Operator

Good day and welcome to the FRMO Quarterly Conference Call. As a reminder, today's call is being recorded. At this time, I would like to turn the conference over to Thérèse Byars. Please go ahead.

Thérèse Byars—Corporate Secretary

Thank you, Emma.

Good afternoon, everyone. This is Thérèse Byars speaking, and I'm the corporate secretary of FRMO Corp. We thank you for joining us on this follow-up quarterly conference call to cover the questions that we weren't able to get to last week.

The statements made on this call apply only as of today. The information on this call should not be construed to be a recommendation to purchase or sell any particular security or investment fund. The opinions referenced on this call today are not intended to be a forecast of future events, or a guarantee of future results. It should not be assumed that any of the security transactions referenced today have been, or will prove to be, profitable, or that future investment decisions will be profitable or will equal or exceed the past performance of the investments. For additional information, you may visit the FRMO Corp. website at www.frmocorp.com.

Today's question and answer session will be led by Murray Stahl, Chairman and Chief Executive Officer, and Steven Bregman, President and Chief Financial Officer. They will review key points related to the 2021 second quarter earnings.

A summary transcript of this call will be posted on the FRMO website in the coming weeks. The press release can also be viewed on the OTC Markets website by typing in the ticker symbol "FRMO" and clicking on the "News" link.

Now I'll turn it over to Mr. Stahl and we can begin the questions whenever you're ready.

Murray Stahl—Chairman & Chief Executive Officer

I just wanted to thank everyone for making this possible and for joining us today. I also wanted to say, it's gratifying that we had so many questions last time that we couldn't finish them, although I would have liked to have finished them. So, we have to carry on to a second session. You'll observe that there are plenty of companies, much bigger than ours, that have Q&A sessions that take far less time than we do. I don't remember many follow-up calls in my experience, so we're unique in one respect, at least. We get a lot of questions and I think that's great. Now we can begin the questions, and I will try to give appropriate answers.

Questioner 1

There is so much 'stuff' going on aside from bitcoin at FRMO. Perhaps you might make clearer that that is the case, and that the future for this company has any number of huge potential optionalities.

Murray Stahl—Chairman & Chief Executive Officer

That's a good request. Let's start with a bit of background, with some of the early things I wrote about indexation. Let's go back about 10 years, when FRMO was really little other than a spillover of the Horizon Kinetics cash flow. If you read the writings at that time about indexation, it was not a favorable development, at least from the point of view of traditional, conventional active management. It reduces fees; it has an enormous cost advantage relative to active management; and it's very hard to compete with on a fee basis.

There's one other thing which I began to write about later, and keep writing about: my contention that, at the end of the day, indexation distorts markets. Let's just make that clear and maybe there'll be follow-up questions, in which case I can elaborate on it. There are a lot of reasons why indexation distorts markets, but there are two that I would say are preeminent.

The basic calculation for index construction is the market capitalization weighted, float-adjusted rankings. Philosophically I don't believe those numbers are accurate, even though mathematically they are accurate. The first problem with this structure is that if the market's going up or, so far, even when it isn't going up, indexes are getting cash inflows. As a practical matter, those shares purchased by the indexes are not part of the float. Yes, in the conventional way of looking at this, there aren't 13Ds filed and the index should be treated like every manager. If an index owns 4% of the outstanding shares of a company, and I own 4% of the outstanding shares, why shouldn't their 4% and my 4% be part of the float?

The answer is because it's theoretically possible if I have 4% of the company, I can wake up tomorrow morning and decide to sell it. The index can't do that, and the index won't do that unless money is going out of the index, in which case, they're selling, no matter what. But, as long as money is coming in, they're buying more, they must. Therefore, if money is going in, they're very unlike an active manager in that those shares are not for sale. If the shares are known to not be for sale, and you're calculating float, then what is the float?

If you take my point of view—though maybe you won't—it's a big self-reference paradox. The indexes are assuming there's a certain float—a certain quantity or proportion of shares available for transacting—but the reality is that if you want to buy shares you can't buy them from the indexes. Therefore, the index shares are not really part of the float. It seems quite logical to calculate the float the way it is done, because the index is just a formula, and the index orchestrator is just following a simple rule set. But, it's a different kind of category. The more dominant indexation becomes in an investment strategy, the more grievous that problem is and, therefore, the greater the distortion. That's one problem with indexation.

The second problem with indexation is that it makes a presumption that is actually true in conception and is very logical, yet becomes increasingly false as time passes. What's the assumption that the orchestrators of indexation have made? This assumption was generally valid at the beginning of the indexation movement: that, for the most part, the markets are efficient. Meaning that people are doing their research and, by and large—although there may be exceptions—that research is reflected in the prices. I myself would agree with that most of the time. We're special situations investors, meaning that our philosophy is to take advantage of those instances where a stock was relatively inefficiently priced, misunderstood perhaps.

In the fullness of time, indexation expands and displaces the managers—and you're all probably aware how much it has displaced active management. Consequently, there is less money being actively managed, therefore, there is less money being earned, and as a further consequence, there is less research being done. That follows as a financial necessity. If there is less and less research being done over time then, obviously, with the passage of time, the market is getting less efficient.

The displacement of active management was a big gray storm cloud on the horizon, no pun intended, and we saw that. Therefore, FRMO and Horizon had to do different things. FRMO couldn't just be the spillover account of Horizon Asset Management's cash flow and be the mirror image, so to speak, of Horizon. FRMO had to engage in different activities, and Horizon had to do things differently, too.

What has spurred indexation? What's its fundamental lifeblood? It's a policy of low interest rates. Because, what will you see if look at what has happened to the earnings of the average S&P 500 company over last 12 years, and then compare what has happened to the stock price? What you've had is valuation multiple expansion. It's not true of every single stock in the S&P 500, but it's true of enough of them that, as a generalization, I would say it's a true proposition.

That is what drives indexation. It's valuation multiple expansion as a function of low interest rates; low interest rates because of the creation of money by the central banks of the world, which appears to be never-ending. That's inflationary. The question is: how can FRMO take something, which we really can't control, and which is really a bad thing for Horizon and for FRMO, and make it into something that might be good? In other words, that's the way life works. It gives you lemons and you don't like it, and you have to find a way to make it into lemonade. If I had to put it in a phrase, that's what FRMO is really about.

The various activities and ventures in FRMO are attempts at ways to benefit from the inflation that we believe will ultimately be the consequence of the fundamental growth factors in the trend toward indexation. It's bad for us but we can't change it, so we have to try to make the best of it.

That understanding led FRMO to cryptocurrency. If you're going to be in cryptocurrency, you're never going to really understand it unless you mine, because when you mine, you learn about it at a micro level you could never do if you're just buying and holding crypto. So, we had to get involved in that. Then we learned about the machinery, the servers. Then we wanted to get in the business of repairing machinery, maybe even occasionally building our own. We got involved in a publicly traded company, Winland Electronics, and that became mining. We made an investment in Digital Currency Group which, of course, owns the Grayscale group of funds, the largest of which is the Bitcoin Investment Trust.

We started Horizon Kinetics Hard Assets—when we say hard assets, we don't mean commodities; we mean companies that directly benefit from inflation in hard commodities in the sense that little or no capital expenditure is required if the revenues actually increase as a direct consequence of price increases. That's what HK Hard Assets is all about. We took Horizon Kinetics and we put it on the same pathway.

Obviously, there are Horizon Kinetics Cryptocurrency Funds. Also, we just launched the Horizon Kinetics Inflation Beneficiaries ETF. By the way, that's not a contradiction. Some people might say, how can you launch an ETF after what you said about ETFs? Well, an ETF is a synonym for indexation because virtually every ETF happens to be an index fund. But the ETF rules are just an exemption of the Investment Company Act of 1940. The ETF structure itself, let aside indexation, is a cheaper way of providing fund management to the public. It's just a lower cost structure. Why should we not benefit from a lower cost structure? Meaning, we're just passing on the savings to the clients. We're not keeping any of that.

I probably left out some items, but that gives you a sense of the new activities and investments, and the historical evolution behind them. I'll invite my colleague, Steve, to comment on anything I said, or maybe he has other perspectives that he'd like to add.

Steven Bregman—President & Chief Financial Officer

Speaking to the original question regarding the kind of large magnitude positive events that could happen to FRMO Corp, the beauty of a financial firm such as ours, an asset manager, is that there are scale advantages. The HK Inflation Beneficiaries ETF is a new ETF; that is one example. As we know, the business model for asset managers allows for funds to flow in without requiring any additional operational expense.

In the case of this ETF, there are a few things to note. One is, being an ETF, it is the first instrument we have that is consonant with the expectations of what most investors look for. When I say most investors, I'm talking about the broad swath of public investors. It's how they see investing, and we've not been able to provide such a product for them before. Therefore, anybody can invest. It doesn't require a multi-year relationship building effort to have somebody open an individual investment advisory account or have sufficient wealth to qualify for and go through all the administrivia of participating in a private partnership.

The recognition that inflation might be a serious problem is clearly beginning to dawn upon some early edges of investors. Recently I discovered that there is a roiling market—whether it's frothy or not or whether it's the beginning of a long-term sustained expansion, I can't say—in all sorts of collectibles. I was looking at baseball card collectibles, for instance, and that has become a very active market, with digital infrastructure for custody. There's even a J.P. Morgan private partnership that's gotten involved in buying such collectibles. The development there—believe it or not, this is new to me—is using blockchain in collectibles. Some outfit has taken single frames out of, let's say, a video of a well-regarded basketball player in the midst of a shot. That single frame is identified on the blockchain. There's only one copy ever. Those are considered cards, and people are bidding hundreds of thousands of dollars for these.

That's just one piece of anecdotal evidence that inflation is coming—or, at least, expectations of it—and there are different classes of investors looking for different ways to have a hedge against it. However, if that's an indication of future inflation, maybe it is only just beginning. This fund (the HK Inflation Beneficiaries ETF) comes at an opportune time. To the degree that some people say that investment success is not just skill but timing, or being in the right place at the right time, this might be such a front. Maybe it won't be, but it certainly has the capability of being far larger than it is. This is just one more possibility aside from the various cryptocurrency funds, aside from HK Hard Assets, that Murray has helped to engineer over time, and there will be more.

The optionality and cost structure of this kind of participation in the financial sector means that you can't look at a company like FRMO Corp on a linear basis. It could be a step function over time with respect to the value of any of these efforts, which are becoming strategic investments. That could even include individual holdings, such as Digital Currency Group. There are now a whole series of such investments that didn't even exist 10-12 years ago. They couldn't have existed, because some of these opportunities didn't exist, some of these companies didn't exist.

Questioner 2

I have read a variety of tweets and articles and listened to interviews about the cryptocurrency Tether. Many of them are quite in depth and by sophisticated investors such as Jim Chanos, Michael Green, and an article by John Griffin published in the *Journal of Finance*. They cover a variety of issues, but the one I'd most like Murray's thoughts on is this: The proposition that bitcoin value may currently be artificially inflated due to the leverage created through the issuance of Tether at less than dollar-per-dollar on exchanges outside the U.S. while using regulated exchange trading as on Kraken, for example, to maintain the illusion of dollar parity. It seems to me that this would create a situation similar to the 2017 ICO craze that inflated demand for bitcoin followed by the year-end 'crash.'

Murray Stahl—Chairman & Chief Executive Officer

There's a lot there. I don't believe bitcoin is overvalued. I believe it's undervalued. I have to say that at least 99% of the population of people who have anything to say about crypto basically don't think much of bitcoin. They think a lot of Tether. So, let's begin with just comparing in its essence Tether to bitcoin.

Tether is just an electronic way of owning fiat currency. In this case, it happens to be the dollar. If you don't get an interest rate on your money anyway, if you want to store your fiat and transfer it in a different way than the banking system would allow you to transfer it, then Tether is for you. However, you own cryptocurrency that is actually fiat currency. It's crypto in the sense that it uses blockchain and it is encrypted, but at the end of the day, it's fiat currency.

The thing about bitcoin is that it's a fixed issuance currency. That's all it is really. It's not a superior technology. It has some technology, but it's not advanced technology. The only thing about bitcoin is that, if you want to use it, it's not really money yet because it's not in general issuance; it's not generally accepted. If it were, the only way it differs from other kinds of money is that it's decentralized and has a fixed issuance monetary policy. There are over 18.5 million units right now; one day in the year 2140 it's going to be 21 million units; you know the issuance schedule. Whatever inflation it's going to have, which obviously isn't much, given the numbers I just cited, you know exactly what it's going to be. There's no uncertainty as far as issuance goes.

With respect to the valuation, the question basically is: the market capitalization of bitcoin is something like \$560-\$570 billion; is that high or low relative to fiat? Let's take the United States dollar. The M2 money supply is over \$19 trillion and there's unlimited issuance. If you go to the Federal Reserve website, you'll see that the rate of growth of money was about 20-some-odd percent in the last 12 months. That's the St. Louis Fed M2 money supply, and you can see that as we speak.

Which would you rather have? Would you rather have a \$560 billion valuation on a currency with a known, fixed issuance or supply, or would you rather have a \$19.5 trillion market capitalization with no limitation? By the by, most applied economists don't agree with me, but there are a few who do. In my work, my assertion is that the M2 measure is not even the right number. Why not? Because treasury securities or high-grade bonds, in a sense, are really part of the money supply. If someone had no cash, but had \$10 million in one-year treasuries, and you asked that person if they have money, the person would say, "Yes, I have \$10 million." Why would they say that? They would say it because they know they can instantaneously transfer that sum of money into cash any time they want.

A few applied economists have come up with the notion call M4. I want to get to the question, so I don't want to elaborate on this overly much, but there's an M3, which includes long-term CDs, the institutional money markets, and so forth. M4 says that a big chunk of the bond market is really money, and that's tens of trillions of dollars. People don't turn bonds into cash instantaneously, although they could, and they can also hypothecate it instantaneously. Different applied economists might say that if the value of the bond market is X, then apply a percentage of that sum to the M2, which gives you M4. I don't know how big that number is, but it's enormous. However, that doesn't even start to account for all of the M4 that is relevant to a discussion of bitcoin, because you have to do the same thing for the Euro, and for Sterling, and the Canadian dollar, and the Yen, and the Chinese Yuan, and so on.

If you try doing that calculation, I believe you're going to get to a number—and it depends what weighting you use for the bonds—but I think you'll get to a number something like \$660 trillion. And it's growing every single day. Say bitcoin is \$560 billion and M4 number is \$660 trillion, and you know how fast the issuance of bitcoin is growing, which is not very much, and how fast M4 is growing, which is astronomical. Why should bitcoin, which is fixed issuance, have a valuation that is less than a tenth of 1% of the valuation of M4, globally? It's all the fiat, not just the U.S. fiat.

Don't forget that the M4 figure is a moving target, it's increasing constantly. Nevertheless, if you said the two were static, then your coefficient expansion is well over 1,000x right there. But it's many more times than that, because the central banks of the world are not stopping. They're going to accelerate money creation, if anything.

That's the idea. I don't agree with the idea that bitcoin is overvalued because you can use leverage on it. The one other point I'll make, although I can spend a lot of time talking about this point, whatever leverage you can apply to Tether or some other crypto and end up using it in bitcoin pales in comparison to the Hong Kong-based OEX, where you can buy bitcoin futures on 100x leverage, and that's been around for many years.

You can leverage your bitcoin if you really want to but, systemically you're not creating more currency. There's no money creation function like that which happens in a bank. There are only so many units and that's it.

That's the salient point, as far as I'm concerned. That people can leverage bitcoin, they can do all sorts of things and it might work out for them, or it may be disastrous for them. Obviously, if you buy an OEX future and you leverage it 100x and bitcoin goes down 1%—keeping in mind how many days it has gone down more than 1%—then obviously you'd be wiped out. I'm sure in the many years that we've been using OEX, it's happened to various people. I don't know any of them, but I'm sure it's happened.

I don't think the other innovations are going to affect the valuation of crypto. In any event, whatever innovations exist in the world of futures with regard to crypto, you can say the exact same thing about gold. You can buy gold futures, you can buy silver futures, you can buy wheat futures, soybean futures, rice futures, you name it; every one is an enormously leveraged transaction. Therefore, on that logic you'd have to assume everything on the planet that has traded futures contracts is overvalued, and that would include the bond futures and the S&P 500 futures. Where does that get us? I hope that's a satisfactory answer to the question.

Questioner 3

What if governments decide to really crack down on bitcoin? Could that become a problem?

Murray Stahl—Chairman & Chief Executive Officer

Since the question is in the future tense, it should really be rephrased. I'll take the liberty of rephrasing it. What happened when governments *did* crack down on bitcoin? We don't have to theorize; it's already happened. I can give a lot of examples. Let's just give two.

The government of Venezuela made it a crime against the state to possess, to transact in, to transmit any bitcoin whatsoever. Penalty: life imprisonment. What did it do? Nothing. Why did it do nothing? Because all you had to do is cross the border into, let's say, Brazil, and you could buy a server, you could hook it up to the grid, and you could earn bitcoin. Then you could take your bitcoin and you could transmit it; once you're outside the controller government, you can do anything.

The government of Iceland, a number of years ago, made bitcoin illegal. Believe it or not, I was actually vacationing in Iceland when this happened. I didn't bring any bitcoin with me, but here's what ultimately transpired. The effectiveness of the government program lasted less than 24 hours, I think. But it's illegal to have bitcoin. And by the way, there are only 330,000 people in Iceland, and most of them live in Reykjavik. So, if there's any place where you can actually monitor 330,000 people, that's got to be the place to do it.

Anyway, so the government did it. What happened? Nothing, other than some enterprising souls took the bitcoin software, the code, moved it to a different database and created a new cryptocurrency called the Aurora, after the Aurora Borealis. They basically took the Iceland national database, which is the Iceland equivalent to the database of U.S.? Social Security Numbers, and basically opened an account for every human being in Iceland, and created 21 million units of Aurora—just like bitcoin's 21 million units—and gave it to everybody.

As I recall, half the population actually went on the database. They had to pick a password, needed to get a private key and a public key, just like you do in crypto, and then they got their Aurora. The government could have rewritten the law to make any cryptocurrency of any kind whatsoever illegal. But then what would it do to enforce the law? The only thing would be to, on a daily basis, inspect every device that could possibly have crypto on it—every desktop, laptop, mobile phone. Except it's even more impossible than that. You don't need a device that has crypto on it, because your money is not on your iPhone, or your iPad, or your MacBook, or your Android device. It's on the blockchain.

All you really need is a private key and a public key. However, the public key is irrelevant, since no one knows who you are. The only thing you really need is a private key, and that can be anywhere, not on a device. Of course, it's a very long alpha-numeric sequence, and you can actually lose your private key. But you don't even need the actual key that. All you really need are seed words, which are used to recreate the private key. A line of poetry could be your seed words, which makes it easy to remember. Or, you could underline a page of poetry, if you wanted to, and that could contain your seed words. Or, you could just know that in the book of poetry, on page 90, the last two lines are your seed words, and not even underline it. How is the government going to police that?

You see, the basic problem with crypto for would-be regulators is that it doesn't reside anywhere. It's on something called a blockchain, and where is that? Well, the miners have copies of it. They're all over the world. If you're the government of Iceland, are you going to go to every country in the world and try to prosecute anybody involved in maintaining the blockchain? They don't have that kind of jurisdiction. Any nation, no matter how big and powerful it is, is going to find it extremely difficult to stop it. I don't even think it's possible.

That's the laboratory of what happens when you want to regulate a cryptocurrency and make it illegal. By the way, I don't know why the government would *want* to do it. I don't think they do. I think it's just the reverse. I think governments should do everything they can to encourage cryptocurrency. As far as I can tell, that's what's being done. The CFTC (Commodity Futures Trading Commission) allows crypto futures. They don't have to do that if they wanted to stop it. Not that many weeks ago, the comptroller of the currency in the U.S. is allowing banks to undertake crypto services.

I can go on and on like that with the various states and the various countries in the world that permit crypto activity. To abolish it, you'd basically need all of the nations of the world to unite. Even then, I just don't see it happening. I don't know how you could control it even if you made every country a police state. Just think about the challenges. First, crypto is encrypted and it can be hidden. There might be 40 million people globally who want to use crypto, and a lot of them are very astute at encryption. Are the governments of the world going to break all the codes? And even if they could, are they going to keep those detection methods secret? They'd have to hire enough decoders and hackers to overwhelm the tens of millions of people that want to do it. I don't see it.

On the other hand, there are reasons a government would want to encourage crypto. Let's take the United States as an example. Let's say this M4 number is accurate. Remember, it's my assessment of what I think is the proper comparison. The terminology "M4" is invented by other people, but I had the same idea that you should include a big piece of the bond market, though reasonable minds may differ on how big a portion and which bonds you actually include.

Let's say the number to which crypto aspires is $660 trillion. Remember, that's not bitcoin by itself; that's crypto in its entirety. Bitcoin is only a piece of that and, at the end of the day, bitcoin might not end up being the dominant currency. It could be another one. Regardless, let's use bitcoin as an example, and understand that $660 trillion is a moving target. It's constantly going up.

If bitcoin were to become worth $660 trillion, that's a lot of tax revenue for the government. Sooner or later, people are going to want to trade their bitcoin and use its value. You buy something with it, it's a gain and it's still subject to taxation. It's pretty much all profit.

Furthermore, $660 trillion is not even the limit. It's going to be much higher than that, as anybody can see how fast money supply is expanding. Apply whatever tax rate you want—30%, 35%, 40%—you're talking about taxing, at minimum, $660 trillion. That's how much money the government's going to reap. I just can't imagine they would walk away from that, and I don't think they will. I think that is the only possibility they have for collecting the revenue that's required for the deficits they're running. I think they're going to do everything they can to encourage the development of cryptocurrency. As far as I can determine, and please correct me if I'm wrong, I see that very thing transpiring. I see new crypto investment funds proliferating all around the world, I see new crypto products, I see a lot of money being invested, and I see the government encouraging it with, I think, quite appropriate regulations.

Steven Bregman—President & Chief Financial Officer

If I may intercede, Murray, I believe that last year the IRS changed the Form 1040 to include an allowance for cryptocurrency. Not only is the IRS aware of cryptocurrency, but the IRS is already planning to provide for taxation of those embedded gains—at least to judge by the form. The agency had to go through some effort to incorporate that into the form.

Questioner 4

It appears that a small double-spend of around 0.00062063 bitcoin, or about $21, was detected by analysts at BitMEX Research. What are your views?

Murray Stahl—Chairman & Chief Executive Officer

My view is that no such transaction ever happened. Many news organizations published that story. At the end of the day, if there's a double-spend in bitcoin, verifying it is a computer science problem. Basically, if someone of good faith discovered a double-spend, they would say, "we found a double-spend in a certain block height. They're referring to a block on the blockchain that has already been validated. They would further direct one's attention to a transaction or possibly several transactions within that block so that everybody could check their figures.

If that happened, the bitcoin community would have to verify that. They wouldn't ignore it, and they'd have a big decision to make. Such as, do we want to let that happen or stand? Do we want to modify the code? They'd want to find out why it happened, except that nobody can verify that reported double-spend.

I'll tell you that the vast majority of news organizations published the report as if it were true, but provided no basis for investigation. If you say there was a double-spend, but don't provide the block height and transaction number, nobody can validate the claim.

In the world of computer science, something isn't considered a fact until other people can validate the fact. So far, no one's been able to validate the purported hack or double-spend—bearing in mind there are lots and lots of miners with the capability and vested interest in examining this—because the information required to validate it is not being shared by those persons that allege it happened. Therefore, having absolutely zero evidence that it happened, I must conclude that it didn't happen.

Questioner 4 (cont.)

What are your top three guesses on the identity of Satoshi?

Murray Stahl—Chairman & Chief Executive Officer

I don't have the slightest idea who Satoshi is. I'll just tell you one personal experience I had, and I hope you find it amusing. I was speaking at a conference, and after I had finished, someone told me that as I was speaking about crypto, people were emailing and tweeting back and forth, and they were making the assertion that I, Murray Stahl, am Satoshi. I am not Satoshi. I assure you, I'm definitely not Satoshi. I don't have the slightest idea who Satoshi is. He may not be one person; it may be a group of people. We just don't know.

Whoever that person or persons happen to be, I can't imagine they'd want their identity known, because they were obviously the community that bought the first quantity of bitcoin, and if they held onto it, which they probably did, they're extraordinarily wealthy right now, and I would imagine that various governments are interested in their share of the tax revenue. We'll see what happens. But I haven't the slightest idea who Satoshi is.

Questioner 5

Would you please comment on the investment merit of Ethereum? And, more broadly, on the theme of DeFi or decentralized finance?

Murray Stahl—Chairman & Chief Executive Officer

Personally, I'm not greatly enamored with Ethereum. In my opinion, it is superior to fiat currency, but that's as far as I'll go with it. Ethereum is an unlimited-issuance cryptocurrency, meaning, it's not a fixed issuance money supply; it's a set issuance every year. That issuance goes on infinitely. If you think about an Ethereum inflation rate, with a given year's additional supply in the numerator, and the aggregate issued supply in the denominator. That additional supply is added, of course, to the denominator. Therefore, the denominator is constantly growing, but the numerator is fixed.

What happens in the fullness of time is that the inflation rate keeps declining, but there'll always be an inflation rate. I don't think that's as good as a fixed issuance currency. Although, as a purely mathematical proposition, if the denominator gets big enough then around 120 years from now, there might not be a big difference in inflation rate between Ethereum and bitcoin. I'm planning to be around 120 years from now, but some people say I'm not going to make it and they might be right about that. Within our practical time horizon, you have a fixed issuance cryptocurrency and then you have an infinite issuance crypto, and the infinite issuance crypto has a greater inflation rate.

There are some good features about Ethereum, particularly that it's programmable money. The idea of the smart contract is really a good one. The problem is that each individual grouping of persons has to program the smart contracts. The contracts are only as good as the conditions that are set by those people. There have been security problems—not necessarily from someone hacking into Ethereum, but hacking the smart contracts. Basically the smart contracts are not intended to be software that's used for a long period of time. It's a piece of software that undertakes one transaction, and that's the end of it. Therefore, you can only afford to devote so much attention to that, and I believe that leads to vulnerabilities.

The idea of decentralized finance, what they call DeFi, is basically a good idea in the sense that it eliminates the power of certain intermediaries like banks, for example. The banks aren't pure intermediaries. The banks are also participants in the transactions themselves, and their participation becomes a profit center for the bank. DeFi is a good idea, except that we can't have a system with no rules. We just can't do that because that's the road to chaos. There have got to be rules.

The notion of a securities exchange, what's called a regulated exchange, is probably a good compromise. What many people don't realize about a typical exchange is that the exchange is not the government. The exchange does have regulatory authority in the sense that all the participants who trade on the exchange have to adhere to certain rules. Violation of a rule might be a criminal offense, but it's not necessarily a criminal offense. It just might get you permanently expelled from the community of traders or, alternatively, you might be temporarily suspended or perhaps you might just get fined, or several of those conditions might apply.

Basically, decentralized finance is an idea whose time has come because we're all connected by the internet, but that doesn't mean no rules. If there's not an ordered system and certain rules that have to be obeyed, and some enforcement mechanism, then decentralized finance as it's understood today is not going to work. As I said, the order doesn't need to be imposed by the government, but some type of order and some type of system and rules have to be imposed. It's better for a group to do it than for the government to do it, because the group can make its own rules and it can decide how it evolves, and so on. If everyone has the right to participate, it'd be a good thing. I think decentralized finance is going to happen, but it doesn't mean anarchistic finance. It still means rules, some of which might actually might end up having the force of law, with the penalties administered by the government if you violate those laws.

I don't know if we're ever going go so far as to be in a purely decentralized financial circumstance, but we're moving in that direction.

Questioner 6

Mention was made that Mr. Bregman sold 20,000 shares to the company. I did not note any insider filing document of selling on the OTC/SEC websites. Is FRMO filing such paperwork at some other website?

Thérèse Byars—Corporate Secretary

FRMO is not registered with the SEC, therefore, it does not file any items with that regulator. You will see the 20,000 share repurchase noted in the OTC market's disclosure statement posted by FRMO on the OTC market's website under the ticker symbol FRMO. Once there, click on the "Disclosure" tab, then on the entry titled "Quarterly Report - Six Months Financial Statements at November 30, 2020." Then scroll down to Item 3 "Issuance History" and section A. "Changes to the Number of Outstanding Shares" contains a table. The last entry on that table, which is on page 4, discloses that the shares were repurchased, cancelled, and retired to authorized and unissued; however, it does not name Mr. Bregman as the seller.

Questioner 7

Instead of reviewing it only verbally on the conference call, can you also please begin to list exactly what the exposures are of the major assets that everyone wants to know about? A small table that shows the number of look-through shares of TPL, bitcoin, mining equipment, Winland shares, etc., would be very helpful. If that is not possible for some reason, then my question is, what specifically prevents you from doing this? Choice? Specific regulations?

Murray Stahl—Chairman & Chief Executive Officer

I see no reason why we can't do that. Thérèse, would you like to head that up, and figure out who should do it and how to get it into a quarterly release?

Thérèse Byars—Corporate Secretary

I'll be happy to do it. Of course, I'll check on the regulations to make sure that we're allowed. Our auditors are very careful about it, so I'm sure if they say it's okay, we can certainly do it.

Questioner 7 (cont.)

Another area of suboptimal disclosure and reporting is that you maintain an odd corporate calendar with the additional wrinkle that you value fund investments with net asset values at period end dates that do not align with FRMO's cycle. This results, as you know, in much delayed reporting of performance, such that FRMO's November 30, 2020 figures rely on September 30th valuations of HK Hard Assets. So, when reports are leased in January 2021, FRMO's biggest asset, TPL, is being marked at a time that is already four months stale. Can you consider making this more normal?

Murray Stahl—Chairman & Chief Executive Officer

We actually did that in the most recent quarter. The policy is what you've stated, with the following caveat: if the TPL price is X on September 30th, and it's plus or minus 1% or something like that, a low number, on November 30th, we defer to the September 30th numbers. We don't make any adjustments. If the auditors determine that the price change is material, we update. Some people say adjust. I like the word update. We update the figures to November 30th, meaning that we update the value of our holdings with the November 30th price of TPL because it really is material.

The figures you're looking at have been updated for the November 30th price of TPL. The effort is to be current, and somewhere in the footnotes that's actually explained. At the moment, you have me at a disadvantage because I don't know where it is, but somewhere there is a disclosure that says that it was done in the current quarter.[1] We're not using the September 30th market value for TPL; we're actually using the November 30th market value. I think that should answer that question.

Questioner 8

Would you use sum of the parts by putting a value on different business segments? And, if so, how would you go about doing this? I'm not asking you to tell us a specific share price, but to give us something akin to Mr. Buffett using five groves of trees as an analogy for a Berkshire valuation framework.

Murray Stahl—Chairman & Chief Executive Officer

There are some assets where we can figure out the current value. TPL is one; crypto is another, either in GBTC form or in its raw bitcoin or other cryptocurrency form. Winland is that way. We can do all those things. The trouble is that some of these investments have enormous optionality. How do you express the optionality? Let's consider crypto. It's always possible that we could experience accelerated economic inflation, and it's always possible that generalized adoption could come to pass. There's enormous optionality there.

In other words, if you chose to hold bitcoin for a very extended period of time and you said, give me a call option on bitcoin that would last for 50 years, first of all, no one would sell it to you. It would just be too valuable; they couldn't take the risk. However, that's what we have, and there's not a lot of supply of it, relative to the people who, if we really had an inflationary scenario, might then want it. Most people don't believe we are in an inflationary scenario or that we're ever going to be in an inflationary scenario again—but that could change. It's possible.

[1] The valuation disclosure is in Note 2 at the bottom of page 6 in the FRMO Corporation and Subsidiaries Interim Condensed Consolidated Financial Statements as of November 30, 2020 (Unaudited) and May 31, 2020 and for the Three Months and Six Months Ended November 30, 2020 and 2019 (Unaudited).

How do you express that optionality? They're unique investments. Personally, I don't focus on a point in time. If I'm going to value any asset I basically use a range. I look at an average value over a period of time. That's how I compute my net asset values. And that speaks to the subjectivity of the value of optionality.

Nevertheless, all these investments have a common denominator: they're not conventional investments. Let's use bitcoin again. It's not a company; it doesn't have earnings; it doesn't have profits. Let's give an example. In the Polestar Fund, we own shares of the Litecoin Investment Trust. It actually trades. We made the investment less than a year ago, so that we just carry whatever the NAV is, and that is reflected in the Polestar net asset value, which gets into the FRMO shareholders' equity.

Currently, we can't sell those shares of the Litecoin Investment Trust, because they are restricted for one year after purchase. But let's say the full year had lapsed and we could sell. Believe it or not—you can check it and you'll see it's true—the premium to NAV of the Trust is not 20%, it's 20x. How do we value that investment in the context of Polestar? I think it should be valued at the most conservative valuation because who knows if, once the lockup expires, the premium will remain 20x?

Then there's a much more profound question: why is it 20x? It's certainly not my fault, because I'm not trading it, so I have nothing to do with it. Why would seemingly rational people do that? Secondarily, even if they're irrational people and they just happen to value it at 20x its actual market value, because they don't know any better, why wouldn't other seemingly rational people arbitrage that premium away by investing in the Trust at NAV and selling short the shares of the publicly traded company in the knowledge that ultimately the two have to converge? Why wouldn't they do it?

The only answer that I can give you is a theoretical one. I have no empirical data to support it, because I'm not going to interview people who buy Litecoin Investment Trust and come up with a rationale of why they do what they do. It's not entirely clear that on the thousands of so-called cryptocurrency exchanges in the world, that they really obey rules where you can figure out the true transparent price for Litecoin or any cryptocurrency. There's probably spoofing and wash sales and every manner of rascality going on. When something like Litecoin Investment Trust trades on OTC markets, it is regulated and it is transparent. It could be that that's actually the price. It's just the futures price, but it could be that that's really the assessed value of what Litecoin should be.

I think we're seven months away from expiration of the lockup. Somebody suggested to me, why don't we amortize it? Meaning carry NAV on the day that you had the investment, and with every successive 30 days, take one-twelfth of the premium. After one month, you won't take the whole premium, you'll take one-twelfth of the premium. At two months, take two-twelfths of the premium, then three-twelfths, and so on until by the twelfth month, you would value it at market because it's days away from being tradeable.

We didn't do that, but we obviously could. That's a completely reasonable way of approaching the valuation, it's just we chose not to do that. Anyway, it gives you an idea of the complexity of valuing classes of investments that are new and different, and with which investors don't have a lot of experience. There's a lot of subjectivity involved in such valuations.

As I said, I take averages. I think they're better than point-in-time estimates. The optionality part of it is a very subjective judgment. I happen to be very enthusiastic about the optionality, but that's because I believe in it. Others may find it dubious. Everybody's got to make their own decision as far as that goes. The optionality as a number might actually be zero. People might value it that way. I don't think that's appropriate. Should you value it the way bonds are valued, which is mark to market? I don't think so, because there's no optionality in bonds. The prices aren't going higher, because you can't make interest rates lower.

The typical corporation that's publicly traded has some optionality, but not enough to be important. Why? The price to earnings ratios are reflecting people's expectations already, because they say the market's efficient. If there's optionality there, it can't very well be much, so you might as well value it at market. What FRMO owns has optionality. We can have a long and interesting discussion about how to value the optionality, but we all have to make our own judgments.

Questioner 9

Are there plans for an update to provide current valuations for investments in exchanges rather than just at cost?

Murray Stahl—Chairman & Chief Executive Officer

I'm not planning to do that on the exchanges. Some of the investments are really nonmaterial, in which case we just value them at cost. There's only one that's material, which is Miami International Holdings, otherwise known as MIAX. There, we're investors in the company. We don't run the company, and it's not publicly traded. Any valuation I would put on it is highly subjective. The valuation we use is, more or less, the one that was arrived at by the people who did the valuation work for the merger between Minneapolis Grain Exchange and MIAX. That merger took place at the end of December 2020. This is the end of January 2021. I don't feel that I'm competent to override their valuation. Furthermore, given my position as a board member of Minneapolis Grain Exchange, I don't even know if that would be appropriate.

You can look up what the other valuation agent did and that's basically the number we use. One day that might change. One day there might be a transaction we can use. One day it might become a publicly traded company and then we'll know.

On the website there's a copious amount of information about trading volume and other statistical measures of MIAX's progress that you can compare to other exchanges. If you want to do your own valuation, I would pay particular note to the growth rate of the volume. At the end of the day, an exchange's revenue determines its value. Why is that true? Because if you put together

Exchange A and Exchange B, you have a lot more revenue, but you only need one cost structure. To bring two exchanges together is the most accretive kind of transaction you can ever do. Therefore, special valuation techniques are needed for that. I'm sorry I don't give a number, because I have my own ideas, but I don't want to expose people to my subjectivity with all the biases that any human being has, and I have as well. What if I'm wrong?

Somebody else arrived at a value, that's the value we use until we have a reason to change it.

Questioner 10

Any update on FRMO uplisting?

Murray Stahl—Chairman & Chief Executive Officer

There's no update. I suspect the day is going to come when we're going to want to do it. It's not that we don't want to do it, but there are so many things going on, frankly, and we only have so much capacity to perform our duties, that it hasn't been an immediate focus. Maybe in the not too distant future we'll reconsider.

Questioner 11

Winland filed reports indicating that FRMO has sold certain assets in exchange for Winland shares. Would you go into detail on the transaction? And is this part of a "restructuring" of the portfolio?

Murray Stahl—Chairman & Chief Executive Officer

It's not part of a restructuring. There are two steps. About a month after the halving of bitcoin, FRMO bought $400,000 worth of state-of-the-art servers, which we turned around the very next day and sold to Winland in exchange for $400,000 of stock valued the way it was valued at that time.

We had a secondary smaller partnership called Horatio Mining LLC, which had some cash, some crypto assets, and a small number of machines. We sold that to Winland on the same basis some weeks later.

The idea was, what is the best way of valuing mining assets? One way was to find out how the market will actually value mining assets in relation to cost. Right now, the market value of publicly traded mining assets is something like 4x what you pay for them. The proposition was, if we bought $400,000 of mining equipment and we put it in a publicly traded company, chances are the market capitalization of that would be $1.6 million.

It was a learning experience and we would like to make mining a bigger business. However, we'd like to do it in a very different way than that of some publicly traded mining companies. We don't want to have any meaningful debt leverage. We want to operate at a consistent profit. We want to pay a dividend very quarter. That requires thinking through how we go about doing this. That's the objective. Whether we can do it or not, you can debate, as we've debated, but that's the objective. We are working toward that end.

For the last month or so, we haven't bought any mining equipment. I should really comment on that. It's not that we're not working on the problem; it's that we haven't bought any mining equipment and here's the reason why, just so you know. Using bitcoin as an example, we know that in roughly 1,190 days a halving is coming. When a halving comes, your mining revenues go down by half, while your expenses stay the same.

The question is: what is the breakeven time on any machine that you purchase? The implementation problem is that if you were to order equipment today, it won't be shipped until August 2021 at the earliest, which means that the earliest you'll receive it is September 2021. You have to pay for the machines in advance, but your equipment will be idle because you won't receive it for some period of time. Furthermore, there's no guarantee that there won't be some disruption in the supply chain so that delivery is delayed beyond September 2021.

We're disinclined to buy equipment right now, which means that the pursuit of this project becomes a little more difficult. That could change at any time. At the moment, we don't want to leave equipment idle. Let's say it's roughly 1,190 days to the halving, and you have to take away 8 months or 240 days of potential earning days while our equipment is idle. Obviously, the time to break even doesn't start until the day you receive the equipment. We're considering the problem; we just can't act on it at the moment for reasons that are operational, but have nothing to do with our operations.

In the meantime, we own a piece of a business called HM Tech, where we repair other people's machines. Thus, we're not inactive; we're gaining a lot of experience in the operation and repair of mining rigs. We're not buying the components to build our own at the moment. We think that as we approach the halving, both the component parts and the fully constructed machines will be a lot cheaper. We're waiting to see what happens. I hope that's a thorough answer to the question.

Questioner 12

There was a recent announcement regarding the Mt. Gox bankruptcy. I know that Winland Holdings owns Mt. Gox trade claims and at one time the value was expressed as being $600,000. With the rise of bitcoin's value, would you explain what the trade claim is exactly?

Also, Bloomberg reported on January 15th that 90% of the Mt. Gox remaining bitcoin can be claimed by creditors. Since FRMO is a significant shareholder in Winland Holdings, do you have any thoughts on this news, given that Winland is a creditor in the Mt. Gox litigation?

Murray Stahl—Chairman & Chief Executive Officer

Yes, the crypto can be claimed, and as soon as the bankruptcy is finalized, the ultimate outcome is you get your crypto. It's a little more complicated than just stating that we have X number of trade claims that are exchangeable for Y amount of bitcoin, because we bought a variety of trade claims. At the time we bought them, they were very cheap; they were undervalued. In order to get one particular claim, we couldn't just buy it at face value. In that instance, we made a deal with the seller. The deal was that we'd own the trade claim, but would share some portion of recovery with the seller if there's an ultimate recovery. Therefore, we're not entitled to the entire upside on one of the claims because of the way we bought it. That makes it a bit complicated to just state a number without looking at all the figures, and probably somebody else should calculate it. That's actually the circumstance.

We own the other trade claims clear; there's no liability against them. So far it's been a great investment.

Questioner 13

Of the $350,000 bankruptcy claims Winland owns, how much of it is Mt. Gox and what is the rest?

Murray Stahl—Chairman & Chief Executive Officer

I'm not sure I understand the sense of the question. All the claims owned by Winland are Mt. Gox trade claims. There's bitcoin that Winland has mined and the other exposure is bitcoin that comes through the trade claims. The figures we gave before are the trade claims.

Anyway, there are two figures. The bitcoin is always increasing because they're constantly mining more bitcoin. That's the way I understand the question. I know you want a current value and I'll try to persuade the people at Winland to share current value somewhere in the documentation of the Mt. Gox assets as of quarter end. I think that'll probably clear up any uncertainty. However, I just don't have the figure in hand at the moment.

Questioner 14

There's a large cash balance and I understand this to be a certain risk mitigation strategy in addition to providing the required collateral for the ETF short positions. One of the research reports identifies timber as an asset class that is expected to be an inflation beneficiary. Given that, why is a position in timber not being made with the cash on hand? This question also applies to the large cash balance held by the RENN Fund.

Murray Stahl—Chairman & Chief Executive Officer

With respect to FRMO, we don't have a plan to spend down a lot of the cash. Unless something changes, we're leaving the cash the way it is. There are a number of reasons for that. One reason is that the short positions, in the fullness of time, actually get collateral release and that produces cash. Thus, we actually don't need to spend the cash down.

The second reason is that the Hard Assets portfolio is now sufficiently large that just dividend income alone throws off a relatively substantial amount of cash. I believe a few weeks ago, in the Hard Assets portfolio alone, we passed the annualized $1 million mark in dividend flow. It's probably higher right now and we're going to do our best to make sure that number increases. At some point, if everything works, there'll be a lot of dividend flow coming from that and we'll have lots of cash for all sorts of intriguing investments, and it will liberalize our position a lot. We don't have any plans to spend down that cash unless something truly extraordinary happens.

Of course, the other way of raising cash is we could borrow money, and we did borrow a bit of money to buy the building in which HM Tech is situated. The reason we wanted to control the building is because if an occasion ever came to enlarge the mining operation, we wanted to control the building. There's a lot of expansion space and that represents optionality for us. The interest rate is fairly low, so we really weren't concerned about it. We obviously have the cash to pay down the liabilities. The self-amortizing notes are going to be paid down over time, anyway.

With timber, there are a number of ways to invest. At the moment, we're doing it through publicly traded securities. There are other ways, too, private timber investments, and one day maybe we'll have the resources to undertake some of that. You just can't make small investments in timber privately. At the moment, the cash balance that you see on the FRMO balance sheet wouldn't buy a lot of timber. It's not going to impress a lot of people. We'd need a lot more capital, but we don't want to sell shares in the company. If anything, we'd actually like to buy shares for our prices.

Questioner 14 (cont.)

I've noticed FRMO and Fromex acquire shares of the RENN Fund quite regularly, much like HK acquires TPL (i.e., daily). Please share the strategy or thoughts behind these purchases.

Murray Stahl—Chairman & Chief Executive Officer

In a way I neglected the last part of the prior question because it dealt with the cash balance of the RENN Fund, so I'll discuss that here. To begin with, as anybody can see, the Fund, depending on the day, trades at a big discount to net asset value. We're buying the assets that we like at a discount to the prices at which they trade.

Secondarily, the Fund has a fairly big cash balance. Even if you think the prices are not what they should be in the public markets, cash is cash. You may say, cash is worth cash and a discount is a discount. Therefore, algebraically, you have to apply a bigger discount to the publicly traded securities to be equivalent to what the discount in the fund is, because the cash discount really should be zero. It's really cheap and that's why we buy it every day. It's preposterously cheap.

Thirdly, which I think I referred to last time, the Fund holds a security known as Petro-Hunter, which was valued at zero. Quite appropriately, I think, but there was a possibility of getting a bankruptcy payout, and we got it, and we might get others. We're buying that for nothing. There are a lot of constructive things to do in the RENN Fund.

We buy a little bit every day. As I remarked earlier, I look at averages. The prices fluctuate wildly for just about everything. There are a lot of reasons for that—human participation in the markets, their presumption that they have the ability to outguess other investors. We don't look at life that way. We make an assessment of long-term value, and if some security is greatly undervalued, the fact that one day it's undervalued by X percent, the next day it's undervalued by X plus another 5% increment, that's not going to make a big difference to us. The reason is because all of these valuations are subjective. Because I say it doesn't mean that it translates into some fact. You can make a lot of assertions about companies. Just understand that, generally speaking, we're buying hard assets. If you look at what's in the RENN Fund—it's not entirely true but it's largely true—they're primarily hard assets.

Hard assets have a specific meaning for us. It means a company can benefit from an increase in revenue without a concomitant requirement for a capital expenditure. If you have a business that's growing, usually you need to hire people, usually you need to buy plant and equipment. When your plant and equipment wears out, you have to replace it. It's true of almost every business. Sometimes the people who run those businesses make incredibly astute judgments, and sometimes they're not so astute, because we're all human beings and we're all fallible.

The hard asset is a genre of company where you don't have to make that decision. It's not 100% true, but it's almost entirely true; we can make believe it's entirely true despite a bit of exaggeration: cash flow really belongs to the shareholders. That makes a unique genre of company.

In the case of hard assets, because of the optionality and the fact that you get the cash flow as a shareholder, you should always be buying them—unless the asset trades at some excessively elevated valuation. We're buying a little bit every single day because we're not going to pick the high point and low point. There are just too many variables involved. When you trade securities and you think that you know what the high point and low point is, bear in mind that there are 253 trading days in the year and only one high price for the year and only one low price for the year. Who knows what day that's going to be reached? You've got a 1 out of 253 shot of being right and I don't like those odds. Therefore, I basically buy every day.

On the days when the price is really low, the cash that we spend has a lot more purchasing power. Over time—say it's a form of dollar averaging—you get the harmonic mean price and it's usually a good deal. That's why we do it. I hope that explains it more thoroughly.

Questioner 15

Where might a shareholder find how many shares FRMO and Fromex own of the RENN Fund?

Murray Stahl—Chairman & Chief Executive Officer

It's on the SEC website. On the SEC website, key in "RENN," and click on "More Options." The filings you're looking for are the Form 4 filings. You'll see a little circle that says "Only" under "Ownership Forms 3, 4, and 5." You can click on it every day, and you can see that we buy every day, and every day in the Form 4 it states the exact number of shares we have as a consequence of the most recent transaction.

Questioner 16

A few years ago, Mr. Stahl discussed potential uses for FRMO's cash balance. At that time, "dream use" of bitcoin/crypto was something that "might happen" as opposed to something that "is happening." Given the recent acceleration of the mainstream's attention to and acceptance of crypto, in your eyes, has this changed to something that "is happening" and merits heavier concentration? Are there other opportunities that management is considering or has hopes for as to the ideal use of FRMO's cash?

Murray Stahl—Chairman & Chief Executive Officer

Let's go into it in a little more in depth. At the time—and this was over five years ago—the probability that crypto, in general, and bitcoin, in particular, would fail, was extraordinarily high. That's another way of saying the odds of success were low. However, just because the odds for success are low, doesn't mean you shouldn't undertake the investment. The question is: what is the payoff? For example, in the Polestar Fund the payoff was so enormous that we made a 1% position, and we were prepared for the worst. If it went to zero, we would have lost 1%. We were willing to tolerate a 1% loss. However, if it worked, it would revolutionize our balance sheet.

A similar investment was made in the Croupier Fund and the Multi-Strategy Fund and others. It worked. We take that approach with lots of investments that are contingent. Just because it has a high probability of failure doesn't mean we should not undertake an investment. The question is: do you size it appropriately? If it has a high enough payoff, it's worth it. That's what I mean when discussing optionality—looked at the right way, it gives you liberty of action; we can undertake certain higher-risk investments yet live to fight another day.

Maybe, in the case of such an investment, it would be a calamity; it could be a failure and maybe we would sell it down 80%. Even then, we'd get a tax credit. Let's say we had an 80% loss in the investment. On a 1% original position, that's an 80-basis point loss and, since we're taxable, and we can deduct that against taxes, it's not a grievous loss.

To put some numbers on it, if we made ten such investments and nine failed, the worst that could possibly happen is we'd lose 100% of our money on nine investments, but less than that because of the tax benefit. If one investment works, just one, you're a completely different company. We could leapfrog ourselves into a far superior capital position that enables many new possibilities. That's why we undertook it the bitcoin investment. It looks like it's working, but stay tuned because there's no guarantee of that.

To address the other part of your question, other people are realizing that, when it comes to fiat currency debasement and the possibilities in crypto, the risk of not investing could be greater than the risk of losing 1% or some other nominal amount. Avoiding that loss is not going to make FRMO a better company. However, debasement is real, the bond market has been turned into a guaranteed negative-return asset class, and with the rise of indexation, the index world has, more or less, eliminated inflationary beneficiaries. It's not entirely eliminated, but such companies have a very low exposure in the stock market.

There aren't really many good anti-debasement choices available in capital markets. This was one. The risk of not doing investing in bitcoin was missing the possibility of an outlandish rate of return, and that was a risk we weren't prepared to undertake. As I said, the risk of not doing it was far greater than the risk of doing, because if we didn't do it, then we're going to end up being debased, and we don't want to be in that position. That's far worse than losing a handful of basis points. That's the way we looked at it at the time.

Questioner 17

I would be very interested in your take on the pros and cons of the streaming versus royalty business models. I know that FRMO has exposure to both.

Murray Stahl—Chairman & Chief Executive Officer

We can go into details but, from our point of view, they're so similar, they're really the same. We have exposure to both streaming and royalty business models, because it's hard to make the argument that one is really superior to the other. There are certain specific instances in which one would be superior to the other. We have no way of assessing if those circumstances are going to be there or not. Even assuming one structure is, in a unique set of circumstances, superior to the other, it is not so much better that it makes a substantive difference. Therefore, we just maintain exposure to both.

Steven Bregman—President & Chief Financial Officer

Within a given company that makes such investments, isn't it the case that the difference between streaming and royalties is really just different points along the sliding scale of how they price or negotiate their contract with their counterparty? For example, you will see the same company sometimes strike a royalty deal, in its formal sense; in other cases, a streaming deal. The preference for that outcome seems to be reflective of pricing, demand, supply, and so forth in different eras.

They're going to go through phases reflecting market circumstances and the terms of trade between a royalty company and an operator. Murray, would you put it differently?

Murray Stahl—Chairman & Chief Executive Officer

I would put it that way. I've never sat down and decided that one is superior to the other, because I don't think you can make that assessment. There are differences and they're not great differences, and sometimes one works more in your favor than another. I've never preferred one greatly to another. The royalty deal is a little bit easier to understand, so, if you like simplicity, you may prefer that business model. Other than that, they're pretty much the same. We can get into a lot of detail, but I had to sidestep that a little bit in the interest of time.

Questioner 18

Does FRMO have any plans to start an ETF or closed-end fund similar to the new HK inflation ETF? Does FRMO have an investment in this inflation ETF?

Murray Stahl—Chairman & Chief Executive Officer

Let's do the latter part. Yes, FRMO has an investment in the Horizon Kinetics Inflation Beneficiaries ETF. At the moment, it's very small and we actually buy every day. I don't know if there's a filing for it because it's an ETF; I don't think it's considered to be material. We do have an investment, and we are buying shares of ETFs. I think it's a great fund. A sister company that's private—you will see on the RENN Fund filing called Horizon Common—is buying shares of the ETF as well.

In terms of ideas, we have lots of ideas. We have some ideas for other ETFs. Remember, every one of these, with one exception, is going to be active. We have one idea for a passive ETF. We have ideas for active ETFs—quite a few of them, actually. We just put the inflation ETFs into motion, so we're going to assess those results and figure out which ETF will be next.

Questioner 19

For the LPs, is it possible to look through at the underlying holdings and the valuation method?

Murray Stahl—Chairman & Chief Executive Officer

The valuation method is easy. In the LPs, everything is valued at market, and something like 99% are publicly traded securities. There are some small positions in private securities, maybe they add up to about a percent, more or less. With respect to the publicly traded securities, they are the securities that we've talked about. No surprises there, nothing that would astonish you; let's put it that way.

As for the private companies that you haven't have heard of, I'll talk to our folks and if we're allowed to disclose it; maybe next time we'll mention the private investments. They're all very interesting, and they all have optionality. We'll see if they end up working.

Questioner 20

In the investment world, advanced mathematical technology is well known to those who care to study quant and artificial intelligence. Are there any mathematical modeling, algorithms, machine learning, options pricing, tail risk mitigation, or other uses within FRMO/Horizon Kinetics portfolios that depend on the mathematical output for investment decision making? Or do the analysts utilize purely fundamental analysis/intuition to determine inflation beneficiary sectors and specific investments within those sectors?

Murray Stahl—Chairman & Chief Executive Officer

We're not using mathematical models. There's no reason we couldn't use them other than the fact that the people who practice them are a lot better at mathematics than I am, that's for sure. Basically, we're looking for hard assets and, as far as I know, there might be somewhere in the neighborhood of 10 to 15 hard asset companies in the world. We're aware of most of them and I think we've defined the characteristics. They're not even bad investments during noninflationary periods.

I discussed inflation at length, so let me just explain why, even in a noninflationary time, they're actually pretty darn good assets. Let's say you have, as we do, certain companies in the commodities sector, like oil. Let's just say the price of oil is never going to go up. Even though you could say you don't have optionality, you really do. The reason is because the technology of oil extraction processes and techniques is constantly changing.

If the price of oil is never going to rise, then the only path to greater profitability for oil exploration and production companies is to endeavor to lower the cost of extraction. Therefore, they devote their resources to that end. If they lower the cost of extraction, then ultimately, they'll try to extract more from their properties. Mathematically, extracting more from the same properties is the exact same thing as extracting the same amount but at a higher price. And the royalty company collects its royalty, but, unlike the operating company, with no added expenditure. There's optionality even if prices never go up.

For example, if you look at some of the investments we have, it wasn't that many years ago it was considered to be an impossibility to extract anything from some of the properties or royalty interests they held. Just physically impossible. We believed that, but we didn't believe it was going to be a permanent condition. We thought that one day someone was going to figure something out. For a lot of those properties, an operator might not want to undertake the research and development, because the probability of failure is actually pretty high. Most of those projects fail, but they don't all fail.

We have a call option, effectively at the money, on every one of them. We don't hold any patents, but we effectively have a call option on everything. If people realized how valuable that is, all these hard asset companies would trade at radically different prices. Maybe it's a good thing that investors don't realize what the optionality really is. Imagine if there were such a thing that you could buy an option on a patent, or a set of patents, or an infinite number of patents, even ones that haven't been patented yet, and which go on forever. That would be worth a lot of money. That may be the best explanation I can give you for true optionality and the benefit of a hard asset. It can work in any environment.

By the way, I should also tell you that the same principle works with respect to the securities exchanges. The exchange is not a hard asset in the way I described it, but in another sense you can see the commonality. You have an exchange and, at the same time, there are all sorts of people who are very inventive and very clever, and they're coming up with different types of assets or contracts to trade. Yet, there are only so many places that can trade them. If they trade it on your exchange, you have a lot more revenue, but basically the same cost structure. It doesn't really involve an incremental cost of any significance for the securities exchange to list a new product.

If you have optionality on an exchange, what other business could you have where somebody else does research and development, and you end up getting a piece of the revenue? There aren't too many businesses like that. Exchanges are another example, which is why they're so alluring to us if you hold those for very long periods of time. You'll see us do more things in exchanges in the future. We're not done, in that sector, by any stretch of the imagination.

Questioner 21

What do you make of the fact that close to 100% of all trades that take place today of all stocks are odd lots, every day. This is a new world of trading. It looks to me like people are sitting at home "playing" trade stocks for fun and profit. What does it look like to you? Where are the institutional-size transactions? You hardly find anything reported anymore.

Murray Stahl—Chairman & Chief Executive Officer

I realize it looks like individual people trading odd lots, but that's not what's happening. Almost all the trading that is being done is professional. The way it's executed in the modern world is something called a VWOP. You get the value-weighted price during the day. Basically, if somebody wants to buy 100,000 shares it will be spotted instantly, because there are so many algorithmic traders and so much artificial intelligence in the market, designed by these really brilliant mathematicians.

Once people become aware that there's all this technology looking for big trades, the market reacts. Basically there are no big trades; there are only little trades. A 100,000-share block would be broken up into small component parts. They might be as small as one share. People trade in different component lots during the entire day, so everybody looks like they're an odd lot trader. Why? Because the trading systems are designed to ignore the odd lot traders because they're supposed to be noise, but they're really flying under the radar, so to speak. Everybody seeks to fly under the radar. But it doesn't stop there, because the artificial intelligence, realizing that every trade is likely to be a disguised trade which is much bigger in total size, reacts, and the programmers develop new algorithms to try to spot the disguised big trades. That's why they buy so much data and try to correlate the data of the trades to institutions.

The biggest presence in the institutional world is obviously the index funds. The index funds are buying big blocks of securities. Very big blocks of securities. When index funds, like an ETF, receive an inflow of cash, they basically go to a market maker and say, deliver me a basket of securities that look like the index. Sometimes they put caveats on it. The ETF can deviate from the index slightly. It is the market maker's objective to fulfill the needs of the index, and the market maker needs to have that activity disguised, which is why it's broken up into these component trades. At the end of the day, the index or the ETF in question receives the actual shares.

How do they hedge themselves? There are many techniques, but one technique might be that the market maker shorts shares of the ETF and simultaneously buys the component shares. When they deliver the component shares in index structure to the ETF in question, the market maker is issued units of the ETF which basically equilibrates the shares of the ETF that are short; basically, this wipes out their short position and hopefully it can be done on a profit.

They arbitrage in other ways as well because there are different venues for trading stock. For example, New York Stock Exchange stocks are, of course, traded and listed on the New York Stock Exchange, but they can also be traded, though not listed, on NASDAQ. There is also Bats [Global Markets], which is owned by the Chicago Board Options Exchange. Different traders will operate simultaneously or at different times on different exchanges. There are a lot of ways to disguise yourself. I hope that's an adequate introduction to institutional trading; everything looks like an odd lot.

Thérèse Byars—Corporate Secretary

That was our last question for today. Thank you, Murray and thank you, Steve for a very illuminating call.

Murray Stahl—Chairman & Chief Executive Officer

We did it. I'm very gratified. I hope we answered everyone's questions satisfactorily. I enjoyed answering them. I thought they were uniquely good questions. We look forward to reprising this at the next conference call. Maybe we'll be so lucky as to continue to have this great audience. Thanks, everybody, for spending the time with us and thanks for your interest. Steve or Thérèse, if you have anything to say to sum up, go for it.

Steven Bregman—President & Chief Financial Officer

I think you've done as good a job as can be done. I thought it was pretty interesting myself.

Thérèse Byars—Corporate Secretary

I concur.

Murray Stahl—Chairman & Chief Executive Officer

Well, thanks so much. In that case, goodnight, everyone, and we look forward to doing it again. For the moment, we're just going to sign off. Thanks so much.

Operator

Thank you, ladies and gentlemen. This concludes today's teleconference. You may now disconnect.
