

FRMO Corp. Q1 2023 Conference Call  
Tuesday, October 18, 2022

**Operator**

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

**Thérèse Byars**—Corporate Secretary

Thank you, Justin. Good afternoon, everyone. This is Thérèse Byars speaking, and I'm the Corporate Secretary of FRMO Corp. Thank you for joining us on this call. First, we have a bit of housekeeping. 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](http://www.frmocorp.com).

Today's discussion will be led by Murray Stahl, Chairman and Chief Executive Officer. He will review key points related to the 2023 first quarter earnings.

A summary transcript of this call will be posted on the FRMO website in the coming weeks.

And now I'll turn the discussion over to Mr. Stahl.

**Murray Stahl**—Chairman & Chief Executive Officer

Thank you, Thérèse, and thanks, everybody, for joining us today. It hasn't been very long since the annual meeting call, so not a heck of a lot has changed in the brief time since then. But since you can see the figures for yourselves, I'll note a few aspects of the financial statements that I personally think are interesting, then I'll await your questions and talk about some things we're working on.

Shareholders' equity, you will observe, is a little shy of \$189 million. That's the key number; not the bigger number of \$345 million, because the non-controlling interests have to be deducted. The non-controlling interests largely come from the consolidation of HK Hard Assets I and II. HK Hard Assets II, you will recall from our last meeting, we just started a few months ago, so it's building up, and I'll talk about that in a few minutes. I believe the book value of \$188.9 million is a record. And the cash, which is a little over \$36 million, is particularly noteworthy because we paid some taxes and that drew it down a bit. So, things are going very, very well.

The reason I bring the shareholders' equity and the cash balance to your attention—and of course the investments have been at record levels as well—is that we have more than enough liquidity to do what we want to do. What we want to do, of course, is build out our cryptocurrency business.

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The point is, in expanding our cryptocurrency mining business, money is not the issue. The issue is the nature of cryptocurrency itself—I referred to this in the last conference call and I'm going to review it again now, because I think it's worth emphasizing: that there are important vectors that govern the returns on investment. Such as the cost of cryptocurrency machinery; what's called "difficulty rating," which is the number of machines you're competing with to obtain the block reward; and the most important vector, to my mind, which is the halving, meaning that every four years, the number of bitcoin you get for solving a block is cut in half.

Now, mathematically, if you reflect on this, I think you'll see that a halving is the exactly the same as if the price of the equipment doubled, even though, generally speaking, equipment prices are declining. Why? Because to generate the same number of coins you would have to have twice as many machines operating. Bearing this in mind, consider that the pricing of cryptocurrency in general, and bitcoin in particular, is very much like that for any commodity: its selling price, to a large extent, has to be a function of the cost of production.

So, in the last year-plus, the cost of production was in decline. That's because the equipment that you need to mine cryptocurrency declined in price a lot. How much did it decline over roughly a year? Rig prices declined in excess of 75%, and they continue to decline. So, imagine if we were talking, instead, about the production cost for wheat, or soybeans, something more tangible than cryptocurrency. Imagine that the price of seeds, or the price of land, or of water for irrigation, or the cost of labor had declined by that quantity. I think everyone would reasonably anticipate that the price of that commodity, wheat, soybeans, what have you, would decline to reflect the production cost decline. Consumers of these products would benefit to a very large extent—maybe to the entirety of the decline.

Cryptocurrency operates the exact same way. If you were to compare the price of crypto today with June 15<sup>th</sup>, when the Federal Reserve started raising interest rates aggressively—though interest rates don't have that much to do with cryptocurrency—you'll see it has not been very volatile at all, unlike its historical behavior. Why has it not been volatile?

Well, one explanation is a thesis and one is simply a reality. The thesis would be that maybe—and this is a very big maybe—people who trade cryptocurrency are finally beginning to understand the vectors that largely govern the cryptocurrency price, and are beginning to realize that you really shouldn't put in big orders and commit a lot of capital for equipment because those equipment prices are going to fall and the machines will become your adversary in that they'll decline at a rate faster than you're actually depreciating them. That's been a big problem, the mistaken notion that you can buy your way, with large equipment purchases, into rapid expansion in cryptocurrency mining in the same way that can be done with conventional businesses like metals mining or farming. Maybe people are beginning to understand that, maybe not; that's my speculation.

But the reality can't be denied: when the next halving is coming, which is in about 568 days. That reckoning might be a day or so off, because I don't check it every day, but it's close enough for this discussion. At the moment, the mining economics vector with respect to the halving is more or less in balance—the machine prices keep declining at the same, relatively stable rate, but with

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a lesser bitcoin price. So, if the mining rig price declines by the normal weekly roughly 3%, it's going to have less abrupt or volatile impact on the price of bitcoin or the cost of producing bitcoin. Inevitably, though, the dominant economic vector will be the halving. As the halving date gets closer, and closer, and closer—closer, that is, to effectively doubling the cost of production—it becomes a more and more dominant influence. So, we fully anticipate that the price of the crypto, in our case largely bitcoin, is going to go up.

You might ask, if we know that, why don't we go ahead and buy a lot of machines? Well, I just gave you the answer: Because in any given period, including the future periods leading to the next halving, the prices of mining rigs are likely to fall. We don't want to be without any machines; we want to have just enough to take advantage of the momentary profit available in mining bitcoin, and we're redeploying some of that bitcoin to buy more machines. Don't forget, it's also about the appreciation of the bitcoin that we generate, and when you buy equipment, you pay for it in bitcoin. Despite, as is my practice, that I quote dollar prices for the equipment, and despite that on the websites the mining equipment prices are normally expressed in dollars, the vendors won't accept dollars; they only accept bitcoin.

One way of looking at bitcoin, and I think it's a very good way, is that if you spend X bitcoin for a number of machines, they will last for a given number of years. And at the end of that period, what you hope to achieve is that although the machines will be largely worthless, you will have produced more bitcoin than the quantity you expended to purchase the machines. You might think of that difference as the natural interest rate on bitcoin, the way you multiply your bitcoin holdings.

We were just waiting for an opportunity to start buying machines, which we are in the process of doing for our various mining entities. Just to remind you, those entities are Consensus Mining (which should be quoted for trading somewhere around December 1<sup>st</sup>), Winland, and HM Tech. We own roughly 31% of Winland (now called Winland Holdings, formerly known as Winland Electronics). We would love to buy more but we're in a quiet period for Winland right now so we can't. But during the quarter that just elapsed, we were buying additional Winland shares. Why? Because Winland is expanding its bitcoin holdings in the manner I just described. And the last, but certainly not least, entity is HM Tech, of which we own 7.1% and Horizon owns over 50%. HM Tech does several things. It mines for its own account; it is a hosting company, meaning, it hosts other parties' mining; and, of course, it repairs mining machines. That's strategically very important for us because, if you have machines, the one certainty you have about them is that sooner or later they will need repairs, and it's very good to have this service available to us.

So, that's our crypto business. Because we're going—meaning committing our capital—slowly, we avoided what other people refer to as the crypto winter. We might not have another crypto winter if people come to understand the business economics of how cryptocurrency works. Time will tell if that is the case. But we have every intention of expanding the cryptocurrency business, gradually, in a sensible way. In respect of that thought, it's worthwhile noting, before I take some questions, that the whole crypto project, as exciting as it is to us, could still fail. It's possible. Personally, I don't think that's likely, but it's possible. By looking at the FRMO balance sheet you'll see our cryptocurrency mining assets—those are the machines—are not the entirety of our

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crypto investments. There are, of course, the coins, but those are included in investments, which is recorded elsewhere on the balance sheet.

Normally we read all the numbers that describe our mining assets, which we didn't do this time, because we read the numbers last time and they didn't change by much, other than the fact that they went up. Generally speaking, it's going up every day. When we buy machines, basically we're looking to replace those that are worn out. I dare say we bought the machines very well. I think I mentioned this at the last meeting, you might recall that, over two years ago, we purchased some machines which we swapped with Winland for a greater stake in that company, and those machines have been operating very well for over two years. We depreciate machines over three years, so they are 70-percent, roughly, fully depreciated, yet we could sell them today for more than we paid for them. You can see, with this example, how very, very judicious you have to be in the way you buy those machines.

At the moment, we're just buying a sufficient number of machines to replace those we believe are reaching the end of their useful life. It's not going to be a big purchase, though. Hopefully, over the next quarter we'll be able to expand the cryptocurrency business in the same way we've been doing in every quarter, and we'll give you an update then. Those are the main things we're working on.

One other point I want to mention deals with HK Hard Assets I in which, as you're well aware, our biggest position is TPL. We funded HK Hard Assets II with some TPL shares, but only because we had them and wanted to give the portfolio life. The objective is to buy other assets. There are four other investments in Hard Assets II that we are in the process of purchasing. The Fund already generates, I would say, a decent amount of cash flow for its relatively few months of life, and we intend to build that up aggressively over the next year.

That's the update. Not a major change from what we reported in the annual meeting. One other minor point—I keep saying one other minor point, but it is a minor point—you'll note the mortgage on our balance sheet. That is the building in which HM Tech operates. It is our belief that the building is worth twice what we paid for it, and the mortgage is only 70% of what we paid for it. So, there's that additional asset deployment success, if you want to call it that.

And one other point—but I will make it the final one—pay very close attention, if you will, to our “securities sold short” position on the balance sheet and look at the profit on that line item. That continues to be a significant generator of capital for us. At the moment, we've been expanding the short position, so there are some interesting possibilities there. You'll note that's going to grow. It didn't increase in the prior quarter, but now is a good time for it to grow, so expect it to rise. Not a huge amount but a bit.

I think that includes all the general remarks and maybe now is the time to go to questions.

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**Questioner 1**

Would you explain the non-controlling interest? Why do you need to show, and who are the owners of, the non-controlling interest? I'm assuming they're not owned by FRMO. Is that correct? So, the book value, then, is what?"

**Murray Stahl**—Chairman & Chief Executive Officer

Let's do it this way: the book value of FRMO is \$188.9 million. That's what FRMO has. The non-controlling interests come from two entities. The major one is HK Hard Assets I, and the second is HK Hard Assets II. Why do we show it? Because FRMO controls that capital, even though it owns only a small portion of it, and, number one, that's the correct accounting treatment.

Who are the other holders? Well, the other people are, largely, yours truly. I didn't look recently, but if I'm not the biggest investor in HK Hard Assets, but if not, I'm close. FRMO, obviously, is an investor; there are also Horizon Common, which I'll describe in a second, myself, and there's Horizon Kinetics, which is different than Horizon Common, and there are a couple of small shareholders. Those are owners, basically.

Horizon Common represents a lot of the capital that was extracted from Horizon Asset Management itself. You might recall that prior to 2011, there was, separately, Horizon Asset Management and Kinetics Asset Management. They were owned, generally, by the same people, and they did more or less the same thing. Kinetics ran the mutual funds and Horizon managed the individual accounts and ran the research. That's probably the simplest way to explain it. A problem was that various parties always asked, well, why do you have two separate companies? Why don't you have one, it would be easier to understand. So, we combined them.

But over the years, Horizon had produced a lot of capital that was retained in Horizon, so when we merged the two investment management companies, it didn't make sense to have that kind of capital in the investment management company known as Horizon Kinetics. So, it was separated within or into Horizon Common. The function of Horizon Common, which a private company, is just to invest its capital. How much capital is in Horizon Common? If you're interested, it's something on the order of \$185 million, though it might be more by now. So, it's not insignificant, and it isn't far from the shareholders' equity of FRMO. It's just our capital, and it's run by and owned by the people at Horizon Common. My money's there in Horizon Common. I've got a pretty big stake, and then I have a personal investment in HK Hard Assets I and II that I add to every month. Even though the month is not over yet, I'll probably be adding to it this month as well.

There's another reason for showing the noncontrolling interest. Apart from being the proper accounting treatment reason, it's also information for shareholders. As in, for instance, how much capital could FRMO deploy, if it chose to do so. Beyond the capital, there are also the margin lines, which we never really use. In the case of FRMO, the margin lines would be something like \$95 or \$97 million. In the case of Horizon Common, they're probably another \$30 million or \$40 million.

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So, there's a lot of—enormous, really— buying power there. It's just that we never found anything we really wanted to buy in size. All the buying we've done has been incremental and it's added up to a lot of money over the years. Total assets, which you'll observe in the last line on the FRMO financial statement balance sheet, exceeds \$371 million. If you look back, on the FRMO website, it was a smaller number not that many years ago. We're trying to disclose everything that we think is relevant so people can see what our cards are. That's where we stand. I hope that's a thorough and transparent answer. But, if not, I'm happy to address other parts of it, if need be.

**Questioner 2**

In the Horizon Kinetics first quarter 2022 commentary, management mentions that a recession is not a long-term concern for oil investments because the shortage is “structural” and that “it doesn't matter whether there's lower economic activity.” What does management see today as the most convincing or credible bear thesis to FRMO's long-term structural inflation or energy shortage thesis? Does management have any thoughts on the knock-on effects on society of being correct on their long energy thesis and what the endgame for FRMO's investment thesis looks like?”

**Murray Stahl**—Chairman & Chief Executive Officer

Well, those are a lot of questions but let's go through them.

There's no guarantee that we're going to have inflation. Based on what we see right now, it's the best judgment we can come up with. Number one, we could be wrong. And, number two, the world can change, and we've got to change with it. We're not in love with the inflation thesis. And, incidentally, inflation is not such a great thing for society; it's actually very harmful. It's socially very divisive and it creates a lot of problems. So, we don't desire inflation.

The problem is this—I'll use the United States budget as an example, but it's the same problem in every country. The only difference is the size of the numbers. The U.S. government revenue, in round numbers, is \$4.8 trillion. It spends, in round numbers, \$6 trillion, and they might have to spend more money than \$6 trillion. We don't know and no one knows. The reason no one knows is because we could have a recession.

In that event, what can we reasonably infer would happen? Well, people are going to lose their jobs, so income tax revenue will decline. Chances are the stock market's going to go down, so there'll be less in capital gains taxes to be paid. So, the government might not get that \$4.8 trillion of revenue. How much would it get? Well, it depends on how severe the recession is. It depends on how high the unemployment rate is. It depends on how many people take early retirement and begin collecting their Social Security. It depends on how many people lose their medical insurance because of unemployment and have to depend on Medicare or maybe Medicaid. It depends on how many more people need food stamps, if economic circumstances are getting that bad. It depends on lots of factors. So, we don't know what the government revenue will be other than it will likely go down.

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And the \$6 trillion of government expenses, which I just mentioned, they're likely to go up. Scratch that, it will go up. Why do we know for sure that's going up? Because the most important of those expenses, even though it isn't the largest, is interest on the Federal debt. The first observation is that the debt keeps increasing. You can follow that, by the way, on the Treasury's daily fiscal statement. It shows how much money the Treasury takes in every day and how much money they need to borrow every day. You can follow it every day if you want to, and it's actually unbelievably interesting. Anyway, the interest rate on that debt is higher, now, and the budget deficit drives the principal balance up.

So, what would happen if we don't have inflation and, instead, have a recession? It might be beyond the ability of the nation to fund the \$1.2 trillion deficit we have now, even under normal circumstances. In extremis, it's hard to know what the revenues and expenses are going to be. They certainly don't want to impose a big tax increase during a recession, because that would probably make the recession worse. What if there were an escalation of a military conflict like in Ukraine? Let's say it escalates, which is a realistic possibility? Wars cost money. What would happen?

The most reasonable outcome, if we're *not* going to have inflation, is that the budget and debt numbers would be far, far more problematic than if we *are* going to have inflation. Based on what we see, it's more reasonable to assume that we're going to have inflation, and that is because of, both, the debt issuance problem and the structural deficits of—not the budget itself, which is a problem, but—capital investment deficits for commodities generally. We haven't, as a global community, made any adequate investments in commodity reserves development for about four decades and now we're beginning to pay the price for that. So, it's a problem.

Let's give a few of data points. First, in the last, call it, 10 weeks, 12 weeks, whatever it happens to be, U.S. oil production has declined by 200,000 barrels a day, from 12.1 million barrels to 11.9 million barrels. It's not that big a deal but it's 200,000 *down*, not up. In the next couple weeks, the Energy Department is going to sell over 15 million barrels from the Strategic Petroleum Reserve. That's a lot of oil to put on the market, so the chances are the oil price is not going to go up in the next couple of weeks. But when the number is released for this past Friday, I believe the Strategic Petroleum Reserve balance is going to be something around 400 million barrels. If the government's going to sell, let's say, 8 million barrels of oil a week, 8 goes into 400 only so many times. So, it's pretty obvious that can't continue forever. Plus, it might not be a good idea to sell your Strategic Petroleum Reserve all the way down to zero.

These are just data points that anybody can get. It doesn't take a lot of research to find them. The next data point is OPEC cutting production by 2 million barrels daily starting in early November. I don't remember what day, but I don't think it matters. That's a lot of supply to cut.

The next data point is that as of December 5, 2022, Europeans, under their version of the sanctions, will not be able to buy Russian oil. If the Europeans are going to stop buying Russian oil, they're going to have to find another source.

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All those data points are coming up. That's a major part of the basis of the inflation thesis. We're not in love with it, and if we need to redeploy into something else we will. But at the moment, that's how we see it.

**Questioner 2 (cont.)**

Currently, M2 velocity is near all-time lows and my understanding is that of the bank reserves that are created from quantitative easing, only a very small amount of that actually makes it into the real economy via the credit creation mechanism of direct lending. While the M2 monetary base has certainly been increasing, this does not mean that the current monetary supply is lesser or greater than in previous times. We can actually see that total U.S. credit growth has been at a much lower trending rate ever since 2008. Could management comment on the possibility that M2, while a fine measure for the monetary base, is not an effective measure of the circulating or supposedly expanding money supply? Are there other composites of metrics to justify the currency debasement thesis? Is there a risk of an availability bias of information here? Just as an example, revolving credit lines are functionally similar to money but not accounted for in M2

**Murray Stahl—Chairman & Chief Executive Officer**

I didn't know I was going to get this question, but it just so happens I was writing about this, though it's not out yet. Earlier, I mentioned the Treasury fiscal statement, which they put out daily. In what I wrote, I used September 30, 2022, not so long ago. The only reason I used September 30, 2022, is because that's the last day of the fiscal year, so you get to see the yearly numbers, and it's interesting from that standpoint. What I would ask you to do is to look at the issuance of treasuries. Because we're talking about velocity, when I say issuance of treasuries, we're not interested in the net amount, like, how much money the government debt increased over the fiscal year. That's over \$2 trillion, by the way, which is a lot of money. We're just talking about velocity. Because the most used Treasury debt are the short-term maturities, the Treasury is constantly redeeming debt and constantly issuing debt, and the magnitude of the numbers is just—it's unbelievable.

I'll just read my notes. Remember, this is not how much the debt or deficit increased; this is just the volumes of debt issuance and the debt redemption. The debt issuance was—get ready—\$149.8 trillion, with a “T”. Debt redemptions totaled \$147.3 trillion, also with a “T”. That's the velocity.

In other words, what is velocity supposed to measure? Velocity is supposed to measure what people are doing with their money. The reason the reported velocity is low is because the spending of the three governments—federal, state and local—represents 45% of the gross domestic product. Because it goes through the Department of Treasury rather than the banking system, and despite that it's so huge and such an important part of velocity, we're not picking it up; we're not measuring it. The money velocity figures that are reported look at what the people are doing. Now, it's still a lot of money, but we're not looking at what the government's doing. I just gave you the federal numbers. If we include the state and local numbers, they are even bigger.

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That's what's happening with the velocity. We're not seeing it, because somehow we're not properly picking up what the government has done to velocity. And I believe that's a big problem. As far as reaching a conclusion, it's just that you've got to get the right data, and that has to include what the government's doing. We can't ignore that 45% of every dollar that's spent in this country annually is spent by one or several of those branches of government.

As huge as 45% is, the debt leverage and velocity circumstance is much worse than these figures suggest. Why is it worse? Because that 45% is not counting the government-sponsored organizations like Fannie Mae, Freddie Mac, and Ginnie Mae. They also have debt, and they also spend money, and they also back mortgages, etc. Those balance sheets are in the multitrillions of dollars, and a lot of that debt is also short-term debt. I didn't even begin to add up how much of that rolls over every year, except it's a really big number. Now, if I really wanted to be thorough and complete, which unfortunately I'm not being right now, I could have added in the Bonneville Power Authority and the Tennessee Valley Authority. There are lots of governmental organizations. There's the U.S. participation in the World Bank, there's the U.S. participation in the International Monetary Fund, the U.S. participation in the Bank for International Settlements. I haven't even added up what the Federal Reserve has done and what the regional banks of the Federal Reserve have done. The numbers are just astronomical.

The point is that all those entities, collectively, are absorbing a great deal of the monetary action. In my humble opinion, we're not measuring it properly. So, I'll just leave it there.

**Questioner 3**

A lot of the monetary debasement argument seems to rely on the idea that the Fed will pivot from the rate hike cycle and step in to monetize U.S. debt as the hiking cycle to fight inflation starts to affect financial markets in a politically unbearable way. What are management's thoughts on the relationship between stock valuations and both tax received and the government's ability to service its debts? Could higher rates from the Fed actually stimulate production of goods by spurring credit supply from banks who would be more eager to lend to solvent businesses at these more profitable terms? I believe this was the position of the economist Walter Bagehot among others.

**Murray Stahl**—Chairman & Chief Executive Officer

I don't think even the banks know what they're going to do. The situation is too fluid. With the Federal Reserve it's pretty easy. The Federal Reserve has to stand behind the Treasury. Whether it wants to or not, you can have a very interesting and lively debate about. I won't participate because I don't know what they're going to do. But they have to stand behind the Treasury. There's a whole series of scenarios where the Treasury might find it very difficult to finance the deficits. The deficits might get very, very large in a lot of different circumstances. And they'll have no alternative. That's what I believe will happen.

Will the Federal Reserve all of a sudden become accommodative and lower rates to prevent a recession? It's possible. Personally, I don't assign a huge probability to that. It's possible, but the

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central bank would lose a lot of credibility if they did that. So, they're committed to a certain policy and I think they're going to have to see it through. You probably noticed that the Bank of England didn't see their policy through for very long, and it's having a very bad impact on the country. Raising rates, as they did, has a lot of detrimental consequences, not the least of which is, simply, that people have to pay more for their loans. Let's look at it this way: You're a student and you borrow X dollars to complete your education. Let's say that amount was \$100,000, and you're going to pay it back over decades. So, raising the interest rate by 2%, if that's what the number is— and assuming you're going to be paying back that debt over decades—you've just doubled the price of a college education, even if they don't raise tuition. That's the problem. My contention is that interest is an expense to people. At the end of the day, what's the difference, I would argue, between raising the interest rate and thereby asking them to pay more in interest versus having to pay more for gasoline?

If you've got to repay your student loan and haven't locked in the rate, which a lot of people didn't because they couldn't afford to, now your college education cost just doubled. That has consequences for people that they will carry with them for most of their adult lives. Alternatively, let's say you happened to need an automobile and you take out a variable-rate car loan at a low interest rate, because that's what you could afford, the payments were lower. Well, the interest rate was low, but adding 2 percentage points to it dramatically raises the cost of the car. Worse, the interest expense increase on financing a purchase is actually greater than the inflationary impact on the price of the car itself and on the gasoline you have to buy. So, to me, once you have this level of debt, I just don't see that monetary policy is going to be very effective in accomplishing anything, whether for inflation or anything else.

By the way, monetary policy is not a modern concept. It was invented 100 years ago. They knew about it and originally practiced it 100 years ago. The idea was when the economy gets a little too vibrant, you raise interest rates to slow everything down, meaning you'll reduce effective demand, and by reducing effective demand enough, you will calm the inflationary pressures. But American society 100 years ago, in the governmental sense, was not a very leveraged society, nor was it very leveraged in the corporate sense. Today, we live in a massively leveraged society. That changes everything. Even though a 2% increase might be modest by historical standards, in a highly leveraged economy it is inflationary in and of itself; you just raised everybody's expenses by a lot.

Think about it this way. So, you, the government, created the inflation. But what are people supposed to do if you've just raised their expenses—the student who can't afford to pay the student loan because the interest rate is higher, or the person who can't make the car payments for the same reason? They're going to have to get a raise. It's that simple.

This inflationary impact of higher interest rates extends throughout the economy. Let's look at oil. How do you think oil comes to the market? What do you think stands behind a refinery? It's debt. How is a company able to afford to constantly retrofit the refinery for all of the environmental requirements it has to comply with? It borrows money, and now, at a higher interest rate, they're going to pay more for it. A lot of energy companies are leveraged. The alternative, if you're not going to leverage your company, well, then you're going to have less capital available, because

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equity capital has become almost impossible to raise in the energy sector. So, they're not raising capital, or the capital they can raise is more expensive than otherwise. Even for equity capital, if you raise interest rates, it lowers P/E ratios and it raises the cost of equity capital.

From a public policy perspective, if you make capital to the energy sector more expensive and simultaneously you do everything you can to lower the price of petroleum, such as by selling strategic petroleum reserves, even if for very sensible reasons, are you going to get more oil production or are you going to get less? You're going to get less. If you get less oil, how is that going to reduce inflation? I think we know the answer to that one.

For all those reasons I don't think the monetary policy that's being waged is going to be all that effective. One other thing I should've mentioned at the outset, but only just occurred to me, is that raising the interest rate, as you've observed, has also increased the value of the dollar. That makes U.S. exports a lot more expensive around the world and makes foreign goods cheaper in the U.S. From that point of view, if foreign goods are cheaper, that's actually fighting inflation, but it's also recessionary. Even with the greater purchasing power of the dollar in international markets, if we have this kind of inflation, you can't raise the dollar much more or then we're really going to have a recession. Because we import a lot of goods in America, we've had the benefit of the strong dollar. It's the strongest inflation fighter you can get. But I expect we're about to end the period of dollar increases because the recessionary pressure is just too great.

Which brings up a final point I'd like to make. A stronger dollar also raises the inflationary pressure for foreign countries, because oil is priced in dollars. The price of oil might decline, but if their currency goes down as well, the price of oil for them is going up. So, inflation is a worldwide phenomenon. You have to solve it on a global basis. I don't think you can have a local solution to the inflation problem we face today.

**Questioner 4**

In past thought exercises, for example, in the second quarter 2022 FRMO earnings call as well as the HK commentary from the fourth quarter of 2021 and the first quarter of 2022, the idea is proposed that the Fed is currently trapped into letting inflation run hot for the long term based on taking the total collective U.S. debt and applying some uniform rate increase across all debt instruments, and comparing that increased interest expense to current GDP to illustrate the risk of a contraction in GDP and subsequent recession. Here, management appears to assume that the vast majority of the total collective U.S. debt is essentially of short maturity, recurring, and non-discretionary, thus giving the rate hikes an immediate impact on interest expenses. What is management looking at to make the determination that this exercise is close enough to the real world to be useful?

**Murray Stahl**—Chairman & Chief Executive Officer

Obviously, the entire debt of the country doesn't mature in one year or even two years. For some people, that's the essential danger with inflation: some people locked in long-term rates; others

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didn't. It's dangerous to generalize, but we can use indexes to get a basic idea of where we stand. I would argue that the most important sector of the debt market is that part where the credit quality is questionable: the high yield market. That's where the balance sheets are most leveraged and where, if we were to have credit problems, it's going to be expressed. I think most people would agree on that.

When I want to view the high yield bond index, I often use the iShares High Yield Bond ETF (HYG) as a proxy. There are other ETFs you can use, but I think you'd get a similar number. The weighted average maturity of HYG is 5.39 years. So, here we stand and we can say that 20%, more or less, of the high yield sector debt will mature each year. It's not exact, and I'm rounding down, but I think that's reasonably representative. That's what you have to worry about.

There's a similar concern in the banking sector, with what they call leveraged loans. Those are to non-investment grade companies, on the one hand but, on the other, they're at the top of the credit hierarchy. And, relevant to the point we're addressing, they're much shorter maturities; the average might be something like three years. A lot more debt is coming due. They're as dangerous. The banks like to make those loans, because they have higher coupons than conventional high yield, but they have shorter maturities. Moreover, the rates on bank debt are floating, so irrespective of the maturities on those leveraged loans, whether they're 3 years or 5 years, whatever, the bank adjusts the rates instantaneously.

And that illustrates the problem—is not that the entire debt structure of the country is vulnerable to high interest rates immediately, it's that the most credit-challenged sectors of the market are very vulnerable to high rates. That's a critical but not generally discussed problem with monetary policy and with inflation: if the impacts were uniform throughout the entire society, you could make generalizations as an investor and as a participant in economic activity, you could somehow adjust to it. But it's not a uniform society. Therefore, what's going to happen is that the least creditworthy segment of society is going to be the first credit segment to bear the burden of higher rates. And that's what makes it so dangerous.

It's not everybody who suffers, of course. There are plenty of people who have 30-year mortgages. They locked in very low rates and they won't have a credit problem. But there are some people who are credit challenged and their borrowing rate is floating. There are some businesses in the same situation. That's certainly not the majority of the country, but might it be 10%, 15%, or 20% of the country? What happens if those businesses are challenged by those high rates? They are not isolated within the economy. They owe the money to otherwise creditworthy companies. The otherwise creditworthy financial companies are themselves highly leveraged; they just have a good credit rating. A typical bank is 10x leveraged. It doesn't have a lot of tolerance for credit problems.

These are some of the ways a relatively small segment of society can create a big, broad problem, and that's sort of the way we're looking at the current circumstance. We're not saying that a 1% or 2% rate increase is going to affect all participants uniformly. Actually, we're saying quite the opposite. I'm sorry if I gave the impression that we were looking at uniformity in society. We're

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not; we're looking at the stress placed on a relatively small segment of society. But that stress on that small segment of society might be unbearable and it can have repercussions on society at large. Think of all the debt that's now packaged into tiers, and there are lower grade tiers, and there's very little tolerance for credit events at the lower grade tiers. These would be the B-minus tiers in leveraged loan packages. You'll see the consequences, I believe, within the next year. They won't be slight disruptions, in my opinion. We'll see what happens.

**Questioner 4 (cont.)**

Could management break down this explanation in a bit more detail as well regarding by what economic logic this additional interest expense is interpreted as being "taken out of" or reducing GDP to create a contraction? If the issue is a debt-death spiral, sans the Fed stepping in with money printing for tax receipt deficits on interest expenses and entitlements, then what is management looking at to determine that new U.S. Treasury issuances could not be made without moving rates and, thus causing such a spiral, to fund these deficits, or that taxes could not be raised sufficiently to cover?

**Murray Stahl**—Chairman & Chief Executive Officer

Let's address the tax part of the question first. We'll just look at the figures. There are 125 million income tax payers in the United States. I'll give you some numbers, all of which come from the U.S. government. The U.S. labor force—meaning, those who are working and pay taxes—in the year 2000 was 159.6 million people. Today, two decades later, 158.8 million people are paying taxes. Of those 158.8 million in the workforce, about 30-odd million of them have income that's so low, they don't owe any taxes, or at least are not required to file a tax return. Therefore, the entire system is dependent on 125.8 million people.

Of the 125.8 million workforce taxpayers, 23.3 million work for the government. That includes all three levels, federal, state, and local. All those people pay income taxes, of course, but their salary comes from the taxpayers and from no other source. If you net them out, then it's let's say 102 million people who are carrying the burden to support a population of 335 million people. Most of those taxpayers are not far from the 40% bracket—or in the 30% range for sure—for federal taxes. That doesn't count state taxes, it doesn't count local taxes, it doesn't count property taxes, it doesn't count sales taxes, or gasoline taxes, and so on. If you were account for all of those tax layers, the average person among those 102 million taxpayers, as we've just identified them, is paying well over 50% and, arguably, probably over 60% of their income in taxes. You can't raise taxes on those people unless you want to have inflation, because they'll demand compensation increases, and they'll be entitled to them.

By the way, the situation is even worse than that, because there are some demand inelastic expenditures that people have to make that they didn't in the past, the major one of which is health insurance. Many people are insured by their employers, but employers have gradually and inexorably passed on the rising cost of the insurance to the employees. You bring home X dollars

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in your paycheck, but you also have to pay for your health insurance. So, you have to count that as well. There's not a lot of flexibility in that household expense.

As to the first part of the question, will interest rates increase because the federal government is issuing too much debt? The only way I would see that happening is if the creditworthiness of the United States were to come into question. In that circumstance, yes. At the moment, nobody really questions the creditworthiness of the United States.

The history of the last 120 years is littered with nations from which everyone bought bonds, because nobody questioned their creditworthiness at the time, and perhaps should have questioned it. Lots of countries should have had their creditworthiness questioned, yet it wasn't, and investors lived to regret it. It may one day happen in the U.S. I hope it never does, but you can't exclude the possibility.

**Questioner 5**

Are inflationistas underestimating the unique political and military advantages that the U.S. (and the U.S. dollar) has when making historical analogies versus, say, Turkey, Argentina, or any other countries with twin deficit issues?

**Murray Stahl**—Chairman & Chief Executive Officer

All I can say to that is that there was a time, 100 years ago, when Argentina had a higher standard of living than the U.S. Argentine debt was considered more creditworthy than U.S. debt. As a matter of fact, there was a time that Czarist Russian bonds were considered more creditworthy than American bonds and U.S. Treasuries. These relationships have a way of changing and changing very, very rapidly. If you look at the 20<sup>th</sup> century, how many nations can we count that were once creditworthy and, yet, where the bondholders got nothing? I literally mean nothing. The Austria-Hungarian Empire, the Ottoman Empire, the Czarist Empire, the German Empire, the Japanese Empire, the Republic of China—not the People's Republic of China, the Republic of China that became the People's Republic of China in 1949. If you owned Chinese bonds, what happened? You can paper your walls with the certificates.

The 20<sup>th</sup> century is replete with examples of nations that just borrowed too much—and these were all major countries; I'm not even talking about the small countries. There are many, many, many examples. We can have a very nice lecture and go on for hours just listing the countries that got themselves in trouble. If you start, as a nation, from a creditworthy posture, the temptation is irresistible to borrow money. It was only 100 years ago that the British gilt was the signature security in the world. Then Britain fought the First World War and became a debtor nation, and it never really recovered. And it happened really fast. We need to be mindful of that. I just try to stay out of debt myself. FRMO, as you can see, pretty much stayed out of debt and that's the way we like it. I personally would recommend that for a lot of nations as well but, of course, that's not realistic and that's not going to happen. There are very few circumstances in history in which debt, while not viewed as excessive at the time, proved to be excessive and became problematic. It's

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hard to identify a nation that used debt aggressively that didn't ultimately have a very serious problem. In most cases, they just didn't pay it back or it became debased. Or they did pay it back, but they paid in inflated dollars, and that became problematic. That's the best answer I can think of giving.

**Thérèse Byars**—Corporate Secretary

That was the last one submitted in advance. You probably can't discuss this, but there are shareholders who are very curious about Texas Pacific Land Corp. I just wanted them to know that we're not ignoring it, but I'll leave it to you to say why. It has to do with the proxy vote now and the many proposals that are on it, especially the share issuance one.

**Murray Stahl**—Chairman & Chief Executive Officer

I'd rather not. If you're on a board—I hope you understand—there are limits to what you can say. It'd be a lot of fun to talk about it, but unfortunately I just can't.

**Thérèse Byars**—Corporate Secretary

Thank you, Murray. I hope that answer is satisfying to the shareholders who were curious about it. That was our last question.

**Murray Stahl**—Chairman & Chief Executive Officer

Well, it's probably not satisfying, because the question is what are you going to do about A, B, C, and D? That's really the question. But, of course, this is not the forum to undertake the answer to that.

**Thérèse Byars**—Corporate Secretary

Anyway, that was our last question. Unless there are any other comments you would like to make, that brings us to the end of this conference call.

**Murray Stahl**—Chairman & Chief Executive Officer

I just want to thank everybody for attending and listening, and I really must say I think the questions are great. I enjoy them. Don't hesitate to submit them. If there's something we didn't address that's a concern of yours, we'll get you an answer. We aim to be as transparent as possible. I just want to emphasize, with respect to the cryptocurrency aspect of our activities, that although it's a very small part of our assets, it's very important to us and we're focusing on it and thinking about it constantly. Nevertheless, nothing is set in stone, so if the world changes—whatever our posture is with regard to inflation or cryptocurrency—we're not wedded to it. If circumstances prove to be different than those we believed were going to materialize, we'll have no hesitancy in changing our posture. I hope you take that to heart and, again, thanks for listening and thanks for

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the support. Of course, we'll reprise this in about three months and look forward to talking to you then. Thanks a lot and good afternoon.

**Operator**

Thank you. That does conclude today's conference. We do thank you for your participation. Have an excellent day.