Josh Crumb: Deciphering the Gold market

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Erik: Joining me now is Josh Crumb, who formerly was the head of precious metals research for Goldman Sachs, went on to found GoldMoney, and has since gone on to found Abaxx Technologies. We'll talk about that at the end of the interview.

But first, Josh, it's great to have you back on the show. So much to talk about with so much going on in the gold market.

Josh, help me navigate the current opportunities in the gold market. And I'll just start by telling you how I see it.

On one hand, I really think, first of all, when there's a panic, people rush into gold. We've kind of seen what's looking like a blow-off top. It's starting to correct lower.

I think there's a really good argument that says that the stock market is not done with the downside from the COVID-19 crisis yet.

What we saw in 2008, it seems like there's a lot of good reason to think it's coming back, which is correlations go to *one* in a crisis. Everything sells off. Even though the fundamentals for gold are improving, people are selling it to raise cash. And the price ends up going down, even when you would hope it would go up under those circumstances.

I see lots of reasons to think that a dip is coming.

But, holy cow, the Fed just basically put up a "Buy Gold" sign and announced their intentions to illuminate it by spending $625 billion a week on lighting. You know, with this monetary policy intervention, it's kind of hard not to just say, okay, the fundamentals are so good you can't wait. You've just got to dive in here.

Which is it? Or is it a combination of both? And how do you navigate this tug of war in the gold market?

Josh: Hi, Erik. Thanks, it's good to be back.

One thing that I would say right up front is I actually don't believe so strongly in this narrative of sell everything, dollar short squeeze, and this sort of view.

And I'll explain how I look at it, which ultimately comes out to be something similar, I would say. But there is a fundamental behind it.

So when I look at gold-trading markets, gold-price markets, there's a couple of things that are important to look at.

What's the actual physical flow for gold and the gold demand? Call it on Main Street or the real economy.

And then, what's the demand for futures and just gold exposure on Wall Street?

If you look at what the demand for gold exposure is, it's actually still extremely well correlated with real interest rate expectations. Even when we saw that spike up to $1,700 in early March, that subsequently collapsed very quickly to (I think it was) $1,550 or $1,525. It was a pretty dramatic swing in the gold price.

It actually still matched up extremely well with the pricing of real interest rates as seen in, say, the 10-year TIPS market.

So what was happening is the dollar short squeeze wasn't just the physical commodity short squeeze, where you're selling everything, but also the models and people that trade the gold price futures based on metrics like real interest rate expectations and TIPS correlations. So that also happened.

That's sort of what's happening in (call it) the paper gold market, the machines, the algorithms.

When we saw that happen, we actually very quickly saw – real interest rates actually went up because, essentially, the market was pricing deflation very, very quickly because of the zero lower-bound.

If you price that the world is going into a deflationary, say, negative 2% inflation, negative 1% inflation, but you're trapped at that zero-bound, it actually means that you have positive real interest rates, even though growth may be negative.

This is one of the hardest concepts for people to think about, particularly when they're thinking about gold. And so we actually saw a very fundamental selloff on that real interest-rate spike.

However, that got unwound very quickly. Not just with Fed actions but, in general, you saw it across many assets.

So gold rebounded very quickly back into the $1,650 type of range, which is actually very well predicted by the model that I actually helped develop. And Goldmoney Research put out an update to that model back in June of last year where basically $1,650 was the target price, back when it was $1,300.

So, despite all the craziness, the model is actually holding up extremely well.

For anyone that's interested, I do have those models and that research pinned to my Twitter profile right now. I try to keep that information front and center. Because, again, there is a lot of narrative. There's a lot of talking about fear and dollar short squeezes and all of these things. But I think it's important to always have it still in a real fundamental model.

And basically what's happening is this fundamental uncertainty is actually quite significant. We don't know if we're going to have negative 2% inflation or if we're going to have plus 2% inflation.

That uncertainty, that window, is actually quite fundamental. And I don't think there is anybody that has a perfect model for where we're headed.

So, again, that volatility, I think, is fundamentally going to remain for a long time.

But, in my view, in general, I think it's very dangerous to play this game of I'm just going to wait for a dip. Now, if you see a dip, buy it, in my view. Hahaha.

Sorry. In the model's view, I don't want to make short-term trading recommendations, because that's never been my framework. But it's really just to help people understand why prices are moving where they are and what that macro framework looks like in the future.

So I'm not making short-term advice. But I do think this dollar short squeeze narrative is overstated, in my view.

Erik: Now, when I read a recent Twitter thread that you posted, it sounds like your model actually is predicting a fairly wide range of possible prices.

Is that because of uncertain expectations around interest rates, or inflation, or both, or other factors?

And what is that range in terms of what you see as being possible for the gold market in coming weeks?

Josh: Exactly.

So, again, I'm not sure how well I explained it, but part of it is the real interest rate portion. And this, again, is very important because this is the way Wall Street trades gold. It basically trades it like a currency cross. So real interest rate models and interest rate differentials are also the way that Wall Street trades, say, the euro versus the dollar.

Essentially, what's happening there when you're pricing real interest rates, you're pricing the demand for gold as a basically neutral or a zero-carry foreign exchange. So if it costs money to carry currency, people would rather be in gold than paying a negative real interest rate on holding currency.

So, again, this range is very uncertain right now because, yet again, we're in this huge dilemma. Are we going to have inflation or deflation? Is it going to be short-term deflation followed by long-term inflation? There really is a very wide range in that.

Now, the other factor that plays heavily into our model, which differentiates us from probably just about all of the other models out there (and particularly on Wall Street), is we also have an energy component to our gold-price framework.

So when I talk about real interest rates, we're really talking about the demand for gold as a money stock or as an alternative currency, again, when other currencies are having a negative real carry. So that's more of a demand for gold type issue.

On the supply side, energy is your key component. This determines the marginal cost of gold and, really, the fundamental anchor price of how we create new supply of gold because gold is so energy-intensive to produce. It's got a very high energy correlation.

And when I say that I'm not looking at the front-month $20 a barrel of oil, I'm actually looking at the long-dated energy futures and the expectation of, really, what marginal cost of gold is.

If you look at the forward curve of oil, we're still in the sort of $50-a-barrel range. (And, again, we can get into the whole oil dynamic later if we want.)

But, essentially, the model is pricing real interest rate expectations and energy price expectations. So those are the two big components to the model.

So, again, going back to your question of how big that window is, that range is, is actually quite incredible.

Because we don't know – just six months ago, long-dated energy futures were around $70 a barrel. Now, just like the front-month, that's collapsed to about $50 a barrel. Obviously, not as extreme as going from $60 in the front month down to $20. But we still have relatively – we still believe we need oil in the future. This is a temporary supply glut.

But the uncertainty is, so we really create such an economic depression that the oil-price curve keeps shifting down? That would be negative for gold. And if, again, we enter a deep recessionary environment, that would also be negative for gold.

So, basically, what you have is you've got this window of $1,200 on one side, based on those two factors, and $2,100 on the other. Which is just an incredible – it sounds like an analyst's copout to have such a wide range.

But, again, based on our model, that window is that big. And that's very consistent in a lot of other markets, if an analyst is being honest. We have such a fundamental uncertainty right now of what comes out the other side that we're just going to have this heightened volatility for a long, long time, in my view.

Erik: Let's go a little bit deeper on this subject of the gold-oil ratio. Because it's something that, at least when most analysts look at it, they really are looking at the spot price of oil and the spot price of gold. And I think we're already either close to or at an all-time record on the gold-oil ratio in terms of dollars per barrel of oil to dollars per ounce of gold.

I think it's going to go much farther than it has already.

But it's all about what happens in the front month. I think what we're about to see is an all-time record super contango in the oil market, where right now we're at about $46 for long-dated futures eight, nine years out into the future.

If I look at today's spot-market or front-month futures price, we're right on $20, just barely above $20 as we're recording on Tuesday morning.

I think we're headed much lower, maybe as low as $10 on the front-month futures price. But if that happens, it's going to happen in a super-contango condition where, still, if you go two or three years out on the curve, you're back up over $35.

So, with that outlook, does that mean that, in the short term, gold prices get pulled way down with it? Or does this function of energy in your model operate in a way where it's almost immune to that super-contango condition and really only discounts the later-dated futures?

Josh: That's a great question, Erik, and one that I've been fielding a lot. Because as our energy-gold framework has been picking up more steam in the market, a lot of people have been reaching out exactly on that point. And I think you're right.

So, first, a couple of numbers around the front-month oil-to-gold ratio, because that's one that generally gets posted on Twitter and in the general macrosphere. And it is quite incredible what's happened.

Generally, that last 30 to 40 years, the oil-to-gold ratio, you're looking at somewhere between – it's a pretty wide window, again, for the reasons of the backwardation and contango in oil markets.

But, generally, it's ranged between 10 barrels per ounce to 30 barrels per ounce, with the average rate around 20. So you actually have this pretty neat, clean range for gold over oil.

And that, by the way, is not just a modern phenomenon.

If I look back in the 1920s and 1930s, at the height of the Roaring Twenties, you had oil at around $1.90 a barrel, which translates – and gold the fixed $20.67 per ounce – and so you were around $10-11.

And then in 1931, in the market collapse, we moved up to about 30. So, again, we stayed in that 10 to 30 range. And we've always been in that sort of 10 to 30 range.

So where are we today? We're over 70. So this is really an unprecedented collapse in oil prices measured to something like gold. And so we're just way off the charts at this point.

But, again, back to your point – and if I look at what's happening in our price model and in the gold market – again, it's still pricing that long-dated future.

Now I think you said $46 – you must be using WTI. I think I usually use Brent in my model. But essentially similar mechanics. I think the Brent price is $48-49, something like that, at least when I looked at it a week or so ago.

And so, yes, we still believe gold is pricing that expectation. Because gold, in our view, prices like a money stock, it prices like a currency, or it prices like a 10-year TIPS. So that's the way that we look at gold.

And that framework seems to be holding up. So it has not been directly impacted by the collapse in front-month prices. It's still looking at expected values of currency and energy, perfectly in line with our model so far.

Erik: So would it be fair to say, then, that your opinion is that, even though most people look at the spot gold-oil ratio, what would make more sense would be to divide the spot price of gold by the back end of the futures curve, whatever the longest-dated futures are pricing at, which right now is $47.37 on WTI and it sounds like $48-something on Brent?

Is that the model, is use the back end of the curve?

Josh: Exactly. It's the back end of the curve. And why is this? Because this is actually where you're getting industrial price signals into the market is through forward hedging. Not necessarily on spot-market hedging or flows.

Spot markets, whether you're talking about gold or you're talking about oil, are all about actually what the current inventory and current supply chains are needing as a buyer-and-seller-of-last-resort market.

So the front end of the curve really has to do, really, only with what inventories are and what very near-term spot market are doing.

But, again, if I may – whether I'm a mining company that's hedging or an oil company that's hedging, that price information about our real marginal costs is coming into the futures curve, not into the forward price, not into the near-dated futures.

So that's why we look at the futures curve. And, again, it holds up very well in our model.

Erik: Now, Josh, you just said something that really caught my attention. Because a minute ago we were talking about the back end of the curve. That's eight or nine years out into the future.

But what you just said is the important economic signal comes from where people are hedging, where producers are hedging their forward production.

As I understand it, at least in the US shale industry, that's normally about two years out on the curve. And if I look two years out on the WTI curve, I see the March of '22 contract trading at $38.74. So that's almost $10 lower than the number we were talking about at the back end of the curve.

Which one of these is actually the relevant signal to use?

Josh: It's a great question and one that I'd say the whole industry is struggling with a little bit. And particularly some of the frameworks we developed at Goldmoney. And there's a couple of reasons why this is happening.

First off, the balance sheets of the banks and what they could actually take as far as inventory for these types of hedges, the world has changed significantly since '09 and a lot of the bank reforms.

And a similar dynamic you've heard in bond markets and the destocking of inventory of bonds on bank balance sheets.

Same thing when you're talking about gold – we can get back to gold – talking about how the whole dealer inventory has been destocked significantly.

Same thing with long-dated futures.

So what's happening currently in this curve is a lot of these shale producers in particular have just been dumping. Just selling and selling and selling. You know, sort of that mid-term future. Exactly as you pointed out.

So we think that that longer-term price signal has been lost a little bit in the market, very much like an illiquid bond might lose its pricing signal. But, fundamentally, we still believe that marginal costs are really anchored in expected marginal costs.

You don't build a new project and create new swings in supply based on what the near-term price is. It's always about expectations.

So that's where the actual industry practical application is sort of running into theory at the moment.

But, ultimately, we still believe that it's the expected marginal cost that matters for producers to make production decisions, not just the spot price.

Erik: Okay, Josh. So if we look at where the spot gold-oil ratio is, which you said is the number that probably doesn't make that much sense to pay attention to but what everybody looks at, it's like 70 barrels per ounce.

And, just based on the conversation that we've had, if I look at the two-year out, where the shale hedgers are hedging, and I use that number, I get about 42 barrels per ounce. And if I use the very back end of the curve, I get about 34 barrels per ounce. That's still beyond the 30-barrel top end of the range.

So it seems like no matter how you slice it we're looking at what could be considered a situation where oil prices are putting a drag on gold prices, or perhaps artificially constraining the gold price.

Is that true? Is that what's holding gold back from responding to what seems to me like an incredibly bullish impetus from central bank policy action in the last few weeks?

Josh: I hadn't run those numbers myself and I actually think that's extremely helpful. And I agree. We're still in this very unprecedented expensive gold relative to the other commodity economy.

And our view is that gold has always been a money that sort of stays even. So when you get these spikes above even, it could be a short-term squeeze or a short-term rush for gold. And you can also see that in something like the copper market, or platinum, or silver.

So we do seem to be having this run to gold that seems excessive compared to some of the other metals and commodities. So, yes, that would give me some pause on chasing a gold price here.

Now, again, that said, I still believe all those commodities that I mentioned are likely to be much higher a year or two years out because of inflationary reasons. But it's never good to chase a squeeze either.

Erik: I want to move on to another topic that's gotten us a huge number of questions and inquiries from listeners, which is the physical disruptions in the gold market.

To be sure, the coronavirus crisis has brought about physical disruptions. It's difficult to take delivery of physical gold on the LBMA. There's been some disruptions in the COMEX.

Something I've noticed over decades of following precious metals is any time that there's any real physical disruption in the market, that also leads to imagined physical disruptions where the precious metals dealers, particularly the guys that are selling retail-sized bars and coins, start publishing articles about how the world is coming to an end, the paper markets are collapsing, you better rush and just pay whatever premium you have to get those physical gold eagles in your hand, because the entire COMEX/LBMA it's all going out of business next week.

Help our listeners navigate what's really happening. What are the real physical dislocations in the market? What do they look like?

And what are some of the things that we should not be taking seriously in terms of inflated predictions and descriptions that some people have put forth?

Josh: I generally agree with your statement on that, that it gets exaggerated.

Yes, in very short-term rushes for – rush for silver or gold – you do lose retail dealer inventory. And that's because you still have to mint it. And all of the supply chain that goes into the mint, into the distributers, into the retail dealers, into the US postal service – all of that – that's a real supply chain.

And just like any supply chain, the surges of supply and demand, it's very hard to manage that. So that is real. I wouldn't understate that these shortages are real.

And I would say what we've seen in the last couple weeks is pretty much just an epic. You know just like this oil-gold ratio blowing out so significantly. We're also seeing that in real physical inventories.

So if I look at something like silver coins, that one usually happens first. Again, that's very real. Because it's a high cost-of-carry commodity. There's not a lot of inventories of silver coins, even in the best of times.

But when we actually get that kind of squeeze on, say, kilo bars in the gold market or 100-ounce bars, 400-ounce bars, that's really the wholesale level. And that's pretty extreme. We have not seen that before.

So what we saw last week – with even my former company, Goldmoney, which holds about $2 billion worth of client metal, so operating at a much higher scale than, say, a coin dealer – there was an absolute shortage of kilo bars. There was an absolute shortage of kilo bars in New York, in Switzerland, in Singapore.

So this is real.

Now, is that just an issue of very short-term transportation and moving inventories around because of coronavirus shut-ins? Likely.

But, that said, we have, as I alluded to earlier, we really have destocked even investment-grade bullion over the last 10 years from dealer inventories. And the financing for the people that – the wholesalers – the financing has been getting tighter and tighter and more difficult to come by.

So I believe that squeeze is real. I believe those shortages are real.

Now, I'm not saying there isn't gold in the LBMA vaults or there isn't gold in Fort Knox or something like that. But the ability for somebody to give that up is becoming more and more severe.

So even if that gold is sitting there, it may need a much higher premium to clear. So I would caution that I'm generally in your camp, that it's usually oversold by the dealers, but this one does seem quite different than past squeezes.

Erik: Okay, I want to draw a distinction. One of the things that I think we can agree is happening here is, clearly, there is a premium for retail-sized coins and bars.

So, whether it's a one-ounce bar or a one-ounce coin or even a kilo bar – which is probably the biggest, the top end of the retail spectrum in terms of size – there is clearly a shortage of that stuff that creates a premium. And the price of those retail-sized physical products is higher than the wholesale price for physical metal. No doubt about that.

But what this has led to is a lot of commentary that, supposedly, the physical price of gold has decoupled from the paper price of gold. And usually the way the narrative goes is this decoupling is going to continue, the paper price of gold is a fantasy, you'll never be able to actually get physical metal, and so forth.

And I just don't think that that's true, Josh.

I think what's really going on is the paper price of gold is still an accurate reflection of the wholesale price of London Good Delivery bars, 400-ounce bars (with the caveat that there may be a delay in taking physical possession of them because of this crisis).

But I don't perceive any truth to a disconnect or a breakdown between the paper price of gold and the physical price of gold, if we're talking about the physical price as measured by the wholesale market for 400-ounce bars.

Am I missing anything there? Is there really a disconnect that's forming between paper and physical that I'm missing somehow?

Josh: Not necessarily. Again, I tend to side towards your view.

But, that said, I wouldn't say that there is absolutely no shortage. Again, there's a shortage at $1,650 or $1,620. Now, would there be a shortage at $2,200? That's a very different story.

I do believe that we have seen unprecedented shortages, again, in places like New York and Switzerland and Singapore that it still seems a little odd that more gold is not leaving those LBMA vaults and basically feeding some of the largest markets in the world.

That, to me, doesn't add up.

So I would be careful to say that there is plenty of gold, because at this price there is not plenty of gold. That's what we're seeing.

Even if you look at the current spread on the COMEX, you're looking at the April-to-June spread. I think we're still running at a $25 backwardation. And even that whole term structure is higher than the LBMA price. So the market is still pricing all the way out to June. And in the April-June spread that there is a shortage of wholesale financial bullion.

So, again, I would be a little bit careful to say that there is plenty of gold, because we would have seen it flowing around a lot more.

And another point that I would say is that this has not been happening only in the last couple of weeks. This is the other thing that I think – even if you're reading some of the shock articles on ZeroHedge or some of these – one of the things that I can tell you is this institutional run on gold started back in Q4. So, really, during the whole not-QE spike in repo madness, that's actually when we saw the largest vault movements in LBMA and London export history.

So we've seen major, major financial gold, wholesale gold, leaving the system. And that sort of silent bank run has been happening for almost five, six months now.

That's another thing that's played into this recent short squeeze on the COMEX.

Again, we're in a very different situation than '08. I don't think you can make analogies to '08 because there was so much wholesale dealer inventory. There was so much dealer – you know bank and bullion bank inventory. There was a lot of scrap. And all of those categories have been heavily destocked the last 10 years.

So, again, it's very analogous to certain bond markets where, yes, it looks like you have a price until spreads really blow out because people can't actually arrange the inventory.

I'm not saying that the gold is not there. But it's in much stronger hands than it was 10 years ago during these squeezes.

Erik: Well, that's very interesting to me because one of the things that I've been struggling with is it seems to me like we have seen, in the last several weeks, 2008-like price movement.

And what I mean by that is, as the stock market was crashing, we saw the gold market crashing with it. Even though the gold fundamentals were only getting better.

And it seemed to me that that price action was confirming what I had feared, which is that correlations move to *one* in a crisis. And even though people don't want to sell their gold, they were being forced to sell their gold to meet margin calls or something.

So it sounds like you don't think that's what was going on.

How would you interpret that big move down? Was it entirely about interest rates and real interest rate expectations? And I was just maybe looking at the wrong signal when I concluded that it was about gold moving in sympathy with the stock market?

Josh: I think it probably is a little bit of both. Again, these things have fundamental reasons and feedbacks between each other.

But I still believe that it really was related to these algorithm-type selloffs with real interest rates. And not only that – sorry, also rising volatility.

So, again, that is a similar function of the dollar short squeeze. When you're having rising volatility, people's risk models and their cross-asset risk models say to withdraw risk, take down risk.

So it's not necessarily that they're short of dollars to make margin, but they're scared that they might be in the future. So they're taking down risk overall.

And that likely happened in the TIPS market. And so, yes, that would probably be more in line with your thinking. But I'm saying it's all sort of related and it does tie back to fundamentals.

So what we've seen is we've seen, like the COMEX has been raising margin requirements on gold futures, like a lot of futures, because of the higher pricing of volatility.

Again, I don't have these numbers directly in front of me, but I think gold has been trading at 30-plus vol, when it's usually down at 12, 15 vol. So we're still seeing heightened volatility, which means that people are trading it on margin and futures are going to be less risk exposure.

And so, yes, that's sort of the dynamic that's been playing out.

But, again, I think, particularly with what's happened in the COMEX and the real physical wholesale dealer inventories, I'd be very surprised to see people dumping gold because they may view that they can't get it back again.

So, again, there's feedbacks in both the psychology and what's happening that, again, at the margin I'm going to take down risk. I may not want to take down risk in an asset that I want that I know I can't get back again at the same price.

So I think we've set a higher floor than what we saw a few weeks ago. But that's how I would read it using that framework.

Erik: I want to move on to another topic that I know you've done a lot of work on, Josh.

There's a whole new generation of investors who would listen to this entire conversation and say, guys, you're stuck in the dark ages. The new asset to think about, in terms of safe-haven protection, is not gold. That's old school. The new thing is crypto.

Where does digital currency fit into all of this? Needless to say, we haven't seen the strength in digital currency recently that some people would have expected if you thought it was going to be the new safe-haven asset.

What does all of this mean? And what's your outlook for crypto currencies like bitcoin and ethereum and so forth?

Josh: First off, I'm not opposed to cryptocurrencies. I find them very interesting. I think it's been an incredible innovation in the history and the technology of money, and just the narratives that are spreading through the crypto community that are actually quite in line with people in the hard-money communities. I think that's generally been a good thing.

That said, I do not believe that bitcoin is digital gold. I don't believe it ever will be, based on my model of what a commodity and a proof of work of energy looks like. So, again, that's a long rabbit hole to get into.

But what I in general don't like is that more and more, as more and more use cases have really not come to fruition, they keep just anchoring back to it's digital gold. And essentially they're just selling the gold narrative.

And that, to me, is quite worrisome.

And, when you see price swings as we've seen in the last year, and the whole Drop Gold campaign, I don't know of a worse macro call that's been made than to sell gold right when it was at $1,300 and about to go on its run, at the same time digital currencies collapsed.

Another point that I'd point out is usually the people that say, oh, gold, we've moved on from gold, younger generations are all digital. They always make this narrative. And they always end with the point, you're going to buy it later at a much higher point. Which tells me they don't understand money.

You don't look to buy money to speculate. You look to buy money to store value.

So, again, they're trying to have it both ways. They want it to be digital gold, but they also want it to be the next Amazon or Facebook or Google, as far as capital gains. And that's not what money is supposed to do. It's not supposed to have a high-volatility capital gains.

So, again, I do not like the digital-gold narrative.

But, that said, I think it's still a very interesting asset class and I think it has very important use cases if we really get into a financial-repression scenario, that we may be headed down with what's happening with central banks.

So, again, I think there is still a commodity utility to digital assets. But it's not digital gold, in my view.

Erik: I wanted to start with a cryptocurrency question before moving on to what I think is a more interesting aspect of digital currency, which is the future of sovereign digital currency.

For any listeners who have not read my book, *Beyond Blockchain*, my outlook for several years now has been, as much as the bitcoin guys have a novel idea, I don't think that they're going to be allowed to just take over the world's monetary systems. I think governments will continue to assert their monopoly over money.

And what I've predicted was that eventually, someday, as the dollar's role as the world's global reserve currency came into more and more question, that other governments around the world – and possibly the United States itself – would develop a new digital reserve currency, a global reserve currency which is a sovereign-issued digital currency. That's been my prediction for several years.

It seems to me, Josh – first of all, I'd be curious to get your general reactions to that.

But it seems to me like, okay, interesting long-term prediction, but what's going to be the impetus to actually bring around that kind of change and governments getting involved in something that radical?

Well, it would have to be the US dollar's reserve currency status really coming into serious question because the dollar is at serious risk because of excessive largesse on the part of the Federal Reserve printing too much money.

They just announced unlimited QE forever. It seems to me like maybe now is the time for that possibility to come into scope and for other governments to start working on a new global reserve currency which is a digital currency.

What do you think about that outlook? And what do you think the prospects are for something like that happening?

Josh: Yes, very interesting for sure. And it's funny, it kind of takes us back in time to the first time we talked, we actually got into this as well. It's interesting how the world continues to move in this direction.

One interesting take that I would probably add to the discussion – because this is a very, very tricky discussion and all of the different steps that would be needed to get there – but one interesting discussion –

My cofounder of GoldMoney and BitGold, Roy Sebag had a very interesting conversation with Marty Bent recently. And basically he was presenting that what the Federal Reserve did was sort of a man-in-the-middle attack on gold. And the slow sort of taking gold from being a monetary asset to disintermediating it with gold certificates and Federal Reserve dollars. And, eventually, here we are now.

What's interesting is something similar could be happening in the bitcoin in the digital currency realm as well. So, for as much as we just spent time on is there really gold at COMEX and LBMA, the same could very much be said about the big crypto custodians.

A very large percentage of retail crypto is still being held at the likes of a Coinbase and a Xapo. And if you look at – and particularly since those have now merged –if you look at developments like that, that looks very much like the LBMA system where you have just a number of players sitting on all of the vault and, in a very difficult way, they go in and out.

So, again, I just wanted to raise that point, because I think it's very interesting. And a lot of people aren't talking about it. Because there's a lot of people in crypto saying things like, look how much of a mess physical delivery of gold is. This is why crypto is so much better.

Yes, well, again, in theory, sure. It's much easier to transport if you know how to store your own keys. But most people aren't doing that. Most people are stuck in their LBMA-style vaults with cold storage.

So I just wanted to point that out.

But that then leads to the next question of, as Roy presented the Federal Reserve as a man-in-the-middle attack on gold to eventually create the completely unbacked US dollar, that similar thing could happen in crypto as well, where some of these big crypto dealers really start almost partnering with the governments to create these digital currencies.

And, of course, we saw that developing at Libra [00:38:16] and we're, of course, seeing that developing in China.

So it could be very interesting when the large players in the crypto industry start merging with the central bank initiatives to drive basically fiat stablecoins but supported by the Treasury, the Federal Reserve, the Bank of China, etc.

So I think that's a path that we're likely on right now. And so, again, it kind of comes back to the conversation that you and I had a couple of years ago. And that seems to all be accelerating right now.

Erik: Yes. Certainly, my view on this is it's going to be a different category.

I think of the first generation of digital currency as cryptocurrency. That was a bunch of guys who came up with some just absolutely brilliant software engineering. And they naively thought that, just because then invented something cool, that they could usurp the authority of government and create something that was government-proof.

And in the end the government still has the guns and the badges. And, unfortunately, I don't think they're going to let go of their monopoly.

The next thing to happen was Facebook's Libra came along. And I call it a whole different category, which I'm calling Silicon Valley digital currencies.

Now, Zuckerberg got it all wrong. He didn't understand that if you want to take over the entire planet's money supply, you have to bribe all the politicians first. So he didn't do that. And, as a result, he got the reaction that he got.

My prediction is what happens next is Google or someone else in Silicon Valley does their own Libra. But they do it only after buying off all the politicians so that they get unanimous support rather than opposition from Congress because of a whole bunch of campaign contributions that they astutely made before introducing their new product.

And I think there is scope for a Silicon Valley digital currency to become the new de facto global reserve currency. If you want to engineer something better than the US dollar in the form of a digital currency that will appeal to more central banks around the world, more than the US dollar does, it's not a difficult engineering task to undertake.

What we haven't yet seen is a Silicon Valley company recognize the political reality of who you have to bribe before you can pull something like that off. Zuckerberg tried to do it without bribing anybody first. And look where that got him.

So that's what I think is coming next. Any comments or reactions to that?

Josh: I think you said it perfectly. I agree that that's the path. And I think, as I set it up with the man-in-the-middle attack, I think that's very similar. And it leads to that same outcome.

I agree with you.

And you're right about Mark Zuckerberg.

But I would say the person that has been very good at playing those sort of goals is David Marcus. David was the former CEO of PayPal. He left to join and build Messenger and tried to create a WeChat or Alipay out of Facebook Messenger. His new project is Libra. And it's for all the same reasons that you just pointed out.

So I would say that, yes, that is ongoing in the background. And I think you're probably right, that's the path it's going to ultimately take as the Federal Reserve and a number of the governments realize they can't do this themselves. They need Silicon Valley.

And I see a merger of that sort of happening as well – 100% in agreement with you.

Erik: And for any listeners who are not aware, I wrote a whole book about this stuff a couple of years ago. It's called *Beyond Blockchain*. You can find information at macrovoices.com/bb or just go on Amazon and look for *Beyond Blockchain*.

I want to move on now, Josh, because you've been a step ahead of a lot of things throughout your career. You were a precious metals guy at Goldman Sachs. You headed up the precious metals research there. You went on to found GoldMoney, very successful with that. You've since moved on from GoldMoney.

The next thing, as I understand it, that you're looking at is the commodity exchange landscape. Now, as a member of NYMEX, you don't want to get me started on what's wrong with commodity exchanges because I won't shut up for an hour.

So what, in your mind, is wrong with the current landscape of commodity exchanges. And what is Abaxx Technologies about? What are you doing in order to change that landscape?

Josh: I appreciate that. And I have to be a little bit careful because we're in a bit of a regulatory blackout and obviously some very big industry players that we want to challenge. So I can't really get into all of the details.

But, yes, my view is – essentially the digitization of commerce in general, we think that that trend is not going to slow down any time soon.

And so if you look at something like the development of ICE that kind of came out of nowhere to challenge the NYMEX at the time, and the old London oil pits and so forth, it really was a mixture of new big changes in global energy combined with big changes in technology.

And I think we have both of those conditions right now. Big changes in technology and digitization for all the things we were just talking about. And big changes in energy markets with what's happening with US shale and US energy exports and the reordering of global energy supply chains that have been taking place for the last five-six years and will continue over the next 10.

So, yes, I believe the opportunities are ripe to create a new exchange. And we're basing ours in Singapore, which is also another macro trend of commodity markets increasingly moving east. And so I'd say that's the overall landscape.

But if you look at what's happened in COMEX the last few weeks, if you look at what's happening in a number of commodity markets that have been quite dislocated from fundamentals, I think there's always room for improvement to serve the physical industry.

And that's our view. We're not there to serve the financial industry but to serve the physical industry in really meeting true buyer-and-seller-of-last-resort-type markets.

So that's probably as much as I can say right now. But, yes, we think there is a huge white space there.

Erik: Well, I look forward to getting you back on the show as this project evolves some. And at some point, when you're at liberty to tell us all the details, I can't wait to find out what kind of technology innovations Abaxx is going to bring forward to advance the state of the art beyond what we have with the existing exchanges.

Meanwhile, Josh, please give our listeners your Twitter handle and how they can follow your work, for people who want to keep up with what you're doing.

Josh: Thanks, Erik. I'm just @JoshCrumb. Again, I'm quite active and try to post any time – updated models and that sort of thing. I'm building businesses so I'm not obviously doing full-time research or anything. But generally in short bursts and when there are interesting things happening in macro, I'll usually show up.

Erik: Fantastic, Josh. We'll look forward to getting you back in a few months for another update. Patrick Ceresna and I will be back as MacroVoices continues.