Jesse Livermore - Transcript

Jim: 00:00:08 Well, hello everyone. It's Jim O'Shaughnessy with my colleague, Jamie Catherwood, for yet another edition of Infinite Loops. Today, I am very excited to have... Well, you're not a mystery to me, but you're a mystery to many. OSAM's very first research partner, who goes by the nom de plume Jesse Livermore. Jesse, how are you?

Jesse: 00:00:33 Doing great. Thanks for having me on, Jim. I'm a big fan of the podcast. Glad to be on it.

Jim: 00:00:37 Oh, I have been waiting for this one for a long time, because I'm just going to ask you a series of really, really horribly intense questions, and you're going to answer them completely and well. And that's why we think you're such a superstar. A moment about that, actually. When Patrick came up with the idea for research partners, I thought it was brilliant. I hadn't considered that our first one would be somebody who was anonymous, essentially, to the public.

But I think if you go to OSAM's research, and you look at all of the pieces that Jesse has either written on his own or contributed to, this idea of cognitive diversity, because these are... Jesse, you have fresh eyes, and you don't work in our industry. You're super smart. I'll say that for you. You could name your terms basically, I think, and work for any of the big banks, work for OSAM, work for anyone in the asset management field. And this is, to me, more important than a lot of people realize, because we are entering an age where time and space are collapsing, as are the need to have a standard route to anything.

If you can show your work as you brilliantly do, first with your own blog and then at OSAM, man, your prospects are going to be whatever you want them to be. Long soliloquy to lead into, Jesse. But obviously, we are delighted to have you as our OSAM research partner. And we're going to get to your earlier work, because I've got some questions about that later on. But I thought it would be fun to start with what's going on right now. Give me your general sense for markets in general, all of the new asset classes that people are speculating with, looking at, et cetera. So Bitcoin, NTFs, et cetera. What's what's your general outlook?

Jesse: 00:02:59 Wow. I think recently, we've experienced something of a paradigm shift in the way that policy works, and that's having effects on a lot of different things. With respect to the overall market, we used to live in a world where you had an economic cycle, and you had periods of booms and busts. And the busts, they were inevitable. They happened, and they would create periods of weakness and under-performance for the economy. And there would be collateral damage in those busts.

And I think with this recent shift in policy and the policy outlook, fueled by the insights of modern monetary theory, you've got a situation now where it's possible to really, really reduce that collateral damage. Or at least that's the view, is that it's possible to significantly reduce that collateral damage, and maybe even drive it down to zero. So that you can have an economy go through cycles and not have the stronger parts of the economy, or the parts of the economy that are properly aligned, experience any losses at all, as a residual matter.

And it wasn't always that way. If you go back to the 19th century, you had a purely laissez-faire system. Free banking, so you don't have a centralized lender of last resort. You don't have a central bank. And at that point, all economic variables are subject to natural forces, including interest rates. And they go where they go, and whatever gets wiped out in the process, that gets wiped out. And then we go into the Great Depression... I'm sorry. We go early 20th century, and you have the formation of the Federal Reserve and the central bank. And now you have a lender of last resort. You have some control over the interest rate. It's not set by risk appetite as a pure matter. It's set by the central authority. Lessons were learned in the Great Depression about lending and being a lender of last resort, and the importance of being aggressive in that role. But even after that, you had a view that fiscal accommodation could be introduced and could be used, but there was a sense that there was a limit. And you had to basically be, quote-unquote, responsible. And you had to make sure that you'd left enough space for problems that might arise in the future. It wasn't necessarily a view that was held by everyone at the time. But the consensus view was that the government was similar in some way to a household, in the sense that it had to meet budget constraints at some point in the future.

And really, over the last 20 years, I mean, MMT has been saying this the whole time, but that view has been collapsed. And so now, when you think about what would stop you from addressing all of the collateral damage of a bust cycle in the economy, the consensus right now, or what's becoming the consensus is that there's nothing really that stops you. At least we can discuss that, obviously, because there are probably going to be things. But there seems to be a view that we really have reached a new point, where we can have the economic benefits and the economic inevitabilities of a boom-bust cycle, without the bust part causing collateral damage in a significant way that leads to periods of declining profits for the overall market, and declining incomes, and so on and so forth.

And so what that does is it transfers where the risks are in investing. So if you think about 30 years ago, what would your risks be if you were an investor? Obviously, when you're an individual stocks, you're exposed to the risk to those individual stocks, and how those companies perform, how they allocate capital, et cetera. But assuming that you're diversified, you take away a lot of that risk, and your risk now becomes the macro economic risk to the system. Where does that risk go now, if we take out the bust part of the economic cycle using policy?

And I guess people are trying to grapple with that, and trying to understand why should I not be long here? I mean, what reason is there to hold cash in this environment? There could be a reason. It's just hard to think about why would you not be long equities, and where is the risk in equities? How do equities ever go down? I mean, every time we've had a problem over the last 10 years, the answer has been to buy the debt. And it's worked. And then you had this catastrophic situation with COVID, which, I mean, the fears, I believe they were entirely justified because it hadn't been seen in a very long time, with such an interconnected economy, to have something like that shock everything.

And here we are, a year later, with record retail sales, with just, I mean, extraordinary amounts of pent up demand, optimism. Everything looks bright. I mean, obviously the vaccines are a huge part of that. But it's hard to understand. If that doesn't make markets go down and go through extended periods of down trends, what does? And what will ever, in the future? And then if we all have that view, what happens to prices and where do the risks migrate? And we can obviously discuss that in further detail.

I mean, so that's the economic aspect. With respect to the NFT and the Bitcoin and all that stuff, I mean, we can get into that as well. I have a nuance to be there, but I'm a skeptic and I don't really respect a lot of it. And I can explain why, when we get to that point.

Jim: 00:08:39 As somebody who started my market research when I was a teenager... Yes, I was a nerd. The big thing back then, and actually my degree is in economics, and this comes in to play because of what I'm about to say, in the late 1960s, so Wall Street was in a incredible bull market. And Keynesian economic theory was seen as no one was going to ever be able to challenge its dominance.

And Keynesian economic theory talked about the very same levers that you just mentioned, monetary policy and fiscal policy. And it said, essentially, that unemployment was a thing of the past. And by the way, these were serious people saying this. This wasn't a New York City cab driver saying this. This is laureates saying this is the way it is. Well, clearly we know what happened. So we went into the '70s, the worst decade on an inflation adjusted basis for securities, since the 19... Actually, they were worse than the '30s on an inflation adjusted basis. But bad shit happened.

And so concurrent with this, I was studying economics and it just so happened, I was chasing a girl. The woman who's now been my wife for 39 years. And I transferred from the School of Foreign Service at Georgetown, to the University of Minnesota. And as chance would have it, all of the advocates of what was known then as rational expectations economics, happened to be there. I mean, who knew? So briefly, rational expectations said there's a problem with those Keynesian econometric models. And that is ceteris paribus, other things being equal. Other things are never equal.

And so their insight was very simple. It was this. If you change the tax rate from what it is right now, to 100%, under the dictates of the Keynesian economic model, there was no change in people's behavior. So you could do any crazy shit you wanted to do. And economic man, which has been destroyed as well, because we're not, wouldn't change their behavior. A, do you think that that's a valid criticism? And B, if it is a valid criticism, where do you think that the blind spot of modern monetary theory is?

Jesse: 00:11:41 I mean, I do think it's a valid concern, but I think where a lot of us are is just, we just don't know because we haven't ever done... Ideally, you would have a theory of some kind. You would have modern monetary theory, and the theory would be able to tell you, okay, this is how much stimulus you can put in. This is how much wealth you can create in the private sector. And here's where that will affect you later on. But that doesn't exist.

All that exists is just the insight that the government is not a household, that the government doesn't face the same kinds of constraints. Now, everybody agrees, including MMT, that there are constraints somewhere, that inflation has to be a constraint at some point. If not, we would be living in heaven. I mean, there's got to be something that prevents the free provision of wealth from the private sector without consequence. But we just don't know where that is and what it is.

And I think the concern that I have is that when you don't have a theory, and you don't have... I mean, we don't have a theory, because we don't have the experience to be able to develop one. Even if it was an empirical theory, even if it was an empirical model, we haven't actually ever gone as far as we can go. You're now in a situation where you have to find out the mistakes by doing them. You have to actually cross the boundaries. And if that's the case, then it seems like we're inevitably going to cross a boundary. And that's the only way we'll know where the boundary even was.

And so I think you could frame it this way. Let's suppose, just to make it concrete, let's suppose that we keep adding numbers to the stimulus. It's a trillion now. It just keeps going. And I mean, fair play. I mean, I think that if anything has been proven, what's been proven so far is that we have more capacity than we thought. And that has to be respected.

If we go through and we do several more rounds of stimulus, and then let's suppose that we just have this beautiful recovery, economic period of prosperity over the next 10 years, where we have extremely low unemployment, high productivity growth, we have 2% inflation on the dot, never was a problem, what's the takeaway? The takeaway is going to be, wow, even what we did wasn't enough. Even what we did, we thought we were restricted and constrained. We weren't constrained, it turns out. And so that means just the next round is going to just be even more and more and more and more. And at some point, we will find out if we proceed on that path.

Now, I do want to caveat, from an investment perspective, we have a system in the United States, which is attributable to the brilliance of our Founding Fathers. We have a system that introduces a little bit of conservatism to that, because you have to build consensus. You have to have lots of different people come to agreements. It's not something that one person just controls. And that would slow down the movement towards the limit, because you got to get people, like Joe Manchin out of West Virginia, to agree. And there's always that middle person, who's holding things up and saying, "Well, I have concerns."

There's probably some wisdom to that. And that would probably slow the process down.

But when I think about this, that's what I get concerned about it. And I think I would actually use... I don't know if people will approve of this, but Hyman Minsky, who's kind of tied to MMT in a way. I mean, he had this idea that stability breeds instability. That when you have periods of prosperity in the economy, when people get confident, they use their experiences as a basis for assessing the level of risk that they're taking. And they conclude that they're not taking enough risks, they can afford to take more risks, because obviously it's been working. And they end up taking more risks and taking more risk, and they end up making the system more sensitive. And that ends up leading to an economic crisis of some kind.

I see a risk of that migrating into the policy realm. So before, you had stability breeds instability with the economic players themselves. They see all the stability, and they end up levering up and taking all kinds of risks and pushing the limits, and basically bring us into a downturn. I can see a similar thing happening now in the policy realm, where the stability the policymakers have been experiencing and seeing with their policies, causes them to think, "Wow, we can afford to do tons more. Let's do tons more." And in the process of doing tons more, they will then sow the seeds for whatever the next, quote-unquote, problem becomes.

I think that's where my thinking goes. Now, I want to be careful and say that right now, we're early. And you don't want to be getting way in front of the process, and thinking about problems that may only be coming up five years from now. I mean, as an investor, you got to be thinking about right now. I mean, if there's risk in the market right now, the risk is moving into valuation, which is where it always goes.

If you make the S&P 500 cashflow stream into a perfect treasury-like coupon cash flow stream that never dips, just always on a perfect pace, and then you make the interest rate on cash zero, you're going to get a pile-in into the stuff that is perfect. And it'll become imperfect simply from the pile in, because the prices will just get so high. And that's what we're seeing. I would argue that we're already there, but we're probably going to continue along that path. Going to keep going. I mean, it's a unique period in financial history right now.

Jim: 00:17:29

Which is one of the reasons why I love it. I'm reminded of Douglas Adams, who wrote the Hitchhiker's Guide to the Universe.

But I used to use one of his bits to tease people who were early advocates of MMT. He wrote that what they had decided to do, the policymakers, was that henceforth all leaves from trees would be the new currency. And he said this had two immediate impacts. Number one, we all became fabulously rich. And number two, inflation went insane. And so what the policymakers, they hired a consultant, and the consultant came in and said, "Well, clearly what we have to do is embark on a massive deforestation process, so that these leaves that we have are going to be worthwhile."

In other words, we have to destroy it to save it. And do you think there's a risk of that? I mean, because I think I agree with you that there isn't a theory. There's not a dominating theory, like there was under the Keynesian regime. What are the early warning signs? Inflation? Well, come on. They can gain that number all day long. It's like, "Oh, the CPI is only up 1.9%." Oh, well, excluding everything that you use on a daily basis, like food and energy and et cetera. What do you think? What are those early signs? And do you think that they will react appropriately?

Jesse: 00:19:35

I mean, right now, we got an early sign in the form of bottlenecks. A lot of that's driven by COVID, but it obviously helps that there's the private sector is healthy, financially very healthy. The spending power is there. And the desire to spend is there. And the ability to meet that spending is not, and a lot of that's due to COVID. But I think you can see early signs of bottlenecks forming.

We're not at the point where we're going to get any kind of sustained, I think, inflation. You would need to get the unemployment rate down significantly, to get to that point. But the early signs will just be price pressures, and the concern I have there... And I want to be clear, there's an economist named James Galbraith, I really respect him a lot. His point, he comes out and says, he just says, "Look, in economics, you know results by observing results." We don't want to let some unreliable theory get in the way of us figuring out what actually is the situation. And that's just the best way to run any kind of policy.

And really, the concern that I have is that's fine. There's some reasonableness to that, because if there's any experience over the last however many years, it's that the models keep getting things wrong and they keep constraining what could have been done, like in 2008. You look at the stimulus today, it's 8 trillion versus 800 billion then. Imagine if we had put half of what we put in now, then, how much better things would have turned out for a lot of people. So I get all that.

The concern I have is that when we hit those outcomes, do we all agree that they're bad outcomes? Because they're not going to affect everyone equally. They're not going to impose costs equally in an equitable, progressive manner. For example, let's suppose that two or three years from now, we get to a point where we have stock market. I don't even want to speculate, but let's suppose that just the entire asset universe is just on fire. And you've just got this period where nothing goes anywhere but up.

And then let's suppose that you've got unemployment rate very low. You start to see some real inflation pressures, and not just some bottleneck COVID driven. But real inflation pressures, where people cannot find employment. They have to raise wages. Wages are going up, the costs are getting passed on. They're able to be passed on because everybody's much wealthier, and slowly, the expectation process of an inflationary move is building. And the choice is this. The Fed can basically... Oh, by the way, let's complicate that with having it be 2024 and election year, in which we have a new Fed chairman who is appointed by one of the candidates, President Biden.

Let's be realistic and let's be real about it. And we have a Federal Reserve that is mostly, very much to the left and is predominantly democratic. Obviously, they don't want to cause a recession regardless. I mean, they are to do the right thing. But if they're in a situation where we're exceeding the target, and we need to have, for the first time in a long time, we need to have, let's say a positive real interest rate. I mean, after inflation, maybe we need 3% interest rate or a 4% interest rate, to actually be able to keep this process contained, or keep it from developing into an accelerated process. Or just to get the inflation rate back on the 2% target, which is what we said was the target. It was 2%. That's the target.

What are the odds that the Fed is going to choose to actually do that? I think decent, because there's a commitment to that. But I think there's going to be a lot of people that are going to be saying, "No, no, no, no, no. We need to just become more tolerant of inflation. It's not that big of a problem. What's wrong with 3%? What's wrong with 3.5%? What's wrong with 4%? We actually had a much higher inflation rate in the 1980s, and everything was fine." And the rejoinder that I would have to that is, first of all, in the 1980s, you had an interest rate of 8%, 9%, 10%.

The entire financial universe was built around those higher inflation rates. There was nobody who was actually losing to inflation. I mean, this isn't actually true, but at least in the future, we would think that it would be true. But the wages, if they were keeping up with inflation, which they actually weren't at that time. But if they were, then the workers wouldn't be harmed by the inflation, because their wages are basically staying with the overall inflation of the economy. The people who are holding cash are collecting the interest. And that's making up for their losses. The people holding bonds are collecting the interest, plus a little bit more, for the various premia that are built into the curve.

And so who's losing? Nobody. So why do you need to crush inflation down to 2%? That makes sense. But in this environment, it's a very different situation because you have an interest rate at 0%. So that means that you've got right now about $20 trillion worth of cash that somebody, somewhere has to hold. And they have to hold it no matter what you do, because if they buy stocks, then whoever they buy from is the person that's now holding it and taking those losses.

And when you start talking about raising those losses from 2% a year to 3% a year, to 4%, I don't know if it's going to cause a spiral, but I don't care. I'm concerned about the fairness of that. I'm concerned about the 75-year-old retiree who missed out on the stock market run, who isn't making money on any of this. And now it's almost like his/her past earnings and past savings are now being used as a piggy bank for policy. That concerns me.

And the deeper concern I have is that, okay, if we get to that point where we have to take an action, to ensure the integrity of that 2% target, and that action comes with the risk of a recession, are we going to be willing to do it? I'm undecided, but I'm worried that given where things are going, we won't be. And then you get to a situation where now, the only way you force correction in policy is when you make the outcomes even worse. In other words, people learn the lesson. Wow. If I hold cash, this is what happens. Not only do I eat 2% losses, I eat whatever losses I need to eat, to keep this whole thing going. And then now you have effects on the currency, and then you can always revolt.

Jesse:	00:26:00	... Effects on the currency and then you can always revolve, right. There will be a revolve somewhere and it'll feed into the system somehow. I wonder, I don't want to predict that that's going to happen, but that is something to keep... I worry about that a little bit. I worry about where things are headed in that direction, if that makes sense.
Jim:	00:26:17	Yeah and in the 80s, they had what they called the bond market vigilantes. What they would do is as the name implies, they would demand, "Okay, you're going to have inflation running at 7%. We want 9% because we want our 2% real rate of return." Volker, Paul Volcker did very unpopular things to break the back of inflation, which by the way, I think has a very strong psychological component to it because after all, it's a complex adaptive system, but its agents are human beings. Talk about instability. The challenges of trying, what are the reasons why, by the way, I think top-down solutions really work is because complex adaptive systems work the other way, they work from bottom up. But okay, so here we are. We're experimenting, so far so good. There are signs. This is one of those things like the old joke about the bankers talking to each other, and they're saying, "Well, we know this works in practice, but will it work in theory?"
Jesse:	00:28:44	Yeah, I want to add one little detail to that. So I think when we think about policy and we think about incentives, we have to think about, I'm sorry. When we think about policy, we have to think about incentives because policymakers are humans. They obviously think like the rest of us, they have incentives that they're following. In general, I think it's easier to do things when the costs, they're spread out. So for example, let's suppose that the only way to get inflation under control is to... Or let's suppose that the only way to achieve the outcomes that we want from a policy perspective is to have this group over here take small losses every year, year after year. That is much easier than having a group over there take a big hit all at once. So if we had to crash the stock market to be able to achieve some sort of economic balance at some future point where we're in a massive bubble, that's going to be a problem because that's what kind of costs that really shocks when it hits, that's like, Ooh, who wants to do that? But if it's just asking a retiree to take greater losses every year on his or her savings, that's easier. So what there's me a little bit is that I don't see that retiree having much of a constituency in this discussion. That person created value for the system. They did the work to earn the money. They want to spend it now. They're not asking for a

free return. They're not asking for a free, real return. They're just asking to keep up with inflation, to be compensated for what they're losing to inflation.

I get concerned that they don't have a voice in this process. There's no policy mandate that covers their interests and it's so easy to just ask them to take a little bit more and when you think about it, let's suppose, I mean, a lot of people will frame it in terms of wealth and say, "Oh, well. That's some super rich retiree." But not everybody that's retired is rich. I might be a 75 year old that has a $200,000 nest egg, you're in good shape relative to most Americans, if that's the situation. You're using that plus social security to live on but you're by no means rich because you have $200,000 that you've saved up to spend and you want to now spend it, you worked for it, you earned it. I think you have a right to spend it and not at some depreciated rate. Well, we just say, "Okay, well you're only going to be able to spend 60% of it because we got to have this policy."

I want you to be able to to spend all of it, because you created that value for the system, I want you to be able to get the par value of that work back. So I worry that there isn't really anything that's not part of the consideration process in all of this. If you think about, let's say a 3% inflation rate against the 0% interest rate that you keep going and you take it out for 20 years of a retirees life, you're talking about a huge chunk of that wealth.

I did the calculation with 2% for 20 years. It was like 30% right down. I mean, a 30% loss if I made you take it all at once on the stock market, or if someone made me take it on the stock market, that would be a big deal. Everyone would freak out. The fact that you spread it out over someone's life to me, that doesn't really change the fact that the loss is still the loss, but from a policy perspective, it's much easier to just gently every year have it just erode away like that. To state my biases, that does bother me a little bit. That's the reason why I'm a little uncomfortable and you'll notice it from some of my tweets, that's the aspect of all of this that I don't like. It's a fear that when we get to a point where we have to take action and we have to finally tighten things up, that it's going to be so easy to just say, "Yeah, let's just keep this going."

Then it's almost as if people have to revolt before you actually really do force the response and whatever revolt involves in the form of currency dropping, in the form of long-term interest rates spiking. Again, the people will say to that, "Well we'll just have the government buy the treasury bonds, we'll just have

QE." In theory, the government can buy all the long- term treasury bonds and drive down those yields to wherever they want them. Then it'll all show up in inflation eventually.

Jim: [00:33:09]

So, okay. Let's assume that we're operating within this environment and we go along and we see a consistent worsening if you will, but small, very small, like two, 3% a year, not enough for most people to notice. Then now in that environment, let's talk about some of these new assets and I'm using air quotes here. So let's start with Bitcoin. I do not have a closed mind on Bitcoin at all. I think that one of the things that really does impress me is it's not dead. Bitcoin has been around and there's been so many attempts to kill it, and not the main one, right? Like when FDR made gold, illegal and armed people knocked on people's doors in America and said, "Hi, we're from the government. We're not here to help. We're here to take all of your gold." That actually happened. Okay. So they let them keep their jewelry, but a lot of people had actual physical gold that they thought of as an investment.

So that's an exogenous variable that disturbs, or disturbed me. But, okay other than that obvious problem that if the US government makes it illegal, that's not a game over, but it's close to a game over given the size of our economy.

The fact that many derivatives are priced in USD. I was talking to a Bitcoin guy and he's like, "Well, look at the Bitcoin mining that they're doing in China." I'm like, "Right, they're mining the hell out of Bitcoin and immediately transferring it into US dollars to pay their obligations that by the way, are priced in US dollars," and clever. I mean again, I doff my capture them for doing that, because that, I mean, I don't know what comes closer to financial alchemy than that, but tell me your thesis about Bitcoin.

Jesse: [00:36:24]

Yeah. Well, so Bitcoin, so first of all, as everyone usually prefaces, I respect the cryptography, the cryptology, the technology itself, the ingenuity of that, and the value of that.

Jim: [00:36:37]

Agreed, yes. I totally agree.

Jesse: [00:36:39]

I mean, I come from a military background, crypto is why we're here today, in terms of winning world war II and, and, and whatnot. I mean, you have to respect that. As far as crypto assets are concerned, I think they are a bubble, a massive bubble, but I want to caveat that with some terminology, because I think that these conversations get lost in the fact that we don't have good terminology for what a bubble is for, what we mean when we say something is a bubble and there, I think there are different types of bubbles and I'll explain that in a second. So let me just say to that point, I think about investing from the perspective of a core concept of intrinsic value.

This is going to sound very vanilla fundamental, but I'll explain where it goes. I think the intrinsic value of an asset is what it's worth is in itself, from owning it for, for its own sake. I think a good way to test this is to just ask yourself for any asset or anything in general, anything, whatever it is, what would be the most that you would pay for it? If you were stuck with it forever? Now, obviously you can bequeath it to other people when you die and so forth, but you're stuck with it as it, you can't ever translate it into cash in a market. What is the most you would pay for that thing? That is my test for what intrinsic value is.

So you could ask that question with respect to your house. Let's suppose that you have the option of either holding cash or owning your house and the question becomes, "What's the highest price she would pay for the house?" You can think of whatever the price would be and even if you weren't going to live in it, you can still think of it in a translational sense that the house has value, maybe not to you, but to someone else as an item of consumption use, and it therefore generates cash flows that then can be paid to you. So you can also think of about the intrinsic value from your perspective, not only of the value of the thing, but of the value of the cash flows that the thing creates in a specialized economic system where we transfer in that way.

So the house obviously has intrinsic value. But there's also this thing called transactional value, which is the other kind of value, which is that when you know that you can sell the house to someone else, you're willing to pay a higher price than the intrinsic value, because you have liquidity now. The house becomes kind of cash like, you can have optionality, you don't have to give that up. So I think I always like to split these two types of value, intrinsic value, which is the value of the thing itself, the cashflow stream itself, and then transactional value and so to go to like something like equities the intrinsic value of equities would be the cashflow stream of the equities themselves, which you can collect and they belong to you and you can spend them and do whatever you want with them.

The transactional value would be the value that comes from the fact that there's this network of confidence in the market, that people have been doing this for hundreds of years and we know that when you wake up tomorrow, the S&P is not going to be at 500. It's going to be near where it was yesterday and people are kind of anchored to where it's price is and you can sell, and you can basically take all your money, 100% of it and put it into the stock market and know that you'll be able to get a lot of that out anytime you need to. That's the transactional value, which is the premium. Now we go to Bitcoin. Bitcoin has no intrinsic value, it's like a currency in that sense. It's all transactional value. The difference between Bitcoin and the currency to your point is that with the currency, you have a military that can force you to use it, and that can stop you from using other things. I'm a little more comfortable holding cash for that reason. Because I'm like, "Well, if I hold cash, I know they're not going to let this thing just go to nothing.

Jim:	00:40:51	Right.
Jesse:	00:40:51	We're going to do whatever they have to do to keep this thing as the thing that's used. If one day we all just say, let's just all transact in Bitcoin forever, you can be sure that there will be people with guns coming into the situation and fixing that problem very quickly, because it would cause disaster for the economy.
Jim:	00:41:09	Very quickly.
Jesse:	00:41:10	So I get the idea of a purely transactional asset in the context of a government issued currency from a credible economy, with credible policymakers and a vibrant, healthy, productive base. I get all that. I'm not so comfortable with the idea of just doing the do it yourself version of this in the crypto world. So I'll say that, and that's my discomfort. That's why I don't play crypto. I don't do crypto. I can't sleep at night when I do. I have no idea what I'm doing. No way, it's real money to me and I was raised this way and I don't want to play, and I don't want to take losses. So that's obviously to my detriment, but whatever. So what I will say about crypto is this, there are two types of bubbles. I'm sorry, let me back up. A bubble would then be defined as, using our little framework, a bubble would be a situation where you have a price that is like several multiples higher than intrinsic, it's a large excessive, abusive, multiple intrinsic value, where the cash flows are no longer really part of the equation anymore.
Jim:	00:42:19	Right, but just to even put a finer point on it. That bubble would be one worthy if we were looking at it as two things that were being balanced. So this balance is pretty good, but if all of a sudden all of the value is in the transactional value.

Jesse:	00:42:41	Yeah, the intrinsic value will usually anchor the process. So the reason why homes and even gold has a transactional value is because for so much time, it had intrinsic value and it can translate. So the fact that it becomes anchored as something with intrinsic value increases the confidence in the transact ability of it and the ability to market in it and so on, which then builds the premium. So I would say that in theory, yes, Bitcoin is a bubble because it has no intrinsic value. There is no price that I would pay to own a Bitcoin if I was stuck with it forever. I would hope that everyone else would agree, there's no value whatsoever to owning these ones and zeros on a computer somewhere. The value is in the ability to get someone else to buy it from you. Like with any currency or to take it as payment.
Jim:	00:43:29	Sure.
Jesse:	00:43:30	So the point is, it's a bubble, but you have to caveat that I think. There are two types of bubbles. There are what I would call rational bubbles, and I'm taking that term from Mohamed El-Erian in a different context, just to attribute credit. They're rational bubbles, and there are irrational bubbles. So let me go with an irrational bubble. Let's suppose you had something like Bitcoin, let's take an example of something like that that's just trading at some exorbitant, ungodly multiple of its intrinsic value and it's possible to increase the supply. The owner can make the supply increase. That would be an irrational bubble because now you have a mechanism to bring the price back to intrinsic value, or to bring it back in that direction, which is going to be the dilution you're going to experience. So if you have a currency or if you have a stock, I don't want to name stocks, we'll say a mean stock that is trading.
Jim:	00:44:29	[inaudible 00:44:29].
Jesse:	00:44:29	Yeah, exactly or let's just say game stock, AMC, whatever the mean stock of the day was, and is trading at 2000 times earnings or whatever multiple of whatever. You have a process and it's a profitable process for someone to arbitrage that on the sell side, and they will eventually and that is going to bring the price back down to reality. So you better be careful, that's an irrational bubble. Another example would be a bubble that's built around some false conception or some false prediction or anticipation of like a new world. Like we're going to just go into a new era, and if you know that that's wrong, the bubble can be irrational because it's based on these expectations that are not true. That are not going to become reality.

Alternatively, you could also have a bubble where you have an arbitrage, where let's say you have the stock market trading at a hundred times earnings and you have treasury bonds at 10% yield. That's an irrational bubble because you have a mechanism to force the things back into a configuration that makes more economic sense. With Bitcoin in this environment, you don't have any of those things. I can't find in the Bitcoin realm, anything that would force the price to go back to what I think the intrinsic value is, which is goose egg. I don't think it's going back there. I'm not even competence it's going to go back to 10,000 I have no idea. I will say this, another thing that could force this situation back down is as you said, policy.

But even that I think the risk is falling and the reason why is that the more that Bitcoin becomes adopted, it becomes too big to fail. If you, if everybody owns Bitcoins, now you have more voters who are going to take losses if you crash Bitcoin. So the window for policy to get involved, at least without a very strong impetus or a very strong offense that they're trying to respond to. The window for that is shrinking as this becomes more and more of a thing that more and more people's financial futures are tied to. So with all that said, I would say then, crypto assets are a rational bubble because there is no mechanism to force them back to their intrinsic value. All of the risk now is in the price, and that's why I'm so uncomfortable, I have no idea how to price it. There is no way to know.

All you can do is just look at supplies and trying to think of, "Okay, what if it becomes like gold or what if it becomes like this or that? How much of a market cap would it..." That's all you can do, and it's a very fragile logic. That's all that you have. So I don't like to own bitcoin. I think it's a bubble, but I think it's an irrational bowl. I also think stocks are getting there too, their irrational bubble in the sense that I would never buy the tech space right now if I had to hold it forever. The current price is several multiples above what I would pay if I had to hold this forever and I was stuck with it.

Right, if you took away the liquidity tomorrow, there wouldn't even be a discussion. I would be getting me out immediately. But then again, there's no arbitrage, the supply incentives aren't really strongly there because the corporate sector, it's taboo for them to be diluting and trying to... What are they going to do with the money? I mean, where are they going to put it? There aren't necessarily tons of investment opportunities for them to put the money into, so why would they dilute that way? It's also taboo. Then in terms of false conceptions, anticipation, maybe there's a little bit in tech space. But overall market, I don't see any major false conceptions. People are just paying a lot for what they know the earnings are going to be. So I think stocks are also kind of in that realm, but Bitcoin more so obviously. So that's where I am on that. I don't respect bitcoin, I can get to that in a second if you want, but I also don't respect it at all as a mode of wealth accumulation and that's for a different reason I'll turn it back to you to see if you want to hear more about that.

Jim: 00:48:41 Yeah, actually I'm going to want to hear more about that. But I really do like your argument because it's a great heuristic that people probably don't do intuitively and as I'm listening to you, I'm just like, "I love that explanation because yes, it is a thought experiment because we don't have to hold something forever, but I love that as a forcing mechanism." So if I got to hold something forever, my God, I'm going to want something that gives me a consistent income stream that I can spend on other goods and services, et cetera. I'm going to have zero desire for something that has no intrinsic value. So I love that argument, but now, now please continue us to you say you don't respect Bitcoin. Why?

Jesse: 00:49:38 I don't respect the wealth that it has created for people and don't feel that I have any obligation to respect it, because I think of it as a con on the system. It's a hack on the system. It comes back to a formative example for me, that I think about in this context, when I was in middle school, this is back in 1993, in seventh grade in Houston, Texas, our teacher had a little game that she was playing, where she wanted us to learn about how money works, So she had these little red raffle tickets, the kind that you get at the fair, the county fair, the little red raffle tickets that come in those big rolls. She would give out the tickets to a student if you answered the question correctly, or if you got a high score on a test or whatever you did right, she would give the tickets out. Then the way this worked was at the end of the semester, this is spring of '93, there was going to be a big raffle and there were all these prizes okay, there was a super Nintendo, which was a big thing at the time and there was tickets to a rockets game or an Astros game or whatever it was. She advertised that aggressively to say, "Hey, get these tickets."

And she put this one caveat in which was that you can trade the tickets amongst yourselves for whatever you want. So if you want to trade your lunch for a ticket, you can trade your lunch. If you want to bring in candy from the candy shop and have a business to get these tickets, you can do it. So as happens, I never took the project all that seriously because I already had a super Nintendo and whatever, I didn't watch sports on TV. I wasn't too into it. But there was a group of kids, boys who were very aggressive with this and they had this cartel, I mean, they were bringing in candy, it was sour balls at the time. They were accumulating tons of candy. The teacher didn't like that, and so what she started to do was, and this is probably intentional, it's just her being a good teacher. She was basically trying to equalize the ticket flow and give tickets to people who didn't have tickets. Because she was concerned that some of the students that were shy or not really participating and they were feeling left out and this group of the four popular boys were out there just dominating the market like a cartel. So anyways, as she it's doing this, what crypto brings to mind for me is let's suppose that as she's doing this, and she's giving more tickets to the people who don't have as many tickets.

Jesse: 00:52:00 Let's suppose that as she's doing this, and she's giving more tickets to the people who don't have as many tickets, and diluting the whole process for those that already had tickets, somebody comes up with some grand idea, which is, "Hey, let's not use the red tickets. Let's use these blue tickets that my mom gave me from the county fair. We'll make these the tickets, and then the teacher won't be able to dilute them. She won't be able to equalize the ownership and make all of our stakes smaller. We'll be in the blue."

And here's the thing, I can respect that. If [Satoshi 00:52:35] or someone else had done that, and given everybody a little Bitcoin. If we distribute the tickets beforehand and say, "Hey, everyone's getting one ticket. Let's make this the new currency," and then it blows up and it becomes the new thing, I respect that. Or it becomes some prized asset that you want to hold to preserve your wealth, I respect that because we all become part of the process of having this get lifted off into some appreciation. But if some kid in the corner is basically telling us all that we need to use his tickets and buy them from him with our red tickets that we worked for, and he's telling us, oh, conveniently, he happens to already own the new currency he's trying to get us to all adopt, and it turns him into some wild trillionaire in ticket terms, that to me is a con. That's a hack.

You are disrespecting the game. The whole purpose of a capitalist system and having money is so that we can basically keep track of who is creating value and to use ... You've spoken highly of the Moderna vaccines. When I see Moderna and Pfizer come up with a technology like that, they're creating real value. And if they get rich off that, you've got to respect that and you want them to get rich. You want them to just pile it on and just become extremely prosperous financially because they created that much value for us. So I have no problem with that and I respect that. And even if it doesn't come with money behind it, if someone can create that kind of value, I respect it.

But if all you've done is hop on the crypto train when it was young, because that's the way your personality is structured or because you have that type of risk tolerance, and you get in there and everybody's convinced to use it now, none of us are any better off from it. Nothing has been created. No problem has been solved in any real sense that would match the amount of wealth that has been transferred. So I see no reason or obligation to in any way view that kind of wealth as being on the same level as the kind of wealth that an entrepreneur creates when the entrepreneur goes into the system and builds something that actually has value that people want to buy, that solves problems in healthcare, in leisure, in investing, wherever, that I respect. This I don't. And I'll go to my grave with that one.

Jim: 00:54:55

This one's going to go long, just so you know, because you just really put into words something that has been gnawing at me, and it's that concept of the ... So we're big believers in creating value. In other words, one of our maxim at OSAM is we want to provide value to others, and that means a lot of different things to a lot of different people, but I love the way you phrased it in terms of, hey, if Moderna or Pfizer is creating actual value for human beings, God bless them. Let them get as rich as possible. Jeff Bezos comes to mind, Steve Jobs, and then Timmy Apple to remember our past president's name for him. I mean, we're talking about real, tangible value.

And it's one of the reasons why there's just so many ancillary things that fall off when you start with this as your thesis. So, why was it easy for the government to go after Standard Oil? Well, not too many people loved John Rockefeller, and he was a taker, not a maker.

Jesse: 00:56:20

Exactly.

Jim: 00:56:21

Whereas it's going to be very difficult for the US government to go after Jeff Bezos, because everybody loves the guy. Well, even you could hate Jeff Bezos, but just still have Amazon Prime and you're still using all those services and your life is materially better because he succeeded. I mean, just on so many different levels, I love that example. So, okay. If we keep going down this path, what breaks the back here? Is it the fact that it's like, when you were talking about something seen as crazy, I just thought of Jed McKenna, the philosopher who said, "Crazy is a numbers game," and his conversant is saying, "What do you mean?" And he goes, "If nobody believes it, it's crazy." And then the conversant said, "Alternatively, if everybody believes it," and then McKenna goes, "Not crazy," which I love. Because all of these ideas, this idea of life, the right to life, liberty, and the pursuit of happiness, human rights, medical rights, these are all out of whole cloth, which I view as massive achievements of human beings and human society.

These things should be celebrated, and there should be songs about them because they have made life for human beings materially better over time. It would take me 10 minutes to go into that rant, but people who say and don't understand that right now is probably the best time to be alive ever, they drive me to, like I'm not easily annoyed, but they annoy me. And it's just like you can't get them to understand. It's like a fixed pie mentality. Bake more pies. What we're doing now and what I love about this current environment is we are understanding that we can bake more pies. We are understanding that we can let that clever group over there come up with a brand new way to do things that people, lots of people, are going to be materially better off because of. So I want to hear your, what's the end game here, because I love that idea about no intrinsic value. Is there a forcing mechanism that everybody ... Who's going to tell that emperor he's naked?

Jesse: 00:59:13 So I think the government will try to do things at the margin that are small to kind of ... You already see policymakers warning about Bitcoin and talking about how Bitcoin is a speculative vehicle. And I think ex-chair Yellen, Secretary Yellen and Fed Chair Powell have kind of, they don't seem like they're big fans. I do think at the margin, an example of something that might hurt at the margin would be like the tax treatment of Bitcoin with respect to transactions. Right now there's this weird hangup around if you take a Bitcoin and you buy something and, or I'm sorry, you acquire the Bitcoin and then from the time that you acquire it to the time that you purchase something with it, if the price of it changes, are you liable for a capital gain on that?

Because that would in itself just crush the convenience of ever thinking about transacting with Bitcoin. I don't know why you would ever do that in the first place, transacting Bitcoin. It's not a transactional asset, but if it were, they can discourage it at the margin that way, by saying, "You've got to file one of the forms for this, and it's a capital gain. You've got to put it on there." So if you did 5,000 transactions, you better have known what the Bitcoin price was at each of the ... I think they'd be glad to do that. But I do think that right now, we're getting to a point where the policymakers would be the key lever here. I think there's just the inertia and the concern around how it would look and who it would affect.

I don't think they're going to try to do an FDR gold thing on this. I think what breaks the back is just supply and demand. The price may have already gotten to way beyond what the transactional value can support. Bitcoin go to 500,000 tomorrow, and it would be no different than if it was at 50,000, from the perspective of the price relative intrinsic value. So whether we're at 50,000, 500,000, 5 million, at any of those prices, you could be on the precipice of a massive correction if the expectations process and the psychology shifts with a butterfly's flapping of its wings, one little thing happens over here and this country says no, and then here people start ... That is the game. That's all that there is to break the price. And to keep the price at an equilibrium, it probably will never go to an equilibrium. It'll probably just do this forever. I can see that, where it just goes through these booms and busts and crashes.

And maybe something else comes along to disrupt it, some other currency becomes the new cryptocurrency, some new thing that we haven't thought of yet. Maybe there's a hack of some kind, maybe there's some sort of glitch in the technology. That concerns me too. It seems like it could be fragile, even though it's probably not. That somebody could somehow criminally screw this all up. That would definitely break it and really change some hearts and minds, but beyond that, I have nothing for you. I don't know what's going to break it. I don't know what's going to stop it, and that's all I got.

Jim: [01:02:12] So, I love the tax angle though, because that's how they got Capone. They couldn't get him on anything they knew he did. I mean, everyone in Chicago knew that he was a vicious killer, but he had it so I try to spend it, that's a taxable event. Game over. I mean, unless Apple or Android comes out with a very easy to calculate thing that takes the taxes right off the top, I mean, that's a possibility, I guess. But I mean, that's very interesting.

Let's shift gears because it's something that I'm not nearly as uncertain about, but I'm really going to be intrigued to hear your opinion about it, because it speaks more to the technology platform, if you will, of the crypto world. And that is this idea of non fungible tokens. So just to set it up, as you can see, I've collected art for a long, long time. It's a diversifying asset for O'Shaughnessy Family Partners, which is the family office that controls OSAM. And we began diversifying outside of long equities a long time ago because it's rational.

I mean, my biggest asset is O'Shaughnessy Asset Management and I am levered long on mostly US equities, but global equities really. So it's prudent from the way I look at the world to diversify away from that. So, art, real estate, funding startups, investing in permanent equity type stuff like we do with Brent Beshore, just as far away as I can get from long equities. And art, I have been intrigued by art, physical art forever, because if you're trying to figure it out, good luck to you, because ultimately art is in the eye of the beholder and the valuing of art, you've got to understand network effects, you've got to understand mimetic desire, you've got to understand a whole shit load of stuff if you're ever going to try to figure out that art market.

But the NFT, the non fungible token market, because in traditional art, forgeries are a huge problem, and people are terrified to talk about it within the network because what would happen to the MoMA or the Met if some young brash man or woman figured out a way to 100% prove it was a forgery or not a forgery. There's this great story about a museum that had this Rembrandt, Man With a Helmet, and that's what everyone came to see. And then someone figured out, oh by the way, that's a forgery. It's not Rembrandt. People stopped coming to see it. So that's an interesting conversation completely on itself. We could do an entire podcast on it. But NFTs at least present a possibility that the train or the provence of the work is forever held in that computer chain.

So, not speculating on the type of art, because I think most of it's zero, because most of art is zero. Most of physical art is zero. But what about like what Banksy did? Banksy, who I love by the way, he created a physical piece of art. He digitized it and then destroyed the original and then put it ... He was the finger pointing, or he was the code. I am Banksy. This is my work. I mean, that's about as cool as it's going to get, because you have the original artist pointing at the piece. Are there ways around that too?

Jesse: 01:07:23 Yeah. I mean, that's a great question. This becomes extremely philosophical when you think about it. So what I would say with respect to NFT and that aspect, what makes me a little bit uncomfortable is I don't know what it means for there to be a replica or a plagiarism of a digital asset. I'm not as comfortable. I think I would use this example. Let's suppose that I've got a Mona Lisa right here. It looks almost identical. It's actually a plagiarism of the Mona Lisa, or a forgery, I'm sorry. Then let's say God or the white queen comes down and tells you, "Yes, it's a plagiarism or a forgery, but it was done by DaVinci himself about three hours after the original was completed, because he liked that one so much and he thought it was so perfect, he recreated it himself in this other one." The price would immediately skyrocket from being worth nothing to being worth something comparable to the Mona Lisa.

And we've got to ask the question, why? What is the thing that is being embodied in that process? And I think that it's the fact that the artist, his experience of the painting went through the physicality of this piece of art. He touched it. He was sitting there struggling with the canvas. His brilliance was coming out in this physical thing. And I think the physicality, I can kind of grok that. I can make sense of that. I can understand why that's cool. If I came up to you right now and I said, "Hey, this cup right here is the cup that Jesus Christ drank from, the actual cup," that is cool. That is amazing. That has some sentimental value that is incredibly significant to most people. Even if you're not Christian, I mean, that's a big deal. The entire human history has been affected by this cup. And it was there for the last 2000 years. You're going from place to place. The same thing with a baseball card from the 1910s, let's say. It's like this thing was in that world and you can't recreate that ever.

Jamie: 01:09:44 there actually was a huge relic market in Medieval Europe for religious relics like that. One of the most famous ones was the crown of thorns, but they had a problem where there were so many replicas that were faked that were still traded that I'm sure there was like 50 equivalents of that cup that Jesus drank from, that it's just an interesting parallel.

Jesse: 01:10:09 Yeah. And what I would say there is I can make sense of what it means, the distinction between the original and the fake in that context, because we can just talk about what went through the history. What actually passed through the history of our universe and the physicality of that thing through time? When we talk about a digital copy of something, that you've got a token somewhere that points to this copy on some computer and the artist himself has said, "That's the real copy. All these other copies that are digitally identical in every conceivable respect," when you tell me that those are fakes and the one that the token is pointing to is real, it feels way too vacuous was for me to give you a hundred grand for that, to give you 500 grand for that.

I mean, if I'm a consumer of art, I'm going to just go ahead and go with the fake and tell everyone that it's real and say that this is ... I'm not going to pay you that. Now I can see how the fact that the artist is there saying, "This one is the real one. These ones and zeros on that computer, they are the real thing. And my token here" ... I'm not an expert on this, so I'm probably misstating how it actually works, but my token points to that, or whatever it is on the blockchain.

I don't get how that ... I see how it's cool to have the artist himself saying that, but 500 years from now, when Banksy is saying no ... Back in 2021, Banksy said that the ones and zeros on that hard drive over there, they were the real copy of the piece of art and the 50,000 that are scattered across the universe of computers, those are all fakes. That's not really going to give me a good strong sense of like, wow, I'm getting something that's real special here. I can't make sense of it. I can't get on board.

And as far as the technology to dis-intermediate the process of demonstrating ownership of something where you don't need a third party, you can demonstrate using the blockchain. I get all that. That's fine, but we've got to bear in mind that, to me, that's not worth an instant hyper premium on all these assets, because we already have a system that establishes ownership. We already have a system that allows you to enforce the copyrights of images if you own the images. So, if some picture is really, really awesome and everyone wants to put it on their website, there are businesses right now that will go around suing people to make sure that they take it down. And they can get lots of money from doing that, get $500 payments.

We have a system that enforces ownership, and it's not as efficient as it could be. And maybe NFT makes that easier and makes that cleaner and removes the intermediation that costs money in that process. Fine. But I don't get the idea of a digital asset pure and simple, that you don't actually own copyright to, that you can't actually control, but that is the original. I mean, if there's an NFT that's pointing to some picture on some ones and zero JPEG somewhere, and the artist says, "Only that person can ever look at this, put it on a website, put it on an advertisement, and the NFT is the way we've constrained that and controlled that," and that establishes the ownership, I get that. And maybe the image is just awesome and we all have to see it and all the advertisers want to see it. Now it's going to have some intrinsic value, and you can't show it at party and you can't claim that it was fake or that it was real. Only he can use it or she. In that case, I get it.

But this idea of creating 100 copies that the artist retains ownership of, and then everybody is allowed to just copy and paste, cut and paste left and right, and this is now something that you need to pay millions of dollars for, there's no way I'm going to understand that. So, good luck.

Jim: 01:14:03

It is such a wonderful, I just love it as a thought topic because it really gets to the essence of what is real. Well, there's a lot of things that seem real today that if you took somebody from 1900, they would freak out. I just finished rereading the beginning of Infinity by David Deutsch, and he makes this wonderful observation, which is people in 1900 weren't speculating about the internet or about nuclear power. They weren't thinking about it at all, because they didn't know anything about it. And this translates very well to if you're trying to speculate or prophesize about outcomes, where that outcome is going to be effected by new knowledge or new technology that has not been invented yet, that is a one-way ticket to really bad outcomes and speculations.

I read the book the first time in 2012 or 2013, whenever it came out. And it was the book that really got me very secure calling myself a rational optimist, because he does a fantastic job of building a foundation of better explanations. Why do we have better explanations? Because that leads to better outcomes, that leads to better societies. What kind of environment do you need? Well, the enlightenment. So you need an environment that does not just blindly respect authority, which was most of human history, whether that authority was a religious authority or a political one. The gods did it, very bad explanation. And that's why you had very little advancement in society until the enlightenment, where no blind adherence or deference to authority, the ability to criticize, the ability to error correct, all of these things built in. But it still leaves the question, I think ultimately value becomes what humanity collectively says it is.

So as an example, the Uffizi Gallery in Florence, I love. I've been many, many times. I happen to love the Botticellis and would rank them up there with the Mona Lisa in terms of seeing them in person. But 200 years ago, 300 years ago, they didn't even display the art. The only thing people were interested in back then was sculpture. And when Napoleon conquered Italy and came to the Uffizi, he took one piece of art, which was a sculpture, not a painting, back with him. And it was the Venus de Milo. But if you or I are modernized, looked at this piece of art, we would laugh. Back then, we wouldn't laugh because it was bad. We would laugh because of the way people used to react to it, which was they saw it as clearly sexual and they would put it away. The Medicis would force them to put it away so that it wouldn't corrupt the morals of youth. And now we look at it and we just say, "How on earth did these human beings feel this way?"

But the idea behind context and the idea that Andy Warhol finds a $1 bill in New York City, he picks it up. He signs it. He does some doodles on it. He frames-

Jim: 01:18:00 ... up. He signs it. He does some doodles on it. He frames it. He displays it in a gallery and it sells for a hundred thousand dollars. Okay? So that's because human beings determine in the end. I like your distinction of, yeah, that's true. But if it's digital and there's a million of them, that actually is a fundamental difference from that single dollar bill that Andy Warhol signed and put into the universe.

But, okay, so let's get into the really weird, so virtual reality. So what would you speculate, and I like this, maybe we could even keep it in the terms of intrinsic value. So let's say we get to Oculus 5 and you and I are looking at each other over zoom screen, we got the haptics on and you're sitting right next to me and I can actually touch you or feel like I can touch you. Does intrinsic value work in that kind of world?

Jesse: 01:19:33 Yeah, that's a fascinating question and that relates back to the [inaudible 01:19:36] too. The distinction between the physical world and a constructed digital equivalent that mimics the physical world in every conceivable sensory respect. Is there a reason to prefer one over the other? And honestly, I mean, I don't want to sound hedonic about it, but I think that ultimately for human beings, what has value is wellbeing, the experience, I don't want to say pleasure, but the experience of some sort of like positive emotion. And I don't really put a big premium on the idea of it being genuine. So for example, if somebody came up with the virtual reality machine that we can all go into and live perfect lives and they could simulate our brains, I personally would advocate the use of that to alleviate human suffering and I think it would be wonderful. And I wouldn't be out here saying, "No, no, no, no, no, no. We got to stay true to that. We got to keep it real. The real thing." It's like, "No, no, no, we don't."

Jamie: 01:20:36 You and me are getting inserted into that one probably at the same time.

Jesse: 01:20:40 Yeah, if somebody comes out with some sort of psychedelic drug that is non addictive, non-harmful that allows you to just like go to some happy place, I think that that should be provisioned and used and obviously responsibly. But I think we can frame that in true intrinsic value because again, what is the source of intrinsic value ultimately in anything? It's the actual experience itself. It's the wellbeing, the feeling of, of, I want to say pleasure or positive emotion. That's what's actually valuable for everyone. And so it's not just that my pleasure is the only thing in the world that's valuable, but just for conscious creatures, not even as humans, but just animals too, just all. That's the only thing that makes this world worth caring about or makes it different from just being a rock that nobody should worry.

And so I would frame it as if that were the case, that we created this virtual universe that is able to simulate the world that we live in and allow us to go on trips and make us think that we're really there and we're really doing it all, but not really doing it. I think that we haven't actually compromised on intrinsic value because we're still hitting the thing that actually is valuable, which is the actual experience of positive emotion. And what's not valuable is the experience of negative emotion. Now I want to caveat that with, there's value in experiencing negative emotions so that you can do the right thing and you can guide your actions correctly to respect the well-beings of other people and to respect the future. And unquestionably that has instrumental value, but it's not valuable in itself for people to suffer.

It is valuable in itself for people to be happy. And if we are able to simulate all that, we are getting as much of the real thing as the person who is quote unquote getting the real thing, because the real thing is the actual neurological process of experiencing positive emotion. If you could experience that in a vat, it's every bit as good as if you experience somewhere else. You know what I mean?

Now the effects on other people could be relevant because they can be affected. Their wellbeing could be affected if all we do is drug out on virtual reality and nobody attends to the real thing. The reason why we evolved emotions, after all, as adaptive structures is because they guide action and they tell us to do the right things in the real world and keep this whole system going. And so there's the risk that that could be compromised. But if you can get past that risk, I am 100% for it. And I see no disingenuousness or no fakeness involved at all. To me, it's just every bit as valuable as the real thing.

Jim: [01:23:15] The natural question then would be, "Okay, well what is the currency of that realm?" And if we posit that human happiness is a positive good in and of itself, maybe currency takes on a completely different form.

Jesse:	01:23:47	Yeah, that's a good point.
Jim:	01:23:47	Because really, if you get back down to, and Jamie knows this, he's written a lot about it. So currency, the only reason for a currency is so that you can easily exchange something you have for something you want. And so clam shells and beads and gold, it really doesn't matter as long as enough people accept that as a currency. Does me no good. If I think that this bottle cap makes a wonderful currency and I go, "Hey, Jessie, I want to buy that stereo behind you and this bottle cap is worth two of those. But I'm such a nice guy, I'm going to give you this bottle cap." And you're looking, "Jim, fuck you. You're insane." So a currency has to be widely agreed upon and it has to make the exchange of something easy, I think. So I'm very open to other things being currency. It doesn't have to be the US dollar. It can be whatever we collectively agree on and has a massively good effect. But in that virtual world, I just think it's a fun thought exercise. I don't know, maybe it's coupons like your teacher. But in a virtual world, there are going to be all sorts of hackers.
Jesse:	01:25:18	That's true. There are.
Jim:	01:25:43	I work with a lot of young people in a mentoring thing, just because I enjoy doing it and I think I learn so much at the same time and I gave the brain in the vat example. The kid freaked out. He's like, "Why are you doing this to me?" And I'm like, "Would it really, if you learned with 100% certainty today that you are a brain in a vat, would you change anything?"
Jesse:	01:26:13	Exactly. Nothing would change at all.
Jim:	01:26:15	Nothing would change at all.
Jim:	01:26:19	Exactly, or a simulation. I mean, Nick Bostrom, for people who've not been to his homepage, if you really want to blow your mind, go and see. It's all fun for people to say, "Oh yeah, I watched The Matrix." Okay, go and read a real intellectual case for the simulation hypothesis. Nick Bostrom, absolutely brilliant at Oxford, Nick Bostrom's homepage. And it's not even that. If you want to read about the Fermi paradox, where is everybody else? He's got a paper for that, too. Guess what? It's not fun because it's the great filter. He posits that at some point in advancing civilization, there is a filter and you either make it through that filter or that filter destroys everything around you.

Now that filter can be natural. It can be your sun exploding, or it could be nano tech gone amok. But I'm getting way off. And this is where Jamie normally reels me in.

I wanted to ask you about a couple of the papers and then we're going to, we're going to end. So one of the things that so impressed me about you, specifically, is that I was a reader of your blog for years and Patrick was as well. And the amount of just intellectual heavy lifting that you were able to do without access to our data. I mean, I was incredibly impressed.

And then when we gave you access to our data, well, again, if you weren't anonymous, you'd have a PhD. I think you'd have Chicago offering you a PhD in this, just on the power of the integrated equity methodology. I want you to spend a few minutes after everything we've just said, do things like the integrated equity myth methodology, which all listeners can go to Osam or to Jesse's site. It's there. It's at Osam. Within this framework of this fun discussion we've been having, do things like integrated equity, does the P2 integrated equity implication for future market returns, still valid?

Jesse: 01:29:10 Yeah, well that itself is a question that I could go on for hours on. But I think that the problem with any valuation metric right now is that to know what returns are going to be using valuation as a forecast, you have to know what the final valuation is going to be. So if I want to know what the return on the S and P 500 is going to be from today to the next 10 years, I have to know how assets are being priced 10 years from now. And it could be the case that maybe the price to integrated equity or the price to sales or the price to earnings, those could all be elevated now. But if they get more elevated, then using this framework, all that's really saying is the prices will have gone up. And basically things will have been more expensive than they are now.

So one thing that I can say is that if, and this is how I like to do it, other people will just assume that the valuations go back to normal and then they conclude, "Well, then we're going to have like a negative 5% per year return in real terms because this is going to go back to normal and everything's going to be like it was in 1987."

And I'm like, well, yeah, if anything we've learned, that's probably not going to happen. Something's different right now. And what I like to do is to say, "Look, let's suppose that the market stays exactly where it is on the current valuation. Let's suppose that we continue to value equities relative to their fundamentals at the same ratio that we're valuing them right now and we just stay that way." Then I can say that returns are going to be lower than normal in history, because the point is is that the dividends that you receive, they're going to be equated to a lower yield, first of all. And then second of all, a significant part of the profit cash flow of the corporate sector gets recycled through acquisitions, buybacks, which are even more tax efficient. And those are being recycled right now at the current valuations, which is much higher than the historical valuation. So my calculations will say something like 3% real return. If we stay at the current valuation over the next 10 years, you probably get a 3% real return in equities. And that's tough though, because what are do get in cash? What do you get in treasuries? You get negative 2%.

And so there's no way to say what the price should be in a world like that because you have a negative discount rate. If you're using that as a discount rate, at least, how do you know? You don't. And so everything's up for grabs. I don't want to keep betting on valuations continuing to just go higher and higher and higher, especially now that we have this massive slug of fiscal stimulus in the system that will create a basis for, at least that basis for, raising interest rates and kind of turning this whole process around. I think you want to be a little more careful now than you may have been 10 years ago. Obviously we didn't know 10 years ago. We were worried about other things back then. But it's not all clear on the valuation front by any means. I would estimate about 3% in an optimistic case where we stay at the current valuation. And that's kind of what all my signals say, not just pricing, everything is saying that price to earnings, price to integrate equity, price to sales, all of it is just saying something that's much lower than what you've seen in the past, if we stay where we are right now. If we go higher, then all bets are off.

Jim: 01:32:23 Right. So let me ask you this question then, is there some asset class or specific industry or individual stock that you've come across and you're like, "Why is this not trading at like a hundred times what it's currently trading at?"

Jesse: 01:32:48 A hundred times no. I mean, obviously I wish I was that good, but right now I do think in the asset universe, I still think that and I thought this last year and I still think it, that even after the run, value is a more attractive place to be than growth, just on thinking relative to historical norms of where the valuations have been. It's still stretched on the growth side and there's a lot of unwind to go. And I think that people tend to think that because you're in the early phases of an unwind, they think, "Oh, it's over. We already had the move."

It's like, "Well, oftentimes these things last longer than you'd think." And I think there's a good chance that with the current economic backdrop, value will continue to outperform growth given its exposures, given that it's kind of tethered more towards the kinds of things that benefit from stimulation of fiscal policy and also stimulation of the low end of the economy at the consumer level.

But in terms of globally, I would probably say small cap value, globally, and in particular Japanese small cap value. That to me, if I just look at the numbers and this is from what I've done in the research system. That has not had as strong of a run and it's on an evaluation basis, it's significantly more attractive than the rest of the global small cap value universe, the Japanese small cap value. There's some specific risks there around policy and around what the potential is for profitability there to improve and for some of the practices in a corporate system to improve. Those are just potential forces of additional upside to my mind, because I think that that's a market where there's been a lot of progress in terms of shareholder value, in terms of shareholder friendliness, and so I can see that continuing. So I would say probably Japanese small cap value, probably more specific than you thought, but that would be where I would see a remaining opportunity relative to the rest of the universe that's very expensive.

Jamie: 01:34:43 Very interesting and fits very nicely with another guest's thesis about emerging markets and crisis environments.

Jesse: 01:34:53 Right.

Jim: 01:34:53 I'm going to say do you work for Verdad Capital? Well, that'd be funny if it all, if we all discovered that Jessie has been working for Goldman Sachs all this time,

Jamie: 01:35:07 I also think it's ironic that people are thinking that values run is over. It's already missed it when it's like 13 years of under performance in they think in three months, it's like, yeah, we missed the boat.

So we end these kind of a magical question itself and that is, we're going to make you emperor of the known world for a day. You can't kill anyone. You can't put a lot of people in re-education camps. But what you can do is become kind of an ear worm and you can make two suggestions that people will wake up the following day and think was their own thoughts. So you can incept them and they can wake up and say, "Wow, I never thought about that before, but I think I want to start doing that." What do you got for me?

Jesse: 01:37:25 Wow. That is a great question. Well, I mean, like you, I have a libertarian streak, and I think that a lot of the suffering that we experience in the world is because we think we know for other people what's best for them and we don't really know what their perspective is on what their situation is. Right. And we think that what works for us will work for everyone. And I think that's where my libertarian streak is located. I believe in liberalization of things like, I mean obviously you need to control drugs on some level, but I think increased liberalization of the idea of pharmacological manipulation of human experience is one area that I would try to affect. Liberalization around end of life and around how people deal with the things that happen in end of life, particularly around assisted dying would be another area that where I would say, "Let's just respect what the subject wants, what the subject is saying and just trust that maybe life is not as always as wonderful for other people as it is for me right now in this current situation."

And I would try to get other people to think more about that reality of the fact that the world is not experienced for everyone else the way it is experienced for me. And the things that are important to me are not as important to everyone else. I think that if we all felt that, we would be more empathetic and we'd be willing to like acknowledge and respect other people's preferences and their desires and their desires to live a certain way and be a certain way. We wouldn't be as likely to consciously or unconsciously force them into our little molds of how life should go. So that would be what I would really try to tap into.

Jim: 01:39:05 Love it. Yeah, and you sneakily took more than two. I like that. Icksnay on the wishing for more issues way. Jesse, this has been a tremendous amount of fun

Jesse: 01:40:31 Thanks for having me. It was a blast.