at cash flow, it's looking at negative price momentums, I don't know, there's all sorts of ways people describe value. That's where the tricky bit comes is how are you defining this thing you put one word in the headline for? It's always much more complicated than one word.

[0:24:03.1] BF: That's crazy so you could actually buy a value fund and end up with growth?

[0:24:07.0] DN: Yep 100% and that is part of the reason why I tell people, if you are going to get into this game of allocating across factors, I know a bunch of advisers that really feel like they had the axe in

factor-timing and factor-rotation. This is one of the only cases where I am an advocate of brand loyalty because you do not want to be in the iShares MSCI-based value fund and then rotate into, I don't know, a State Street S&P based growth fund because you may actually end up with the same portfolio.

So if you are going to stay with factors, stick with factors that are from the same factor methodologies, which generally mean staying within the same fund family and ideally, whatever you're using to do your analysis, make sure it is using the same indexes and data because then you're at least using Apple samples all the way through the investment process.

That is one reason why folks like MSCI have had a lock on the factor market for so long. Not because their index maybe better but because bar terminals use the same methodology and that is what most serious nerds do their number crunching in.

[0:25:10.8] BF: That's interesting. So if you are going to stick with an index provider, that can help in portfolio construction because you will have more consistent exposure to the things you think you are getting exposure to.

[0:25:19.8] DN: Yeah and that is true from country rollups – I mean don't use some – one fund's developed markets exposure and another fund company's emerging markets exposure because chances are you either gotten to zero or twice as much South Korea than you wanted because different fund firms and their index providers disagree about whether South Korea has developed their emerging.

[0:25:38.2] CP: So here is a big picture question for you Dave, if you look at the overall ETF marketplace so you've got demand from retail investors, robo-advisers, people learning about this for the first time, hedge fund managers, sovereign wealth funds, where do you see this industry going? There is thousands of ETFs. There has to be some consolidation I would think for many of them, where do you see this going in terms of numbers and demand side?

[0:26:02.2] DN: Well the consolidation is largely already happening and this has been an 80-20 rule market forever anyway you know, where most, 80% of the assets go to the top 20% of the funds or top 20% of the firms depending on how you want to think about it. That is not really changing. You know, one of the ratios that I like to look at is the open close ratio on ETF's. So for every ETF that closes how

many open and for a long time that was in the sort of three to one range. Meaning for every three funds that open, one would close and that was sort of a low level of creative destruction.

We are much closer to 1.1, one to one at this point. So I think it is one and a half to one. So I think we are at something like 200 funds have opened and something like a 125 funds have closed or somewhere in that target ratio. That strikes me as very healthy right? I want funds that have come out and don't have some other reason to exist, i.e., like they are convicted part of the strategy of the firm and so they're going to keep this one fund open because it is part of the series.

If you are just going to throw a couple of funds out there, spaghetti against the wall, don't leave them out there for 10 years with no assets in them. It makes my job harder and let's be honest, it is all about me. I don't want funds like that, just zombies cluttering up the data sphere. It is not helpful for anybody.

Conversely if you had a great idea or you have a great way to distribute an existing idea, knock yourself out. Launch new funds so you look at firms like JP Morgan. JP Morgan a couple of years ago wasn't really in the ETF business, they had a couple of smart beta funds that did pretty well but they were very one off funds and then they just made the institutional decision to cannibalize their own asset base and use ETFs as the vehicle of choice across their wealth management platform.

So they just reinvented the wheel, put out a whole bunch of super low cost plain vanilla beta funds. You know Japan, the US, etcetera, charging four, five, six basis points, almost nothing, and it would be easy to look at those and say, "Well why are you launching those funds? They look just like Vanguard funds, they look just like Schwab funds like we've already got these funds in the space."

But these are JP Morgan branded being sold to JP Morgan customers. And that matter obviously to JP Morgan's internal dialogue about what kind of products we want our customers in. Knock yourself out, I don't think it's bad at all.

So I think we are going to see a slowdown but not a cessation in new product launches. You know, next year is going to be a big year. We got a couple of things happening. We are going to have non-transparent active funds for the first time. The first one to those should show up into the end of this year.

That means that big traditional known firms like say Gabelli or American Century are going to show up with product that looks familiar to a whole class of investors that may have ignored ETFs, right? Folks that are real believers in active management and follow specific managers. Those funds are going to change how we think about the ETF market pretty darn fast. I wouldn't be surprised if there is 50 of those things by this time next year.

[0:29:01.1] CP: Wow, so I listened to your interview with Barry Ritholtz, our mutual friend on the compound where you talked about the price where in the US and the fact that trading is basically gone to zero for investors then you link that with the evolution towards direct indexing. If you talk about that evolution, will that be a big deal in this space?

[0:29:21.3] DN: Yeah, I think it is huge. I may have to change my job. So you know, direct indexing is something that is getting a lot of kicking around. I talked about this first last year at the annual ETF conference in Florida and I basically gave notice to the ETF industry and said "Look, you can try to get in the way of this and you can pew-pew this idea all you want but I think this is what comes after ETF so you'd better be ready for it."

Direct indexing is very simply, instead of buying the S&P 500 through SPY or through a Vanguard mutual fund, you go to some firm who will roll you a version of S&P 500 that is unique to you and the most common reason to do this is say, "I am an executive at Apple. I don't really want a giant slug of Apple in my large cap US exposure because I have a giant options program over on the side and I am trying to sell Apple stock every chance I get. The last thing I want to do is to buy more in my 401(k) or in my private money."

So that adviser will say, "Great, we will give you the Day 499," and to get the Day 499, you got to somehow have a way to go buy all 499 stocks and rebalance it like an index, etcetera. That is mostly a software problem. It is now a mostly solved software problem. There are a number of firms that do this either at the institutional level, somebody like Parametric has a \$150 billion kind of work. Or somebody smaller like a Wealthfront who's robo-adviser will do this for a million dollar client and I am sure that has probably dropped to a \$100,000 at this point.

So that is direct indexing. It is this custom indexing and it lets you do a bunch of fun stuff. Not just exclusions based on where you work but you can put ESG overlays on it. You can put factor overlays on it, you can do single stock, tax lost harvesting, which is a very efficient way of managing capital gains. You sell your Wells Fargo and you buy BFA when Wells Fargo spikes and BFA doesn't. I mean it is really simple stuff or other way around it.

So those things are really straight forward in a direct indexing context. The problem has always been, it is expensive as hell because now you got to make 499 trades to get the thing started and it is lumpy in that if you are doing this with a \$100,000 and you are trying to buy 500 stocks, well, the fact that some stocks now have handles of four or 500 bucks makes that a pretty lumpy process. You are not going to get precise allocations.

Well in the last three weeks. We have now had this sort of near-universal launch of commission free trading and now Schwab coming in saying and you can do it all fractional. So you want to buy your 0.03 shares of Apple. You can buy your 0.03 shares of Apple. Combine those things together and it is now literally as frictionless to do a direct indexing program for a thousand dollars as it is for \$10 million, right?

Now it may be stupid to try to do it with a \$1,000 but if you can do free trading and fractional shares, there is no structural reason anymore that I can't create a one dollar fractional direct index portfolio. So now how that rolls out to human beings in the real world remains to be seen. There is still a lot of unknowns there. You know, my understanding, talking to some of the folks like at O'Shaunessy Asset Management, who has canvassed direct indexing platform sort of has caught a lot of interest I think from investors, is that those benefits from a place like Schwab will in fact accrue to something like Canvass who leans on a Schwab or a TD to do the implementation.

We'll see whether that holds true, whether they do differential pricing. Right now institutions pay more than retail investors. Institutions tend to still pay a penny or two share to trade. I don't do that in my Schwab account anymore. So there is a bit of a shaking out process over here but there is no question this is where it is going and this was Schwab's intent. The CEO even said so in their call.

[0:32:59.2] BF: Wow, do you think there's still going to be innovation in the ETF market or is everything going to shift toward direct indexing now?

[0:33:04.8] DN: Oh no I think there is still plenty of room for innovation in the ETF market. There is lots of things that you get that are beneficial for being in a big pool of assets; lets you run more complicated strategies. You know, I can't imagine trying to do, say an options based strategy inside a direct indexing account. That would just become really problematic to get all that done really well. You are not going to do something like this for emerging market, small cap/ high yield stocks.

I mean there is sorts of corners at the market where this makes no sense. Bonds, very difficult to fractionalize all of these stuff. You'd have to do it through a trust account, pain in the ass. So there are whole huge sections of the market for which this does not make sense. It makes a ton of sense for your US equity exposure. It probably makes sense for your broader international equity exposure and that is probably where the edge has stopped.

And then ETFs become components of other people's direct indexing portfolios. So you may not use this to get excited, exposure to gold, you may just use GLD, which you managed to buy free and then fractional shares to manage your 5% gold position that you have decided you want in your portfolio.

[0:34:10.4] BF: All right you mentioned GLD and I wasn't going to ask this but now I am going to. Is owning GLD as safe as owning physical gold?

[0:34:16.6] DN: Oh boy, the old "is there any gold in the vault?" thing. So you know, this becomes a little bit of an eschatology question. So it depends on why you are owning gold and I mean this with all due respect for everybody who has all of the opinions on all parts of the spectrum. I know folks on all parts of the spectrum. At the one end of the spectrum, there are people who are buying gold because they literally believe in the collapse of the global and more importantly local economy.

Gold will become the literal medium of exchange for buying food from the farmer down the street and going to the grocery store, which becomes some sort of post-apocalyptic Costco where you need a bunch of lumber and the only way you're going to be able to do it is to drop a crew grant on somebody.

So I know people who genuinely believe that and in that case, no. No security is as safe as having a safe in your basement bolted to the concrete floor with stacks of easily divisible gold coins.

No comment, right? There is nothing that the securities industry has to offer you if you are what I would call a guns and butter gold buyer. That's it, there is no solution to that. You can't have it in the bank down the street. You can't have it in Canadian gold shares. You can't have it in Perth Mint shares. You can't have it in GLD. That is literally the only thing that serves that post-apocalyptic purpose. Most people I think see gold as a counter-correlated asset and that is the reason they are looking for it.

They see it as something that has historically held value during times of hyperinflation. They see it as a hedge towards political risk, against political risk, and in that case, I think GLD is as good if not better than any other way that you can get securitized to gold, and when I say securitized, recognize that your Kitco account where you choose to vault your gold in Toronto or something like that. That is securitized too, right? The record keeping goes down, you still don't get access to your Toronto gold.

You are not going to drive there to get it out of the vault. They are not going to give it to you. So once you've removed the literal physical ownership, I do think the ETF structure is the cleanest and simplest and most liquid. You know I genuinely believe that the stock market will remain easy to access and efficient for a longer than say the Perth Mints gold share storage system, right? You know, the internet going out and not being able to get access to that seems much more likely than literally nobody showing up down in New York to trade.

[0:36:51.1] CP: Very great answer. So Dave, if you have to pick a single ETF for your family's long term investment assets, what would it be?

[0:36:59.7] DN: Oh boy, it is hard not to say just like VT or pick any of the big threes global equity of ETF's right? That is most investors are radically under diversified outside the US. They're probably over invested in the top 50 names. You know, as much I would love to be able to get a single ETF that had absolutely – well there probably is. There is Trinity, which I think is TRTY from Cambria or maybe TRNY.

I think it is TRTY but Trinity from Cambria. It is trying to be that one single fund that you buy. I think it is a little clever for me. I mean Meb Favor who runs that super smart. I certainly wouldn't want to bet

against him but if I wanted to sleep at night I'd just buy the most boring 10 basis point or less global equity ETF and then never look at it again.

[0:37:51.6] BF: You talked about, at the beginning of our conversation when we are talking about content, you talked about sort of behavioural coaching and guiding people through the investment journey as being sort of the next frontier because we have solved investing as you described it. How do you think about the role of financial advice in investor outcomes?

[0:38:10.2] DN: Enormous, you know, I started in this business back in the very early 90's actually interviewing financial advisers for a living. I started a small firm with Kurt Cerulli called Cerulli Associates in Boston. In the beginning, we were just going, you know, door to door asking advisers about how they dealt with their clients, what they thought of 401(k) business, how they were picking mutual funds and stuff like that.

I would admit, for the first decade of my career I was enormously skeptical of the financial advisory market. I met a lot of guys that I don't think were particularly ethical. They didn't particularly care that much about their clients and that may be that in that era, sort of coming out of the 80s, we were very early in the transition towards fee-based and fee-only financial advice. A lot of guys still coming off the commission train. So there is a bit of a self-selection that folks that I was talking to there.

In the last 10 years, I would say I had the exact opposite experience as I have gone to more conferences, as I have gotten to know more financial advisers and really understand their practices and talk to their clients. I would say the modern financial adviser, you know, accredited, doing their CE work, you know, paying attention to markets, paying attention to their clients, is deeply focused on their client outcomes and that is really encouraging to see.

I think the biggest problem we have, frankly in the US market, is the access to good financial advisers is inevitably gated by wealth, and you know, to some extent, you would expect that. The process of financial advice is really about wealth management. That is a synonym we use for and you wouldn't expect that the financial adviser who has time to sit down with a college student is necessarily the best financial advisor in the world because if they were, they'd probably have billion dollar clients.

So it is natural. I am not suggesting we need to do anything about this. I am not asking for any bigger pass of law but access to decent financial education and advice for folks who are too early to be on the radar of other financial advisers, that is a real problem and I am encouraged by things like robo-advisers like the automated investment platforms from Schwab, things like that. Frankly it is part of the reason one of the first products I ever worked on were target date funds.

Back in the 90s I built the life path funds out of Wells Fargo. Well not me obviously, the whole team did and I think that again, solves a lot of that problem. It doesn't solve it by educating. It solves it by taking an education and baking it into the product. So I think the product solutions are there for folks who can't yet rate for financial advice, but I continue to think that that's a real issue. At the higher end of the curve, I actually think it is one of the greatest professions out there right now. It is people solving real problems and creating real value for clients. There are all sorts of things out there in the world that you can do that don't do that on a day to day basis. So, if you are a financial adviser I would hold your head up high.

[0:40:54.7] BF: One of the things that we have seen in Canada and I am sure it is the same in the US is the hourly fee advisers. So instead of charging an AUM fee, they are charging hourly. Do you have any thoughts on different fee models?

[0:41:07.2] DN: I love that. One of the people I respect the most in this industry is Rick Ferri, sort of a long time ETF advocate. He had literally written a book on it and he's been through a couple of career cycles, all very positive and in his current world that is what he is doing. He is doing hourly-based advice for folks. Most of the time when somebody comes to me at a cocktail party and says something like, "I need a financial adviser." Or, "Can you help me with something?" It is not that they don't understand whether they should be 30% in equity or 40% in equity. It is because they have a thing they need to solve. Like they have a relative who was the victim of a fraud issue or they have somebody who just died and left them an estate or they have an elderly relative who is trying to plan their estate or they have a job transition or they got a big bonus, right? It is those life issues that I think are the most important for that advice relationship.

And those life issues are real hard to build by basis point because sometimes there is no basis points attached to them, right? Sometimes the solution is not put more money in a thing. Sometimes the

solution is, “No, this is really when you should go buy that house,” right? Mortgages are way down, perfect time to buy a second home. Yes I agree with where you are buying it, let us talk about how you’re going to do this so that your family inherits the house well.

Are we putting it in a trust?

Those are really important high value conversations for an adviser to have that result in negative basis points in the portfolio and so you got to have a way to charge for that that is rational. Now most advisers that I know provide that kind of life-based advice anyway, even though they’re getting paid on basis points, and then they value their clients as much as their clients value them. So they’ll have the appropriate conversation.

They’re not going to say, “Don’t liquidate your stock and buy the house. It is a terrible idea because I want you to keep the money in the thing I am charging you for.” They are going to say, “No, this is the perfect time, go for it!” And they will just take the hit because they are playing the long game but the incentives are misaligned. There is no question the incentives are misaligned. So I think retainer and hourly-based advice is far more sensible for most folks.

And what I’d really love to see is more firms disaggregating that as much as possible, right? Charge asset management fees for the asset management, charge a different fee for the other things that you are doing right? I mean that is how family offices work. Family offices don’t charge everything by the basis point. You are paying fees for service, you are paying annual retainers. I think that is a model that makes a lot of sense.

[0:43:32.0] BF: So we had Rick on the podcast in episode 33, which is quite a while ago now and then he is, as I am sure you know, he is pretty hard on the AUM model saying what you’re saying now. Where do you think the AUM model is going?

[0:43:45.9] DN: I don’t think it’s going away. You know it has the twofold benefit of making customers feel like they are paying for something and getting value for something and at the same time, giving the adviser a way to know how much they are going to get paid. Those are both okay. Like either one of those sounds like, you know, my little pony dancing in the field, right? There is ethical edges about both of those statements but they are actually both okay, right?

There needs to be a buffer for somebody to run a business and running a financial adviser practice is a business and if you want that person to be in business, they have to be able to predict their revenue somehow. They need to understand that the success of their clients is good for them as well and as an individual investor, you want to know that you can make that phone call even if you don't have another thousand bucks sitting in cash to write the check to pay for the advice right now.

So I think those are both okay but I think they just need to be fully disclosed and fully understood. So I don't think it goes away. I just like business models that move more toward clarity. I mean part of the whole reason ETF's have been so successful is they are transparent. You know what you own. I feel that way about every relationship in my life. It's like part of why I hate buying used cars or new cars, right? That is a terrible experience because you don't know what you don't know. And everybody feels like they are getting ripped off. It is not a good experience and nobody wants to have that experience with their financial adviser.

[0:45:09.3] BF: Yeah one of the things that you mentioned when – after Cameron and I talked to Rick, we talked about, a lot about fee models and stuff like that and one of the things that made us uncomfortable with disaggregating asset management from advice fees is that it creates this disincentive for clients to ask for advice. That they know they've got a foot to bill every time they give us a call. That was our big concern.

[0:45:28.5] DN: Yeah, I think retainer-based models make a ton of sense here and you know, or you just bite the bullet and you say that we are doing stuff based on asset levels. You acknowledge what service levels you're going to get at certain asset levels and you come up with a price and if that price happens to be based on basis points and reviewed every year, so be it. Again as long as it is fully opened and disclosed, I know a lot of firms out there that still use the basis point model.

But it is not just a sliding scale based on assets. It is a sliding scale based on how much the pain the ass the client is and that makes much more sense to me.

[0:46:01.7] CP: So last question for you Dave and it is usually my favourite question. So you earlier talked about grand challenges. So in your life, do you have a grand challenge and how do you define success in your life?

[0:46:13.2] DN: Well, I mean parenting. I mean the ultimate grand challenge is in a middle aged guy is, “What kind of a father were you?”, to me, because my kids are 15 and 19 right now, both out of the house. One at boarding school, one finishing up college, and honestly, you know, jokingly my wife and I will sit around our empty nest and say, “Okay, so our son is in sophomore year so another six years and he is out of college. If we can get him out of college, we’re basically done at that point.”

Like we could just expire. I have no desire to, but we can just be done and everything that we set out to do in life will have been achieved if I have two healthy self-actualized decent human beings running around in the world to replace the two of us that brought them into the world. That to me feels like the grand challenge of being a human being. Now that is a very parenting centric thing to say and if people want to yell at me for it that’s fine but in my life, there has been no greater challenge than having kids nor anything nearly as rewarding.

[0:47:18.0] BF: That’s a great answer. My dad has always told me that the most important thing that we do on the planet is raise our kids. So that is it for questions Dave. We really appreciate you coming to the podcast and this was a fantastic discussion.

[0:47:28.6] DN: Oh this was super fun. A great way to start the day.

[0:47:30.4] CP: Yeah Dave, thanks very much. Amazing, amazing Q&A and thanks everybody out there for listening very much.

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