Richard:	**00:01:47**	Happy Friday, boys.
Adam:	**00:01:48**	I'm listening to that and I'm thinking to myself, man, I wonder if Rohan's triggered by the inflation out of control, the collapse of the US dollar? We'll probably get into some of that. Anyways, cheers, guys. Welcome to Friday afternoon.
Mike:	**00:02:03**	Cheers. Happy Friday.
Richard:	**00:02:06**	Happy Friday
Adam:	**00:02:07**	Welcome, Rohan. Thanks for joining us. Mike, go ahead and…
Mike:	**00:02:12**	Rohan Grey, what a handle too. That's a solid handle. That feels like it's out of some sort of, you know, one of those historical fiction Dracula type …
Rohan:	**00:02:23**	Well, as long as you're not calling it *Riders of Rohan*, then you're better than most of my high school bullies.
Mike:	**00:02:29**	Oh, too good.
Richard:	**00:02:30**	That's a good reference though. There's definitely nothing to frown upon.
Rohan:	**00:02:35**	No, no.
Mike:	**00:02:36**	And just a reminder to everybody that this conversation is for educational and entertainment purposes, not investment advice in any way, shape, or form. If you need investment advice, four o'clock Friday on YouTube, not sure that that's the place you should look. Anyway, with that I will turn it over to you gentlemen, and get this thing rolling.

Backgrounder

Adam:	**00:02:54**	All right, cool. So, yeah, so we've got Rohan Grey on the show. I've been really excited for weeks to have this conversation. So, Rohan, thanks so much for joining us. Maybe for the benefit of those who are less familiar with you, love to hear a little bit about your background and what you're currently up to.
Rohan:	**00:03:13**	Yeah, I'm a law professor in Oregon at the University of Willamette in Salem. I teach contracts, business organization, securities regulation, a course on law, money, and technology. I was previously an attorney working in family court representing children in custody and visitation where I like to joke I never litigated a single dollar. We did other kinds of issues, but never money. And before that I was a music teacher, before law school. So, different hats, but nowadays, it's money and finance with a particular focus on digital money, and

particularly digital public money. And I work on various pieces of legislation, looking at macroeconomic issues looking at banking, and the budget and related issues in employment and distribution of wealth, things like that.

Adam: **00:03:55** So, help me sort of connect the dots, because how do you go from sort of music teacher and child advocate, etc, into economics and monetary policy?

Rohan: **00:04:04** Yeah. I mean, I came in sort of adult age around the global financial crisis. And obviously, that was a pretty big moment to be looking at and seeing how much people's lives and the entire kind of system that we had grown up with was being kind of undermined or challenged. And then I think part of it was austerity becoming the dominant framework. You know, I came to the United States in January 2009. I was in DC with a friend for Obama's inauguration. And to see this moment where we kind of had a Great Depression equivalent, and instead of talking about the new deal and jobs programs and revitalizing the economy, and God forbid, doing something about climate change, the conversation was dominated by austerity and balanced budgets and the national debt and that was a pretty confronting kind of moment to see how, what should have been a kind of progressive turn, or could have been a progressive turn, was wasted.

I also, when I moved over here, did a semester on exchange, that was my ticket into the United States at the University of Pennsylvania, where a lot of my friends there were at Wharton Business School and ended up working on Wall Street. So, when I was a music teacher in New York at a school in Harlem, and dealing with all the chronic underfunding and the intergenerational effects of poverty and systemic racism and things, a lot of my colleagues were downtown, and working in the buildings that were financing these schools or not financing them, depending on the case may be, and I would talk a lot with them about these issues. And it kind of became clear that if you didn't really understand the money or finance, then a lot of you know, any progressive or sentiments would always be dismissed or discounted as being kind of sentimentalist rather than kind of informed by a realistic understanding of the world. And I had gone through before I left Australia, the experience of a school that had a very good music program.

In another world, I'd still be teaching music to kids. And to see that program essentially die in a short period of time due to global economic events that caused austerity, that caused underfunding. So, if you start from the idea that there are things that we should be providing all children in the world because it's good, and we've kind of had a larger level of wealth collectively than we've ever had in the world, and start to ask, why don't we do something about that? Why can't we do something? The first line of defense you often hear is, well, you don't understand economics, and where you're going to get the money, etc, and caring enough about those issues to really follow that all the way through.

And I think in terms of the understanding, the sort of framework, I had followed a lot of blogs and webs -- people writing online and things when you move to a new country, you don't know that many people, you find yourself a lot of free time to do a lot of reading. And this was in the glory days of the old RSS feed, blogosphere wars of the early 2010s, when you could sort of have anybody put up these great arguments and back and forth and read all the comments section. And at that point, I had studied political economy at the University of Sydney, which was a pretty famous heterodox program; did a lot of political economy, not just the standard sort of neoclassical micro econ. And at that time, I had -- the joke of the school was, well, it's not as rigorous. The real economics is next door with all the math, and we're doing something sort of much less rigorous.

But as I came to read more about it and understand it, and realized that a lot of that math was very frail, actually. The suppositions, the kind of underlying framework was very underdeveloped, and certainly not consistent with my understanding, even then, of the law. And then that political economy that looked kind of weak or soft or vague, actually looked a lot more coherent and rigorous than the alternative over time. And I sort of followed a lot of these debates and started reading some of the MMT blogs. And over time, I just said these guys are sounding pretty persuasive, frankly. They seem to be winning a lot of these conversations, they seem to be making a lot more sense than their critics. And I think at that point, it might have been just that idea that the banks don't lend out other people's money, but create money out of sort of sweet generous, whenever they make loans. That was probably the first thing that broke something in my head for me, this recognition that there was a kind of printing press that was always in operation not only in the public sphere, which we had to be very careful about.

But perhaps most egregiously, private credit was doing the same thing with absolutely no discussion. And that fit with a sense of politics in general, which is the minute you arrive at the old line that the law is kind to the rich, and just to the poor; that we always have enough money to do certain things, but not others. And I knew that in the context of war, and you know, that kind of stuff. But to realize that it was going on in plain sight with the entire system of private finance. And nobody blinked an eye, that there was new demand, new purchasing power, new sort of sources of claims on the economy. But the minute you talk about public claims, suddenly everybody's concerned about inflation and sort of quantity based restrictions and discipline. I think that hypocrisy was what really, really kind of lit a fire under me initially.

The Framework of MMT

Richard: **00:09:04** Let's expand on that a little bit, then what is the general framework that is MMT? How does it contrast to classical economics? And what are some of the basic misapprehensions that you feel most laymen have about MMT or sort of the straw men that get thrown out about what MMT actually is.

Rohan: **00:09:26**

Yeah. Well, you know, stop me if I hit the half hour mark, because there's a lot in that question. But I know I'm joking. Feel free to interrupt. Yeah, I mean, I think -- I like to think about this stuff, first of all, kind of sociologically. MMT, is what MMTs do, in a sense, right? That just like in the legal world, legal realism was a movement. It's a documented historical phenomenon. But if you sort of took a snapshot in 1935, or something and asked 10 of the dominant legal realists what is legal realism, you probably get 10 slightly different answers. And there is a common thread there. You can sort of superimpose them and start to see a common outline. But there isn't just one thing. And a lot of people have a problem with that, because they're trying to pin it down. They say give me the one article or the one book or something. And you're like, well give me either one book on string theory or something. There might be a dominant book or something, but you're going to find other people that are going to disagree about things around the edges or what the priority should be, or how you frame things. So, I'd like to start from that point, which is that this is a living, breathing, intellectual movement and people are people. They're complex, they have multiple layers.

That said, there is a common element, there is a set of sort of foundational principles and things. And I think one of them is that when money isn't what, what the neoclassical sort of standard orthodoxy suggests, which is neutral, and valueless, and a side issue, really to the real underlying system of production and real goods. That old line, I think it was Frank Kahn said the problem with most economics models is they don't have money at all in them, they just don't, it's just not there. And that idea that you can sort of just superimpose it onto a model of real relations underneath is not true. The money is itself a site of power of politics, of investment, of change, of technological contestation, and that idea that we have to take money seriously, I think, as Schumpeter said, monetary analysis should be the starting point. We have to think of everything through that lens in a monetary economy.

And in some senses, the monetary layer is almost more real than the real layer in the sense that you can say what are real wages? Well, it's the dollar wage, adjusted for inflation, but inflation is itself a contested term that you will choose one metric or another. And depending on which metric you choose, you might adjust that dollar value to a different number. So, we can have 25 different theories of how to adjust that to get a real wage. But at some point, the one that's actually there that we're looking at is the dollar value. And then we apply theory to it, etc. And in some sense, people like Hyman Minsky would say, you can look at the entire financial economy as a series of balance sheets and numerical statements. Not because the real economy underneath is not important, but because that's sort of, in the way that we use words and words govern our actions, that the numbers govern the underlying dynamics to a very large degree.

So, I think with MMT, first of all, it's denaturalizing money, and then it's trying to tell an alternative story. And the standard story is that some sort of public authority, it could be a modern nation state, it could be a religious authority, it could be a temple, it could be a warlord, it could be all sorts of things. It could be a democracy, or a commune. Could be a bunch of friends in a share-house, will come up with some system where they use quantified value, right? It's not just as the anthropologist David Graeber would say, it's not just qualitative IOU one in a vague sense, but IOU specifically X amount. And that can be alienated from me and my relationship to other people and be its own number that stands sort of, as a number.

Richard: **00:13:01** Fungibility, essentially.

Rohan: **00:13:02** Yeah, fungibility, alienability, commensurability, making different numbers equivalent, right? The idea that you owe me a cow, I owe you three chickens, they're not exactly equal, but that's okay because it's in those differences, that we still have bonds. It's like I buy you a round of drinks, you buy me a round of drinks at a slightly more expensive place. And that's okay, because we're going to hang out again. But you and I paying exactly $85 is the end of something, it signals the finality of that relationship. And if you don't pay me exactly how much we're going to have an issue, right? That's a kind of different way to look at. I think quantification of social power, social values, social obligations.

So, the state or some public authority, sets a unit of account, starts putting different things in relation to each other. Three cows is worth exactly -- three chickens is worth exactly one cow, which is worth exactly you killing my brother. Or exactly one pound of the crop harvest or whatever it is. And then we start to have a relative value metric that applies not only for goods and services, but for social behavior, right? Don't kill your brother. Right? Don't steal someone else's wife or something. Don't …

Adam: **00:14:12** Incentives and disincentives.

Rohan: **00:14:14** Yeah, yeah. Punishments, fines, all those kinds of things. And then, in order to provision the public authorities, in order to get resources back to the public authority, there have been different ways to do that over time. You know, one is you have people standing there with guns next to people who do backbreaking labor, and you sort of hot stand over them. Another way as you say, you owe me a certain amount of food or rubber or whatever it is every year. And if you don't bring that to me, then we'll come and burn your house down. But another way is to impose monetary obligations and say you have to pay those obligations, right, a tax or a fee or a fine. But it’s not the act of paying the tax that’s valuable. It’s the act of what it takes to earn the dollars in the first place, earn the currency. And so that’s, I think, one of the first big conceptual flips is we often think of the money as value.

But it’s often money is the thing moving around the underlying value. You know, you don’t eat money, you eat food, but you buy food with money. So, you acquire money to buy food, and you don’t eat -- the state doesn’t eat tax revenue. It’s that what you have to do to earn tax revenue might be to sell stuff to the state or sell stuff to someone else, etc. Or if it’s the case of a warlord, they might give out coins to all of the soldiers as payment and then say to the conquered population, you have to pay in taxes. So, suddenly, the conquered population goes to the soldiers and says, what do you need? Do you need food, do you need brothel services, or whatever it is? And that’s how the monetary circuit gets set up. And now that’s a pretty kind of violent, hierarchical story, and in many parts of history, that’s sort of how it worked.

But there are also versions of that we can tell that a more communitarian and democratic and I used the example before, of a share-house. Actually, a colleague of mine who was sort of I met early in the MMT days, she lived in a share-house where they had chores to do. To keep the house running, you need to do your chores. So, they had essentially a chore system. And they would assign different points to different chores, depending on sort of how unlikable they were or things like that. And they would agree collectively what those points roughly were. And then each person as part of their sort of inhabitation of the share-house would have to earn a certain number of points every month. And you know, there’s no tyrant, there is sort of a self-governing democracy, but they are imposing an obligation on themselves, right? In the moment where they’re working out those prices, they’re putting on their collective governance hat, and then the moment when they’re out earning their individual hat. And so their story doesn’t have to be tyrannical, it doesn’t have to be anti-democratic, it can also be communitarian, even if that’s not historically, a lot of the times that it’s happened. But essentially, the state imposes these obligations, and then enforcing you to acquire them, or incentivizing depending on how you want to think of it, they create a monetary production circuit, where people will do things to earn the money and pay back to the public authority.

The second layer is that once that exists, once people are starting to think in a common unit of account, once they have an instrument, or some sort of account value, recorded somewhere, either in an object or in a spreadsheet somewhere that they know other people will want. Because everybody lives under the same system, right, death and taxes, death and taxes. There’s nothing certain in life except death and taxes. In that world, suddenly that instrument becomes a useful one also for private exchange, for private investment. And suddenly rather than using other things, you could use that as the basis for making payments between actors. So, that core public circuit gets augmented with private behavior, which is sort of opposite to how we think of it in a standard economic story. It's like a Robinson Crusoe Island, and three people come together and they start mutually trading. And then an authority comes in. But the reality is, most people grow up in social units. The social unit exists first and you have a place within it, rather than vice versa. And most of us aren't reforming societies out on the high seas, every generation.

The other thing I think it's important to note here, which is I would consider, I would say, almost a legal extension to the original MMT case. And I don't want to assume that every MMT economist would go that far, but I think most of them agree, which is we often talk about this in the context of taxes, or in the case of maybe colonial, more imperialism in the case of some sort of forced obligation. But in a modern economy, where you have private contracts and private property rights, and accounting conventions for business entities and limited liability corporations that have to be chartered by the state, things like that, in that world, private actors incur all sorts of legal liability risk, that is either enforced by the state or sort of exists under the shadow of the state. Even if you never go to a courtroom, you're still using contract law as the basis of your negotiations, or even if you never -- even if you settle outside of the judge making a final decision, it's still the threat of what would happen if you went through the court system that shapes that commercial exchange or interaction. So, I give …

Richard: __00:19:17__ So, ultimately based on the monopoly of power by the state, right?

Rohan: __00:19:20__ Yeah, yeah. Yeah, the idea that we set what the law is, right? You as an individual can resist …

Adam: __00:20:25__ And enforce it.

Rohan: __00:20:26__ Yeah, you can resist the law when you cross the street against a red light, you can resist the law. When you marched with Martin Luther King. You can say I don't recognize this state's authority like the Bundy's or something, or the Confederacy. And states come and go. Public authorities come and go. So, there isn't this sort of one eternal sort of state above all of us. It is itself a contestable, malleable space, but relative to individual actors, or more importantly, relative to private markets, we don't have these underlying institutions of contract and property and tort, nor these things, accounting and business organizations without some relationship to a more common public legal authority, whether that's sovereigns or whatever else.

And I think it's important there, because often people hear oh, taxes. They think MMT means you create the value of money, because you impose a tax. Well, what if we had no taxes? You know, what will happen then? And my answer is, we'd still be in a web of legal obligations. Even if you had zero obligations today, can you really honestly say to yourself, you have zero risk of incurring legal obligations today? You could walk down the street and someone could bump into you and fall over. And the next thing you know, you have a lawsuit for causing injury to them. Or you could go out into the middle of the bush, prepay your property taxes for 100 years and try to live rogue. And again, somebody could come onto your land and fall over and say you didn't put a sign up. And that's it, or whatever else could happen.

So, to me, at least, we live in a constant fog, a web of legal liability risk. And the risk is enough. It's almost like an electron cloud. You don't have to know where the electron is to know there's a probability that it's anywhere in the cloud at any point in time. So, the sort of strong form, the concrete form, is the taxes, drive money. The softer more sort of contingent form, is legal liability drives money. And legal liability can include those affirmatively imposed public obligations, but it can also include private obligations that exist, because there is legal institutions mediating private and constituting private market dynamics.

The Treasury, The Fed and Private Banks

Adam: **00:21:33** Okay. So, from a -- that was amazing. Just to sort of distill it, because I found it useful as I was sort of getting familiar with the mechanics, to have just sort of draw out the interaction between, for example, the Treasury, and the Federal Reserve or other central banks, and the private banking sector, right. So, maybe, if you wouldn't mind just like, create that diagram for me? And importantly, what is your order of activity there in order to create money and/or take money back …

Richard: **00:22:11** And how taxes relate as well, because this is one of the key differentiations that MMT has brought, at least in my understanding of public finances, that governments aren't paying their bills through our taxes, right? And so that breakage of that link, I think, is crucial for us to sort of make that leap forward in our understanding of MMT.

Rohan: **00:22:31** Yeah, maybe I'll take the last one first, and then go into the first question, because the first one's a bit bigger. But yeah, on that taxpayer money point, I think, once you recognize that the point of collecting taxes isn't always to hold the tax receipts themselves, right, the tax revenue. The point of collecting taxes is to keep people in a monetary regime that you have the ability to influence or issue new dollars. Or even if you can't make more gold coins, you could change the value of the coins, or eventually start issuing paper money on top of the coins, or whatever else it is, that taxes play an incredibly important function, both in terms of creating the demand, keeping people in that system, but also, as a form of reflux. You're taking money back out, right? It's deleting money that you put previously in circulation. And that deletion could include taking back the underlying real resources, whether that's lumps of metal in certain contexts, or the kind of, I don't know if you ever had a kindergarten experiment where you go to see how paper gets recycled, and they take all the old pieces of paper and they mulch it up. And then they show you how they can kind of re-mulch into new paper. Well, you could do that with the paper, underlying paper money in theory. But that's not really what taxes are for, right? When you pay in taxes, you're taking money out that you put in, in that respect.

And so when we think of taxpayers as the source of money, what it does is center the people who have got the most in the first place, to give back. And it centers them as the ones who create the value in the system. And what we see over history is that this creates an identity, a political identity called *the taxpayer*. And the taxpayer is usually coded. It's usually coded in a country like the United States, it's coded white, it's coded male, it's coded property owning, and you don't need to go far back in history to know who we're talking about when we say that. So, when we say we don't want to hurt the taxpayer, what we're usually talking about there is we don't want to hurt the interests of the people that have run this damn thing since the beginning and keep running it.

And there are legal historians like Camille Walsh and others who've looked at key moments in, for example, the desegregation of public schooling, where courts and others have weaponized that taxpayer identity to say your taxes in this town shouldn't pay for the school for those kids in that town. And today why should my taxes fund your welfare, this kind of stuff? And so it creates a mentality that, those with the most wealth and power are the ones that are basically keeping the state alive, or financing or paying the most. Whereas in reality, of course, if you're poor or houseless, or whatever else, you're probably paying in a more real sense for this monetary system. Much more. Bill Gates doesn't feel a single thing if it gives up 1 billion out of 150 billion.

But if you can't do anything, you can't sleep anywhere, because you've got no money because there's a monetary regime that's enclosed the commons. We don't have people able to hunt on the king's land anymore or something, then you're paying a lot to live under a monetary regime, even if your tax bill says $0 next to it. And that's I think a really important flip in people's minds, is to understand that your tax money does an important thing in keeping the money flowing back in and changing the distribution of wealth. But you are not the goose that lays the golden eggs, and that in many respects, we may be violently over taxing certain people in lower income brackets, and developing policy more broadly, on the assumption that it needs to balance out, or that if we spend X over here, but we tax Y over here, that's going to have an equivalent offsetting effect, when in fact, it may do nothing of the sort. So, we get into this mentality of everything is about back of the envelope, numbers must add up, calculations. And that's very disruptive.

To go to your earlier question, though, the difference between money and banking or the Treasury and the Federal Reserve goes into, I think, what we can think of as the hierarchy of credit or the hierarchy of money. And people like Hyman Minsky and others talked a lot about this too. But basically, the line that a lot of MMTs borrowed from Minsky is, *anyone can create money, the challenge is to get it accepted.* And you can use the word credit there as a close substitute or almost equivalence. But one way to think about that is, credit is often extended, and then can be -- you can pay back something you owe against that person by giving back their credit.

So, if I say to someone, hey, I owe you 10 bucks in the future, and then I do some separate favor for them. And they owe me -- now I owe them 10 bucks, they can say, well, let's just cancel it out, you owed me 10, I owed you 10, let's cancel it out. That kind of relationship can exist between private actors, even if they don't have access to any external source of public money. You could have five actors all offsetting credit and debts with each other. And that could clear without any need of external money. Now, what you can't do there is necessarily choose a single unit of account. You're doing that in dollars, even if it's your credit instruments, they're in dollars. If I issue an IOU for $10, someone needed to come up with dollars before I could do that. And again, for that to be enforceable in an advanced modern economy, that means contracts, property, I need to have legal standing, all of that kind of stuff as well. So, you can have credit that can appear kind of anywhere where people are willing to accept it with each other. But in practice, it's always embedded in these larger public legal social dynamics.

But one thing you can't do with private credit, of course, is pay your taxes, is pay the court, is paying the things that require an official money. And so as a result, that official money ends up having a unique value relative to those other systems of private credit. And given that often, people will interact with the government or different agents or entities of the government or franchised sort of subordinates, much more than they will able with any particular one private actor, that often becomes the most useful, widely available form of money. People know that as long as they want their property rights and their contracts and all that stuff to exist, that the state will exist, and they know the state is going to need these dollars. So, if you have to trust my random IOU, or the state's money as something that's likely to have enduring value, unless you're talking about a government about to collapse or something, or you're betting that it will, you're probably going to want to stick with that public money.

Now, one thing we have done over time, and this has a lot of relationship to I think the early capacities of the modern state, this sort of real resource, the governance, the institutional administrative capacities, we have franchised or outsourced a lot of that money creation role to private banks, and it's a sort of public/private partnership. It's almost like the original neoliberalism going back 700 years. But the idea is that these banks often have a capacity to process payments and transactions and much wider scope than we might have, or the state might have as a single central entity. I mean, to use the United States is a good example. If you have a very small federal government, it's only recently formed, it's only just starting to assert itself, right? *These United States* is still the term in the early 1800s.

And then you have a system of thousands and thousands of private commercial banks all around the country. It's almost like having little information processers. They can settle payments, they can communicate with each other. Suddenly, instead of everything having to go through DC or something, you can have a much larger distributed network that settles amongst itself and only needs to tap the public authority at the edges, right, in the final analysis in the settlement moment.

But modern banks today, the liabilities they issue, the IOUs they issue, the debt that then serves as money for most of us in our bank account, it's not obviously gold bars in a vault somewhere like a Harry Potter book. It's just a straight IOU that promises to pay either other bank money or actual dollars. And what has happened over time is that those actors have had their IOUs essentially guaranteed by the state. So, even though it's privately issued, it's got a little stamp in the corner that says FDIC insured. And we treat it as equivalent to regular public money, because we know that the one-to-one convertibility there will stay alive.

Richard: __**00:30:47**__

If we can press pause there for a second, because I think you touched on something important when you made the analogy with Harry Potter and the gold bars, which is the exiting of the gold standard in the late 1970s. So, I wonder if you might talk about that, because the creation of credit by banks has always been the norm throughout history. But the extent to which that has happened since the exiting of the gold standard, I think has an important role there. So, I wonder if you might comment on that and sort of describe what has happened since then particularly as it pertains to banks and their role in money creation?

Rohan: __**00:31:23**__

Yeah. I mean, I think there are different kinds of credit creating private actors over history. And the modern bank, I think, has a particular provenance, particular origins, and maybe Goldsmith's of England originally, and going from transferring individual gold coins, the corresponding to a certain persons. Like your commemorative coin given by your grandmother just to a general debt, they've got a chest of coins, and you owe a claim against them. And that's a kind of different legal history. One is the legal history of bailment. Like if you give your coat to a dry cleaner, they don't own your coat, versus you give your coins to the bank, you have a claim on them in general, but they own those coins. That's a different legal concept.

But then you kind of get the rise of the modern incorporation, corporation, that the state's charter entities to serve public functions. In the early days, it would have been Harvard College, or the British East India Company, or the Panama Canal Company for specific purposes that the state doesn't feel like it has the resources to manage. And banks were a very important part of that, particularly at the state level in the United States. But a lot of that, at that time, is still grounded into an international monetary regime, where whatever you're doing domestically still is part of a larger international system, or may be built on monetary technologies that are common across regimes. And for a long time in history, gold was, or silver were important, sort of underlying resources, out of which money was made.

Now, you can go back to ancient Mesopotamia. And you'll find examples of pure accounting based monies. You'll find tokens out of clay, you'll find in Britain in the medieval period, tally sticks made out of wood, where they break a piece of wood in half, and they put a little notch on either side so you can correspond the issuers part with the one out in circulation. It's almost like a public/private key encryption pair today. So, it wasn't always gold-based, there was always credit as well. But there was this layer where you would often settle, usually, with external actors outside of your social unit. With gold, it's sort of like those, those signs you probably might have seen in my grandparent's home and said, like *friends come with love, everyone else bring cash money* or something like that. I forget what it is. Yeah, bring cash, right? Yeah, that idea of kind of, like, if you're inside our social system, we can use our internal money. Outside, we have to use external monies. And gold was often one way between regimes, in part because you had that added collateral, right?

The new Roman Emperor comes in, the first thing he does is stab his face on the coin or something like that. This starts to, I think, really got under strain in the 19th century, but then FDR in the US context suspends domestic convertibility in the 30s. And so for all intents and purposes, the United States is off the domestic gold standard by World War Two, and probably wouldn't have won World War Two if it hadn't. But the international regime after that is still based on at least the fiction, that the United States dollar will be always convertible on demand into gold. And the way that that was structured was, every other country converts into US dollars, US dollar converts into gold. And in theory, that's a gold standard. But in practice, it was a US dollar standard. And the minute the French really started getting annoyed about that and asking to see where the gold was, the United States said actually, no, we're going to change our mind on that and abandon the international convertibility, in the early 70s. And ironically, it was Paul Volcker, amongst others at the Treasury at the time who led that transition.

But I would say, really the biggest shift probably came in the 30s. And then maybe even before that with the 1860s, and the rise of the greenback and the paper money movement, where there were legal debates, basically saying that the state's power to issue money includes paper money as well as gold. And by the time the international dollar regime does break that convertibility, in practice, it was already long gone. The US dollar was sort of central. But I think in some respects, it's an interesting moment, because you're sort of de-- not de-materializing because money is obviously still very material. And I spend a lot of my time on monetary technology and fintech. It's obviously material.

But you're de-tethering the public money from any real life reference point. And even if that reference point was one that you could change, and bid up and bid down, and there were very important legal debates going back to the 16th century, saying, if the sovereign gives you a contract in pounds, and then they change the gold value of the pound, they still only have to pay you how many pounds they said, they don't owe you the real value, they owe you the nominal value. So, that nominalism principle, I think, was in there for a long time already. But to me, it reminds me a little bit of this funny story, at least funny to me, which is the international society that measures standards.

So, like what is a kilogram, what is a meter, what is a lumen, what is a unit of the other things that we measure in science? They're all pretty much defined in relation to each other. One kilogram is X of this while blah, blah. But for a long period of time, the kilogram was the only one that was still in reference to a real thing in the world. You know, before a foot was King George's foot, and then a meter was the circumference of the Earth, etc. Now they have more scientific definitions. But for a long time, a kilogram, referred to a big ball of platinum/rhodium alloy that was underground in Paris. And it was a very heavy material. But they found that even that, there was a very stable alloy was still leaking microns every year. The kilogram was getting lighter. A kilogram is a kilogram, except when it's not, kind of thing. And eventually they got rid of that. And they said, we're going to just use a certain number of quadrillion atoms of whatever element and that amount of atoms will be a kilogram, not quadrillion, but you know, billions or trillions.

And so, in a sense, all of our systems of measurement now, are all devoid from any reference in the real world. We define them in relation purely to each other.

Richard: **00:37:29** There's no more ballast.

Rohan: **00:37:31**

That's right. We're up in the stratosphere, we're up in the stars now kind of thing. And I think that's why that moment in the 1970s is so important for us today, because at least you know, maybe until Ukraine or until the rise of Bitcoin, it didn't feel like we were going to go back to a gold standard at any time soon, or try to re-tether our money to something on the ground. That the idea that we were in this sort of purely nominal world was almost a -- not to put a teleology on history, not to say we were always getting there, but it's a sort of more internally coherent version of itself. We've taken away the trappings and prior regimes, we've sort of made a clean break with those prior systems that might have believed something else was the basis of money. And that allows us to reconceptualize money from a different starting point, and see it maybe a little bit more clearly.

I think that MMT in that respect there's a reason that Warren Mosler was one of the first sort of MMT forefathers. First big paper was called *Soft Currency Economics*. Because this is a theory of soft currency first. And there are times in history where it interplays with hard currency, or we can understand hard currency regimes through this framework. But I think that's definitely a claim. It is that kind of legal accounting, value quantification, that is the more fundamental aspect of money. You can have money with gold or other standards. You can have it without, and those standards will maybe break in certain circumstances, or not. But what you can't have money without, is that kind of legal system and the nominal valuation.

Adam: **00:39:10**

Okay. So, without the reserve system, like going back to the gold standard, each dollar was backed by a certain amount of gold.

Rohan: **00:39:18**

In theory, in theory.

Adam: **00:39:19**

In theory, in theory. So …

Rohan: **00:39:21**

As long as you never look, it's definitely in the vaults like, *good as gold*, right? As long as you never ask for it, it's there. Right?

Adam: **00:39:26**

Right. It was sort of generally accepted. Everybody sort of sort of played as though as if, right?

Rohan: **00:39:32**

We know the United States have nuclear weapons and owns the United Nations and things. Maybe you have other reasons to play along, rather than just believing it on face. I think that's an important geopolitical context for that Bretton Woods moment. Sorry to interrupt, but yeah.

Adam: **00:39:45**

For sure. No, no. Fair enough. So, it was in theory sort of tethered or anchored and there was constraints on the number of units of a currency that could be created, because it needed to then go back to a number of ounces of gold.

Where we broke that relationship explicitly in the 30s, and again in the 70s. And so I guess the question that's begged, then is what are the constraints on the number of units of money that can be created and moved into circulation?

Rohan: **00:40:22** Yeah. And I think it's important to know that even when that gold standard was there, first of all, as I said, sovereigns could adjust it up and down when they wanted and things. It was a constraint on paper, but not necessarily a practical constraint.

Adam: **00:40:35** And they did so. Yeah.

Rohan: **00:40:36** And they did so regularly. But also, that system of private credit that I started with, exists on top of that, right? If you have seven people, and they all issue a private IOU, and they all offset each other, nobody needs to have any gold. And you could do that at mass scale. And so if you're the US government, and every time you issue $1 bill, you need to sort of at least in theory, have gold somewhere to back it. But if you charter a bunch of commercial banks who are basically quasi-public actors anyway, and they issue bank deposits, those bank deposits don't have to have a one-to-one backing with gold. So, even if the base layer of the hierarchy or the top of the hierarchy, depending how you want to look at it, even if that layer has some, in theory, tethering to gold, the actual whole monetary ecosystem doesn't necessarily have to. There's always no constraints.

Adam: **00:41:25** The argument, though, I think that some would bring to bear on that is that the constraints for private sector creation of credit, was the profit motive, right?

Rohan: **00:41:35** Yes, yes.

Adam: **00:41:36** So, there was a constraint. It wasn't explicitly backed by any sort of reserve asset that was convertible into a fixed number of units. But the profit motive constrained the ability for, or the likelihood for banks to create money in the form of credit, right? So, when you then untether, and real money, like money that the government issues …

Rohan: **00:42:01** Let's say currency, maybe for clarity.

Adam: **00:42:03** Currency. The government doesn't have the same constraints from the perspective of profit motives, right. So, how should citizens think about how governments are constrained, now that they're not actually physically constrained in the amount of currency that they can issue because it doesn't need to be converted into any fixed quantity?

Richard: **00:42:27** And how does that differ from how neoclassical economics thinks because I think this is key. A lot of us in finance have this sort of classical economics background, or at least a general understanding. And I think it's key for us to make the distinctions and get on the same page here.

Adam: **00:42:42** Agreed.

Rohan: **00:42:42** Yeah, thank you. Yeah. So, I think the first thing is when you said, it's constrained by profit, which I agree with, but it's important, it's not constrained by profit ex-post, right? It's not that everything has to have been proved to have been profitable before it would have happened in the first place. It's not some time loop

Adam: **00:42:57** It's the ex-anti of profit.

Rohan: **00:42:58** That's right. And one of the things that someone like Hyman Minsky spent a lot of time talking about is, those financial speculators or those financial investors can be highly irrational and self-reinforcing; that you think it's going to be profitable, because it's generally profitable, others think it's going to be profitable. And so what you actually can have is that private credit system not constraining itself, but spiraling out of control to these moments of crash, where in those moments of crash, it takes a public bailout to essentially reset the system. And so it's not that you had a kind of hard money base. And then there's sort of bubbling private credit that had a limit, it never really kind of tipped over the top of the saucepan. It was that you had this ongoing kind of …

Adam: **00:43:38** Self-reinforcing cycle.

Rohan: **00:43:41** Yes, periods of exuberance and crises; crash, boom, crash boom. And that was itself a source of ongoing instability, asset, price, inflation, all that kind of stuff. But to get to your question, the other part that I didn't mention is that, of course, states were not running balanced budgets the whole time, they were also issuing debt and debt promised something different than currency, which is why I made that distinction, just then. If you're holding currency, then you need as much gold in the vault. If you're issuing a 30-year bond, then you only theoretically need the currency when it comes due in the future. And if a larger and larger share of public money defined more broadly, to include government debt, and government currency, if a larger and larger share of the public money is in the form of debt, that doesn't promise convertibility, then even under a gold standard regime, you could maybe run quite large deficits. Your constraints are not the constraints of gold, per se.

Adam: **00:44:38** That's true. But under that type of regime, a person could legitimately claim that all borrowing was -- some people sort of say we're borrowing from the future or this is a liability for our children or that sort of thing. And under a gold standard, you might be able to sort of quasi legitimately make that claim, right? You cannot …

Rohan: **00:44:59** No. You definitely can't …

Adam: **00:45:01** Yeah, exactly.

Rohan: **00:45:02** I'm getting to that point, so thank you for bearing with me. But yeah, the course the government debt in that moment is another way around the sort of fiction of the hard constraint of gold that creates its own problems, because then you need a debt market, you need people to buy it, you need to offer interest. And if you're not providing the interest to the private sector, you need a central bank behind it to buy up the interest. So, there's an arbitrage opportunity where you buy it from the fiscal authority, from the Treasury, and then the central bank buys it on the back end, which is sort of maybe what you were getting at earlier. We often think of them as separate, rather than as the left and the right hand of a larger entity.

But yes, going off the gold standard essentially meant that from now, we needed a new theory of restraint, whether or not that theory … theory of discipline. And what MMT proposes, and I think the last few years have really validated this is that the true constraint is what's undesirable from a public policy perspective. That is to say, usually undesirable levels of inflation or currency devaluation, right, foreign exchange, devaluation or internal price pressure. Now, what the neoclassical story would say is any time you print more money, and it's not accompanied by you know, production, there's going to be inflation. So, that's not a panacea, it's not a golden egg laid by the goose, it's not a free lunch, that they were still under scarce resource constraints.

And I think what MMT would say is there is a speed limit, there is a sort of real resource capacity, as we experienced in the middle of a massive pandemic, and supply chain crunch. And at a certain point, if you need more masks, you have to be actually making more masks. But I think the other thing that I would say is, if you look at the history, particularly the last few centuries, that we have (A), been operating mostly below our potential. It was really only, arguably, maybe World War Two, where we really put pedal to the metal to produce as much as we could, squeeze every drop of productivity out of the whole economy. And we had a completely different kind of economy, we doubled real output in six years. We created 35,000 planes out of nowhere in a decade or less, right? We did things that were considered unfathomable.

But in addition to being generally below our potential as that's the default, not an exception. Neoclassical economics would say, we're all about models, presumed full employment, and then we add some frictions around it. The other part is that they would say that the place where that inflation comes from is from the quote unquote, money supply, which is usually focused on the government. Not the credit system, not the banks, not the shadow banks, not you and I making mutual credit obligations that actually increase overall purchasing power in the economy relative to otherwise. And that, I think, is a really huge difference that MMT is trying to emphasize that, yes, public money and fiscal spending is really important. But also, it's only one source of demand in the whole economy.

If you pumped a bunch of money in and people use it to pay debts they already owed, the people who hold the debts have already got an asset, they've already got the debt, they will just be replacing the debt with money, it wouldn't change their wealth. Or if that money went straight into people's savings, they kept it under a mattress, it wouldn't do anything. Or if that was happening at the same time as you were constraining private credit, that there might actually be an offset there, that would be more than sufficient to not cause any inflation. So, that kind of crude quantity theory that the way that we're keeping inflation at bay is not having too many units out there, gets very complicated very quickly, once you start questioning what is actually a unit, that counts here.

And the example that I give you here, there's two examples. One is if we wanted to build a school, public school in Nevada, it's going to take laborers, it's going to take bricks, it's going to take electrical engineering, all that kind of stuff. And if there are shortages in those, then putting a little bit more pressure on that market might cause prices to increase, depending on how you structure it. Maybe you do rationing instead or something else. Or maybe you've increased production through industrial planning. But if there is a certain amount, and you're laying more claims on it, and that gets reflected in the prices, then prices may go up there. But that's exactly the same as if right next door, somebody wants to build a casino, that's also going to take bricks and electrical engineering and laborers. And how are they going to finance that? They're going to go get a bank loan, and the bank is going to extend them credit.

So, suddenly, if you're talking about the real resource constraints of the economy, then bank credit and public money have similar claims on that. Now, even just as a real life experiment, the last two years, how many times have you probably heard, well, *the problem is we did too much fiscal stimulus*, right? We help those damn poor people too much. We gave them 1,200 whole dollars that they could have in the middle of a pandemic. And now they spent it on all these things like food, which they really shouldn't have spent it on, and gas to get to work, which they really shouldn't have done. You know? We wanted them starving and stuck at home and unfortunately, we were too nice to them and now we're paying the price.

How many of those people have looked out and said the problem is, too much private bank lending was going on? None, virtually none, basically none. And if we do talk about it that way, how do we talk about it? We talk about it, in the sense of monetary conditions were too loose. Interest rates were too low. It was a bonanza for people to invest. And the answer, then, of course, is just to raise the interest rate, which is essentially making credit more expensive. It's like a carbon tax approach. But if you understand, as you were saying before, that Treasury/Fed interaction, that Treasury/central bank interaction, raising interest rates, there is another way of saying, paying more interest on government liabilities, government debt, and central bank reserves.

Nowadays, the short term interest rate, how does the Fed set it, usually? It just says the overnight rate we're paying on excess reserve balances has gone up. That's literally a fiscal subsidy. If someone said, hey, I'm going to pay banks a big truck of cash every month, you'd say, hey, that sounds like a weird fiscal stimulus program, but all right. And then they say, hey, we're going to pay them interest on their reserve balance, you say, wow, that sounds like monetary policy. Thank God, you kept that independent and fiscal policy. So, there's always this interest/income channel that's happening at the same time on the public money side as the cost-of-credit side when you raise interest rates.

Now, if we had said, we're not going to raise interest rates, because we don't want to have that contradictory effect, we're going to keep interest rates at zero. But we're going to tighten credit conditions by saying no more loans to fossil fuel companies, no more loans to this industry, or the leverage requirements on the banks are now doubled, or the liquidity requirements for non-banks is now doubled. Everyone likes to joke about Apple holding all this money on their balance sheet and not knowing what to do with it. Well, one way you might constrain future business investment to leave more room for public spending, would be to just say more companies have to hold more money on their balance sheet as a liquidity buffer for uncertainty and risk.

So, there's all sorts of ways that you could constrain private credit, private spending that don't involve the carbon tax approach of interest rate adjustments, but we don't think about it that way. And so, yeah, the neoclassical model will keep you in that realm. And I think MMT tries to get you to a much broader conception. There's more money than public money. There's more to credit than interest rates. And there's more to inflation and prices than just the quantity of goods or services.

Creating Demand that Exceeds Supply

Adam: **00:52:18** Okay, so I think that's super important to recognize, right, that it's not just the government that has the capacity to create demand that exceeds supply, right? Under lots of different types of circumstances, the profit motive would incentivize the private sector to grant credit to facilitate projects that would then have the same effect because you're pulling demand, you're increasing demand relative to supply or whatever, right? So, that's important to know. I don't think that that's what has happened, though, in the current environment, right? So, I want to sort of move to this because I think MMT gets a lot of blame for the current inflationary impulse. And so first of all, I want to go back to what was the economic framework in Washington when these policies were being considered in response to pandemic lockdowns, for example, right? So, let's go back to mid-2020. Was the conversation in Washington, everybody embracing the framework of MMT? And then how would MMT approach this problem? Or was there a completely different framework at work and all of the policies that were enacted were in the context of that framework, right? So, is MMT even to blame here? Or does it -- Like, what role does it even play first of all?

Rohan: **00:53:48**

Yeah. I didn't get there when we first started saying, what is MMT, because this is mostly directed at people who deal with finance and business. But one of the other big parts of the MMT story is if you understand that the reason that people need to earn money is because they need to earn it to pay public authorities that forced them to earn it in the first place. You know, there was a post-Keynesian, sort of MMT adjacent economist named Paul Davidson, who used to say, *fish are never involuntarily unemployed.* They might be bored. But unemployment is a monetary phenomenon. It's the act of looking for paid work in money and not being able to find it. So, if you think about it that way, and there's one actor that makes the money or at least the most important money, then unemployment is a policy choice.

We could pay people not to just - like ignorance and illiteracy is a policy choice because we choose not to pay people to learn how to pay people to teach people how to read. And I think it was Darwin who said if the sins of man are not from nature, then -- No. *If the misery of man is not from nature, but from humans, then great is our sin*. And like, if unemployment is not some natural thing out there, but it's because we've deliberately created it, then it's a huge problem. And one of the things that MMT tries to do by helping people understand money, is understanding that we can and should be demanding everybody at the bare minimum, bare minimum, has the ability to earn money by giving their labor to not starve and not be poor and destitute.

Richard: **00:55:11**

So, natural rate of unemployment in your mind is a travesty of a concept.

Rohan: **00:55:15**

Absolute travesty of a concept. It's used to justify keeping inflation balanced on the backs of the unemployed, on the theory that if the workers get too agitated, then they'll ask for too many raises. And we're seeing that right now. We've had largest increases in the lower end of the wage spectrum in years. And what's everyone saying right now? Central bankers around the world are saying the labor market is too tight, which is another way of saying we need to throw some of these bastards out of work, which I find abhorrent, right? And they're saying that, at the same time as the companies who set the prices, right. It's not the unions that set the prices, it's the companies, are posting record profits.

So, you've got the labor share of income, and you got the profit share of income. The profit share's going through the roof and everyone's saying the problem is, the labor share is too big. Shock, horror, that they always find a way to blame the working class. But that idea that unemployment is something that is intrinsic to the MMT framework, to understand how we can overcome it and understand how it's a monetary design, is one that often gets lost in the standard story, because the stuff about budgets, and maybe secondarily, the stuff about banking, is much more sexy to most people who care about this stuff. You know, I don't normally read the Wall Street Journal. They won't care about working class power building anytime soon. But they do care about budgets, they do care about banking regulation. So, that's how they understand MMT.

So, to your question in Congress, was anyone proposing a job guarantee? I mean, I know who was proposing, because I worked with them to draft the bill. The Biden administration wasn't interested, right? They shut that down very early on. So, we had millions of people unemployed. I'm not saying that they should have all gone to work at work, but we could have employed them in jobs during the pandemic, including things remotely, including just paying them to stay at home, like idle like a National Guard Reserve. And we could have avoided the massive unemployment hits that happened at that point. But certainly that wasn't in the mix at all. And so to your question, I think the reality is, first of all, you're much more optimistic than I am that there was any coherent framework going on in DC.

You know, they're sort of grabbing for whatever they can in the moment. But certainly, I think there are enough people on the Democratic side that had learned the lesson from 2008 and 09, that pivoting to deficit reduction and all of that, was a terrible mistake. It prolongs the anemic recovery, it was the wrong thing politically, it was tone deaf, it didn't help people. And they didn't want to make that mistake again. And the MMT had been in their ear for a decade telling them that. There were people like Congressman John Yarmuth, who was the head of the House Budget Committee, and obviously Senator Bernie Sanders, who was the head of the Senate Budget Committee, who had Stephanie Kelton as his chief economist. And John Yarmuth was out there trumpeting Stephanie's book saying it's because of this book, that we're not having that terrible debate about running out of money. You know, there was a moment in 2009, where I think it was President Obama did a 60 Minutes interview. And they said, are we out of money? He said, well, we're out of money right now. And that was the moment when my hope died for sure. Yes, we can. Apparently, no, we can't.

And this time around, at least early on, and now of course, you're hearing Biden tout balanced budgets again. But early on, I read an article that was in a sort of front page of The Nation magazine, where Biden had said we will do whatever it takes with this crisis, and the money will not come from you as the taxpayer, … the Treasury. That was the framework at the beginning of this crisis, these two trillion, three trillion dollar bills were passed without a price tag, without debates over pay-fors. And we've had the largest recovery of any major crisis in over a century. I mean, we're dealing with other supply chain problems today. We're dealing with other problems, we really need to take credit, I think, for the fact that if you look at the recovery, it looks like this versus like this. This is very slow 10 years.

Adam: __00:58:52__

No, that's true. But I mean, that's almost by definition, right? I mean, if you're going to -- the Kalecki Equation, and a variety of other identities say if you're going to create deficits, you are going to create GDP growth, right? All things equal, you could have -- people could massively increase your savings rates, for example. Or you're going to increase the deficits, and all that money is going to go to really rich people who don't have a marginal propensity to spend. There are ways to create large deficits without creating a massive amplification of GDP. But all things equal, typically, if you're going to create deficits, that's going to create GDP growth, right?

Richard: __00:59:31__

Hang on a second. The debt burden, how about the Kenneth Rogoff and Carmen Reinhart; has that been debunked to some extent because …

Rohan: __00:59:38__

So, this is the other part, right? Yeah. We haven't seen any interest rate pressure at all, right? We ran those massive deficits and did the bond markets blink? No. There was a short blip in March where there was a Treasury security market hiccup and then the Fed fixed it and that was it. But there was no pressure in fact, it was the opposite. The more money you're spending in, it sits in the bank's banking system as reserves. So, in fact, it's putting downward pressure on the rest of the yield curve to get down to the short term rate, in a sense. So, yeah, that idea that we were borrowing a scarce amount from savers, which was sort of even people like Paul Krugman sort of say, in the back end there is a loanable funds theory of all the money in the economy was just completely debunked. And the only reason we're even dealing with rate increase conversation today is why? Because the Fed is choosing to do it. That's it. If the Fed chose not to, it would stay at zero as long as you want. So, yes, I think it was a huge repudiation of that loanable funds model.

And what Congress did, I think was definitely on some of the lessons of MMT that the constraints aren't that other stuff. But what they didn't learn is, MMT saying, you need to be really (A), investing in your production side, which means industrial planning. So, that article, in addition to saying Biden is right to say whatever it takes, but we should be dealing -- if we want more soap, if we want more facemask stuff, we should be invoking the defense production act tomorrow, which is how we actually won World War Two. And they didn't, but they're doing it now. But also, if we are going to have this massive crunch of production, which we could have seen coming, we need to think about how to manage that in a way that doesn't result in people starving and not having the gas to go to work or whatever it is. And that could include making transport free, public food, all these kinds of things.

I know the idea of thinking of sort of single payer food sounds like some crazy communist thing. But they provided food programs in Britain during World War Two, and ration cards and things. And nutrition at a national level was the best it's ever been since and before. Not to say that that's the only answer. But if we really wanted to have a recovery, that didn't go too hot, that didn't also put all the burden on the poor and working class, we could have done that. We just didn't put that as a priority. And so MMT gets blamed for the success of deficits doing what they should, but also the failure of the Biden's administration inflation measure regime not doing what it should, which is what we would have told you. We would have told you that that's not working, that you need these other tools. And we were saying it in live-time. If you don't have a job guarantee, you don't have credit regulation, you're not dealing with corporate profiteering and price regulation, you're not dealing with anti-trust, you're not dealing with industrial planning and bottleneck minimization, you're going to have price pressure. So, in a sense I know it's always a cop-out to say MMT wasn't tried. Part of it was tried and it worked well. And the part that didn't work well, was the part that wasn't tried.

Adam: __**01:02:29**__ Yeah. So, I think that's critical, right? I think, what everybody perceives that MMT is about deficit spending. And at root, it kind of is, but it's not only deficit spending, right?

Rohan: __**01:02:45**__ It's maybe the most important policy intervention that comes from the framework. But it's not the whole framework, it's just that that's the one that most people hear, because that's the part that matters right now. Like, you can say, hey, environmental sustainability, and what most people are going to hear is less carbon. And that's very important, but it's not the only thing to environmental sustainability. It's just maybe the kind of most important one right now, most of the time. And when it comes to, even then, I think the other part I didn't mention in this is because MMT was trying to get people to understand a different way of looking at fiscal policy, that it wasn't about where do you get the money? It wasn't about balancing things with pay-fors.

What MMT said is, you can use fiscal policy to modulate inflation. If there's too much demand, you've spent too much, you can spend less, and that's a way to deal with inflation. And what people look around now, and they say is, well, doesn't MMT say when there's too much inflation, we should retract or run smaller deficits? Well, they're not arguing for smaller deficits. They're hypocrites, they only like it when it's good, and they never say it when it's bad. But the reality is that, as I just mentioned, there are other sources of demand. And maybe there are good public policy reasons why going after that person that got 1,200 bucks and saying, actually, we're cutting your Social Security check, is not the best way of reducing demand right now. But also, if we are looking at inflation as something more than just the quantity of money or even the quantity of spending, there's also, as I said, corporate profiteering, bottlenecks, all that stuff.

If we need to understand inflation as a much more multivariate thing, then if this is not the kind of inflation that is coming from just too much spending in general, then that's not the kind of inflation best addressed with less spending in general. And so it's not a matter of hiding the ball. If there was a gen-- if we'd spent too much in general from fiscal policy, and that was the best way to deal with inflation right now, I'd put my hand up and support it. I don't think that is the best way to deal with this inflation. And I don't think that making the average person poorer is going to do anything about the semiconductor shortage in China, or things like that. So, it's important to note that fiscal policy from MMT framework can be an inflation demand management tool, but it's not the only one and is not the only axiomatic one that MMT recommends in a moment like this.

Richard: **<u>01:04:59</u>** Rohan, you said something about a minute ago that drove bells in my mind. So, I want to address that, I want to pull on that thread. You talked about some of the other components of MMT, and how they are important in sort of creating the proper framework. And one of them was price regulation. And I was listening to a podcast earlier this week about how the Great Depression was actually prolonged, to some extent because of some of Roosevelt's policies in the 1930s, about price controls. So, I wonder if you might explain a little bit what you mean by price regulation. And what are some of the myths or misunderstandings that might exist and what you believe would be the proper way to go about it?

Rohan: **<u>01:05:42</u>** Thanks. Yeah, I think often there's a tendency to approach this, particularly for people coming from the sort of business side, using that standard econ framework where there's like markets, and then there's the government that intervenes on top, right? It's that same myth that in the beginning was the private sector, and then the government came in and taxed some stuff away, rather than understanding money is always stemming out of public governance and public regulation in general. And so the idea of price controls sounds like it's in opposition to the free market. Now, I don't, you know, I'm not a big free market guy. But even I can understand the implicit messaging. Do you like freedom or do you like control? Who puts their hand up for control? But the reality is that price regulation is always going on, everywhere.

To give you a couple of examples, we don't let people sell babies. The price regulation of the baby market is at zero, right? We have an unemployment regime for monetary policy that says if workers' wages are going up too high, that's a leading indicator that inflation is coming. So, we have price regulation of workers' wages right now, just in a very terrible way. In another world, I would have been an intellectual property lawyer. And the entire system of copyright and patent is a form of price regulation, because you are propping up the prices of intellectual goods through temporary monopolies. If you have NIMBY laws, which a lot of people who love to talk about free markets always also like the idea of telling their neighbor, they can't build a second extension because it affects their property values. It starts to sound like really what you like when you say property rights is just your own wealth, rather than actually property rights as a concept.

But the idea that we have zoning laws at the city level is a form of price regulation. And that there are all sorts through the economy. The idea there's some abstract natural price for things I think is not true, and largely a function of kind of the propagandizing of economics that thinks that everything can be described in a supply/demand curve. Whereas in reality, even the internal logic of those systems breaks apart when you have multiple goods or when you have capital goods that can't be valued in according to marginal product, because there is no such thing as a marginal product in that sense. And the neoclassical economists conceded that point in the intellectual debates in the 60s in the famous *Cambridge Capital Debates*, and then they just moved on and pretended it didn't happen.

You know, someone said, there's a huge gaping logic, logical flaw. They said, oh, all right, well, we're still going to do it. And then everybody just forgot about it and moved on. So, that idea that you can have a sort of perfect marker where every factor of production gets its marginal product, I think, is a myth. And if you abandon that, then this idea of kind of price regulation versus free markets goes away. It's just how are we going to regulate prices? How are we …

Mike: <u>**01:08:24**</u> Are price regulations a form of sort of resource allocation from the government basis? So, why was it in this particular case, they got the first step of MMT? And maybe this question is too early? And maybe we don't want to jump into why. So, if you guys want to put this one on the backburner. But why did they get the first part right, but not the next part in the current sort of government regime; just too early?

Rohan: <u>**01:08:48**</u> Well, part of it is they didn't actually put any MMT'ers in positions of power, right? It's one thing to listen to what we say. And of course, everything we release is public. They can read it online and borrow it and they can blame us when they misrepresent it or misinterpret it, but it wasn't like there was sort of six MMT'ers on the National Economic Council. It was Sanders and Yarmouth in the House and the Senate. And obviously, there are other politicians who are very friendly with MMT'ers behind closed doors, but it's not like we've being given the Fed governorship and being able to make that speech from there. You give me a majority on the Fed board, I'll get inflation done real quick but that's not how it works. And the same is true of the Treasury and things.

So, in that respect, it was just a matter of them taking what they wanted and leaving what they didn't want. I think that's part of it. Another part is early on, it didn't necessarily look like one of these price pressures were going to come the way that they did. It looked like maybe somehow shockingly, that we had kept enough production up around the edges. And then I think a combination of shortages and then shipping issues and other things really started to hit poorly. And then part of it is also I think that there wasn't really a broader cultural commitment to fighting inflation. That really could have done a lot of the work to educate people along the way.

So, for example, a lot of the opinion polls right now, people think the economy is doing worse now than in 2009's recovery. It's crazy to think of it, but that's how people experience it. And somebody was saying this the other day that sort of resonated with me is, if you quit your job and get a better paying job, because the job market is doing pretty well, you might consider that a personal win. You did that, right? The price of gas goes up, they did that. So, the fact that your living conditions are better in some senses, you don't credit the whole economy for that. But if they're worse, you do debit the economy for that, or the stewards of the economy. But I think part of it is also just we haven't actually been thinking creatively about inflation management because the assumption on the neoclassical side has been that the central bank can always deal with this by raising rates.

The reason MMT even came on the conversation was why? Central bankers hit the zero lower bound and their models started failing. They said, we've run out of juice, we can't do anything. They started theorizing about going into negative interest rates, they went a little bit negative, but never really enough to sort of test that theory properly. They said we're out of juice, the fiscal authorities need to step in. And MMT provided the best explanation of why the fiscal authorities could do that, without running into all the problems of the deficit reduction commission and borrowing from our grandchildren. But on the other side of it, *the what happens if we run the economy too hard?* We're still living in the shadow of Volcker. We're still living in this world that all you need to do is raise interest rates sufficiently high and you'll constrain any inflation. That part of the neoclassical model is still working.

Now, the realities of it as we're starting to experience right now is, if you do the Volcker thing, you have to be willing to hurt millions and millions of people, both domestically and internationally. You have to cause a recession, you have to cause pain, you have to put farmers put guns in their mouths, cause the global south to have decades of ongoing loss in output and living standards. And if you're not a sadist, like he was, may his soul rest and rot in hell. But if you aren't someone like that, then you have to come up with a different theory of how you can constrain inflation that doesn't just cause a massive recession. And that's the challenge that central bankers are facing right now, is that all their models and history say raise rates, up, up, up. But if you do that, you're going to cause so much pain that Biden's going to lose the election anyway. So, why would he want that? So, that's where MMT is saying, actually there was a whole other part of what we were talking about that you weren't willing to listen to that maybe now is the time.

Mike:	**01:12:28**	They haven't had the crisis in order to create the necessity to drive the change.
Rohan:	**01:12:34**	The good news is we still got ideas, right? We still got solutions to this.
Mike:	**01:12:38**	And don't worry, crises are coming. So, when they have to change, I think they'll change, to some degree. That seems to be the driving force. Anyway …
Adam:	**01:12:46**	Why can't we have much higher rates, and still have a government that's willing to deficit spend, but spend on stuff like massive infrastructure projects or education, a massive overhaul of the education system or a nursing reserves? Or like there's so many different …
Richard:	**01:13:03**	The size of the debt is, I think maybe the key component here because there's so much debt in the system right now. I think if you raise rates to any meaningful degree, the way that you're saying might be warranted …
Rohan:	**01:13:16**	…rates is a pretty big fiscal stimulus program to a certain group of people. That's one. The second thing is, as Minsky said, when you raise rates, you're not always constraining credit, you're only constraining certain kinds of credit worthy activities and the ones that stay profitable or which ones? The ones with the most insanely high return expectations, which are usually the most risky. Which today means what? Probably crypto, if we're being honest, right? I mean, where do you get 30% returns in a world of 20% interest rates?
Richard:	**01:13:43**	It took us an hour and 15 minutes to get this scene …
Adam:	**01:13:45**	We're not there yet, either. We're not started that conversation yet.
Richard:	**01:13:49**	I don't think we are. Yeah, agree.

Rohan: **01:13:51** It's not in my paygrade today. No, but yeah. So, I think you ended up in a world where high interest rates (A), have that perverse effectively interest/income channel, which in a world of very large amounts of public debt, is much more salient than in a world of small amounts of public debt. One, you get the fact that it doesn't discourage all investment, it just pushes more investment into the higher risky speculative bracket. That's the stuff that stays alive.

Adam: **01:14:13** Yeah, we're going to have to differ on that. I mean, I think if anything, the ultra-low interest rate environment that we've had over the last decade has driven a record speculative fervor into those exact types of risky… because a higher hurdle rate means that you actually have less latitude to take risk and less time for those risks to pay off. Right? So, if anything, higher rates is going to depress speculative fervor. It will slow down the rate of innovation, potentially. But it will, to Richard's point, it will deflate an overly financialized economy, right? And probably do a great deal to moderate something that is, I think, a major systemic and eventually going to be a major political problem, which is, for example, asset prices are too high. And what's most salient, housing prices, but also virtually every other global asset price. And so …

Richard: **01:15:13** And the downstream effects, which is wealth inequality, which is essentially what you're getting is from a policy perspective, the unattainability of where we are with regards to that.

Rohan: **01:15:21** Yeah. Now, you know, I'm the first person who doesn't want to have more financial speculation. So, I hope we can agree this is a good faith disagreement …

Adam: **01:15:27** I'm just giving you my position.

Rohan: **01:15:29** So, my view is twofold. One is, those high rates are a safe interest return on existing asset holders. So, if you're paying 20% return, or if you're setting interest rates to 20%, that means you're paying 20% return on what? Overnight with bank reserves? That's a nice big profit for the financial sector, everyone holding Treasury securities, which is a nice big return for again, institutional investors and the rich. So, you are not cutting off…

Adam: **01:15:56** Hold on, institutional investors, which are, let's face it, and Social Security and Medicare, etc. these are the largest holding …

Rohan: **01:16:04** Well, there's one guy managing that pot on their behalf and taking how many percentage on top. There's a reason you become a billionaire at 30 managing those funds and not managing your own money. So, yeah, if you want to provide a guaranteed return to pensioners, I'm all for it. But you do not need to do that through the bond markets. And through standard interest rates, you can just do that through by paying pensioners directly or by setting up a dedicated account at the Fed and paying that when there's no institutional intermediaries. We don't need to give them cuts all along the way. And of course, when you say that the Treasury market is primarily helping pensioners, there's a bunch of parasites glomming on the side of that, that have nothing to do with the average person that are getting those returns as well. So, do we really think …

Adam: **01:16:40** But those are compensated primarily on the level of AUM. So, if you shrink total asset prices and shrink total collateral, then that -- the aggregate level of AUM goes down substantially, which means that those rentiers on the financial system are earning proportionately a lot less fees.

Rohan: **01:17:00** But if you're talking about paying 20% interest on the safe assets, then maybe your more speculative side of your portfolio's going down, but you're getting incredible returns on doing absolutely nothing.

Adam: **01:17:11** I guess what I'm saying is the holders of Treasury bonds, I think, as we've established, right, are Social Security, admittedly stuff like life insurance companies, okay, they're big holders of especially longer duration, government bonds. But it's typically like its pensions. It's corporate pensions, but it's primarily like government pensions that are the owners of …

Rohan: **01:17:32** But I'm going to push back on this. It's companies managing those pensions. And that's an important difference. It's not just the pension themselves. If you want to pay the pensioners, pay the pensioners. What you're paying in between are the money managers. They're the ones who are making -- they're the ones who are getting super rich off those pension fund allocations.

Adam: **01:17:49** Yeah, I think we can press pause on this, because I actually think that's probably not exactly well conceived. But either way …

Rohan: **01:17:58** My point is, if you're getting a safe return of 20%, for doing nothing for taking no risk, and you've got a large pot of money, right, then that is not stopping the people who've got a large pot of money from making a lot of return. The average person is not going to be getting 20% return on their checking account, if they even have enough money to buy a single Treasury bond or if they even have a pension. The people that are going to do that are the people who are wealthy enough to have a pension and then the people managing their money that are going to take 3% off an entire pot on that, not the individual …

Adam: **01:18:28** Well, it's also savers with savings accounts at banks and stuff. Like, it's …

Rohan: **01:18:33** But mom and pa is still in the global inequality terms, mom and pa that's got a share of the US stock market is the rich and they're going to be getting their 20% returns while the global south is completely screwed. If you look at what happened on the Volga, all of the people that have US dollar denominated debts are crushed in …

Adam: **01:18:50**

I'm not talking about this in isolation. I'm talking about the -- just again, I'm just sort of brainstorming but raising interest rates, it doesn't need to be to 20%. You know, inflation is at eight, right? So, let's raise it to eight or nine as an example. Right? And I agree that's a question of magnitude. But let's -- we could raise rates, and at the same time, implement other types of fiscal policies that, for example, support farmers, support teachers, support -- you got to go Mike -- support educators, building infrastructure, etc, right?

Rohan: **01:19:29**

I agree… Yeah, I agree you can, in monetary contraction with fiscal easing, and make them offset each other. I agree with that. And actually, to your original point, when I was saying I'm with you in not wanting financial speculation. I think the problem is that again, when all you have is a hammer, everything looks like a nail. There are much better ways to deal with financial speculation than raising rates all across the board, given these other negative effects. So, I would be very, very supportive of very restrictive financial conditions going after all sorts of financial speculation that we just let run rampant over the last decade while keeping those rates low. Because I consider high rates to be themselves a tool of inequality, independent of what they do for credit markets. So, how can we have tight financial conditions with low rates? Can we do that? Yes. And to the extent that …

Adam: **01:20:14**

Like raising reserve requirements and stuff like that, you mean?

Rohan: **01:20:17**

Yeah, liquidity ratios, leverage ratios, capital requirements, just simply straight up quantitative and qualitative restrictions on entire industries, banning certain activities. There's all sorts of ways that we could do that. And people will say what, it's draconian, you'll kill investment. And then you have exactly your response. Well, what if we supplement the loss of investment with public spending? So, I'm actually in agreement with you about everything other than that it's rates that are the way to deal with the last decade. I don't like the last decade of low rates as it stood. I just wouldn't deal with that by raising rates. I would have dealt with that by tightening everything around the rate regime.

So, in that respect, we're in agreement. It's just that from my view, interest rates themselves have internal effects, particularly on the interest income channel, and who has access to that, that have perverse incentives, and also, what it's doing for credit. Do we want to take a more -- should we take a more active role in where we allocate credit? Yes, I think the way to do that is being intentional about which markets we want to invest in and which ones we don't, rather than using a broad across the board increase in a single price. To me, that's the same market fundamentalism that leads you to think you can solve climate change with a carbon tax.

Adam: **01:21:26**

Okay. On this we're 100% in agreement, right? So, for example, don't raise the broad interest rate, raise reserves on mortgages, or -- … yeah. Right.

Rohan: **01:21:39**

Keep the rates high for pensioners, keep them high for even Mom and Pop savers up to 300 grand or something, put all that into place, and then put everything else to zero. Because in my view, risk free return there is … income. Now there are certain actors that might deserve an income subsidy as a policy matter, but not everyone who happens to hold treasury securities. And we need to detail that difference. Because right now, we're putting Mom and Pop and the pensioner as a hostage in front, and there's a bunch of people getting a lot of free money behind it. And that's what I think that the high rate thing is. But yeah, to your point, definitely low rates, the way that we have for the last decade is not okay, and that we can offset financial monetary tightening with fiscal easing.

Another way to say that is maybe if we're going to deal with climate change, we need massive fiscal investment. And the way to offset that without causing inflation we're seeing right now is to tighten financial conditions. And so the problem is that the Fed and others in the neoclassical tradition have been shitting on credit controls for decades, saying it's the same as price controls, etc. And ironically it was people, even Volker said early on, we should have had more, but this was the big debate after World War Two. In the 50s, the central banks were talking about credit regulation, specifically, not just interest rates. Why? Because like us today, they had just stuffed the private sector full of government debt to finance World War Two. They knew that raising rates was going to have potentially contradictory effects. And they were saying we have to have credit regulation. But a lot of that falls to the wayside at least in the Anglo context.

Actually, one of my favorite central bank historians, a French historian named Eric Monett, from the Bank of France recently wrote a book called *Controlling Credit*, where he actually says that the history of direct credit regulation in the non-Anglophone European countries is quite vibrant all the way up till very recently, in part because they were under fixed exchange rate regimes, both Bretton Woods and then later with the Euro zone, that meant raising rates was going to cause balance of payments issues. So, they had to work out another way to do contractionary monetary …

Adam: **01:23:43**

There had to be sort of a zero sum, right? If you're going to constrain in one area of the economy you need to relax in another in order to keep the overall aggregates.

Rohan: **01:23:52**

Right. But also raising rates to constrain domestic demand might actually have perverse effects on your foreign financial flows. So, if you wanted to constrain private credit, you would have to actually go and say don't make more loans and things. And luckily, in places like France the dirigisme policy of industrial planning meant that that wasn't an ideological bridge too far, like it might have been in the Thatcher/Reagan era.

The Infrastructure Bill

Adam: **01:24:15** No doubt, for sure. So, Rohan, why can't we get an infrastructure bill passed? Why can't we -- Actually let me broaden it. Why is all of the fiscal expansion driven to fire hosing dollars into private bank accounts rather than into investing in the public commons?

Rohan: **01:24:38** I mean, there's a number of things. First of all, I'd say like the *Scorched Earth* politics in Congress right now, there's no way out of this without, I think something getting a lot worse, something breaking much more fundamentally. I mean, the January 6th coup is now legitimized, and that Republicans saying if we'd had the votes, we wouldn't have let Biden have a nominee and all this kind of stuff. It's very clear that any sense of the common good beyond partisan politics is more than dead at this point. And the way the US structure is set up is almost sort of architecturally unable to deal with majoritarian politics that come from a parliamentary system. You get in power, you do stuff, and then the other side gets into power, they try to unwind as much as they can, but they don't get to unwind everything. And that's where the progress comes with that kind of see-sawing back and forth.

But you say to people here, why don't you exercise power? And what do they say? Well, they'll exercise power next time. Yes, yes. That is how it works. Correct. So, that's one part of it. I think another part is it's, I think, not unrelated that the leadership of the Democratic Party in Congress, particularly and in the White House is about, the average age is about 95. And they haven't changed the leadership for quite a while. And it's, I think, not also irrelevant that Nancy Pelosi's net worth is $100 million and the Biden comes from the state that was most favorite to the credit card industries, and blah, blah, blah, blah, blah.

Which is, at the end of the day, if you can't show how you're going to give enough of a handout to the industries that are dominating both parties, what are you going to get? And it's sort of ironic, and I'll never say anything good about Donald Trump. But it's ironic that he was talking about an infrastructure bill, as well, right? Both sides stand to have something to gain from getting this passed. Neither side stands to gain from letting the other side be the one to pass it, or to pass it in such a way that it actually does what it is trying to do, first and foremost, rather than giving …

Adam: **01:26:28** Because the party in power would then get credit for the success of that project.

Rohan: **01:26:32**

Yeah. And that we are so starved for it, that that might be the spark that says, you know what, you like that taste? Now here's a little bit more of a taste. Which is why stuff like the $2,000 checks when, vote in Georgia, and we somehow the Democrats, somehow vote in two senators in Georgia on the basis of a promise to give everyone a $2,000 check, and what does the Democratic Party say? Oh, it's $1,200. I mean, come on. I mean, this is the kind of thing that makes nobody want to believe you're going to do anything. And when Biden gets elected on nothing will fundamentally change is his line, he's right, nothing has fundamentally changed. And that's a real big problem.

Now, credit where it's due, he's put in some fantastic people in the anti-trust space. I think that is a genuine shift. And we can tell the difference. It's so obvious, you can tell when there are people in power using that power to do stuff. And you can tell everybody else who isn't, by the relative difference there. And the fact that, for example, my former adviser Saule Omarova, my good friend and colleague, … were both rejected from the OCC and nomination positions. Others, Sarah Bloom Raskin just had to withdraw from the Fed nomination. It's maybe easier to get it on the anti-trust side, or at least it was done more effectively in the attempt to get it on the financial regulation side is not, we are so far behind, in part because the party on the Democratic side is living still under the shadow of Robert Rubin and Larry Summers. And who's going out there now saying again, the problem was we gave too much money to the working class, all that kind of stuff.

Richard: **01:28:00**

Press pause, Rohan. You're mentioning and it does feel more salient, maybe in the US this political brinkmanship and this polarization. But I'm from Brazil, originally. This is happening in Brazil as well. Do you contend that this is maybe an issue with presidentialism versus parliamentarism? And is that sort of how you see this as perhaps a way forward? Not that we're going to see parliamentarism in the US anytime soon, but is that how you see?

Rohan: **01:28:26**

I wish it was that simple as well. I mean, obviously, as you know, Brazil has constitutionalized some of this fiscal discipline and the central bank independence stuff that is a huge constraint. That's part of it. But I come from Australia, where we have a large export oriented economy, and that has allowed us to run either very small budget deficits or even budget surpluses, because we have inflows that are offsetting smaller deficits, so that we're still investment domestically. Which means that some of these more difficult conversations about the social value of deficits have not happened there.

And then in the UK you have a little bit, but again, it's sort of ironic, you've had the party switch on this where the Labour Party in trying to show it's fiscally responsible is now kind of criticizing the Tories for being too spendthrift. Then you have, I think, Europe, which has got its own problem, which is the European monetary union, which they've been slowly trying to overcome that straitjacket for a while. And then Japan, I think is probably the closest but it was always considered the example of monetary easing first. And every time it starts to do a little bit of fiscal stimulus, it slaps on a sales tax on the other side and kind of undermines it again.

So, I don't think it's only that. I think that's a unique aspect of the American moment, because of all of the countries in the world that might actually break this paradigm, I think America was the one that could have done it. (A), because it's the world reserve currency. (B), because if any other smaller western country tries to do it, and America doesn't want it to happen, well, good luck. It's a sort of *only Nixon can go to China* movement. And then (C), I think, because the political organizing is just a lot more effective and powerful here. You know, there's a reason why Europeans sort of were inspired by the Green New Deal here. There's a reason why a lot of this stuff happened here first in the 30s, and then went out to the rest of the world, etc. So, I think it's …

Richard: **01:30:05** American exceptionalism to some degree, still captures the zeitgeist.

Rohan: **01:30:09** Yeah, you have to have 200 nuclear bases around the world. If you say something's changing, it changes. If other countries say it changes, it doesn't. And it's a lot harder to say, hey, I'm from small X country, we're being financially responsible. We're running 2% deficits, while the prevailing wisdom of all the economists who you've hired from Harvard and Yale, were trained to think the opposite. So, it's also intellectual. And as I said before, that Anglo Central Bank, monetary policy dominance regime, it really kind of stemmed from the UK, New York, UK, US hegemony and spread out access, and spread out elsewhere. So, if it doesn't start there, it's not going to start anywhere.

Richard: **01:30:47** I want to go off on a quick tangent here, and another one of the myths that you hear around MMT, and it's the perhaps apocryphal platinum coins. So, I wonder if you might talk a little bit about them. Why is this part of the MMT conversation? Is there any merit to this? And would this change anything?

Rohan: **01:31:06** Yeah, I mean, I became pretty famous as one of the big faces of that for a while, recently. And so yeah, I think there's merit to it, but not because we need it. I think it's very important to say that the MMT story doesn't need coins or anything. You can just spend normally. And whether you spend by issuing Treasury debt or Treasury securities that the Fed keeps the interest rate on at zero or very low or whether you spend by issuing new money, is really much of a muchness as the debate over QE, I think, has revealed over the last decade. You know, even people like Krugman and … will say money printing and debt spending is the same as long as the interest rate's roughly the same, and there's a central bank backstopping it.

But that doesn't mean the optics and the culture are the same. And just like one of MMTs big interventions is to finally kind of package a lot of Keynesian ideas, plus some other stuff, but a lot of Keynesian ideas in a way that's actually broken through. I think one of the values of the trillion dollar coin and the coin is that it's a sort of gimmick, it's a symbol. It's something the average person can chuckle about. I was on a podcast like two, three months ago with Jon Stewart about some of this stuff. And I remember it was him that pissed me off enough to write a whole big law review article about the legalities of the coin. Because when I was doing it, 10 years ago, when this was all happening, I looked into the law and I said, wow, this is a great way to avoid a constitutional showdown, right, where the Republicans are playing hardball to President Obama saying we're going to cause a debt default, unless you negotiate on the budget, on our terms.

And there's sequestration, there's government workers being furloughed, people are not getting their paychecks. And the President is saying we might be forced to default in a way that really threatens the constitutional commitment to not question the public debt under the 14th amendment. And I said, well, there's a law -- a colleague of mine, Carlos …, the attorney found this law and said, look, the law says they can make these coins so they can never hit a debt default unless they want to. They could always spend more money.

Now, you don't even need to use the coins if you can just run an overdraft. But they changed the law about the overdraft and the Treasury's account. So, this is all kind of minutia of fiscal budgetary operations. But this was the one hole that they didn't close. It's like the chink in Smaug's armor where you put the arrow in and take the dragon down. But in addition to it being a great legal loophole to avoid a cataclysmic crisis that is completely self-manufactured, there's no economics behind it. It was entirely political. It's also a great teaching moment.

You can also teach people about money, how it works. That QE debate that you and I can probably follow, but the average person's eyes are glazing over unless they've got a finance background, we can understand that real quickly. We mint the coin and then it's only as inflationary as we pay interest on it or not. That's the same -- Treasury debt, Treasury coin, same thing. What's the difference? That's a really educational moment. But at the time, Jon Stewart said, well, this is crazy. You know, this offends my -- I'm just a clown. But even this is to -- a bridge too far for me. If we're going to do this might as well print a quintillion or go home kind of thing. And to the point where he was arguing with Paul Krugman, he had Paul Krugman on for multiple segments. And you know, I don't have much love for Paul Krugman, but relative to a clown, you assume maybe some difference on economics. And he was saying, no, I think you're wrong on this stuff.

And it's sort of shocked me that the ideology of our age, right, the sort of implicit assumptions that we can't question was so strong at that moment, that Mr. Sensible, Reasonable, Open-minded, I'm just a silly clown. Thought that he could pull rank on Krugman in that moment. And 10 years fast forward and Jon Stewart's trying to talk to Tom Hoenig at the Kansas City Fed and saying, why can't we just print the money? If we can print it for COVID, if we can print it for QE, why can't we do it? He's giving a shitty, waffly answer, you know, you don't understand reserve liabilities. It's the same thing. He said, why would we do it if it's the same thing? And he said, well, it's not the same thing because we're paying off the debt. Right? It wouldn't be the same thing to print. And he said, I used to laugh at the trillion dollar coin. But now I think maybe we should just mint 10 of them. And that's a really big shift in the social psyche, I think.

Adam: **01:35:02** You can see the vein popping out on Hoenig's neck too or head when he was …

Rohan: **01:35:06** You can see the whole edifice is at stake. This is the crack in the dam. And so the coin to me is a gimmick, but the whole budget process is a goddamn gimmick. The debt ceiling is certainly a gimmick. And my research and others have shown the debt ceiling was originally intended to make it easier for the government to spend. You had 100 different debt authorizations for each spending commitment, and you'd compile them all under one consolidated spending authority. It made it easier in times of crisis to move around monies and things. And now it's become a political football. And so using a gimmick to beat a gimmick, it makes complete sense. And the other part of it is, in this day and age, money is so complex. It's all shadow banking and repos and crypto. I said it again, I know. I'm sorry. It's all this stuff that's so complicated to the average person. But a coin you can take your five-year-old …

Richard: **01:35:53** Symbolism, pedagogical value.

Rohan: **01:35:55** That's right. That's right. So, you can take a five-year-old to the Mint and they can hold it in their hand. And you know, it's not that it's because they've got... . Yeah, but it's not tangible in the sense that it's reinforcing that gold standard, right? No one's going to believe that a coin this big made of platinum is worth a trillion dollars. It's tangible but it's also nominal. And that dissonance actually, is where people's brain starts to work. How could this be worth a trillion dollars? Well, how can anything be worth a trillion dollars? There's no trillion dollars of value in a piece of paper either, but we do cops and robbers and shoot each other and do terrible things to our loved ones for them. So, clearly, there's something going on there.

So, yeah, I think the coin, in many respects is an attempt to sort of reset the conversation on a different starting point. And the other part of it, this was my other research, and I'm not going to say the C word again. But as we move into the realm of digital money, in general, the metaphor of the coin, I think, has a lot of value. Because account money is very important, but account money means there's someone in the middle. You have to ask for permission, they have to move the account ledger entries around. Coin is something you put in your pocket, you can move it around with you. It's private. In fact, even compared to paper money, there's not even a barcode on a coin. It's the most private form of money we have. It's a bearer instrument, so you hand it to someone else, they now own it.

There's a lot of interesting things we can learn about coinage, as we think about contemporary monetary issues, not because we're going to start using pennies again. But because the coin as a monetary instrument has an interesting sort of set of features different from central bank accounts and commercial bank accounts and all this kind of stuff.

Taxes and MMT

Adam: **01:37:27**

So, the segue to eCash here is just too … I know. But I actually want to just press pause on that because if we don't talk about taxes, I'll kick myself later. Because this is an area I really want to just sort of, at least have a chance to chat about. So, I want to talk about taxes. What is the role of taxes under an MMT policy framework? And then I want to talk about income taxes versus tax on property, right. I've heard Warren Mosler say that the incentives are all wrong to be taxing income, that Keynes always conceived of a tax system where we're taxing property. This is so antithetical to any conversation that's being had in any sort of normal political sphere. So, what is your take on it? What does MMT's take on it, taxes and property versus income?

Rohan: **01:38:19**

Yeah. A lot of us like a series of articles by Beardsley Ruml, most famous, the one being called *Taxes for Revenue are Obsolete*, which kind of leads with a pretty good conclusion. But he was …. Yeah, that's right. He was president of the New York Fed for a while; he was also involved with some other big companies. And he's making this argument in favor of a pretty pro-business position against the corporate income tax. And I've actually written saying, I think the corporate income tax is currently designed as bad, but obviously, I wouldn't get rid of it, not replace it with something better. I'd oppose that. But he says that once you, it happened, right? He's talking about FDR going off the gold standard, he's saying it happened. We're off the gold standard. We have a central bank backstopping public debt.

We're in the modern money world. He doesn't say it that way. But that's what he's saying. He says, in that realm, we should never mask the social purpose of taxes under the guise of raising revenue. Right? We don't need the money. There's already an infinity sign next to our bank account. So, how many dollars do you need to add to infinity before you have enough dollars to spend? You give the points back to the bowling alley. They don't need them. They've got plenty of points. Right? So, the point is never to gain the revenue. But there are other important points, and he says there's four. One is to manage demand, if there's just too much demand in general. And again, I would qualify today, if there are more important ways, better ways to manage demand, maybe we don't use that even if it's on the list, and we should be considering it. It's an important tool.

And contrary to a lot of what people think about MMT, we don't think that you wait for inflation to turn up and then hurriedly pass a new piece of law, like late at night, changing the tax rate. We would say, plan in advance, look at the likely impact on what your spending is. You can bake in taxes at that point, but they don't have to offset one-to-one or anything. Because if you spend a billion dollars on a milk program, and then you tax a billion dollars from Bill Gates, that's not going to stop the price of milk from going up. We have to actually look at the spending propensities of the tax versus the spending if we want to know how they're going to interact. But also, in addition to doing that budgeting in advance with the CBO, or other things, to give an agency like we do with the central bank; could be the Treasury, could be an independent fiscal agency, the power to adjust tax rates in live time, in accordance with criteria, but essentially, not having to go back to Congress each time. Not because we're taking that power away from Congress, but because since the 30s, we've lived in an administrative state where delegating day-to-day decisions for complex actions to agencies is the way that we do most things.

So, we can have demand management as a sort of automatic fiscal stabilizing tool, have it according to predetermined criteria. And here's an example of being creative about this, because it's not always just about the dollars themselves. It can also be about the political economy and the sociology. If I said, for every week that there's inflation, we're going to raise a wealth tax on people earning over 2 billion -- people with wealth over a billion dollars by 1% a week. Do you know how long inflation is going to last after that? Not very long, in my opinion, because suddenly, every billionaire in the world is suddenly a committed inflation fighter, and is going to be thinking of every possible constructive solution that they can to help manage inflation, right? That's not because we're collecting the money, it's because we're using the tax power there to force people to change their own incentives to deal with inflation.

If we said every time inflation is above 5%, we're going to reduce the corporate profit share by two percentage points. Again, I think you'd find a lot of corporations will find they don't really that interested in raising prices anymore. So, there's all kinds of ways you can use that. The other part is, if the goal is not to collect revenue -- oh, sorry, the second of the list of four reasons you use tax is to affect the redistribution of wealth and income. So, people are too damn rich. And so far right now, so much I think of the Democratic Party, who I would say is the only party that even nominally cares about redistribution of wealth, or distribution of wealth ,has been I think, fighting a losing battle against the ghost of Art Laffer Curve, of the Art Laffer Curve since the 80s. And of course, the Art Laffer curve is not necessarily good economics, but it's great Pullet Politics, which is you can sell this to the average people literally on a napkin, that if you tax zero, you get zero revenue. If you tax 100%, you get zero revenue. So, the optimal level is somewhere between them. The answer is probably a little bit lower than we thought it was. Right?

But what if the point isn't to maximize revenue? What if the point is to make them less rich. Suddenly, that 100% line over here is still looking pretty good? Maybe 200%, actually. Fuck it, maybe 1,000%. Right? Suddenly, that Art Laffer idea that you can't tax the rich too much, because they're actually the goose that lays the golden egg. And the golden egg in this situation is the tax revenue you need for your spending programs or your bleeding heart welfare programs. We don't need their money. Suddenly, the redistributed politics of taxation have taken on a much different tone. Suddenly, you can say, how rich do we want to let people be, not as an economic matter, but as a political social matter? Are billionaires so powerful they can corrode democracy by buying outcomes? If so, maybe as Bernie Sanders' advisor says, every billionaire is a policy failure.

Richard: **01:43:22** Hang on, hang on. Let's press pause here. I think we have tried this, perhaps was it in the 1930s or 40s…

Rohan: **01:43:29** Up until the 60s, I believe that the marginal income rate, at least the top, was 91%.

Richard: **01:43:35** And how many actually paid that tax? Because what ends up happening is that the rich have ways around paying these taxes through different kinds of structures and through… So, at the end of the day, isn't this sort of a moot point?

Rohan: **01:43:50** Well, it depends how you set that up, right? And this goes to the question of taxing income or wealth or other things. And here's an example, I would say, if you want to be creative about it, any person that doesn't declare assets over $1 billion, has no property claims over them. So, if I go and find your Cayman Islands account, and I hack it, and I take all your money, the US government is going to be okay with that. In fact, maybe they'll actually support it. Maybe they'll even give you amnesty. Maybe in fact, they'll give you the computer to help you do it. There's all sorts of ways that you can go after people who are trying to dodge taxes. Maybe what you do is you go to the ABA and you say that lawyers who help people hide the effective -- hide their taxes in such a way to change the effective tax rate are guilty of ethical violations. We don't …

Richard: **01:44:32** Loop holes tend to be legal, though. At the end of the day, as you pointed out, the members of Congress are rich and getting richer. So, the incentives are definitely not there for anything of that sort to be implemented.

Rohan: **01:44:45** Yeah. We are a few dozen million pitchforks short of the kind of political change we need. And I think that's the starting presumption here. But yeah, I mean, your point is right. Powerful people don't like being held accountable. They'll do what they can. Now, still do we think that the redistributed politics of today are stronger than they were in the Kennedy era? I'm not convinced. And I'm not saying that the 91% tax rate meant that everyone's paying 91%. But we actually had wage compression, then we actually had a genuine populace politics of going off to those people and understanding why that wealth was prima facie bad. Whereas since the 80s, it's what? Bill Gates saying I pay more taxes than anyone, you should be thanking me.

Richard: **01:45:19** Yeah, it's regressive today. I mean, a regressive thought …

Rohan: **01:45:23** Yeah. Not just thought, not just the tax rate, but the whole politics of taxation. These are the people that are saving us all with their tax money. You know, I mean, it's that old Oscar Wilde line*, the poor shouldn't be grateful for scraps from the table; they should be insolent and disobedient and annoyed that that's all they're offered*. And I think in this situation, what the -- that Rommel idea that the point of taxes is not for revenue, frees us of the Laffer Curve spell that we've been under. The third point to your point about income versus wealth taxes, is to change the relative valuation of a particular industry, so subsidize certain things and not subsidize others. So, Warren would say income taxes essentially discourage work. And I'm supportive of that up to a point. I think he maybe could put out a little bit more nuance to that framework. But certainly, I'd say anyone earning under 60 grand a year, maybe, or 50 grand a year, pay no taxes on their income. That's fine with me.

Now, once you're talking about $5 million in income, I'm much less convinced that that has any direct proportion to people's labor contribution, and much more to do with the unequal way that the labor market is structured, or people putting other forms of wealth in income. But certainly I think if you really want to deal with redistributed politics and taxation, you need to be looking beyond individual categories. You know, I want to be able to look at a person say, what kind of living standard access to wealth do they have? Is that socially what we want? And if not, deal with that. Now, not everyone's going to agree with my level there, but that's at least the right question. If you think the billionaires are great and should be able to do whatever they want, fine. Luckily, there's already a political party for you for that. There's two, in fact. So, you're fine. But if you want to be able to make the case that we should be taxing people out the wazoo at that top level, and that that's not going to cause (A), you know, all the entrepreneurs to go on strike, like Atlas Shrugged or (B), going to dry up our tax base so that we can't fund Social Security, then MMT is very important there.

And then the last point, and this is, I think, also an interesting contentious one is, you could call this the Social Security point, which is that the point of taxes is to isolate the cost of particular programs. So, famously, FDR, when asked about its social security program that created payroll taxes, which are very regressive, right, one of the first ones that should go. Said, yeah, you're right. It's not good economics. But it's good politics, because people who paid into this system will never want to let it go. Right. He's almost sort of subverting that taxpayer narrative by flipping it around for average people. Suddenly, average people aren't the taxpayer, they're the Social Security contributor, and now they've got a vested interest in it. Now, I understand that as a short term strategy, but I think the long term impact is that we've been living on the knife's edge of Social Security cuts forever as a result, because it's underfunded and aging populations, etc. If we had just made Social Security funded under general revenue budget, like everything else, those things wouldn't be able to be framed that way. Paul Ryan saying we should privatize this stuff and hand it over to those hedge fund managers making that 3% return, wouldn't be able to say that that way.

And so I think I understand the politics of localizing sort of programs that way. But ultimately, in my view, this is the same floor as having really important public programs like education and health care be delivered at the state level, which is it's a category error. If you think it's that important to tie one hand behind your back and your ability to achieve it. If somebody said, hey, we should have national defense funded at the city government level, everyone would look at you like you're insane. Correctly. Yet, we do that for other very, very important social services that most people are in agreement should exist. So, to me, you start with that principle of subsidiarity, subsidiarity, and as low as you can, closest to the people. But when you're talking about public money, the US dollar is issued in one place and that's the place to start for spending commitments.

Richard: **01:49:05** Rohan, to go back to your previous point, do you see that there could be any number of externalities, whether it's brain drains, capital drains, people moving outside? So, what are some of the downstream effects of that taxation that we were talking about? Just now? And what kind of total impact might that have on a reduction of your labor force or your higher skilled workers or even the tax base itself?

Rohan: **01:49:33** Yeah, I mean … has been threatening to lead France every time a progressive runs for president and talks about raising the tax rate there for decades. And you know, he's still French. He's not going to do anything about that.

Richard: **01:49:42** I thought he moved to Russia at one point. But I guess …

Rohan: **01:49:45**

Good riddance, right? And the point is, who fucking cares, right? But I think the reality is that actually in an economy where those people have the power to threaten to leave and everything is revolving around that, we should just call it what is then, it's a billionaire-ocracy, right? But the reality is, most people will like being in America, a lot of people want to come here and work very hard. The whole country is built on immigrant labor and work and interest from people outside, amongst other things. So, I'm not very worried that if we provided free health care, free education, guaranteed jobs, did industrial planning and improved our crumbling infrastructure that that would cause the average person to want to leave. I think the thing that's probably going to cause everyone to want to leave is the civil war that's coming between forces has been pitted against each other with austerity.

I'm being mildly hyperbolic, but not really. I mean, I'm in Oregon, people are occupying the Statehouse with assault rifles and not even turning up to votes now. It's broken in a really fundamental way. We had 100 days of protesting in downtown and cops beating people over their head in Occupy and elsewhere. The idea that what makes this country difficult to live in is that we don't give enough handouts to billionaires, I think it's just so tone-deaf in this moment as to know who are taken seriously. Not that you were suggesting that, but just the reality is the proposals we're making are going to make lives better for people.

Richard: **01:51:04**

It's a question of degree, I guess, at the end of the day is a lot of the points that you've raised are definitely coherent and would make sense, especially where we find ourselves now, in terms of wealth inequality, and all of that. And I guess it's a question of moving the dial and adjusting the degree to which we …

Rohan: **01:51:23**

Yeah. I mean, the President earns 400,000 a year, at least in theory. Somehow, Obama managed to leave a 50 millionaire, despite having five when he came in. If you can do that math better than me, let me know. But how many nurses are worried about a tax rate of 95%, on people earning 5 million or more? How many firefighters, how many public school teachers? How many public interest lawyers that actually provide public defense services and stuff? There's a very small group of people that think that they're the ones keeping the entire world up, that would be at risk if we were talking about the kinds of tax rates at the very top that I'm suggesting.

But more importantly, if we're talking about providing public goods to a lot of people in general, it makes it easier to set up a business when you don't have to deal with health care. It makes it easier to have a business in San Francisco when you're not dealing with a homeless person crisis, or people getting priced out of the neighborhoods where they're teaching your kids in a school or something like that. So, if the only consideration is anything that prevents me from earning as much money as I humanly can is anathema, and I will go somewhere else.

Yeah, go to Canada, see if it's better. I mean, sure. Go to Malta if you want to live there. But the reality is, I don't think that for the majority of people that are actually keeping this country running, it's going to be an issue.

Adam: **01:52:36** Well, Canada will help them launder their money into real estate. So, that might be actually a good option.

Richard: **01:52:40** Not anymore, right?

Rohan: **01:52:41** Yeah, that area that's been currently too cold to live in is going to look increasingly nice in the upcoming decades. Everyone's going to move to the Arctic Circle. Yeah.

Adam: **01:52:51** That's right. Okay, so let's -- We did segue to eCash earlier, I wanted to backtrack to taxes. I think we did a good job covering that. Thank you. Tell us a little bit about the eCash bills that you've been working on and what this means.

Rohan: **01:53:05** Yeah, so I mean, starting maybe where we left off with the conversation about the mint, you know, one of the most important things I think to start with the eCash story is that this is not a CBDC. It's not a central bank digital currency, it is issued by the Treasury. So much of the conversation around public digital dollar, public digital currency right now has been framed through the lens of central bank digital currencies, that I think it has really narrowed and corroded the discourse, because what does the term central bank digital currency actually tell us? It doesn't tell us who it's issued for, doesn't tell you why it's being issued, don't tell you how it will work. The only thing it tells you is who's going to be issuing it. That is the central bank. So, the central bank is saying, I don't know what we're doing yet, but all I know is I'm in charge. I've come into the room. It's a complete chaos. We're going to work everything out, but I'm in charge. That's all been decided.

Second breath, next sentence. But of course, central banks have no experience in retail services. Of course, central banks have to deal with account based AML, KYC laws, your custom money laundering laws. Of course, central banks, historically, partner with private banks, so we'll probably do that as well. So, just by the very act of saying, we're the ones going to make the decision, we've already created a profile of what this could look like, of what a central bank digital currency could look like. Now, can you fight that? Sure. I can say I think you're not doing your job. I think you should do it better, just like you're balancing inflation on the backs of the unemployed is bad.

And central bankers have insulated themselves politically, legally and socially enough that that's unlikely to go anywhere. Because what's the term? *Central Bank Independence*, the most wanted thing in the world. You can't threaten that. If you threaten that the economy collapses. Now central bank independence has absolutely nothing to do with how you issue monetary instruments. It has to do with interest rates. It has to do with liquidity provision. It has nothing to do with paper currency or digital currency or bank accounts versus notes or wallets or anything else. But it will be the shield behind which central banks get to make decisions about this stuff, which to me at least, is incredibly important for the public to be invoked. This is a -- money is not just a thing for central bankers. It is a *small "c"* constitutional aspect of the entire world that we live in.

And the shift to a digital centric public money is a hugely profound shift. And the public should have a say in that. Value should be represented. And, call me crazy, but a central bank that has a notorious problem with race, has a notorious anti-worker bias, or who is comprised mostly of white men with macroeconomics degrees that have spent their lives doing statistical modeling of quantitative data, may not actually be the best position actors to work out the fine balance between civil liberties and national security. Or to work out how to provide payment services to poor folks in banking deserts and things like that. We know that because they haven't done any of that, at all. It's not in their interest. I haven't heard a single one of them talk about it. They …

Richard: __01:55:52__ You won't hear anybody defending the guys that are stuck in the ivory tower, at least not in this …

Rohan: __01:55:56__ No, exactly. And so, so to me, at least it's that old idea of you know, Henry -- the line attributed to Henry Ford, *if you ask the public what they wanted, they would have asked for a faster horse.* Well, you ask a bunch of central bankers what digital technology can do, and they'll say, oh, a slightly better bank account? And that's the limit of their imagination. And then you say, Well don't you think there are some important privacy issues? And I'll say, yeah, sure. Didn't you see the two lines in my paper where I said we have to care about privacy issues, and then nothing else? I care. I wrote it in the paper. And you say, so does that mean when the NSA and the FBI call you and say that we want a backdoor you're going to say no, and you're going to stand up for that with the ACLU next to you in a press release? Does anyone believe that Chairman Powell is about to become a freedom fighter for privacy? I mean, come on.

Richard: __01:56:37__ But with the Treasury. I mean, …

Rohan: __01:56:40__ No, the Treasury won't either. But the Treasury is the place where we can have the conversation about who should. Why? Because the Treasury Secretary serves at the pleasure of the President. The President's going to have to run an election. So, unlike central bankers who only have to, what, get a macroeconomics degree and not rock the boat, and that's how they get appointed to the Fed. If you have to run for president and hey, Edward Snowden, and privacy and surveillance capitalism, and all those things are on the agenda, then yeah, you don't just have to criticize a bunch of people with a seven-year, 12-year life, you know, term. You can criticize somebody who then has to call the head of government and say, hey, this is looking like there's some pitchforks coming, this might be bad for your political prospects. So, yes, I don't think Janet Yellen, former chair of the Fed, is any more interested in eCash than chair Powell, current chair of the Fed. But I do think the politics are fundamentally different. That's one.

Two, if you actually took out all of that central bank brain rot, that we've all been seeped into the last five, 10 years and tried to look at this objectively. And you said, I want to issue something that works like cash. Put aside accounts from it, accounts are great, I support accounts. Postal banking, Fed accounts, great. Public banking, put aside that for a second. If we want to have as part of the monetary ecosystem, because we've always had multiple forms of public money. We've had Treasury securities for the big guys, we've had coins and notes in your pocket. We've had bank accounts, all the way back 5,000 years, we had accounts and tokens. We want both.

If it's a pluralistic thing we're trying to achieve, who should be the one to issue the cash-like instrument? It should be hardware, like notes and coins, it's the hardware itself that you have the security. It should be a bearer instrument, it should be directed to the public, it should be able to be used offline, it should be able to use peer-to-peer, it should be anonymous. These are the features of cash. We want to preserve, not in a radical, extreme new thing but preserving all of the enjoyment of cash that we've had for thousands of years through this transition, a *small "c"* conservative defense of our existing freedoms; which agency is the best one to do that?

And I said, well, there's one agency that does coins and notes, and prepaid debit cards right now. They do do things directly to the public. They do deal with things like financial crime and national security and foreign affairs. They do have a direct line to the political legitimacy of an elected representative. Well, that sounds pretty good. What's that called? Well, it's the Treasury. Shocker. You know, big surprise. Reveal. It's not the Fed, right? They've never had any interest in that. And even the Federal Reserve notes we use right now that say Federal Reserve at the top are printed by the Bureau of Engraving and Printing, who incidentally, also makes our passports, one of the other documents with hardware-secured technology based into it. So, if you're just going to look just as a matter of competency, as a matter of institutional appropriate allocation of different roles, it's the Treasury that should be issuing digital cash.

Adam: <u>**01:59:28**</u> So, how far along are we?

Rohan: <u>**01:59:30**</u> Well, the bill has come out, which is a hell of a lot further than we have been for the last decade. It's the only bill as far as I know, in the whole world that centers this at the Treasury, not the Fed. And of course, the US has a different monetary history in other places. As you said in Brazil, the central bank is constitutionally the only actor able to issue money, and other countries have done similar kinds of legal enshrining of central bank supremacy. But in the US, the Treasury never gave up its monetary power, which is why the coin was also so interesting because it's not interfering with central bank independence. It's using an existing latent power the Treasury has had for a very long time. The mint was around for a century before the Fed, still around. The Bureau of Engraving was around 50 years before the Fed, it's still around.

The Bureau of the Fiscal Service that does prepaid debit cards is growing every year. It was responsible for a lot of those Cares Act prepaid cards that came out. They do stored value cards for the military right now. So, we're a lot further than we were in the past and the ACLU, for example, hasn't really taken a stance on money in very many years. They came out with a blog post saying you know, if it's going to look like anything, it should look like this. We support it. *Coin Center* again, crypto think tank on the libertarian side, says we don't normally support public-issued anything but if there was going to be a government digital currency, it should look like this. *Americans for Financial Reform*, one of the most progressive financial regulatory lobby groups on the Hill. *Demand Progress*, one of the most progressive tech advocacy groups founded by Reddit founder Aaron Swartz, who have been instrumental in stopping SOPA and PIPA laws and things are all behind -- all endorsed the bill.

We had write ups in all of the major newspapers. Actually, maybe not Wall Street Journal, but pretty much everyone else; New York Times, Financial Times, I think Bloomberg. Wired Magazine did a great write up on it. And you can see from them, those write ups, that this is a new perspective in this debate; that the central bankers have closed this debate off so much that even just raising this is revolutionary. I think it was Victor Hugo that said, *in a time of universal deceit, the truth is a revolutionary act.* Right. That idea here … thank you. Orwell, yeah. That idea of -- Victor Hugo said *nothing is as unstoppable as an idea whose time has come*. And again, we're dealing with this problem right now. Crypto is finding itself not as private as it thought it was. People are looking over at Ukraine and thinking, hey, maybe the ability to make un-central payments is a good thing.

China has issued its own sort of form of surveillance based government digital currency that even China has at very, very low denominations, much lower than I'd be comfortable with, but very low, issued a prepaid offline card that you can make peer-to-peer payments without having to go through Central Command. So, God forbid America is behind China on this and only three days after or four days after the bill came out, the European Central Bank published a report saying they would look into a higher degree of privacy and anonymity for low value currency transactions than they had been talking about up until now. So, compared to six months ago, where Chairman Powell and Janet Yellen are saying full anonymity is not possible. The fact that we have the chairman of the FinTech task force in the House Financial Services Committee proposing this, no radical extremist on the left, he's a moderate from Boston, and that kind of response is a pretty good start.

Now, the next step is, people go *is this even possible?* Because I've been hearing all this stuff that we need a blockchain. Does this involve blockchain? There's no blockchain, there's no ledger at all? Wait, how does that work? And the answer is, well, we haven't even really talked about hardware-secured models very much. We were in the 90s, but then we kind of moved away from them when a lot of the crypto heads realized that governments weren't interested at that point, and sort of wrong to be right too soon, in proposing something like this. And so they said, well, the government won't do it so we need to do it ourselves. And the way that we'll do it is we have to deal with not only decentralized payments, but also decentralized monetary issuance. If it's a government currency, the government can issue as much as is a matter of public policy. And the only technical thing you have to solve is the payment settlement side.

But if you're talking about a privately issued currency, like the things that we're not going to talk about here, the *B word* and the *E word* and things, then you need to solve the problem of decentralized monetary issuance, as well as decentralized payments. And that gets you back into how can we have an apolitical objective monetary policy? Oh, the gold standard and then suddenly, you're in libertarian, Austrian economics, and anybody who wants to care about privacy and digital money has to also suddenly become a gold bug or a crypto head. It's not the coalition you want to make the case for privacy on its own terms. Because most people want to use something like cash. They like the US dollar, they're comfortable using it, they're happy to keep using it as long as it works.

And interestingly, is one little historical tidbit, the last time this was being seriously debated in the federal government in the United States, I would say is in the mid-90s. And there was a congressional hearing on the future of money in 1995. It was the House Banking Committee at the time or House Finance Committee, I forget. But Philip Dill, who was at the time the director of the mint testified, and he said, we need to stop looking at stored value cards as the sort of digital equivalent for coins. And as the actor that issues coins and cares about privacy and is at the Treasury, we are best positioned to do it. So, in fact, this idea that it should be at Treasury is a 25-year-old idea. And interestingly, who was Philip Dill? He was also the Mint director that passed the platinum coin law. So, he's my favorite public government agency head of recent memory because these two issues, he was so far ahead of his time, reclaiming coinage power, and reclaiming the privacy of cash.

And so I think we're at the early stages of a brand new debate. But what we need to do is bring in some of the technical companies, show that this is viable. It's not just vaporware. It's not just a pie in the sky. It's not 10 years away. The technology is here now. We need to bring in larger groups of stakeholders. We need to start saying to crypto people, you might not like fiat currency, but you may like privacy and this fight is one that we need to win for the privacy that you want too. So, hold your nose on the fiat, but support us on the privacy. We need to get progressives to understand that this isn't a matter of giving a handout to money launderers or rich speculators and all that stuff. It's a matter of protecting vulnerable populations from surveillance and … whether that's sex workers, marijuana businesses, political dissidents, whatever else. And we need average people to connect the dots between digital money and all of this Facebook's surveillance state Cambridge Analytica, Edward Snowden stuff and to realize that it doesn't matter how much of the rest of the internet you keep private. If the money is surveilled, everything is surveilled.

Adam: **<u>02:06:14</u>** So, do you expect this eCash concept to have any impact on the sort of more traditional cryptocurrency ecosystem at all? Like, does it crowd out Bitcoin or Ether or any of these other…

Rohan: **<u>02:06:26</u>** I wouldn't say it crowds out Bitcoin or Ethereum, because they are their own private currencies, are in a unit of account, and they're creating a whole ecosystem to do different things. I've got my own criticisms of those but I don't need to -- it's not my fight today. But I think what it does crowd out to an extent is stable coins. And more importantly, I think it crowds out the moral high ground of these companies claiming that they're the most privacy respecting things out there. And what people have realized, and everything from ransomware, and others, that government likes people to think that this stuff is a lot more private than it is. So, you use it. And then if they ever need to get after you, they can very easily.

But also, I think it helps us understand what we're talking about because Bitcoin said it was digital cash, but it's based on a ledger, the ledger is common. And actually, when you read even the white paper, it says what we really mean is privacy along more the lines of a stock ledger. That's not the same as cash, right? Cash is something you hold in your pocket, you can give to someone else, it leaves no record anywhere. And even if you shield what goes on that ledger, even if you're using Zcash or Manero or something, it can be deanonymized and traced. And if you really want to protect people's privacy, the best way to do that is not to collect the data at all. The best way is not a distributed ledger instead of a centralized ledger. It's no ledger at all.

Are there additional risks you have to deal with, with regards to counterfeiting? Yes. Is any technology perfectly secure? No. Is that a problem we've been dealing with for 200 years? Yes. And last I checked, most crypto people aren't waking up every day worried about the strength of the Secret Service's anti-counterfeiting efforts. The reason they care about that is because when they're designing a private currency from scratch, it's really important for them to say that the quantity is fixed like gold, and so anything that could be counterfeited, is off limits for them. And that's why anything that requires hardware-secured alternatives to a ledger have just been DOA, dead on arrival for the crypto conversation, but don't have to be for the public coin conversation.

You know, you want to say hey, you get caught counterfeiting in serious numbers and we'll really go hard after you. Maybe there'll be some people that do it, but not that many. It's not like every person is going to be using counterfeiting money tomorrow. And if you want a good example of that, I think even just the stuff with the streaming platforms. Everybody could still be *Torrenting* movies and TV shows nowadays. Most people don't want to do that, because it's easier just to go along with the legal option, as long as it's made convenient enough.

Richard: **02:08:51** It's gotten cheap enough. Yeah. And to your point about the ledger, it was mostly -- it was originally more about avoiding the double counting and the double spending than anything with regards to privacy, or at least …

Rohan: **02:09:05** That's right. It's a concession. It's a concession on privacy for the monetary theory integrity side. And luckily, coins and digital cash issued by the government don't have to make that trade off. And we have a much larger enforcement apparatus to ensure that the cost of trying to be a counterfeiter is going to be pretty low. And the other reality is anybody that thinks a ledger-based system can't be hacked in some way or other is also deluding themselves. At a certain point, you just need to hack the device or hack the wallet or put a keystroke tracker on somebody when they type in their private key. They're all sorts of ways that a private ledger system can be compromised, as well. It's just that it's a slightly different risk profile than with a hardware-secured option. And up until now, there's been no interest in the hardware-secured option.

So, one of the next steps is with this bill, because obviously, nothing's passing anytime soon out of Congress anyway, is to basically signal to the tech companies and the open source community, all that kind of stuff that this is an area where they should be thinking about. They should be investing some product development, and that maybe on the back end, there'll be some money for them. There'll be some pilot grants they could get, they could position themselves as the new vendor. Interesting, I was just read the other day, or just refreshing my memory that the company that provides the paper for paper money has been the same company for like 100 years. Doesn't want anyone getting into that business anytime soon. So, whoever gets this contract could be a nice lucrative century-long one for your kids as well. So, anyway, point is just that there's a whole bunch of ways in which just even starting this conversation this way has moved the political needle more than 100 articles ever could.

The next step will be I think, how much of a coalition we can get. But one of the challenges is I think the moral clarity of it is, it's hard to unhear. Once you hear that central bank digital currencies are not the only one, it's hard to unhear. Once you hear that, they're not as private as they claim they are, it's hard to unhear it. Once you hear that Bitcoin is not actually cash or crypto is not actually cash-like, it's actually a slightly modified form of accounting money and cash is something different, it's hard to unhear it. Even if you still don't agree with eCash on the other side, you at least know which side of the debate you're on. There is one. And that's going to be helpful, because as we've seen, with everything from judicial dissents, on the Supreme Court to the whipsawing of political movements in France and elsewhere; a very, very considered radical idea, plus some time, and stuff getting worse, can suddenly become inevitable.

And so once this is out there, once people know it's there, we start building the next crisis moment, we don't let it go to waste and it could be thrust into the spotlight. All it's going to take is one big data breach, one big -- one more discovery that FISA Courts are doing one more illegal thing that they claim they're not or whatever it is, and people might really start turning to this as an alternative when we get close to the 11th hour of the CBDC conversation.

Adam: **02:12:01** Yeah, that's a super exciting initiative. Well, look, you've been unbelievably generous. It's running up on two and a quarter hours now. And this is exactly the conversation that I was hoping to have with you, Rohan. So …

Rohan: **02:12:17** Yeah, no it was an absolute pleasure. Yeah. Thank you.

Richard: **02:12:19** Thank you so much for your time. I really enjoyed it. This was very illuminating.

Adam: **02:12:23** Where can people find you Rohan? And yeah, what are you working on, where can they find information about that stuff?

Rohan: **02:12:28** Yeah. I mean, I'm on Twitter, Rohan Grey, RohanGrey.net is my website. You can see my profile, the Willamette University, I'm involved with a nonprofit, *The Modern Money Network* and my 501 C 4 *Public Money Action*, has been working on the eCash act as well as other bills like the Stable Act, which regulates stable coins, the Public Banking Act and others. So, any of those places you'll find us.

Adam: **02:12:48** Fantastic.

Richard: **02:12:49** Awesome.

Adam: **02:12:50** For those listening, we have an interview coming out, which I'm also very excited about sometime in the next few days, with Antti Ilmanen about his new book, which was 100-minute conversation, which was packed with really relevant timely information from I think one of the most insightful minds in investing in markets. So, keep an eye out for that. There will be no show next week. It's Good Friday, we're taking a week off. The next week will be Chris Abdelnysa. We're really excited for that so tune in for that. Please hit the Like button if you enjoyed this conversation that helps us get other amazing guests like Rohan on the show and helps support the show if you think that what we're talking about is worthwhile. So, thanks so much for tuning in today. Rohan, thanks so much for coming and for sharing. Richard, thanks for all your help. Have a great weekend.

Richard: **02:13:39** Thank you. Have a great weekend. Queue the music.

Rohan: **02:13:41** Take it easy.