Josh Crumb: All About Gold

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Erik: Joining me next on the program is Goldmoney.com co-founder, Josh Crumb. And, Josh, I'd really like to get into gold in this interview because we've seen so much tape action lately that really had a lot of gold bulls excited.

Before we do that, though, something I find is that everybody in the gold market has a different idea about what gold is, why you have it in the portfolio, and what you're trying to accomplish from an investment strategy. Some people would tell you that it's a store of value, some people would say it's a hedge against financial market collapse. And the gold bugs would tell you that, as soon as the evil cabal of central bankers is done with their manipulation scheme, it's going to $400,000 an ounce overnight and they're going to get rich.

So, what is gold? Is it a get-rich asset or is it a stay-rich asset? And how do you use it or see it fitting into a portfolio?

Josh: That sounds good. Thanks, Erik. Yeah, I think that's probably the best place to start because we seem to have—I call it at least two bookends of the view of what gold is. In my background I actually worked at Goldman-Sacks on a macro team and looked at commodity markets, including gold. And what we looked at was, really, like most of Wall Street, in a supply and demand model. You know, much like you look at copper, oil.

I had different drivers but, essentially, people were looking at it for year-over-year change in supply and year-over-year change in demand and the level of inventory. This is a very standard model.

But the problem with that sort of linear model is, you look at it as what's the demand for, say, jewelry, or for coins, or ETF flows? And so, you look at it, but the problem is you have almost all of history's gold sitting there in inventory—roughly $7 trillion worth of gold as a commodity stock or, as I would view it, as a money stock. Which makes it very different than carrying 30 days of inventory of oil or 60 days of aluminum.

So it's a very different market. And people really, in the guts of commodity markets, they understand that inventories and spreads drive prices. But then, on the other side of

the spectrum, you have this view that the dollar is completely worthless, backed up by nothing, created out of thin air. And, although there's aspects of that that I probably tend to lean towards with the extraordinary policies in central banking—but that's also not fully true because there's a lot of assets that back up the dollar.

Where I'm going with this is I think it's important to look at gold's—remove the economic lens and even remove the financial lens for a second, and just look at gold and commodities in nature—what is it that the math of gold shows us over time? Without any models, without any theories, if you look at the data, you see that the production cost—the cost of mining gold, relative to the cost of mining copper or the cost of producing wheat, or all of these different commodities—stays very, very proportional over very, very long periods of time.

And so they have this anchored relative cost function based in scarcity. So, regardless of what your model is, how should we analyze gold, how should we look at gold from a theoretical standpoint, we see that the data shows that gold has this very tight long-term correlation with all other commodities. And so that is where the most important thing—for me looking at it—that proves that gold is a store of value relative to the things that are central for humans. You know, eating, energy.

And so, by one definition, the market shows that gold is a store of value, no matter what. Our job is then to figure out why, next. But the math and the history of gold shows that gold is a store of value for that function.

Erik: Okay, well, I've heard a lot of different views about different people modeling gold in different ways. Some see it as a commodity. Some see it as a form of money, as actually currency.

You've got a view, though, about energy defining the value of gold, and I think of also some other commodities. That's a new one on me. I haven't heard that from other analysts. Can you explain where energy comes into this equation?

Josh: Sure, absolutely. I think the most important thing, from a mathematical or cost of production perspective, is all of these base commodities—which are essentially just either elements or compounds either found in nature or, very close, taking something in nature and refining it to a product that we consume, so what's known as the natural resource commodities—just looking at the cost or the replacement cost. So this is what I like to call an energy theory of values.

So the energy basis of all of these different commodities—again, whether it's grains, or whether it's copper, aluminum, gold—they're going to have a proportion of their cost that's purely just energy cost. It really has very little to do with labor. It's more about if you pull a gram of gold out of a ton of rock, there's a very high commodity-energy component to crush it, grind it, refine it. And that will always be a very high proportion

to the cost. Unlike a service—a pure service economy good—which has a very high proportion of labor.

I like to anchor everything in its energy cost and its labor cost. But the labor cost itself of course, if you think about labor, you move from very commodity labor—which is essentially paying a living wage that just—energy-based goods—to very highly specialized service economies. Even that can be broken down further into energy. But this is important for what I call the anchor, or that energy theory of value, for both money, for goods, for anything in the economy. It can be anchored by its relative energy cost.

But then the cyclical side of things—the price volatility, the price elasticity—really comes from the short-term supply and demand for any of these things. Again, whether it's copper, and you look at the futures curve, and it's very based, and it's replacement cost and energy, and it moves very well-correlated with the oil price—but the price you see on the ticker every day is typically the front month price, the three month price, in copper for instance. And that can be very volatile, based on short-term supply and demand, inventories. But most things are generally anchored in the future, based on their energy replacement cost.

Erik: I see where energy plays a role in the increasing cost over time because of increasing scarcity. Hundreds of years ago, if you wanted gold, you could go wading in a riverbed someplace and reach down and pick up gold nuggets. These days we have to get tons and tons of rock and crush it with expensive machinery just to get a gram of gold out of it.

Presumably, as that trend continues and it becomes more and more scarce, that production cost goes up and, therefore, the value goes up over time. So I see where the energy comes into the equation from the cost of mining and producing gold.

But gold is not a battery technology. You can't run your Tesla on gold nuggets or something. So where do you see the role of energy in determining the value of something after it's already been produced? Or am I missing the point completely?

Josh: No. That's actually a great question and I think this is probably the one that most confuses people. And I agree. It's not a battery in that you can put energy in and then take it back as consumable energy. However, it's a monetary energy. It's something that can last forever.

But, before I get to that, for a second—all of these other goods and services that can be—again, on a scarcity basis—you define that—well, on a scarcity basis, they all have the same energy-relative abundance and shortages—create more energy costs for one good versus another, but the carry of all of these things—

So that kind of anchors them. But if you produce, you know, wheat, you've got to store it, you've got to dry it, you've got—it's got a very high energy carry. Versus gold which, once you produce it, it lasts forever. There's no decay. And, of course, a barrel of oil, once you produce it, you can't—the carry on oil is very high, putting it in a tanker—or turning over inventory in a salt dome, or all of these different things—because it doesn't last forever.

So there's the energy cost, but there's also the energy carry, which is very important for choosing one good as a store of value versus the other. If you look at all of the elements, gold is one of the rarest. That's what creates the very high cost structure. But it also lasts forever, which creates the very low carry.

And this is why it became very good money. Not because you consumed money, but because you could anchor and measure everything else versus it. And if you look at the things that gold is used for today—look at jewelry. Why does it matter to have gold jewelry? Because everything else corrodes, rusts, breaks, goes away. Gold jewelry lasts forever. If you look at all of the different things found on the Titanic, it's the gold 22 or 24 karat gold lockets that are in literally perfect condition. Everything else is gone away. So gold becomes this arbiter of time, which is what money should be.

Sorry, maybe I took that a little too complex, but I think it's very important to understand that: energy cost versus energy carry.

Erik: Critics of gold, of course, are famous for saying that gold produces no income. You've got an asset that has no positive carry because it doesn't generate any revenue. That, essentially, leads us to the conclusion that the real interest rate has to be the driver of value. If you've got negative real interest rates in the economy, then you do actually have a return on holding gold just as a positive carry cost. As long as there's a positive real interest rate, and, of course, real interest rates (by which we mean the interest rate adjusted for inflation). If you've got positive real interest rates then other things become more attractive than gold because they can produce that positive real return.

As we get to what a lot of people are predicting, whether it happens this year or next year or the year after that—someday Jeff Gundlach's going to be right, the 35-year bond bull market is going to be over. We'll be heading, at least in nominal terms, to much higher interest rates. And that would seem on the surface to paint a very bearish picture for gold. Would you agree with that? Or do you think that those rates are only going to come in a high inflation environment where, actually, we'll be still negative in terms of real rates?

Josh: Yeah, exactly. I think—going back to the very first thing you said, where gold doesn't have a use and doesn't pay interest—well, neither does a bearer asset such as a US dollar bill. The $1 or the $100 bill in your pocket also carries no interest. What carries interest is taking financial system risk. That's depositing the money, and there's a

counterparty risk.

So part of that is part of the interest rate on a dollar. And then the other part of it is what is the collateral of the banking system backing up the creation of those new dollars? And if there's a real yield in the economy then, yes, the dollar can appreciate beyond even the counterparty risk in your bank account—when there's real growth coming into the dollar economy backing up the dollar financial system.

When there isn't real growth—or there's inflation because the dollars need to be created to support themselves and create the effects of growth versus actual underlying real economy growth—then you're going to have negative real rates even if you have higher nominal rates. On your question about what happens when rates start rising or bond yields start rising—again, we always have to look at in real terms, not in nominal terms.

In real terms—and I'll go back to that commodity analogy. I know with pretty good certainty with a 2 to 5,000-year time series, that holding my gold will buy me the same amount of meals—in really any currency, any political regime, anywhere in the world, at any time—gold's going to be able to buy me a similar amount of apples. It's going to buy me a similar amount of grains or energy. So that's the store of value function that we know about gold being money, even if it doesn't produce income.

What we don't know is, even if nominal yields go up, in ten years' time that Eurobond with that coupon is going to buy me the same amount of apples, the same amount of energy. And I would say the probability of that is close to zero. You're not getting paid any duration risk, you're not getting paid any sovereign risk, you're not getting paid any credit risk. At the end of ten years, holding most of your Euro denominated bonds (either corporates or government), you have almost no coupon. And maybe you'll get your Euro denominated principal back.

So I'm not worried that nominal yields are going to go up, or people are going to get paid more for risk, and somehow that's going to decrease gold's store of value function. Unless there's real growth and real interest rates in the economy—again, that's kind of another part of the question.

Erik: Gold has been a very effective store of value and has proven itself for more than 10,000 years. I happen to share that view myself, personally. But my job here, to put my journalist hat on, is to play the devil's advocate. So let's look at the other side of that argument.

If we had a really big cryptocurrency buff here he'd say, Josh, look, gold's been a store of value for 10,000 years. For most of those 10,000 years we had bloodletting and all kinds of primitive things that we don't do anymore. Gold is shiny, yellow metal. It doesn't have a lot of utility value. Sure, it's useful in jewelry, it looks pretty on girls. But, aside

from that, it doesn't really do much other than other than electrical contacts. And, although it's true that it's been a store of value, there's a much better store of value, because what cryptocurrencies like Bitcoin have done is they have mathematically modeled the same scarcity properties that you have in gold.

The first Bitcoins didn't require a lot of computing cycles to mine. As you get more and more, just like gold it gets more and more expensive. But now it's not energy in terms of mining equipment. It's compute power energy. And that doesn't screw up the environment. Let's face it, the mining industry is not terribly friendly to the environment.

So Bitcoin's the new thing, baby, forget about gold, go with cryptocurrency. That's going to replace it. Nobody's ever going to want gold again. It's going to be an ancient relic because it's replaced by something better that does the same thing.

What would you say to that argument?

Josh: That argument breaks down on a number of points. First off, I'm not necessarily anti-Bitcoin. I think it has medium of exchange properties, and it has scarcity properties through, as you mentioned, a proof-of-work and mining. It's a very, very interesting model for the internet that you can use the internet rails and the internet protocols to transfer value, but with a scarce asset that can't be digitally replicated and copied—the double-spend problems. So, first off, I think the medium of exchange function of Bitcoin is very, very interesting.

However, its store of value function-it could be an investment, you know, speculation, that takes it from—the cryptocurrencies right now roughly $150 billion market cap, gold is $7 trillion. So, yeah, relative to other securities and risk assets, can that 150 billion go up on—call it a bubble, call it more allocation? Sure.

So is that a better store of value? No. That's—it's just a risk—it's a risk in liquidity, sort of market share gain. Is it a better store of value? Absolutely not. Because there's no scarcity in these protocols. This is a mathematical function that can be replicated, and we've already seen it replicated with Ethereum], well obviously a different protocol. But Ethereum, other supplies of cryptocurrencies—even Bitcoin and cash itself—it's centrally spun out another asset from its own original Blockchain.

So, no, from a store of value perspective, absolutely not. Until cryptocurrency has a covalent bond structure, like the element Au, it doesn't have natural atoms scarcity. It may have bits scarcity, but it doesn't have atoms scarcity. And so it will never replace that function of being able to—and if you look at over billions of people—I would say the use of gold and the trusted element of gold of being a store of value—

We live in this financial bubble, this very Western elite 1% bubble of the world, but

there's still billions of people that don't trust their governments and don't trust their banking systems. And their demand for store of value is not adornment and jewelry, it's being able to hold savings in something that lasts. And that's not going away any time soon. So it's not zero-sum, and Bitcoin will never be replacing gold from an elemental store of value.

Erik: I want to hit you with another risk that I see that arises from cryptocurrency, but in a very different way. And that is that, I think, that the threat to Bitcoin is that eventually we'll see government-backed and owned cryptocurrency. People's Bank of China is already working on something right now. And we'll get to a point where governments outlaw private cryptocurrencies, they'll announce that nobody other than terrorists or people that are trying to finance terrorists has any reason to want Bitcoin. And the new currency is the—we'll call it the Orwell, the new unit of cryptocurrency that's created by the government—and it's fully traceable and can be taxed and has all kinds of attributes that are just the opposite of what Bitcoin does.

If that were to happen, I suppose you could make two arguments. One is, it's looking fantastic for gold initially, because gold would be your obvious go-to as a store of value if you don't want to be in that government-controlled cryptocurrency system.

But if they're going to outlaw Bitcoin they might outlaw gold next. And if gold were outlawed—which has happened before, private people in the United States were not allowed to own gold for many decades—if we saw that again, and the market for gold was just the consumers and electronic contacts, if the whole gold bug market is gone, then that's got to not be looking good.

Do you see any of those things as risks for gold?

Josh: No, not at all. So, first, on the government-backed—call it cryptocurrency—I think they're complete opposites. If you attempted to have a—let's call it the Canadian dollar, the CAD-coin—what they'd be creating is a bearer asset on a Blockchain, which means that the person in digital control of this is the bearer of that. It's not bank system money, it's not generating interest. It's just a Canadian dollar coin.

Now, why would anyone, first off, want that—you know—for the risks of it being hacked? And why would the government want that? Particularly when the trend is towards bringing more assets into the banking system, meaning you have more control, next time there's a recession they want more infrastructure to take interest rates negative, which means less bearer assets, less cash. So I just don't see **them** wanting it, and I don't see the market wanting it either.

The value of Bitcoin is its anti-sovereignty properties. It's a bearer asset that can transcend any sovereign boundaries, unlike financial bank system money. So what I mean is—and it doesn't have to be black market activity, that's obviously one of them—

but capital controls. You know, a big wave of people buying Bitcoin, now, from an institutional perspective, is they look at it and say, look, I think there's going to be more capital controls put into place—whether it's through the next recession or things that are happening in China, banking system risks—so they want to own cryptocurrency as something that can easily get out of the banking system and still transact and still move across borders. So those properties that people want Bitcoin to begin with are completely opposite of wanting a CAD-coin or any other currency. And so, yeah, I'm just not worried about that.

As far as the gold, again, losing market share—this is something that's quite important to understand in gold as a money stock or commodity inventory versus a short-term supply and demand. Roughly $150 billion worth of new gold produced and consumed in the market this year: if demand fell by 20% on a unit basis, that still is insignificant to the $7 trillion worth of inventory in the world. So, again, this incremental market share gain by cryptocurrencies or Canadian dollar coins or whatever else, it's got to be relative to that $7 trillion number for it to matter. It's not the year-over-year supply and demand.

And, I guess, on the final point on outlawing gold, I don't see it. Because the first time that these things happened gold was part of the government monetary system. It was part of their mandated system. Now it's a completely private money stock for the most part. Obviously, there's still some sovereign gold. But, for the most part, it's a private money stock and a commodity of element. It would be arbitrary: we're going to ban gold, and we're going to ban you owning trees, and we're going to ban you owning apple orchards—I don't know. So could it get to that? Sure. But is gold at any more risk? And would it drive the price down, or up? Clearly it would drive the price up, not down.

Erik: I want to get to your outlook for gold and silver and so forth. But before we go there I think we need to touch on the US dollar because, of course, if gold is priced in dollars, until we know the direction of the dollar, we can't make too much sense out of the direction of gold.

So what do you see for the US dollar? We've heard some guests on the program say they think that this rout in the dollar index is over, it's all uphill from here for the dollar. We've had other guests say, no, this is a bounce, and we're headed lower. And the Euro in particular, they think, will be stronger. What do you see for the US dollar, as well as the Canadian dollar?

Josh: This also goes back to the framework of understanding what's actually moving. The problem in these currencies is they're not really anchored to anything. So, while it looks like the dollar is going down, is it because the dollar's going down or is it because the Euro's going up? What is the dollar going down in relation to? Is it going down in relationship to all other goods in the economy? Well, that would be called inflation. And we see fairly stable inflation numbers.

Let's even look outside the Euro; let's look at emerging market currencies. Is the dollar going down in the last, its 10% draw, was that against emerging market currencies? Well, not really. It was mostly just the Euro and some other G10 currencies. Canadian dollar and so forth. And if you look at it versus gold, gold has also been in a very tight range. Some of the lowest volatility in decades. So the US dollar, I would argue, is not going down. The dollar index may be going down because it's so heavily weighted to the Euro, but that's really just the Euro going up.

And on that note, looking back at why the Euro is going up and whether that's going to continue, I think that's another interesting debate. Because, if you look at the fundamentals, sure, there's been a little bit of upside surprise in economic data. Not great, no inflation data, slightly better. The big driver of the rally of the Euro is because there's this rotating system of funding currencies in carry trade.

So if you look at this new monetary regime we're in, where everyone wants a weaker currency and wants to lower interest rates to produce growth, we're sort of just cycling around the world of different currencies having their turn at devaluing and creating lower real interest rates to try to stimulate growth. And the biggest ones—obviously Japan has been one for decades—but the Euro became the carry currency. And that has unwound with slightly better economic data and probably slightly less political pressure from extreme right groups and so forth.

So I would argue that the dollar actually hasn't been going down. It's just the Euro going up on a relative basis. But, over the longer term, we know mathematically and through the policies that guide all of these currencies that the trend is zero. Always has been, always will, that's just the logic. Like the Bitcoin has its protocol, the protocol of new Keynesian central banking is to drive the value to zero—the currency to zero over time.

Erik: Let's move on then to the outlook for gold prices. We've seen gold, really since about March or so, kind of range-bound here between about 1,210 and not quite 1,300. It looks like 1,297 or so is the high that we've tested, three times now over the last several months, and it was rejected again just a couple of weeks ago. At least so far. Where do you see things going? Are we going to stay range-bound? Are we moving higher? Was this latest test just about the escalation of North Korea, or is there more going on in this picture?

Josh: I think it's a good question. And, again, if you look at those fundamentals, I would look at the gold price as the numerator and the currency as the denominator. So what drives the relative value of the dollar—not against the Euro but against gold—is real interest rate outlooks.

If you look at what the TIPS market has been saying, for instance, it's very similar to what I was just saying about currencies. The dollar actually has not changed much over the last three quarters. There was obviously the volatility around the Trump election,

but after that settled in TIPS yields have been very range-bound just like gold has. So that's the denominator side. So there's fundamentally not much happening in the denominator of gold divided by US dollars.

Now, looking at the numerator and what—again, that anchor value of gold—then you have to start looking at the energy market. So you look at what is happening globally from energy markets that could increase scarcity for energy, increase cost for gold, and that has also been actually very range-bound.

Now, the front end of the oil curve is moving up and down in this range of—call it $45-$55—but if you look at the whole curve, and you look at the futures price of oil, it's been extremely low—low volatility, sort of sitting around in $53-$55.

So, again, you've got TIPS yields extremely range-bound, you've got long dated energy extremely range-bound, and that's created gold being very range-bound, regardless of the unwinding of QE in Europe (or the supposed positioning for QE in Europe). So I think a lot that's happened is more Europe-centered and not gold-centered and not dollar-centered and not energy-centered.

That's where we've got this fundamental low volatility. Part of it is central banks just buying up all assets globally, that suppressed volatility. But, also, just true fundamental macroeconomic volatility has been extremely low. So that's what's kept gold range-bound.

Now, looking out over a quarter, over a year, I continue to think over the next quarter—unless you have some real shocks in central banking policy coming out of Jackson Fed Conference, or in September—I actually think gold will continue to be in this range. But looking at it more from a long-term perspective, I think this is an accumulation phase because, if you look at the real interest rate portion of the dollar, I don't believe we have much upside in that. I think this recovery is very long in the tooth. We've got all the returns on leveraged buybacks that we can get, and a lot of things that were driving wealth effects, so that's kind of getting long in the tooth from a real interest rate perspective.

And then from an energy basis, yes, I think energy prices will stay pretty stable for the next couple years. But they're not going to drop significantly. We're not going to go down to a regime where we're producing oil at $35. So I think the gold is pretty anchored at sort of a low level.

And if you look out over time, your asymmetry is much more to the upside, with falling real interest rates and increasing energy prices. I still think that people need to be allocating more and more gold to their portfolio. And, of course, all of the black swans, or completely exogenous risks (which is the latest one that drove gold with North Korea), I think that those are always going to be gold to the upside. So I think the

asymmetry of gold is you've got to own it. And you should own it now while it's boring and avoid the rush later.

Erik: A lot of people think that the stock market is over-valued and due—whether it's this week, next week, next month, or next year—at some point—we've been going straight up since 2009. Let's suppose that there is a big downside correction or even a bear market in the stock market. Now there's a logical argument that says gold should go up on that.

But what we know from the 2008 experience is people tend, when everything is falling apart at the seams, to be selling everything in unison regardless of the logic involved. So do you think gold is vulnerable to substantial downside if there's a stock market crash? Or do you think it actually benefits from it?

Josh: I actually don't think it would fall at all. We wrote a piece on this. This is not 2008, at least not for gold. And I think there were a couple of things happening. When gold sold off—and that was just the very initial stage, before it bounced, obviously, much, much higher—and so a lower dip and much higher recovery than any other asset class, particularly for those first three years—I think what happened is, again, that energy component.

The global real economy demand was also collapsing, so your replacement cost for gold. So I don't think this was all just this rush to the dollar as a safety. I think, if you look at our fundamental framework, it still performed extremely well. Our model captured all the movements and the components very well without any major anomalies. And so I actually don't see this as—I think it's more of an anecdote than a reality, you know, this demand for dollars somehow drives gold prices down.

Now, if there is some reason, macroeconomically, why real interest rates swing big time in those events, then that can change the value of the dollar fundamentally, up or down. But I don't see it as this dumping gold scenario to raise liquidity. Gold is the ultimate liquidity and will continue to be so.

Erik: Two quick asides before we move on, Josh. Silver we haven't mentioned yet; please give a view there. The other one is, I know you follow Bitcoin, so—when we talk about buying Bitcoins this week for upwards of $4,000 each—is that like buying tulip bulbs? Is this a crazy parabolic blow off-top that's all about to fall apart? Or is this thing just getting started?

Josh: I'll take the easy one first and go with silver. I actually haven't personally owned silver since 2004-2005, and starting to look at it again. Silver is very interesting relative to gold in two regards. One is because it's lower-priced and has more industrial uses. The rolling inventories, or the money stock, of silver is much, much smaller. So it's prone to squeezes when industrial production picks up and so forth. So that's on the demand

side.

But on the supply side what's really interesting is it's got this very discontinuous cost curve where, if you're getting silver from a copper mine or a gold mine or as a byproduct, it usually can feed that industrial market. Where it shifts up to being a monetary asset it can make very big moves. So when real interest rates dip below zero, and the carry on silver (which is probably 30 basis points a year) is less than the real interest—when real interest rates drop below 30 basis points, silver can really pick up and move from the byproduct part of the cost curve to the primary deposit part of the cost curve, which is a much higher level.

So I actually think silver has been incredibly cheap relative to gold over the last couple of years since gold renewed an uptrend. Silver has not, to the most part. Because gold's uptrend has fallen in the real interest rate band of 50 basis points. But when real interest rates start dipping next time, next recession, next bailout, silver is probably going to have a lot more leverage. So I think silver is very interesting.

As far as Bitcoin, this is in pure speculation mode. Now, whether you like the fundamentals or not—I like some fundamentals, medium of exchange and, call it the medium term—I don't think it's a long-term store of value. But I do think it has some interesting fundamentals, particularly for the world and the war on cash and all of the things that are coming next recession, I think Bitcoin is only going to pick up in demand. So I actually am somewhat bullish structurally on Bitcoin.

But this is certainly extremely volatile, a lot of manipulation, a lot of broken pieces of market infrastructure. It's not for the faint of heart. So it's probably going to go up, in my opinion. I wouldn't bet anything significantly on it.

As far as the other cryptocurrencies, I mean, there's some extremely dangerous parts of the market. Some real scams. I think parts of the Ethereum protocol and a lot of things that happen there is going to end in tears; I think it's going to get very ugly. So I'd just be very cautious. But I think Bitcoin has a very interesting time ahead.

Erik: Let's come back to gold, because I want to talk about ways to own gold, something that's very difficult with gold compared to other financial assets. If your motivation for wanting the gold in the first place is to have some kind of insulation from the financial system, then just having gold in some kind of account that's owed to you by a bank doesn't really accomplish anything.

I remember a few years ago, there were some private bankers for a certain organization (I would never mention the name of this banking corporation—that has offices in Hong Kong and Shanghai—on the air) who were telling their private banking clients that they were doing them this big favor by not charging them any storage fees for their bullion that they were holding. Because these people thought that they were keeping allocated

bullion out of the system. And, in reality, they had unallocated bullion accounts, which means that the bank owed them as an unsecured creditor gold that they didn't have.

So please explain allocated versus unallocated accounts for anybody who may not be familiar with that, before we go on to some of the other ways that you can hold gold as a financial asset.

Josh: Thank you, I appreciate that. That's actually an extremely important point. And it's not just retail investors. I was actually at another very major investment bank (we won't name names). They use a third-party bullion bank for their unallocated books for what they're doing in client trades, and even they didn't know what their bullion bank had—allocated versus just being pure credit and counterparty risk. So, absolutely.

And we run into mining companies as well. We're starting to onboard mining companies onto our platform. And they say, well, can't we hold it unallocated like we do with some other refiners and some of the banks, so we don't have any storage and insurance charge? I'm like, yeah, but, do you really want to swap 10 basis points of storage and insurance for unlimited counterparty risk when you actually need that bullion or want that bullion?

So unallocated is, like you said, it's a credit at that financial institution that they've got to deliver on demand when you want the physical gold. And if it's not there, it's going to be very hard to deliver when you actually need it. And then, I guess, taking that to the next step is the ETFs.

Now, the ETFs for the most part have a similar problem, but compounded because they're all securities. So, not only is a lot of their underlying unallocated account is bullion banks—yes, there's physical gold, but they still they also consider physical gold unallocated accounts of bullion banks—and so, again, when you actually want that gold for its tail-risk properties and its counterparty-free nature, then that's not what you're buying. But on top of that it's a security, it's not—your contract is for rights of a trust. It's not for the actual gold, even unsecured. And for the privilege of having a higher-risk product, you're actually getting charged anywhere from 40-50 basis points a year in storage and management of the security—which is about four or five x the actual cost of storing gold. You're actually paying to take more risk.

So that's one of the reasons why our company, Goldmoney, was actually founded, was we just saw there was a better way to use the internet and create liquidity in a marketplace but for underlying physical vault gold that's audited, insured, and audited by third parties. Which is not what you're getting from a lot of wealth managers, from bullion banks, or from ETFs especially.

Erik: Now, let's just explain what Goldmoney is for our listeners who may not be familiar with it. The idea is, essentially, it's a bank account that's denominated in gold, not in any

currency. So what you own is some number of ounces or fractions of ounces, is that correct?

Josh: Absolutely. Yes. So, as I described before, if I want to—and not only that, we can make it more accessible to buy a fraction—so I can buy $35 a month of gold and not have to pay $1,200-$1,300 for a coin in a small denomination. Again, it's similar to the ETF: it's a way to be able to buy fractional ownership, but your ownership is always secured by fully-reserved physical metal. So you always have title. No matter what happens to Goldmoney, you end up having ownership in a physical bar of gold at some of the top vaulting companies in the world such as Brink's, or at some of the mints that we have on our platform as well.

Erik: Now I really want to dwell on that point because I think it's a very important one. You just said if I have a Goldmoney account I own the gold. And I just want to make sure we're clear on that. I own the gold? Or you own the gold and I'm a creditor and you owe me the value of that gold?

How is it possible, if one gold bar that you've got in a vault someplace is actually shared by me and a bunch of other depositors? And I love that idea, that's great. I mean, who could possibly go before a court and say, look, there's this gold bar that's in a vault that these Goldmoney guys got stored. I own one 73rd of that bar. So I'd like to come in with my exacto knife and cut a chunk off, Your Honor. Please give me a court order to do so. That doesn't make any sense. So how is it that I can own something when the physical thing that I own is really owned by other people as well?

Josh: The important thing about gold is that it is a pure element and infinitely divisible. So in the worst-case scenario, when people really want to just go to the .01 grams, we can refine and cut that purity. So, yes, your title is—the client accounts are always fully reserved.

When you buy gold on our platform it'll say "pending" until our custodian and our—sort of a clearing agent of the vaults—say, yes, this bar, with this number is here, that means this bar now can back up these orders. And so you actually are settled to a physical bar of gold that you own title to. It's not an operating company, it's a full client account and the clients own the physical gold.

We put a lot of thought into this. This was a whole legal and settlement architecture that also, very much like the Blockchain, had these principles of third-party auditing so you didn't have these conflicts of interest. We don't own the vaults. We're not the ones auditing the vaults. These are third parties to ensure that you own titled metal in your account. And no one else was doing this before Goldmoney invented this process.

Erik: And then the cool fintech twist to this is that a Goldmoney account comes with a debit card where I can go to any Mastercard or Visa merchant and buy myself a new raincoat,

or go to an ATM anywhere in the world and get a withdrawal in the local currency. And what you'll do is convert that into gold at whatever the price is on that given day and deduct from my account in gold, is that correct?

Josh: Absolutely. Yes. That was the next level of innovation. Let's get aside from investment banks and finance for a second. The core purpose of the bank, the two ones, are savings and payments. The savings part we've done for many years. The original Goldmoney founded by James Turk really had that part down.

What we've added, this next level of fintech, and being able to—and also being inspired by some of the use cases of Bitcoin and seeing people willing to transact with commodity money rather than bank system debt money—so it's much more like a barter system, but very well organized on the internet—is now the payments aspect. So we have the Goldmoney Mastercards, including precious metal Mastercards—you can get an 18 karat gold or silver debit card as well—and so that part makes it very interoperable with, obviously, all the bank machines and everything else.

But also we allow peer-to-peer transfers. For instance, if I was in Europe having some beers in the Czech Republic with one of our advisors, and I didn't have any Czech Krona, and I wanted to settle my bill, I can't really use Venmo or Paypal or these other things, but I can send them $5 worth of gold very quickly from my mobile phone.

And we also have merchants that can actually use a business account and invoice, particularly cross-border clients—if I'm a Canadian merchant I really don't care if I'm getting British pounds or dollars or anything else if I'm ultimately wanting to settle in Canadian dollars, so why can't I accept Bitcoin or gold or something else. And it's easier for both the merchant and the person sending it than a very convoluted and expensive banking system.

The savings part is still our core business, and I think that's where we have an advantage over ETFs or any other way to buy gold or silver or precious metals. But also we're innovating on the payments part so we can actually use it as money. And the bigger picture here is—this isn't just some gold bug end-of-the-world view that—the knock against gold was always, okay, great, it's a great store of value, but at the end of the world I can't go buy bread with an ounce of gold. Well, now with the infrastructure we're building, you can. We do.

We have clients that we didn't even know, tweeted us from Nigeria last summer when the Naira was devalued 40%, and said "you just saved my savings." And it turns out he was also using it for payments and everything else. So this is a very important infrastructure that we're building, because it's not just for the end of the world. We actually just see that the currency regime of the world is changing. I think that's very objective.

And, whether it's Bitcoin and Blockchain, or new cross-border trade mechanisms, or even the way central banks are managing their currencies, we're moving into a new paradigm. And we're building infrastructure to scale that's an alternative to what we think is a very irrational banking system where you've got to pay, pay negative interest rates, but then still deal with all the other settlement problems, and all their costs of transactions, and missing wires when you send across borders, and infinite background checks to send money. All of that banking system is getting worse, not better. So we're part of this fintech movement that creates market solutions and choice, and building a better commerce system.

Erik: And I just want to be clear with our listeners: this is not some idea you're working on, this is something that's here and now today. You can go right now to Goldmoney.com, open an account, and they'll very soon send you a debit card that you can use in order to purchase stuff at the local grocery store in pretty much any country in the world. It will be converted from that local currency to whatever the prevailing price of gold is on that day and debited from your account. So, Josh, I can't thank you enough for a fantastic interview.

Patrick Ceresna and I will be back as Macrovoices continues, right here at macrovoices.com.