Thérèse Byars – Corporate Secretary

Good afternoon, everyone, and welcome to the FRMO 2020 Annual Meeting of Shareholders. My name is Thérèse Byars and I'm the corporate secretary of the company. The COVID-19 pandemic made an in-person meeting unfeasible, so we are hosting our first virtual-only annual meeting. While we will miss seeing those of you who have attended our in-person meetings in the past, the silver lining of a virtual meeting is that it allows us to reach a greater number of our shareholders.

As is our custom, we will conduct the business portion of our meeting first and Mr. Stahl and Mr. Bregman will answer questions at the end. Though we might not be able to answer every question, we will do our best to provide a response to as many as possible, and we will address unanswered questions in the summary transcript that will be posted on the company website in the coming weeks. We have received several questions in advance, but only validated stockholders may ask questions today in the designated field on the web portal.

The FRMO Annual and Quarterly Reports as well as the 2020 Letter to Shareholders can be found on our website at www.frmocorp.com. These items can also be viewed on the FRMO listing on the OTC Markets website by clicking on the "Disclosure" tab.

It is now shortly after 3 PM, and this meeting is officially called to order. It is my pleasure to introduce FRMO's seven directors, all of whom are candidates for reelection. They are Murray Stahl, Steven Bregman, Peter Doyle, Lawrence J. Goldstein, Lester J. Tanner, Allan Kornfeld and Jay P. Hirschson.

Also present at this virtual meeting from our auditors, Baker Tilly US. LLP, formerly known as Baker Tilly Virchow Krause, LLP, are John Basile and Patrick Warch. They will be available during the question and answer session after the formal meeting to respond to appropriate questions.

We now proceed to the report on the tabulation of the proxies for the two proposals. The Proxy Committee, appointed by the FRMO board of directors, is here this afternoon to represent the shareholders who gave their proxies to the committee.

The board of directors fixed July 27, 2020 as the record date for determining stockholders entitled to vote at this meeting. An affidavit has been delivered attesting to the fact that the notice of the meeting, the proxy statement, and the proxy card were mailed on or about August 3, 2020.

The stockholder list shows that, as of the record date, there were 44,032,781 shares of common stock outstanding and entitled to vote at this meeting.

The Inspectors of Election report that proxies were received from FRMO shareholders holding approximately 34.5 million shares of common stock, or 78.4% of the voting power, on the record date. Therefore, this meeting is properly organized with a quorum present and we may proceed.

There are two items of business for this meeting. The first is the election of the seven directors who were nominated in accordance with the company's governing documents. The second item of business is the proposal to ratify the appointment of Baker Tilly US, LLP as the independent registered public accounting firm of the company for the fiscal year ending May 31, 2021. The board recommends a vote "for" on both items.

It is now 3:04 PM on September 10, 2020 and the polls are still open. Any stockholder who hasn't yet voted or wishes to change their vote may do so by clicking on the voting button on the web portal and following the instructions there. If you have already submitted your proxy, you do not need to vote again unless you wish to change your vote. And I'll just wait a moment to give people a chance to vote.

Okay, I think that's enough. Now that everyone's had the opportunity to vote, I declare the polls for the 2020 FRMO Corp. Annual Meeting of Shareholders closed at 3:05 PM on September 10, 2020.

Based on the preliminary report of the Inspectors of Election, all seven director nominees have been duly elected to the board with all nominees receiving 99% of the votes cast and 78% of the shares outstanding.

The proposal to ratify the appointment of Baker Tilly US, LLP as the independent registered public accounting firm of the company for the fiscal year ending May 31, 2021 has been approved with approximately 99% of the votes cast and 78% of the shares outstanding.

There being no further business to come before this meeting, the formal part of this FRMO Corp. 2020 Annual Meeting of Shareholders is now adjourned. The next item on our agenda is the chairman's report to the shareholders. Joining me on the line are Murray Stahl, Chairman and Chief Executive Officer, and Steven Bregman, President and Chief Financial Officer.

Mr. Stahl will review key points related to the 2020 financial results. When he has finished his remarks, he and Mr. Bregman will answer questions. At that time, we will begin with the questions that we received in advance of today's meeting. We will then take questions as they are entered on the web portal. We will answer as many questions as time allows but only questions that are germane to the meeting will be addressed. As noted earlier, unanswered questions will be addressed in the summary transcript posted on the company website in the coming weeks.

And with that, I'll turn the meting over to the Chairman of the Board, Mr. Murray Stahl.

Murray Stahl – Chairman & Chief Executive Officer

Okay, thank you very much, Thérèse, and thanks everybody for tuning in to us in this unusual format. I'm going to deviate from practice ever so slightly because there is one question that I will address before any prepared remarks, because it's numerical.

Somebody noticed an inconsistency in certain numbers that we made reference to in the shareholder letter. This person is 100 percent correct, and I'll take this opportunity to tell you about some numbers that appear in the Shareholder Letter that really need to be revised. The text won't change, just the incorrect numbers.

The question revolves around our ownership directly and indirectly of the Grayscale Bitcoin Trust (GBTC) and our ownership directly and indirectly of Texas Pacific Land Trust (TPL). There are also some other questions that don't really reference the shareholder letter but it's worthwhile taking the opportunity to deal with them in this context. They relate to our ownership of Miami International Holdings (MIH) and of Digital Currency Group ("DCG").

The actual direct and indirect ownership of GBTC in shares is 558,155 shares. The ownership of the Texas Pacific Land Trust direct and indirect is 50,137. The Miami International Holdings ("MIH") gets a little bit more complicated, because the number I'm going to read to you will change. First I'll tell you why that number will change. We have owned shares of MIH since 2016, but we greatly increased our ownership of the company when we did the share exchange of our ownership in the Bermuda Stock Exchange for shares of MIH.

Our ownership of MIH at the moment, and also at the time we wrote the shareholder letter, was 653,393 shares which, based on the shares outstanding of MIH gives us 0.96%, meaning a little bit less than 1% ownership of MIH. There are caveats regarding that number because, as you are probably aware, we will be selling our ownership in the Minneapolis Grain Exchange ("MGEX") for shares in MIH, so that's going to increase our ownership in MIH. But since the transaction between MIH and the MGEX is for MIH shares and some cash, the total number of shares outstanding of MIH will also increase. While you might want an exact number, I can't give that to you right now because some of the MGEX shareholders have the option to take cash. We don't know at the moment how many are going to take cash, so we can't yet know by how much the MIH number of shares outstanding will increase.

Secondarily, there are also warrants outstanding at MIH, and those warrants have yet to be exercised. When they are exercised, the shares outstanding will be greater. But then again, the cash on the balance sheet will be greater. All that has yet to happen so, at the moment, the best way to answer the question is that we currently own 0.96%, or a little bit less than 1%. of MIH.

With regard to DCG, it has 711,252 shares outstanding. We directly own 353 shares. We also own, in round numbers, about 5% of Horizon Kinetics, and Horizon Kinetics owns 354 shares of DCG, which implies that FRMO owns about another 17 shares indirectly. You can say that we own directly and indirectly 370 shares, and that equals more or less a 20th of 1%, or about 5 basis points. Another way of expressing it is that if we had 20x our current holding, we'd own 1% of DCG.

I apologize for the confusion and the errors, but I guess that's what happens when you have a big group of people who work remotely, and we're not used to working in this mode. Anyway, I hope I've made that clear and I hope that the information is now properly conveyed. As I said before, we're going to make the appropriate notations and corrections in the shareholder letter shortly and it should be accurate.

As regards the commentary for the year, let's use the shareholder letter as a point of departure, because this year it reads more like a history of the last six years. In the last six years, it's been our belief that the inflationary pressures in society are building and, in any case, whether that's a true statement or a false statement, the most contrarian investment are inflation beneficiaries. As you can probably see from the numbers I just read, we, being contrarians, have directed our investment activity for the last six years largely towards inflation beneficiaries.

The issue comes up, is that going to impact Horizon Kinetics at all? Will that change its investment approach? And, in point of fact, yes, it's true that in the last number of years, Horizon and its investment philosophy has been doing a similar sort of thing and it's moving in that direction as well.

It's worthwhile pointing out that while we in FRMO and we in Horizon Kinetics are moving in that direction, the indexes—as you know, we write a lot about indexes—the indexes have been moving in exactly the opposite direction. The energy exposure of the S&P 500, just to use one example, is something on the order of 2.3%, as of this morning anyway. The gold exposure in the S&P 500, at any rate, is negligible. It's a handful of basis points. And so on, and so forth.

A real world example is that we just looked at our health insurance bill for Horizon and we were hit with a 7.9% increase. People frequently say that they don't see any inflation. Where is it? I can point to various commodity prices, and I do that pretty frequently, but it doesn't seem to impress very many people. If they like, I can always send them a copy of our health insurance bill with a copy of last year's and they can see what's happening.

Regarding inflation, for starters you can talk about healthcare, which is almost 25% of the GDP. We use a recognized national carrier. I won't name what it is, but the GDP includes I think a 25% weight or something like it for healthcare. Healthcare is, I think, the largest component as far as the GDP calculation is concerned. If I may be permitted to use round numbers, if 8% is the increase of 25% of the GDP, well, that's already 2% inflation in and of itself without counting anything else.

I give numbers like what has happened to the price of beef, or what has happened to the price of poultry in the last couple of years—certainly in the last 12 months, those prices are a lot higher. But a much bigger issue is that of money issuance. All you have to do is look at the Federal Reserve website—this is the St. Louis Federal Reserve—and look at the money issuance over the last year, and look at the money issuance of the last two years, and look at the money issuance of the last three years. Sooner or later, these actions result in inflationary pressures.

This money issuance has basically been a constant throughout history, and I don't think you can find very many differences as far as that goes. If you get a textbook or a good book on the history of money in the last 2,000 years, you'll see that you can go back to the Roman Empire, or you can look at revolutionary America in the period before it became an independent country when they issued so-called continentals, which were really the equivalent of government bonds. That was inflationary. And it's been a truism in history. But even if you ignore all that stuff, one thing you can't ignore is that for the last decade or so, the returns on capital of the inflation beneficiaries are very low. And there's really no incentive to keep investing capital in something that gets a low rate of return.

As you can see from the numbers I'll give you in a second, the supply of available commodities must shrink. If you do nothing other than believe in the law of supply and demand and you're not really interested in money creation or any of those statistics, you're going to come to a similar conclusion.

For example, it's hard to believe, but if you look at the Baker Hughes rig count, as of the most recent reckoning, there's something like 254 oil drilling rigs active in North America right now. To put that in perspective, it wasn't further than a year back when that number was 1,000. So, it's down by about 75%. And that 1,000 is significantly lower—maybe 50% or 60% lower than the number in June 2014. And even June 2014 wasn't the high number.

There is no way the oil reserves will be replaced by that rig count. In fact, the oil production, at least in the United States is declining, if you believe the statistics of the Energy Information Agency. I'll just give you some numbers. I know statistics are boring, but it's all we have on which to base our conclusions.

In mid-March, right before the onset of the coronavirus problems, daily oil production in the United States was 13.1 million barrels. August 28th is the last reading we have and it's at 9.7 million barrels a day. That's a big decrease. That number personally strikes me as a little low and maybe there was something unusual happening, so maybe the next number will be higher, but the trend is still, I think, intact: production is going down.

A well that's fracked basically will have a 3% production decline in about a year. It needs to be re-fracked. Now, with modern technology you can re-frack a well. I've seen them be re-fracked ten times. If it isn't re-fracked, production will decline by 50%. The well activity is declining everywhere in the United States, in some regions more than others. If you believe in the law of supply and demand, we will eventually see significantly higher prices.

To bring all that production back online is a lot of work, and the process hasn't even started. Now, maybe—and this is pure speculation—maybe if we hadn't had the coronavirus problems, maybe the system wouldn't have had the demand shock for oil and gas that it did and maybe things would be somewhat different.

Like, for example—I know this statistic is going to be hard to believe but it's true nevertheless—the price of natural gas today, with all the demand shocks and everything else, is actually higher than it was on December 31st. Natural gas is rarely found independently. The natural gas I refer to is associated natural gas, meaning, it's associated with an oil well. If you stop drilling wells, you're going to have less gas. It's just that simple. Not to mention that there's less drilling for natural gas in those few instances where it is found independently. So, that's the layout.

I personally think that the oil industry is about two years behind the gold industry. So, the gold industry began its decline in the spring of 2012. And the price of gold was roughly $1,800 an ounce. I think it got to a low of $1,000 an ounce or very close to $1,000 an ounce. It did recover somewhat and for a number of years it was $1,200 an ounce. At $1,200 an ounce, no one can make money mining gold. So, as a consequence, the reserves are being depleted and not being replaced. Eventually supply and demand takes over, and now the price of gold is comfortably above $1,900 an ounce. That's just the way supply and demand works.

In the world of commodities, especially the hard commodities, the supply and demand cycles are much longer than the soft commodities. That's why in 2020, we're talking about a process that started in 2012 in relation to gold. If it were a commodity like wheat, it can only be stored for a certain amount of time. If it's not consumed after in that time, as a practical matter, it's not usable. Gold can be stored for basically ever. And it's similar for oil. It takes a long time before production, reserves, and consumption realign to the new reality.

Obviously, I don't know when the coronavirus crisis is going to be over so the demand for hydrocarbons can return to some level of normalcy. But even if it never does, the supply function is adjusting to the current demand function. Perhaps it never adjusts and maybe we never return to something approaching normalcy, but that's just the way it is.

A lot of people ask this question—and I don't know if I will be asked this question because I choose not to know the questions in advance, but I'll address part of it now. Many people think that the world is going to transition to a carbon-free energy production. Even though it's very controversial for me to say this—because I'm not against carbon-free energy—it's just that it's extraordinarily difficult to do. It's not the kind of thing that can happen easily.

For example, just electric power—we're not talking about motor vehicles or machinery or any of that stuff—the United States uses about 4 trillion—or 4 terawatts of power. One solar panel is 250 watts. And it's 250 watts at maximum elevation. At 8 o'clock in the morning, it's not going to put out 250 watts. It can't. It's not possible. So, its square footage is 17.5 square feet for your typical solar panel. So, take 4 trillion, divide it by 250. If you lay them end to end, that's how many solar panels you need. Multiply it by 17.5 and if you—obviously, you're not going to lay them end to end, but just to give you an idea, that is the territory you need if you're going to produce 4 terawatts of power. And you're only going to produce 4 terawatts of power when the sun is shining at the optimal angle, when it's not raining, when it's not snowing, when it's not cloudy, and so on and so forth.

And the real limiting factor is you've got to get right of way for that land. Land is expensive, at least if it's going to be in close proximity to where the panels are being used. And, secondarily, you're going to need water. Now, you might want to put it in a very sunny location—at least I would do it if I were building solar panels—and maybe a desert area where you get virtually no rainfall. Maybe that's a smart place to put it. But if you put in a desert area where there's not a lot of rainfall, a lot of dust gets on the solar panels and you have to wash them periodically. And now you're using water.

So, as I said, I'm not against eliminating fossil fuels, even though I'm investing in fossil fuels, I'm just pointing out the difficulty if you're really going to do this thing. It's something that, as an engineering achievement, it's extraordinarily difficult. And even then, I don't think you're going to eliminate fossil fuels. I could be wrong on that and I would say most people would disagree with that, that's why I go to this length of describing that.

But in any event, there is our investments. And we're looking for other things, largely debt-free companies. One of the tragedies of—one of the tragedies of the inflation beneficiaries are that it seems to logically follow to most managements of companies that if you really believe there's going to be inflation, you should borrow money because you'll pay back in inflated dollars. But the trouble is if you don't get the inflation, you don't have the inflated dollars to pay back, you only have current dollars, and that can be extraordinarily painful—especially if the price of commodities drop and you have fewer dollars than you really thought you could have. So, to us, the way to invest in commodities is to either have debt-free companies or largely debt-free companies.

So, TPL, Texas Pacific Land Trust is obviously the biggest position in HK Hard Assets. Recently, we're adding two other things. I'm not going to tell you anything about them other than to say that they're inflation beneficiaries and they're debt-free. And even at today's depressed prices, they produce a fair amount of cash flow, and that's the unifying theme. That even if the whole thing is wrong, there'll be a copious amount of cash flow being produced and it's certainly going to be a lot more cash flow than would've invested—than would've been the case if one had invested in bonds. And the whole thing started six years ago with the elimination of our bond portfolio. It just became obvious to us that either there's going to be inflation or there's not going to be inflation. And if there's going to be inflation, then the bond portfolio is at risk, and if there's not going to be inflation—well, the rates are so low, the inflation beneficiaries are going to generate more cash flow anyway and even throw off some tax advantages.

So, right or wrong, we just thought it's a better way to invest, at least our capital, and I think can result in a lot of intriguing investment management products. I think in the coming months you're going to see a lot of interesting things coming out of Horizon Kinetics and it doesn't look like we're going to have a lot of competition in that field. So, I look forward to some interesting developments in that.

Now, I should say some things about cryptocurrency. And usually people compare cryptocurrency to gold. Personally, I don't think it's necessarily a substitute for gold. Gold is not so much an inflation beneficiary, other than the point that sometimes you get inflation at the same time as you have political turmoil. So, if you thought you were going to have political turmoil, you maybe want to have some gold because its value is not dependent upon the maintenance of the societal structure. You can have a lot of social displacement and still people will recognize and accept gold in payment. In a world of a lot of societal displacement, who knows? Maybe it gets that bad, the internet wouldn't even work. If the internet didn't work, you really don't want to have any cryptocurrency.

On the other hand, the problem with gold. The problem with gold is if the price gets too high, you can always find more gold. The gold is available in the crust of the earth, as is silver, it's just that the deeper it is, the harder it is to extract. But it's there. So I have no doubt if gold were $2,500 an ounce, the supply of gold is going to go up. Cryptocurrency is unique in that sense, especially the ones we're invested in like bitcoin, because the supply of coins is absolutely fixed. There is going to be, when all is said and done, 21 million bitcoin and we're not very far, or at least in a couple days we're going to be at 18.5 million. And the other 2.5 million will be created between now and the year 2140.

So, you have a choice. Do you believe that there's going to be something called sovereign money or fiat money where governments have the right and the privilege to issue as much as they want and people just accept it, which is debasing their currencies, or people won't accept it. Now, if they don't accept it, they're going to want something which is the opposite, where there's a fixed issuance, where you know how much there is. That's what bitcoin is.

You've seen the evolution of a variety of funds—the Bitcoin Investment Trust, that we're invested in, the Digital Currency Group that owns Grayscale, which owns the Bitcoin Investment Trust. I don't know if you know this but the Bitcoin Investment Trust itself is now up to about $5 billion in assets under management. And Fidelity just started a bitcoin fund. It's a private investment fund. I think the minimum investment is $100,000. It's not the only such fund. Anyway, there's roughly 18.5 million bitcoin that you can buy. Some we own through the Bitcoin Investment Trust, which is a closed end fund, and those bitcoin are not going to trade in the marketplace. Some we've mined and we're not selling those.

So, the market value of all the bitcoin that's out there is probably something like $194-195 billion. It sounds like an extraordinary number. The M2 of the United States is something like—which is the money supply or the state of the money supply in the United States of America is something like 18.5 trillion and it grows virtually every week. That's only the United States of America.

So, what would happen in a world where people came to the conclusion that they just want a small part of their portfolio, maybe only a handful of basis points in a fixed issuance currency? You can see how radically transformative that would be, not just for the investment management business but also to the position of FRMO. We're not buying the Bitcoin Investment Trust. We actually invested a lot less money than we have in market value right now—it's just appreciated many fold. And we've got it and we're not interested in selling it, and we'll see what happens.

So, anyway, so we're expanding our investment management expertise in this area, we're expanding our mining expertise in this area, we're expanding our inflation beneficiary expertise in this area. And I'll say one other thing and then I'll turn to questions, which as you might have noticed that we made an increased investment in Winland Electronics. We've also in the last couple of days bought some shares in the open market and we now own roughly 28-ish%. So, basically we swapped mining equipment, brand new mining equipment for shares of Winland and we're interested—and it's an electronics company after all and mining is a process of electronics—we're interested in finding ways to expand the mining business.

It's our contention—I don't know if this is going to come to pass—but it's our contention that eventually there'll be two kinds of bitcoin. There'll be the kind of bitcoin that traded a lot and its providence is going to be uncertain, and there's the kind of bitcoin that never traded. Like, for example, newly mined bitcoin. So, the units of bitcoin that we have in FRMO that we mined ourselves we've never sold them, never traded them. So, they're completely minted coins. Why is that important? Because bitcoin and its associated blockchain is a record of every transaction that ever happened. It's possible to use the blockchain to keep records on all sorts of things: medical records, stock transactions, you name it. And people are just working on that right now.

So, our theory is that for money laundering purposes, if somebody wanted to tokenize assets with bitcoin, they're going to want completely under-transacted coins. And we believe they're going to have a lot of market value. So, that's one of the reasons we're mining and that's one of the reasons we're holding—other than the obvious, as I stated before, the investment characteristics.

Now, I said we've got a market value—market capitalization of maybe $194-195 billion of bitcoin. Look at it this way: the market value of all the Brazilian reais, about $750 billion. It's probably four times the size of bitcoin. It doesn't take a lot of imagination to see maybe the bitcoin could be worth just what the Brazilian reais is worth or maybe what the bitcoin would be worth, what the Brazilian reais is worth and the Russian ruble is worth, which is another $360 billion. Or what the South African rand would be worth—and another several hundred billion dollars, and so on and so forth.

You don't even need acceptance in the United States of America. You don't even need acceptance in the European Union, you don't even need acceptance from the world at large. All you really need is acceptance in chronically inflationary economies of which Brazil and South Africa are two examples. And you have an outlandishly wonderful success.

So that's the direction we're going in. You'll be seeing—we're not finished doing things—you'll be seeing some more interesting things happening in the not too distant future. And, of course, we'll advise you when those things happen, if indeed we can pull them off. And with that, maybe, Steve, you want to add some color and commentary on what I said before we turn to questions?

Steven Bregman – President & Chief Financial Officer

I have something topical. Before the call began, Murray and I were discussing the great difficulty in persuading people to be open to a new idea or a change from that to which they're accustomed. It's very, very difficult, and I'm not very good at it. It's particularly challenging when what they have believed in is something that has been widely practiced and generally accepted for a long time. I've had this idea that history really happens at inflection points, when that which was accepted as normal changes, and it seems to change suddenly. But people don't see it, and if they did see it, then perhaps the existing process wouldn't seem so true and immutable.

With respect to inflation, one challenge to people's ideas about it is that a sustained, chronic, high-inflationary period hasn't existed for 40 years. We had a full decade of it in the 1970s, but today's investors, professional or not, by in large don't have a history of it. They're not taught it. They don't have a sensitivity to it, and their minds aren't oriented that way. The statistics they see don't seem to support it, whether they're looking at the CPI figures or other such figures and, therefore, they don't look any more closely. It's very difficult to get people to change that way.

On the other hand, I suppose, for those investors, and there seem to be more of them on the margins—well-respected investors who are, let's say, considered independent thinkers—more and more of them are coming to that idea. The pricing of inflationary beneficiary assets is paradoxically more attractive when nobody's expecting it. It also creates a challenge, but it also creates an opportunity for the few. That's nothing new. It's just a broader reflection of what Murray's been talking about.

Murray Stahl – Chairman & Chief Executive Officer

Okay, thanks, Steve. I think maybe now is a good time to commence with the questions.

Questioner 1

Could you speak about the performance and the state of your strategies in the path-dependent ETFs/ETNs that you are short? Given the market drop in March, one would have expected you'd be able to close out some of those shorts at attractive prices. However, it seems instead there was a $21 million outflow to cover the shorts and a large realized loss from investments. Some detail here would be great.

Murray Stahl – Chairman & Chief Executive Officer

Well, we didn't lose $21 million. It was nothing remotely close to that. I think we talked about the losses that you see on the financial statement last quarter. They are largely the markdowns of the partnerships, which basically have TPL in them. The Horizon Kinetics asset, as an example, owns some TPL.

We had two choices. Choice number one, we could just leave the transactions alone or, choice number two, we could recreate the same position with a different security and basically realize the tax loss. I think the number is about $5 million in losses that we gained as a tax credit, and then we just reestablished the same position but with a different security. The security itself has basically the same characteristics, but it has a different CUSIP number.

The choices were to leave the position untouched and do nothing—ride it out and not get the tax credit, or realize the loss, keep the same position and ride it out that way, because it provided the same exposure. We chose the latter. When you see the August 31 financial statement, I think you'll come to the conclusion that it was the right thing to do. Of course, hindsight is 20/20. We didn't know that when we did it. But anyway, such as it was, that was the logic of doing it.

The whole idea of a path-dependent security is that you know what the outcome will be, but you don't know when it will happen. So, you might as well ride the thing out. You could hedge it with options if you're worried about it, or you not, or you could partially hedge your position, but you know what the outcome is going to be. Basically, with a path-dependent security, all you're doing is saying to someone that the market is very dangerous, and I'm willing to allow you to take your equity mark to market losses and put them on my books, but I'm going to charge you something for it.

You might ask: How much is that charge? Obviously, the path-dependent securities can return to normal, but that's not all that you get. Normally I don't go into this degree of detail but I think the question warrants it. If you look at the VIX on the CBOE website, you would see that at the moment the VIX October futures are in the 30s. So, if you compare the October future to the September future, you'll see it's in contango. That number changes every minute, and I'm not looking at it right now, but that contango is roughly 15%. So, if you short a path-dependent ETF that is basically long the VIX futures, it has to be long an equal number of days every day that it trades.

There's a September 16th future, and there's an October whatever future, 30 days later, and basically if this were October 17th, you now would have to have a 3% position in a November future. Every day that you have to keep a 30-day maturity, or roughly a 30-day time to expiration, then you will have negative roll yield. So, why shouldn't we be in a security like that? To us, that's a great deal. We will have mark to market losses in TPL anyway. The price of oil goes up and the price of oil goes down, and different things happen. But when you get around to seeing the August 31st balance sheet I think you'll see the balance sheet, give or take, will be kind of back to normal, knowing that it changes every month anyway.

So, those are the choices. We could realize the loss, get a tax benefit and still keep the same position; or, we could not realize the loss and not get a tax benefit. One of the headaches for FRMO—and I think you'll see it in many of our quarterly reports—is that there are quarters when income is passed through to us in the partnerships, even though we didn't do a trade, and we're paying taxes on it. During the quarter, we actually have mark to market losses and gains passed through to us from various securities that we didn't even trade in, and we're writing a million-dollar check for taxes. So, our strategy seemed like a good idea to the degree that we could get a tax credit.

I hope that's enough color for the moment anyway. And more on that when you see the quarterly statements.

Questioner 2

Can you mention the percent of Digital Currency Group and MIH that are currently owned by FRMO?

Murray Stahl – Chairman & Chief Executive Officer

Yes. I think I did it in the preamble but I'll do it again. Let's do MIH first. We own 603,393 shares. Based on the currently outstanding shares of MIH as they exist today, that's 0.83% or a little bit less than 1% of MIH. There are some caveats. Caveat number 1: We own a fair quantity of Minneapolis Grain Exchange and it's in the process of being acquired by MIH. We will be taking MIH stock so, obviously, when that transaction is settled, we will own more shares of MIH indirectly through FRMO's investment in South LaSalle Partners. You probably want to know how many shares, but we don't know exactly what percent ownership, because we don't know, nor can we know how many people are going to take cash from the Minneapolis Grain Exchange and how many people will take MIH stock. All we can say is that we will own more shares of MIH (indirectly through South LaSalle) and there will be more MIH shares outstanding.

At the moment, FRMO's percent ownership is 0.83% and when we have a different number, which we might have in about 3-6 months, we'll report that number. But this is the number as it is at the moment. I guess theoretically any merger could, for a thousand reasons, fall through. So, this is the best hard and fast number we have at the moment.

FRMO owns 353 shares of Digital Currency Group, which at this time has 711,252 shares outstanding, which works out to—I'm going to round the number—roughly 5 basis points. It's actually a little bit higher than that because Horizon Kinetics owns 354 shares of Digital Currency Group and FRMO own roughly 5% of Horizon Kinetics. We don't want to do fractional shares, so you could say, theoretically, on a look-through basis we own an extra 17 shares by our ownership of Horizon Kinetics. You could say directly and indirectly, we own 353 plus 17, or 370 shares, divided by 711,252, equals—it's still going to be roughly 5 basis points. If I put in more decimal points, it's a little bit higher than 5 basis points. But that's basically our ownership of the two.

Questioner 3

There are Form 4s at the SEC for the purchase of RENN Fund shares listing FRMO and Fromex as beneficial owners. Is there a strategy behind purchasing RENN Fund shares, and is Fromex now an active entity with its own strategy?

Murray Stahl – Chairman & Chief Executive Officer

I'll answer the second part first: "Is Fromex now an active entity with its own strategy?" Fromex and FRMO basically do the same thing—other than rounding errors. They're doing the same thing, so there's no difference. It's all FRMO. I don't think it's any secret that we would like to expand our closed end fund business if it's possible to do that. There are some interesting things going on in the RENN Fund, one of which is the big tax loss carryforward. I just got through saying in relation to path-dependent ETFs, taxes to us are a big deal because it's just cash outlay and we want to minimize it. So, if there's a way we could make use of those tax loss carryforwards, we'd be very interested in doing it. Not that we have a specific plan to do it but it's not a small tax loss carryforward. And if there's a way to make use of it, we would love to do so.

Secondly, the RENN Fund trades at a very substantial discount to net asset value. We're buying some of the same securities that we'd otherwise buy anyway, except we're buying it cheaper. So, on days when the RENN Fund is at a 15% discount in net asset value—let's say TPL is in the RENN Fund—we're buying TPL at a 15% discount to where it trades at. If we like it, why would we not do that? And, of course, cash in the RENN Fund and we're buying that at a discount to net asset value as well, and we also think the net asset value will rise.

I can't tell you exactly what we're going to do with the RENN Fund, but we have some ideas. And I guess stay tuned and we'll see if they work or not.

Questioner 4

As long-term shareholders, we appreciate the open and very informative reporting on our FRMO investment. We note that the building of assets in the various exchanges, the cryptocurrency space, and the Texas Pacific Land Trust among others has established substantial and important positions in businesses that can result in dramatic future returns. However, the FRMO share price as of today—and that's when the questioner wrote this—is only one-third of the late 2007 peak, and about one-half of the 2018 peak. In the bull run we have experienced in the last decade, the lack of paper returns has been somewhat frustrating. It seems there has been very little insider buying by the company's directors as well as FRMO's buying back its own shares.

On multiple occasions, Murray has spoken about the difficulty in finding significant investment opportunities. With FRMO's large cash position and the company's undervalued asset base, it would seem that FRMO is a significantly undervalued investment opportunity. Wouldn't now be a perfect time to buy back a large number of its own shares?

Murray Stahl – Chairman & Chief Executive Officer

Okay, a lot of good questions there. Several months ago, we actually did buy back some shares. The larger question, however, yes, it's true, we have a large cash balance because we have difficulty in finding investments. So, it seems the next logical thing would be to conclude that if you have difficulty finding appropriate investments, and you believe and we agree that the stock is undervalued, why don't you just buy your own shares back?

The problem with that since markets do change, if it ever got to the point where we could find undervalued investments, we wouldn't have the money to buy the things we wanted to buy. That's the paradox of it. So, it's a question of balance.

Let me go back a little historically. Before we had HK Hard Assets, we had a bond portfolio, and before the last six years, the bond portfolio threw off a fair amount of cash and we used it to fund investments. We didn't make huge investments, but we had a cash flow that was apart and distinct from the business cash flow.

What we expect to happen eventually with the HK Hard Assets the cash flow building is that at some point HK Hard Assets is going to pay a dividend to its shareholders, one of which is FRMO, another is yours truly. When we build it up enough, there will be cash flow. If we take the cash and we buy back the FRMO stock, we'll have less cash on the balance sheet, and we won't be able to build up the cash flow and, therefore, have the dividends from FRMO that we believe ultimately we're going to have. Secondarily, if we saw an undervalued investment, we wouldn't have the cash for it.

Another point that I think it's fair to make is that FRMO is not exactly the most liquid stock. We could theoretically buy up the float, and then people will say, "I would love to buy your stock, because it seems undervalued, but I can't find any." A lot of people already say that. So, I don't know that there's a holistic answer to everything. We did buy back some stock. And I guess we're trying to find a balance. One can argue where the balance is, you know.

Another point that's not obvious but we really should highlight is that Horizon Kinetics owns a not unreasonable piece of FRMO stock. Horizon Kinetics buys FRMO common stock on a daily basis via a 10b5-1 program. One way or another, we are buying our stock back, either directly or indirectly, through Horizon Kinetics. We're trying to find a balance, perhaps we haven't found it yet, but all those points front and center in our thinking. Thank you for bringing it up.

Questioner 5

The branding of a corporate name is an important vehicle to many successful companies. Our name, FRMO, is a difficult name to remember and even to type without it being autocorrected. The name also does not represent or imply the business we are in. If it's a goal of our company to establish a strong brand and identification, would you consider a name change that would describe the company as a more recognizable business within the industry it serves?

Murray Stahl – Chairman & Chief Executive Officer

The answer is unequivocally yes. There was a time when I gave it some thought, but I didn't think I had any brilliant ideas, so I opened it up to all the shareholders. I don't have a monopoly on ideas for names. I'll certainly consider it any good ideas in that respect. Don't be shy about sending us your suggestions; I'm very open to that. If anybody has a good thought, please send it in and we'll give it every consideration.

Questioner 6

How can FRMO shareholders value the holdings of Miami International Holdings, which we also call MIH, since it appears to be a private company?

Murray Stahl – Chairman & Chief Executive Officer

One way to value it is the way we valued it for good or ill on the financial statement. We gave it a value of $7+, which I don't remember exactly what it is. We gave it a value of $7+ a share. Secondarily, in the transaction between the Minneapolis Grain Exchange and MIH, the shares will be valued by an independent entity and you can look at that. But, thirdly, there are a lot of interesting things happening at the MIH. It's probably better that MIH speaks for itself, but I think it's fair to say that some of this stuff is just not reflected in the value assigned to the company. One of which is—and this is publicly available information—one of the issues with MIH is that our theory of exchanges was simply that you need two things: you need technology and you need licenses. In my way of looking at life, I thought licenses were harder to get than technology.

Technology is really the product of human ingenuity. If you have the money, you can hire people, and if those people are ingenious, they'll come up with brilliant technology. But for a license, you can have all the money in the world, but if the regulators don't want to give you a license to do something, you're just out of luck. It's not reflected in any value we carry on the FRMO financial statement but hear this. On August 14th—that's not that many days ago—the MIH got approval—and this is public information—got approval to launch an equities exchange, which is called MIAX PEARL Equities, and I believe their first day of trading will be September 25, 2020.

Let me tell you why that's important. It's important because, at the moment, MIH is largely an options exchange. The most important thing to exchange is volume, because the costs more or less stay the same even if the volume goes up due to more transactions on the same technology platform. If you have an equities exchange in addition to an options exchange, there are a lot of people who trade equities versus stock and stock versus equities. Most option traders do that sort of arbitrage. And MIH wasn't in a position to capitalize on that until they got this license. In my opinion, that dramatically changes the value. You might ask me how radically does it improve the value? Well, we'll have to wait until after September 25th and see how radically the volume improves.

With the MIH merger with the Minneapolis Grain Exchange, MIH will be also a futures exchange with a clearing house. Obtaining a clearing house license is not easy. So, I believe the exchanges of the future—this applies to every exchange but I'll throw MIH into the group. The securities that trade on exchanges today represent primarily interests in corporations. Even an option is just a right to buy an interest in a corporation.

If people want to express an economic view via interest in corporations, you might say, I think the GDP is going to go up, as an example. Okay, well, maybe you're right. Let's say GDP really does go up, but maybe the value of equities in general was too high. Your analysis of the economy may have been brilliant but, unfortunately, the equities were too richly priced and they went go down anyway. So, what was the goal of all the brilliance? What was the point of it?

I believe the exchanges of the future will create securities that offer the opportunity to invest exactly in accordance with your economic theories. If you believe that the GDP will go up, there will be a security—I'm not saying it will be on an MIH exchange, but it will trade somewhere—just to give you a sense of why futures are so important for this exchange. There will be a security for those who say they expect GDP will go up by more than 2% and, if that happens, you get paid. If, however, the GDP doesn't go up, if it goes down, then you have to pay somebody else. Therefore, securities will be created that pertain with precision to people's views on currencies, or interest rates, or economies, or what have you. The nature of exchanges will change radically. If you want to express a certain view on equities and bonds—bonds in particular because you see what the yields are right now—I don't know that you can express the views you have about capital markets, or one can express one's views about capital markets with conventional securities.

There's just huge opportunities out there if you can get the licensing married with the technology, and that's what's happening in a. Equities, options, clearing house—don't forget Bermuda, another national exchange which, by the way, is a monopoly and has certain relationships with Europe that could prove to be valuable. There's a lot of great stuff going on there. I know the thrust of the question is for me to provide a number but, obviously, I can't give you a number. I just think that wonderful things are going to happen and we'll have to wait and see if they do.

Questioner 7

Is FRMO seeing investment opportunities with the likely reversion of ETF/Index funds with heavy weights in the so-called FAANG (that's Facebook, Apple, Amazon, Netflix, and Google), or similar investment opportunities?"

Murray Stahl – Chairman & Chief Executive Officer

The best way I can answer that question is to say that this is going to be a process. It will not change radically on a day by day basis. This is a process and it's going to take a long period of time. The problem is, from the index/ETF point of view, you now have concentrations. The whole idea behind the index is you can quickly get diversified, but if you're not going to be diversified, if you're going to be concentrated, yes, it's an index in name but it's not a diversified investment.

There are areas of indexation that you just can't get exposure to. It doesn't exist. Or if it does exist, it's marginal exposure. Earlier today I mentioned precious metal's exposure in indexes. It basically doesn't exist unless you buy a gold miners index. But even the gold miners index itself is concentrated because it's based on market capitalization. It's much more difficult to get a true geographical exposure to gold if you want to use indexes.

That being the case, it's a major opportunity for asset managers to create exposures, except even the asset managers are gone. Now, you can understand why we're going in the direction that we're going. If we're going to convince people that they need different exposures, we've got to eat our own cooking. We have to do it first. Now you understand why we created HK Hard Assets and why we have the orientation we have. It's going to happen but we're talking about trillions upon trillions of dollars of investment, and the nature of investing basically has to change.

As an example, in modern portfolio theory, the beta of the S&P 500 is defined to be one. Beta is a measure of variability. It doesn't matter how concentrated in technology the S&P 500 is, the beta will always be one, by definition. To take it to the extreme case, what if it were 99% technology? Is it defensible to say that the beta of the S&P 500 is one? At some point, people will see the flaw in the logic. But, as I said, it's a process. I don't think it's going to be a magic bullet. Maybe I'm wrong about that, but it took three decades to bring indexation to the level of a dominant strategy. Having taken three decades to make it a dominant strategy, I guess anything's theoretically possible, but it's hard to believe that in three months it will go to another strategy or to a far less important strategy for the simple reason that the active managers with the records to do something different don't exist anymore. They're gone. They would have to be created if you're going to have an alternative to indexation, and that's going to take time, in my view.

Questioner 8

I'd like to better understand the accounting and valuation for Winland's trade claims. The shareholder letter states that the crypto-related claims are worth about $600,000, but Winland's recent interim report lists them at $350,000. Also, could you provide the rationale for the transfer of crypto-mining equipment to Winland in exchange for FRMO's further share participation?

Murray Stahl – Chairman & Chief Executive Officer

I'll address the second part of the question first. The idea is very simple. If you want to build a big cryptocurrency business, we might need outside capital. We think FRMO is undervalued. I really wouldn't want to issue any FRMO shares for that purpose. There are a lot of things going on in FRMO, and it could well be that the market doesn't pay a lot of attention to the crypto mining assets. You can even argue the market doesn't pay a lot of attention to a lot of things FRMO does.

If you can move into a company where the cryptocurrency mining is dominant, and I think you can see some statistical logic to this. Look at the change in the price to book value ratio of Winland pre-deal and post-deal. I know there's not a lot of trading, not a lot to base it on but, nevertheless, it is a radical difference in valuation. Maybe there's some truth to that, and maybe there's a possibility to make it a bigger business. Even, if not, Winland is going to have some crypto assets—it's not that FRMO is getting out of the crypto business, it's just that the crypto assets, the mining assets that we sent to Winland, as they accumulate bitcoin or other cryptos that we begin to stockpile, we want to see how the market values that—it might value it in a very different way than it values crypto inside of FRMO with all its various activities.

By no stretch of the imagination is FRMO getting out of the cryptocurrency mining business. At the right point, we're going to buy more cryptocurrency mining equipment. In FRMO we accumulate more coins each and every day. It may not be a tremendous number but we accumulate more coins each and every day.

With regard to valuation of the assets, the trade claims in question that you're referring to are Mount Gox trade claims. Let me just describe what it was. Mount Gox was a bankruptcy. It basically got hacked many years ago, but it still had a lot of crypto. It didn't lose all its crypto, it only lost some of its crypto. The people who were clients of Mount Gox were entitled to their pro rata share of the crypto that was left, which was actually quite a considerable sum of crypto, and basically it's locked up in there.

It's in a Japanese bankruptcy court, and the legal process moves very slowly. Some people wanted their cash now; they didn't want to wait until the Japanese bankruptcy court releases the bitcoin. Who knows what the bitcoin will be worth whenever that happens? I know what bitcoin is worth today. You can't value it exactly based on the amount of bitcoin that's there because you have to discount it by something, and that's a matter of subjectivity.

Secondarily, bitcoin appreciates, because it's not like a normal trade claim where someone owes you $1,000 and you might value it at 80 cents on the dollar or 70 cents on the dollar, and you might not even collect the face amount. But if you did, that's what it is. In the case of Mount Gox, bitcoin's actually been appreciating and who knows at the time what it's going to be? So, it was a way of buying bitcoin, only bitcoin, cheaper than buying it in the open marketplace. And, as I said, you have to discount it and that can only be a subjective judgment.

I can't give you the formula by which they valued it, but I guess in the vernacular of discounting things, they referred to it as a haircut. I think it's fair to say that it's conservatively valued. How conservatively, I don't remember what the formula is, but I'd have to look at the document to find out what it is.

Questioner 9

What is the latest on the SPIKES futures that trade on the MIAX exchange? What percentage ownership will each of Horizon and FRMO have in the Miami International Exchange after the merger with MGEX?

Murray Stahl – Chairman & Chief Executive Officer

I'll answer the second question first. I don't have a hard and fast number yet because the value of the Minneapolis Grain Exchange exceeds $100 million and some people are going to have the right to take cash. How many are going to take cash, I really don't know. I'm sure some will. Therefore, I can't calculate the number of MIH shares that will be outstanding after the deal is consummated. After the deal is consummated, I'll have a hard and fast number and I'll share it at the time. But I will say that any way you look at it and whatever the outcome is, our ownership of MIH in percent terms will be higher. There's no question about that. We'll just have to wait for the actual number.

In terms of the SPIKES volatility index, I really should let the MIH management talk about it. I'll just talk about what the issue is, so you can understand what the issue is. I believe that when you hear the issue, you'll understand. In my view, and this is my personal opinion and I could be wrong, I think it's very likely to be resolved. The SPIKES is a competitor to the VIX. And the only the major difference is that the VIX is based on options on the S&P 500 futures, which are clearly a commodity, and the SPIKES is based on options on the S&P 500 SPDR ETF. You might say the S&P 500 futures and the S&P 500 SPDR ETF are both based on the S&P 500, so what's the difference?

The difference is the S&P 500 future has a fair value component, meaning when you buy the future, you don't get the dividend, and you don't put up 100% of the value. So, there's a time value of money aspect to it. The S&P 500 future actually has a modestly different value than the S&P 500 SPDR ETF. You could argue that, well, the S&P 500 SPDR ETF is based on the actual S&P 500. That's the more reliable number and, therefore, in that sense maybe you're better off where there's less fiscal noise, in the SPIKES which is based on the S&P 500 SPDR ETF, rather than the S&P futures.

Okay, well and good. The trouble is that from a regulatory point of view—and this is a very abstract point so I'm going to try to make it as simple to understand because you're going to say, how can this be? But I assure you it is. The Regulatory Authority says that if you're going to have an index, it must be a broad-based index. I believe the number is that if you have an index based on less than 10 equities, it's not broad-based and it requires a different kind of regulation than an index that's broad-based.

You'll say, okay, but the S&P 500 SPDR ETF has 500 securities in it. That must be broad-based. Well, in a regulatory sense, the S&P 500 SPDR ETF is viewed as one security. Yes, that security contains 500 securities, but the S&P 500 SPDR ETF is one CUSIP number, and you could argue that it's one security and, therefore, it's not broad-based. That requires a different kind of regulation than the VIX future, because even though it also is theoretically one security but that's a future and it comes under a different kind of regulation than a single security known as the S&P 500 SPDR ETF, even though the ETF actually represents 500 stocks. That's basically the legal issue.

You might say it's very abstruse and why would we get to that point? I think now that I've described the issue, you can see that there is a resolution to it. What exactly the resolution is, I'm not in a position to be able to relate that, but I think I described the issue and I think you can see why it is what it is. It's not a big deal, in my view. I believe it's resolvable. But that's me, and I am not a member of the Bar Association or the SEC. But my layman's knowledge of law and my knowledge of indexes, in my view is—and it's just my view, take it for what it is—I believe it's resolvable. So, now you understand the issue and you can handicap it as well as I can. That's what's going on.

Questioner 10

I was interested to read in the shareholder letter that, "The securities exchange industry recognizes the limitations as well as the dangers of the current indexation movement. The professional investment management industry is moving in the opposite direction..." Please explain more about how the securities exchange industry is indicating its recognition of these limitations and how they might take advantage of an unwind in indexation.

Murray Stahl – Chairman & Chief Executive Officer

Well, obviously, the whole purpose of having an index is diversification. So, if you're going to be concentrated, you're not diversified. If you're not diversified, legally speaking, you're still an index but, philosophically speaking, you're not doing what an index is supposed to do. You're taking a bet, just like an active manager is taking a bet. Now, maybe that bet can be right or that bet can be wrong, but it's a bet.

People are looking for other exposures. The problem is it is extraordinarily difficult to find other exposures. So, we talk about the inflation exposure. Let's say that people agreed with us and said, "We agree with you; we would like to have a lot more inflation exposure. By the way, in the world, there are literally over $100 trillion of assets to manage. Let's say—and I'm throwing out a number just for illustrative purposes; it means nothing other than an illustration—let's say of the trillions upon trillions and trillions of dollars, let's say it's well in excess of $100 trillion, and it might even be $200 trillion. Let's say the world decided that there's a 1 in 20 chance, or a 5% chance, of inflation. Give us a 5% exposure to inflation. How could we possibly do that? There's not enough market capitalization to even do it.

Once you get beyond Exxon and Chevron, which are big capitalization companies, look at what's out there. There's not a lot of market capitalization out there. And that's energy. Go away from energy, go into forest products, agriculture, precious metals, there's really not a lot there at all. It's all well and good to say you offer inflation protection on such a scale, but actually doing it, the execution, I don't know how you could actually do it. First, we couldn't propose it. we just ethically couldn't propose that we'd do it ourselves. Second, just from our own selfish point of view, if we were successful and convinced people, we'd be in a rush with everybody else trying to buy these assets at ridiculously high prices because the amount of money, even assuming a very low consensus probability of inflation, there's only so much money that could go into it relative to the market value of what it is, you have to go in first. You just have to. Otherwise, it's an exercise in futility.

Now that you understand that point, how is the world going to have a meaningful exposure—and you can decide what a meaningful exposure is—in something else when the market capitalization of that something else is very low? Inflation is just one example—it could be other things. What if it were art? Now, you can say art isn't an inflation beneficiary, but what if it were? People have done it. Most art is not liquid. Most people are not interested in selling. And also it's not homogenous. How would you actually go about it? Even if you did it, how would you go about valuing it?

When one says a different asset class, I guess it's limited only by the power of the human imagination. Look at the big technology stocks. We now see two trillion-dollar market capitalizations, and that's just one stock. Find an asset class that's arguably different from the S&P 500. The biggest stock in the S&P 500 has over a $2 trillion market capitalization. Find me one asset class, an asset class, not a stock, that has anything close to a $2 trillion market capitalization. The whole energy industry, if you bought everything, is in the hundreds of billions of dollars. And even then, it isn't pure energy because Exxon, Chevron, British Petroleum, they also have alternative energy, they also have chemicals. There's a lot of things going on there. So, even if you bought those companies, you're still not pure energy.

If you wanted to do exploration and production, market capitalization is a small fraction of the biggest stock in the S&P 500. There are plenty of stocks that rival that market capitalization. So, how would you actually do it? You know, you can say real estate, but that's not liquid. There are REITs. True, but if you bought every REIT that was publicly traded, you wouldn't get to the market capitalization of just the biggest stock in the S&P 500. You wouldn't even be close to it, if you could even do it.

But, obviously, that's a ridiculous example. Are you really going to buy 100% of every publicly traded REIT? And, if you did, they wouldn't be publicly traded, then they wouldn't be liquid, and what good will that do you? Even if you bought 5% of every publicly traded REIT to have real estate exposure, what have you really done? It's a lot of buying, and how much has the world really diversified itself? Not a lot.

I'm trying to bring highlight the point that to orchestrate this is unbelievable. And, by the way, I'm just talking about stocks. The publicly traded debt in the United States—not just Treasury debt but all forms of debt—is probably $40 trillion and more is issued every day. That's $40 trillion of debt and it yields almost zero. Let's say you wanted to get that $40 trillion into something that had a better return. What exactly would you buy? It's always possible to sell a few million dollars of bonds and you can buy a few million dollars of some security. Let's say that you do that. But, in the context of the numbers that we're talking about, it's just meaningless. That's the orchestration problem.

Everybody thinks that—and in my humble opinion, they're very, very, misguided to think this—they think that well, I'm in these indexes, it's dominated by these unbelievably liquid securities, and I know the tree doesn't grow to the sky, and that one day I'll have to get out, and when I do it's going to be incredibly liquid. Okay, that might be true, and then you'll be in a Money Market Fund for a day or two and then what? What are you actually going to invest in?

I think inflation is a big risk. I might be wrong, but let's say people agree with me. How could they possibly deploy any significant amount of money into inflation beneficiaries? That's just not even conceivable. And there are other investment themes that aren't even that good. They only have liquidity equal to the inflation beneficiaries.

It's a big problem that I think is recognized, but I don't think anybody knows what to do about it. We're going in this direction because we think there's a certain probability of inflation. It's not zero. For example, if you think there is a 1 in 100 chance of inflation, then logically you should invest 1% in your money in inflation beneficiaries. If you think there's a 2% chance of inflation, you put 2% in inflation beneficiaries. Add up all the publicly traded assets in the United States of America, and 2% of that number to go into inflation beneficiaries is not possible. Just not possible.

Now you understand where we're coming from. If we end up being right, not only about inflation, but if we merely got a consensus of a 2% probability that there will be inflation, you can see how gigantic the orchestration problem is. Let alone if we actually had inflation. Can you imagine what would happen? Who'd want to own a low-coupon bond? The answer is nobody. And then there are all the private securities like bank debt, and private equity, and on, and on, and on it goes.

Questioner 10

HK Hard Assets percentage ownership by FRMO is increasing in each quarter. Is there an ongoing buy-in plan in place with the HK Hard Assets?

Murray Stahl – Chairman & Chief Executive Officer

No. We're just buying it opportunistically. Cash is being thrown off from various investments. For instance, now we're making money, as we usually do in the path dependent ETFs, and as cash is produced, we deploy it. A lot of it ends up going into HK Hard Assets, but not all of it. We don't have a number in mind, we don't have a specific percent in mind. I personally contribute every month to HK Hard Assets, as do other Horizon principals. We're all contributing, and we all vary in how much cash we have at the end of the month to contribute.

The way it works functionally is that we rarely contribute cash; we're just buying securities during the month in our various accounts. At the end of the month, we transfer to HK Hard Assets the securities we want to contribute and our ownership changes accordingly. There is no set plan. I'm not a small holder, I'm a big holder personally of HK Hard Assets. If I won the lottery and had $10 million and I didn't have to pay taxes on it, a lot of that money in the form of securities would probably find its way into HK Hard Assets. FRMO is not going to buy a lottery ticket, so I guess FRMO doesn't have that modality open to it. But I can do it, although I haven't done it lately.

Questioner 10

Can you or Steven comment if they see a future in actively managed ETF products in general and/or for Horizon Kinetics specifically?

Murray Stahl – Chairman & Chief Executive Officer

Yes, I do see a future in it. Basically, the ETF is just a cheaper way of delivering an investment product than a conventional mutual fund. An ETF is basically a mutual fund and eventually it's going to go in the direction of actively managed mutual funds.

There was a time several years ago when it was a little daring to do that. No one knew, because no one had tried it, that the law permitted that sort of thing and no one really understood exactly what sort of disclosure you would have to give shareholders as an actively managed ETF. There were some money managers who were reluctant to comply with the disclosure requirements, but I think that reluctance is behind us. I think there's a future for actively managed ETFs and it is just starting. Right now, in relation to passive ETFs or index ETFs, it's an insignificant part of that universe. I believe that active will grow its share. Right now its market, while not zero, it's unbelievably close to zero. I believe that share will grow but it will take time.

Questioner 10

Have there been any changes in your expected returns from cryptocurrency mining in the last year? While I theoretically understand why the least efficient node must set the floor for profitability, I have a hard time understanding the mechanics/incentives in the system that makes sure this happens. A further explanation of this dynamic would be appreciated.

Murray Stahl – Chairman & Chief Executive Officer

First, I'll answer the first part of the question. So, my expectations for the return, it's constantly changing. And the reason it's constantly changing is because the nature of equipment is constantly changing. In the last year, the equipment that we were able to buy was just so much better than the equipment we were able to buy in the past.

As an example, we're able to reduce our electricity costs by something like—I'm going to be off a little bit—but I think it's something like 70%. So, we're literally spending 70% less on electric power for the same quantity of mining. The negative part of that is, the new equipment replaces the old equipment. So, it reduces the life of your older equipment.

The question is, "When the old equipment gets replaced, if you're not efficient, obviously, and you can't make a profit, do you have to close your operation?" But there's going to be someone who can find a way to use the old equipment. We've actually done it. Even though the S9 mining equipment is obsolete, at the moment, in our mining operations and various places, we're running some S9 mining equipment, which we really theoretically should have junked, but we found cheap enough power source that we can actually make a profit. If we can make a profit on it, why not let it run? Every now and then, a machine burns out, but we own an interest in a repair facility, so we repair our own equipment, which means we can keep it going for a while.

I don't remember how many S9s we're operating, but it's a small number. With those S9s, you could say we're the least efficient people. We have a small return. It's not a big return. I don't know what exactly it is. It's a small part of the currency mining business. But we're actually making a return. You could say we're the marginal producer. As long as we can stay in there with that equipment, we will stay in there.

You could say that we're setting a floor. Other companies may have better equipment; we ourselves have better equipment, which is much, much more profitable. But if we can squeeze out a profit on the S9s, then when we buy new equipment, we're going to make much, much more money, and so is everybody else. If we fall to the point where we can't make money on the S9s, then no one can make money on S9s. Those people have to drop out of the system, and the new floor is going to be whatever the least efficient equipment is above an S9. Maybe it's, I don't know, micro BT equipment or an old generation of that, and maybe we'd make a very little return on that. That's the mechanism. People keep dropping out.

That's why you always have to have some cash on reserve. When we started this business, we raised some capital in various funds, a lot of people said, "Why don't you invest all the money right away, as if it's a mutual fund or something?" And the answer is that's just craziness to do that. We realized that it's possible some of your equipment is going to become obsolete, and we would need money to buy new equipment—especially because we're paying dividends with the existing cash flow. We're not accumulating all the cash.

So I hope I'm explaining the mechanism. There's always somebody, the least efficient person, who's got some old equipment. And as long as they can find a cheap source of power or they can find a way to repair the machines that burn out, that older equipment will hang in there, and there's no reason for us to drop out. Why should we drop out as long as we're making money? It's a sunk cost. We already paid for the equipment, and the electric power is available.

In a regular business we would say, "Why don't we just sell our S9 equipment to somebody else and take that money and invest it in something else to get a higher rate of return?" The trouble is the S9 equipment is obsolete. It has no value to anybody who doesn't have our access to inexpensive power, and virtually nobody has our access to power. We can stay in the business—in that small part of our business—and be profitable on a marginal piece as long as we have access to that inexpensive power. That's the marginal producer. If we lose that access to power, or if it just doesn't make sense when eventually the equipment becomes unprofitable to repair when it burns out, that'll be the end of that line of equipment. But we would replace it with new equipment.

So, that's the marginal producer, if that makes any sense—the mechanism. We're actually a marginal producer in a small part of our cryptocurrency mining business,. I don't think anybody would tell us that we should do otherwise—you know, we already paid for the equipment. The mining pays for itself. Why should we throw the machine out? Why shouldn't we run it as long as we can? There is some cost, but the equipment is paid for. The longer we run it, the more profitable that equipment purchase will be. If we can run it for an extra year or two, why shouldn't? I hope that makes it clear. I know it's an abstruse subject.

Murray Stahl – Chairman & Chief Executive Officer

Steve, is that clear to you? Do you understand what I just said? Because if you don't understand, others won't understand.

Steven Bregman – President & Chief Financial Officer

Let me give that some thought for just a second or two.

Murray Stahl – Chairman & Chief Executive Officer

Okay. But I want to make sure they understand it.

Steven Bregman – President & Chief Financial Officer

I think maybe you're working from the ground up, and the rest of us are often working from the top down without knowing the operational details, without thinking about the cost of capital. So, coming at it from the other perspective, from the other side, looking at it the way a stock investor looks at markets or stocks, say, or dominant companies such as Amazon do, why shouldn't a larger producer that has access to a lot of outside capital why wouldn't they treat it the same way, let's say, as Amazon does, especially when their capital comes from other people?

Regarding a larger mining outfit—or a small one, for that matter—that suddenly got a bunch of excess capital and bought machines, servers, with that—and they're making a certain amount of profit—why shouldn't they take the approach that an Amazon does and just try to take market share and drive the less-efficient parties out of business?

Murray Stahl – Chairman & Chief Executive Officer

I'm glad you asked that question.

Steven Bregman – President & Chief Financial Officer

From that perspective, how do you explain it to somebody?

Murray Stahl – Chairman & Chief Executive Officer

You can't take away our market share, because we don't have a customer. We're just a machine. See, in normal business, you have a customer. The customer might buy a pair of shoes, or pants, or a bouquet of flowers, or food, or a car, or whatever it is. A better-capitalized company could say, "I'll just make a better car," or "I'll make a cheaper car," or "I'll make a more attractive car," or come up with a virtue that we can't match. With cryptocurrency, we don't have a customer. They don't have a customer. Nobody has a customer. There's just an algorithm.

The algorithm determines how much bitcoin you get in a 10-minute interval. Whether we can solve that problem profitably is really a function of how much electricity we're going to burn and what the price of that is going to be in any 10-minute interval. And, by the way, we're doing it as part of a mining pool, so, as long as we can add more hashing power to the pool, it has a greater probability of getting the block reward, and the pool would invite us in. If we ever got to the point where it costs us more in electric power than the reward we're likely to get from the pool, we wouldn't be thrown out of the pool even then, but we likely would drop out of the pool. But as long as we can add hashing power to the pool, it's sort of like we're participating in a lottery. We add our ticket to everybody else's ticket, and as long as our expected winnings are greater than our pro rata share of the cost of the ticket, we're going to be in. If it's less, we ourselves would drop out.

Nobody can take share away from us, because they can't take share away from anyone, because there's not a customer who you can convince to do business with corporation A, as opposed to corporation B. Amazon has no customer they can convince to say, "Don't do business with FRMO, do business with me. I will give you a better deal," because there is no customer. There's only an algorithm. And the algorithm is available to anybody who wants it.

As a matter of fact, theoretically, even if we were losing money, we could still stay in the pool. We're still adding hash power to the pool. It's just that we have no incentive to do it. But as long as the cost of our electric power is cheaper than the reward we're likely to get from the contribution of that computational power, we're going to do it. Nobody can throw us out. We cannot be thrown out. Nor can anybody else be thrown out either. That's the difference in the cryptocurrency business. You can't be thrown out. You can't be displaced. There's no customer to convince. Is that more understandable? Do you think you understand why we can't be displaced? It's not that we have some unique attribute, it's that nobody can be displaced.

Steven Bregman – President & Chief Financial Officer

Yes. The entire structure, the design of distributed economics and distributed information, the way a mining and blockchain system works is actually a new concept. We're still not familiar with it, and it'll take a while to integrate that new way of looking at business dynamics.

Murray Stahl – Chairman & Chief Executive Officer

That's right. As an example, there'll be an article in the paper that says the Chinese have a certain market share of mining, but that's not even true. We're constantly participating in different pools, and sometimes the organizer of the pool happens to be from the People's Republic of China, and we'll join that pool. But we ourselves are not Chinese, and none of our equipment is in China, nor is it going there at any point in the future. We're just joining a pool. Our equipment doesn't leave North America whatsoever. We have an incentive to collaborate with them, just like they have an incentive to collaborate with us, because the more computational power that goes into the pool, the more of the block reward that pool is likely to get.

Everybody in the pool has an incentive to cooperate. Because there's no organized authority that benefits from inflation, you don't get inflation. Theoretically, all the miners could vote, and we could all say, "You know what? We're going to revise the protocol. Let's double, triple, or quadruple the amount of bitcoin we can get." But no one would do that. I can't think of one person who would ever vote for a thing like that, because it's not in their interest. Because in a lot of cases, you're holding onto your bitcoin. You don't want to sell it; you want to keep it for further appreciation.

Here's another interesting point. Most businesses, whatever the product is—let's say the business is Amazon—you have a product to sell to someone. If you don't sell it in a certain period of time, you may have to write it off. But in the world of crypto, if you can, you keep your product. You don't want to sell your product unless you have to. FRMO is a perfect example: We made certain things and we're hanging onto it.

There's no guarantee that it will appreciate, but if it does, two years from now or three years from now, our return could be many orders of magnitude higher than it is right now. That's the interesting thing. In normal accounting, you're measuring your return on equity every quarter, but for the bitcoin we mined last year, we might actually get a very high return three quarters from now. We don't know.

In most business when you produce a product, you sell it. That's the return, and you measure it. In bitcoin, when you produce a return, you produce the bitcoin, you hold it, and then you can measure it. You can say the market value of bitcoin today is X, and you can measure what your return is, but it can have a lot more value. Our return doesn't stop when we produce it; it's just a completely different business. That's the allure of it. Does that make it clearer, Steve? Because I really want everybody to understand what the upside really is.

Steven Bregman – President & Chief Financial Officer

Yes, I think so. The problem is that facts are easy to absorb, and concepts, new relationships are not. I know people who have started to read about cryptocurrency, who get quite involved because there are many concepts to absorb. It's this business of a trustless system. The difference is between being centralized at a bank where your money is safe or being decentralized all over the world in a network of servers where you have to learn first to understand that it's actually safer. It runs counter to everything we've learned.

Murray Stahl – Chairman & Chief Executive Officer

Yes. It's safer for two reasons. Number one, nobody could ever get your coins unless they have your private key. You could even lose your private key, and there are ways of retrieving it. You could put your private key in a safe deposit box where obviously nobody can get to it. That safe deposit box could be hit by a bomb, blown to smithereens, the entire building could be blown to smithereens, and it was a piece of paper that was burned. You have no possibility of retrieving it whatsoever. But you can still retrieve your private key in, I would say, less than five minutes. I won't describe how that actually happens, because I don't think that's knowledge that we want to disseminate right now. But you could do it easily. In less than five minutes, you could have your private key.

The only way they can take your bitcoin away from you is they have to get your private key. You can do a lot of things with your private key. As an example, you can break it up, and you can put pieces of it in ten different banks. All ten banks could be destroyed, and you could still retrieve your private key. That's one element of safety. This system replaces the concept of a bank as a strongbox. The origin of the bank regarding your valuables, which could be gold or jewelry, was that you don't have the ability to defend them by yourself. You would be overwhelmed. So, you give it to the goldsmith who has the security in place to protect it. You paid a certain fee for that, and it was worth it. That was the protection. You needed a central authority to protect your money. That's the whole idea of the vault—the safe, as it were.

With cryptocurrency, we don't need that today. You don't need a central authority to provide security. It's irrelevant, because they can't get your private key. Especially if you have it in what's called cold storage, so it's not even connected to the internet, so you could not be hacked. If you're not connected to the internet, you cannot be hacked, therefore they can't get your private key. They could assault you and try to get your money, but then again, if you have valuables like jewelry, they could assault you and say, "Give me all your jewels," even if it's at some different location, and they could do it that way, too. But a private key is absolutely secure.

There is a second way you could lose your money. Well, think about it. It's the bank, and it is just a depository. Let's say that you keep your gold there, and the goldsmiths figured out that on a normal day, people don't come for their gold. At most, they'll come for 10% of their gold. So, why don't we lend out 90% of their gold and collect interest on their money, thereby leveraging the investment? That's the danger. What if more than 10% of the people come for their money, and the bank doesn't have all of the money—meaning the gold—in their vault? If the bank defaults on its obligation to pay the depositors, that's a real danger.

Another danger is that by making the loans, the banks realized that they were actually creating money. If you create enough of it, then you get inflation, and the value gets debased. "Now," you might say, "gold is the protection against inflation," but I beg to differ. Read a book about Spain in the 16th century, that's the 1500s. From the Latin American colonies, they brought back vast sums of gold. The vast sums of gold functioned as money coming into Spain. It actually caused inflation, and the money was gold. Gold and inflation existed simultaneously. There was just too much gold.

There are Spanish historians who write about this subject, and some say that Spain, from the inflation of the 16th century to this day, has never recovered from that, as an economy. There are historians who actually say that, and it gets a fair amount of agreement.

Anyway, because bitcoin has a fixed issuance, it can't be inflated, and that's what makes it so intriguing. Nothing else has that upside. There's nothing. It's worth a certain risk to have a small amount of money in bitcoin. Anyway, I hope I've made that clear. Is it clear, Steve?

Steven Bregman – President & Chief Financial Officer

Much more so, I think. I would just add two very minor points, which are really not germane to the centrality of the question. You're talking about the market cap of bitcoin. I guess most publicists are probably aware that the float of bitcoin, the implementable market value, is shrinking all the time in a sense, because of all the holders, including miners, who intend to hold it for a long period of time. They might not hold it forever, but in practical terms, if just the slightest increase in, or initiation of asset allocation of institutional investors toward bitcoin occurs, the float available to them is far, far less than the $199 billion market cap. Fidelity, as you mentioned earlier, just set up a fund for institutional investors to invest in. They've opened that door now.

Murray Stahl – Chairman & Chief Executive Officer

That's true. But let me give you another way that the bitcoin float shrinks. I guess it happens in regular money too, but you don't think about it, but it happens much more to the point to bitcoin. There's a concept known as bit rot. What is bit rot? Well, think of it this way. Did you ever come home and pull your money out of your pocket, and your keys, and your wallet, and you put them on a table or a credenza, and there's always a quarter or a nickel that rolls out and falls behind the furniture, and it's a big heavy piece. You could obviously move it and get it, but for a nickel, it's just not worth it. Eventually you forget about it, and it may be there forever.

There are people who actually lose the private keys to their bitcoin, so they can't access it. Unless you have the private key, that's it. It's there in the blockchain, but nobody can get at it, because nobody knows who owns it. You can't cheat, because, in the U.S., somebody could look at the blockchain ledger and say, "This bitcoin hasn't moved in years." Like a bank account, no one's touched it for ten years, so maybe it should escheat to the state, except you don't know whether that person is an American. Who is that person? So, there's no mechanism to have it escheat to the government.

Therefore, the functional amount of bitcoin that could actually be bought is less than the amount of bitcoin that actually exists. No one knows how much bit rot there is. People have estimates, and they could be very, very wrong. But there's a certain amount of bit rot. Some would argue that because of bit rot, the supply of bitcoin is actually shrinking. There are many interesting aspects to the idea of cryptocurrency. I really believe that one day crypto will be the biggest asset class by far, but you just have to be there. There'll be a period of a few months when people make this outlandish rate of return. After that, it'll be properly valued. It'll get a return, but it won't be outlandishly high. You just have to be there. And you have to be patient.

Anyway, I hope I'm making these points clear. Obviously, we can talk about this a very long time, but I thought this was sufficiently important that I would have you, you know, clarify in a usual insightful way what the questions are and get to the heart of it, so people will really understand what this really is and what we're actually doing. Do you think we did that?

Steven Bregman – President & Chief Financial Officer

I would say we've done more than is maybe even required for this particular occasion.

Murray Stahl – Chairman & Chief Executive Officer

Okay, that's good. So, Thérèse, if you would, if there are more questions, I'm happy to address them.

Thérèse Byars – Corporate Secretary

I think that's all the time we have for our questions today. It's time to wrap up the meeting, so I'll leave that to you.

Murray Stahl – Chairman & Chief Executive Officer

Okay. So, a lot of great questions today, and I'm glad for every one of them. If you have a thought on (A) a better name for FRMO, or (B) a question that we haven't addressed that just occurs to you in thinking about some of the things we were talking about today, please don't hesitate, send it in. Even though we're in lockdown mode, we will get back to you.

Hopefully, we've had a productive session and, of course, we will have a quarterly conference call, and we'll look forward to your questions at that time. I really enjoy the interplay. I thought the questions were terrific. So, thanks again. Thanks for your support, and I look forward to continuing the dialogue. Thanks so much.

Operator

This conference is now concluded. Thank you for attending today's presentation. You may now disconnect.

FOLLOW-UP QUESTIONS NOT COVERED DURING THE MEETING.

Questioner 11

To follow up on Murray's point, though, what prevents a better capitalized company from buying lots of tickets and reducing the odds of everyone else? That's in relation to bitcoin mining.

Murray Stahl – Chairman & Chief Executive Officer

Ah, well, in theory, nothing prevents them from buying more tickets, which really means that they would have to buy more equipment. But the thing is if they buy more equipment, then it becomes harder and harder to get a bitcoin. And that's the same thing as saying the cost production of bitcoin would go up, and the price of bitcoin would therefore rise. That's why the price of bitcoin rises. If the price of bitcoin rises, that encourages the smaller player to enter. So, the reason the lottery analogy doesn't work is that there are set odds, and the odds change simply by the number of tickets being issued.

In the case of bitcoin, when someone tries to change the odds, they actually change the value of bitcoin in a positive direction, thereby giving people an incentive to enter who would not otherwise enter, and some of them are small. That's why the system is so resilient. That's my answer to that.

Questioner 12

In your 1995 note on Texas Pacific Land Trust (TPL), you posed a question, "How do I buy one million acres for $20.57?" The idea was to hold on and allow the tontine policies of the land trust to do its work. The shareholder letter, you agree, iterated the view that when you have the best asset in the space, you don't sell. But the agreement seems to limit the ability of the group to hold our shares. In fact, it requires us to sell shares to prevent our ownership stake from rising. Can you help us understand that seeming contradiction?

Murray Stahl – Chairman & Chief Executive Officer

If I may take the liberty of reinterpreting the question, you are essentially asking why we didn't wage the proxy battle to ultimate victory by taking control of the entire company. The answer is that our goal in the proxy dispute was never to take over the company; it was only to replace TPL's 19th century version of corporate governance with a modern conception. All related documents and letters filed by us confirm that objective as the only reason we challenged the proxy. Reaching an agreement in that regard that satisfied both sides was a successful outcome for us.

Questioner 13

Murray, regarding FRMO, I heard your call on Friday. Prior to that, I hadn't really heard you talk about a distribution from HK Hard Assets and what that might mean in terms of a distribution for FRMO sometime in the distant future. I don't know if you want to reiterate that. Did I correctly hear you say that you thought that FRMO would have a distribution at some point?

Murray Stahl – Chairman & Chief Executive Officer

At some point, we expect that FRMO will pay dividends. It doesn't necessarily follow that if FRMO gets a distribution from HK Hard Assets that it will, in turn, distribute that money to its own shareholders. It depends on how large it is; it depends on what other uses we have for the money at the time. But we will eventually get to the point where we will receive dividends from HK Hard Assets.

Questioner 14

One of the company's core strategies has been the building or acquisition of one or more operating companies. We were building a bitcoin mining business. What is the logic of selling equipment to Winland? Is owning 25% of the other operations of Winland really more attractive than our crypto business?"

Murray Stahl – Chairman & Chief Executive Officer

Well, we didn't sell the crypto business. All the aspects of the crypto business that we had, we retained. We didn't sell anything, other than when we bought $100,000 of new equipment that we subsequently sold to Winland. In future months, you will see that FRMO, for its own account, is going to buy equipment, as well. By no stretch of the imagination is FRMO out of the crypto business or even the crypto mining business. All that really happened is that Winland entered the crypto mining business, because we helped Winland enter the crypto mining business. But, by no stretch of the imagination, did FRMO leave the crypto mining business, nor does it have any intention whatsoever of leaving the crypto mining business. It was just a transaction to get Winland into the crypto business, and we provided some financing for that. That was the sole motivation.

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