

Welcome to Money For the Rest of Us Plus. This is the premium podcast episode for Plus members, episode 329. I'm recording this Friday afternoon, January 29th, 2021. In today's episode, we're going to do a follow-up to the regular podcast episode, particularly look at why Robinhood and some other brokers suspended trading in certain stocks this week, including GameStop.

We are going to take a look at how to think about a mortgage as part of your asset allocation, and whether to pay off a mortgage as part of your asset allocation. And then finally, a follow-up on ARK Invest. This is an active ETF company I discussed in last week's episode; I had some additional items that I wanted to cover there.

Lifetime Membership

Before we get started, a quick announcement—this month we've been offering lifetime membership to existing members at a special rate of \$750. This allows you as a member to never have to pay another annual or monthly membership fee for your Money For the Rest of Us Plus membership. I mentioned that I sent out the link in the email; I'm going to make it easier—if you go to MoneyForTheRestOfUs.com/members, which is the members profile page, on the website and the main menu under Members Profile, there will be a link if you are interested in that special offer. It ends end-of-day January 31st. So just a couple of days left. But for those that aren't on a regular email list for Plus members, I wanted to go ahead and announce it in this episode. I'm very appreciative of those members that have taken advantage of this special offer. Afterward, after the 31st you'll be able to upgrade to lifetime membership anytime you want, but the price will be \$900.

Robinhood and Suspended Trades

First, it's been a crazy week for certain shares of the stock market. Robinhood reinstated trading in GameStop and some other securities today. In regular podcast episode 329 I discussed what was going on with GameStop and Robinhood as it relates to short squeezes, Gamma squeezes. I also discussed some of the legal issues with regard to the ability of individuals to come together and push up the price of a particular stock.

The SEC, including its acting chair and three of its commissioners, issued a statement today that said "Our core market infrastructure has proven resilient under the weight of this week's extraordinary trading volumes. Nevertheless, extreme stock price volatility has the potential to expose investors to rapid and severe losses and undermine market confidence. As always, the Commission will work to protect investors, to maintain fair, orderly, and efficient markets, and to facilitate capital formation."

This concept of fair and orderly markets could potentially be the approach that the SEC takes if there's any type of regulatory action with regards to allowing members of the wallstreetbets Subreddit to coordinate their trading activity if they see that there's some type of manipulation.

Clearly, making false statements—and I'm not saying that anyone on that Subreddit is doing that, but that's also one of the issues that the SEC will look at. They say in the statement—we will act to protect retail investors when the facts demonstrate abusive or manipulative trading activity that is prohibited by the Federal Securities Law.

They also said they're working closely with regulatory partners, both across the government and at FINRA and other regulatory organizations, including the stock exchanges, to ensure that regulated entities uphold their obligations to protect investors and identify and pursue potential wrongdoing.

Robinhood definitely suspended trading. And the reason that they suspended trading in these stocks is a brokerage, whether they clear the trades themselves or they clear through some other entity, have certain capital requirements. But particularly if they're clearing the trades themselves. We talk about clearing when an investor places a trade for a security, somebody from some other brokerage bought those particular shares—let's say it's GameStop—and the trade settles in two days. So there's an exchange, which means there's liability to make sure the transaction goes through. And as the volume of trades goes up, those liabilities increase.

FINRA is the self-regulatory organization that regulates brokerage firms, and there's capital requirements there. But there's also capital requirements with the Depository Trust Company, the DTC. And the DTC is the central depository where the vast majority of stock shares are held in the brokerages' names.

I discussed this back in episode 228, how tokenization will radically change investing. But this DTC is the central depository for all the stocks. So when you own a stock, it's not really in your name, it's an IOU from the broker. The stock is registered in the broker's name at the DTC. That's where a lot of this clearing activity takes place, and the DTC has capital requirements that when the volume has spiked tremendously, the brokerage has to increase their capital that they have. And Robinhood did not have sufficient capital, which is why they drew down hundreds of millions of dollars from their credit line and took additional equity investments. So they've raised an additional billion dollars so that they then had sufficient capital to meet the requirements of both FINRA and the DTC to reinstate trading in those stock shares. Now, that's sort of a disadvantage of using a new brokerage.

That appears to be what happened. We will have to see. It's not as if Robinhood hasn't done things that were not above the board. And as full disclosure, I took Robinhood as a sponsor for an episode about a year ago in January 2020. If Robinhood came to me today to sponsor an episode, I would decline, because of the SEC action that was taken last month regarding the disclosures Robin Hood made and how they were compensated. This was an issue I discussed back in episode 223, "How to invest when you have little money." We were looking at how a firm like Robinhood made money. This was before all the other brokerages started offering commission-free trading. Robinhood was one of the only ones that offered commission-free trading across the board.

We looked at different ways that brokerages make money. One is through securities lending, which happens with a stock like GameStop that's heavily shorted. The shares need to be borrowed in order for the short seller to sell the shares in the market. And because so many shares are already shorted, it's hard to find shares. As a result, Robinhood and other brokerages charge the short seller a fee to actually short the stock. These brokers then collect that fee; sometimes they'll share a portion of that fee with their clients, but that's one way.

The other way that Robinhood and some other brokers make money is by directing order flows. They get all these trades, and then they would direct those trades to where they would actually be executed at and got payments from the execution services such as Citadel to execute those trades. The SEC found—this was just in December—that between 2015 and late 2018 Robinhood made misleading statements and omissions in customer communications, including on its website, about its largest revenue source when describing how it made money. Mainly payments from trading firms in exchange for Robinhood sending its customers' orders to those firms for execution, also known as payment for order flow.

As the SEC's order finds, one of Robinhood's selling points to customers was that trading was commission-free. But due in large part to its unusually high payment for order flow rates, Robinhood customers' orders were executed at prices that were inferior to other brokers' prices. Despite this, according to the SEC's order, Robinhood falsely claimed in a website FAQ between October 2018 and June 2019 that its execution quality matched or beat that of its competitors. Which it didn't. So Robinhood clients were not getting the best price when trading stocks, even though it was free, and they paid a fine of 65 million dollars.

Now, what's going on now in terms of suspending trading is different from that. It seems to very much clearly be an issue of not having sufficient capital to meet the capital requirements as stated by FINRA, as required by the DTC in order to execute the super-high trading volume that we've seen (record volume) in some of these shares this week.

Mortgages and Asset Allocation

For the next topic, a member shared a YouTube video by Ben Felix. He's an investment advisor, a financial advisor in Canada, with PWL Capital. He was looking at the question of paying off a mortgage out of your investment portfolio—whether that was worth it or not. He mentioned the traditional approach is to look at "Well, what is the after-tax borrowing cost of the mortgage, the after-tax interest rate, and how does that compare to what you can earn investing?" If you can earn more investing, then maybe you don't pay off your mortgage, and that's sort of been the traditional approach; it's how I've looked at it.

But he points out—and rightfully so—that a mortgage is leverage. And I discussed this way back—it might have been episode 40—about paying off a mortgage. But the idea that sometimes we think our house is appreciating because we're so highly levered with our mortgage. So maybe it's only appreciating at the rate of inflation or a little bit higher, but because we've borrowed 80% of the funds, our equity is going up quite sharply.

So he kind of went through an analysis of "Well, what if we paid off our mortgage and then invested our remaining portfolio more aggressively in stocks so that the risk was similar?" He used their firm's capital market assumptions, but I wanted to go ahead and do the exercise myself with the most recent assumptions on Money For the Rest of Us Plus. We update those assumptions every six months; we'll be doing so again in April, but October was our last update.

So let's just walk through an example—and I recognize this is a numerical example, so I'll try to simplify it as much as possible. But suppose we have a million-dollar investment portfolio, and it's invested 60% in global stocks and 40% in U.S. bonds. The expected return is 4.1% per year. So it would generate \$41,000 a year based on the expected return. The range of returns would be between 1.6% and 6% based on those expected returns. At the same time, suppose that we have a million-dollar home and a 500k mortgage with a 3% interest rate. The actual interest would be \$15,000 per year, but because there's a tax deduction, the overall interest cost would be \$11,250.

So on one side, we've earned \$41,000 on our portfolio, but we've paid \$11,250 worth of interest. So the net gain is \$29,750. Because the range of returns was between 1.6% and 6%, the dollar gain on an annual basis for this strategy would be between \$4,750 and \$48,750. Again, that's the dollar return minus the after-tax interest cost.

The worst-case scenario, maximum loss for this portfolio would be a loss of 35.4%—and again, that's straight out of our asset allocation model—so about \$354,000 loss.

So that's the first scenario—invest the million-dollar portfolio, 60% stocks, 40% bonds, keep the \$500,000 of the mortgage at a 3% interest rate. The expected gain per year is \$29,750, and the range is between \$4,750 and \$48,750, with a maximum drawdown of 35.4% for a total loss of \$354,000.

What if we paid off the mortgage instead? And we're going to ignore—which is a very, very simplifying assumption—any taxes on selling those assets. So we're going to assume that for whatever reason we don't have to pay taxes to sell the assets to pay down the mortgage. But we're going to pay off the mortgage. Now our portfolio is \$500,000. If we want to earn \$29,750, which was our net dollar return under the earlier scenario, we will need a return of about 5.95%. I calculated that by taking the \$29,750 and dividing it by a \$500,000 portfolio.

In order to get a 5.95% return, based on our expected return assumptions from the Money For the Rest of Us Plus asset allocation model, that would be 99% global stocks, 1% in bonds. So by paying off the mortgage, in order to generate the same amount of income, we would have to have much more in stock exposure.

A 99% stock portfolio has an expected return between 1.8% and 9%. That's the expected range. And a maximum drawdown of 58.4%. So applying that range of returns to that \$500,000 portfolio gets us a range between \$9,000 and \$45,000/year, with a maximum drawdown of \$292,000.

What's interesting is paying off the mortgage and investing the assets 99% in stocks is actually less risky than keeping the mortgage and investing a million-dollar portfolio in 60% stocks, 40% bonds, because the expected return on a dollar basis is the same, \$29,750, but the range of the return when we have the mortgage, dollar range was between \$4,750 and \$48,750, whereas that dollar range having paid off the mortgage was between \$9,000 and \$45,000. So it was a narrower range, and the maximum drawdown was less—\$292,000, versus \$354,000.

Now, in the scheme of things, it's not a big difference. But the point of this video was to kind of think about the mental counting because oftentimes we just put the house aside and don't think about it as part of our investment portfolio. But we do have that option, to pay off our mortgage out of our investment portfolio. But in order to generate a similar return, it would require investing that remaining portfolio more aggressively.

Now, for me, I have a hard time doing that, to be 99% stocks. I recognize at the end the numbers are the same, but still, as emotional investors, the mental counting—sometimes it's easier to segregate and say "This is the house. Yes, there's a mortgage. I recognize it's a leveraged position. But by doing so, I can invest my overall bigger portfolio less aggressively." But if we break it down, it can be looked at both ways. And that's what was fascinating with the video. In some ways, it parallels some of our discussions on immediate annuities, a safety-first retirement, when we pull out a large lump sum from our investment portfolio, give it to an insurance company, so they start paying us an annuity, but then we can invest the remainder of our portfolio more aggressively, more in stocks. Similar parallel to the paying off the mortgage.

Not a right answer here. I just thought it was an interesting exercise. It's something that you could do if you wanted to walk through the asset allocation model on Money For the Rest of Us Plus, look at your particular situation with your mortgage. But I thought it was kind of a fun exercise.

Transparent and Non-Transparent ETFs

Finally, I had a follow-up question on ARK. A member was asking about how the net asset value was calculated and was trying to verify whether it was being calculated correctly. He actually went through the exercise of looking at the holdings that ARK has at the end of the day, and then kind of re-verifying the NAV.

The net asset value is always calculated by taking the net assets, so the total assets less any liabilities, divided by the number of shares outstanding. Thankfully, found that the NAV was being done correctly.

ARK Invest is an actively-managed exchange-traded fund. But what ARK is not—they are not a non-transparent ETF. We discussed non-transparent ETFs back in episode 277, "How ETFs are changing." This was going to be used for some actively-managed ETFs where they would not disclose all their holding, nor calculate a NAV on a regular basis. They would provide only a representative basket of holdings that would be called a verified intraday indicated value, and then there would be authorized participant representatives that would be authorized to trade with the ETF to create and redeem shares.

Regular authorized participants would have to transact with these authorized participant representatives. That would be the process for trying to keep the market price of the exchange-traded fund in line with its net asset value. But not everybody would know what the NAV is; it would be this intraday indicated value.

What surprised me about ARK in going through this is realizing that no, they're not doing this. They disclose all of their holdings every day. You could get an email when they initiate trades within their portfolio of the underlying shares. They make their entire portfolio available to authorized participants, who can then create and redeem shares as part of going out and buying the creation basket and redeeming it, and swapping for shares of the ETFs.

The reason that actively-managed or some actively-managed ETFs don't want to share all their holdings is because they don't want other investors to front-run those trades and to be taken advantage of. But surprisingly, with ARK, even though these are high-momentum type stocks, this is a fully transparent ETF, where we can know what they're holding. I don't know why they chose to go with this structure, which is the traditional ETF structure, versus the way that some other actively-managed ETFs have gone about it. Clearly, ARK is now the biggest of the actively-managed ETF family, so it'll be curious if other actively-managed ETFs decide that "No, we're just gonna be fully transparent, share our holdings and not worry about front-running. Just let everybody know what we're buying, and then work with authorized participants directly to create and redeem shares", rather than using this authorized participant representative approach without fully disclosing the NAV throughout the day, but instead disclosing an indicative value instead.

That's all I have on that. It was just an interesting observation because the structure was not what I thought it was going to be.

Well, that then is episode 329.