**[00:00:00] Mike Philbrick:** All right. Happy Friday, all

**[00:00:03] Richard Laterman:** Happy Friday. Welcome Michael. And before we jump in, Mike, do you wanna hit us with that good old disclaimer?

**[00:00:09] Mike Philbrick:** Yeah, you shouldn't get advice from four dudes on Friday on our YouTube channel. So otherwise, go get advice from responsible professionals who know your situation. Now we can have a wide ranging conversation on all kinds of fun stuff.

## Backgrounder

**[00:00:23] Richard Laterman:** That's right. That's right. Michael, welcome. Thank you for joining us today. And I guess to kick off, it would be great for you to give us a little bit of your background and how you've arrived where you are today in your career, focusing on all aspects of liquidity.

**[00:00:37] Michael Howell:** Okay. Thank you first of all, for the invitation. It's a great honor to be here and to discuss what I think is the main topic for everybody, which is understanding liquidity, in particular global liquidity. So to start at the beginning, how did I get here? The answer is that I run a company called Cross Border Capital.

Cross Border Capital has been in existence for about 20 odd years. It's an investment advisor based in London. My previous background was that I suppose I started in the finance industry's back in the late 1980s at Salomon Brothers. A lot of the work that we do is really a direct add-on to those Salomon Brothers Days.

Salomon was the, as many people would probably still recall, Salomon was the world's biggest fixed income trader, big in Forex markets, globally. It was the bond market in many cases. And in terms of understanding how markets worked, the sort of ethos of Solomon was *watch the money.*

Money flows are all important. And the research department was basically led by Henry Kaufman. Chief Economist was the pioneer of flow of funds accounts. He used to pour over the Z.1 accounts from Federal Reserve and wrote every year prospects for financial markets based on his insights from looking at flow of funds.

And what I did was probably make a small step to say okay, the world is now global. You've gotta look beyond the frontiers of the United States or North America, and you've gotta start looking at the world. The world is a big place. Let's start tracking money flows and liquidity worldwide.

And that's basically what I've been doing in the years since I left Salomon Brothers. And that's what Cross Border Capital hopefully excels at.

**[00:02:13] Mike Philbrick:** Yeah. I always think of that as you know, what's the old quote? Absolute power corrupts absolutely. It's liquidity flows corrupt absolutely.

**[00:02:22] Michael Howell:** Yeah it's knowing where, if you know where the money is you've got a very good idea about which asset classes are likely to go up or not.

**[00:02:30] Richard Laterman:** Right, so the understanding of how liquidity affects all manners of the economy and markets, what's the main motivation, right? I guess your days of Salomon informed the importance of liquidity. So how do you define liquidity? What are some of the main metrics that you're looking at? And I guess it's useful to, to separate between financial markets liquidity and economic liquidity, right?

**[00:02:53] Michael Howell:** Exactly. That's precisely the point. The first thing to say is that liquidity in a generic sense really has two definitions. One is market liquidity, which is market depth. You can measure that through the size of bid, ask spreads, the size of transactions that you can undertake in markets.

And that's a fairly conventional definition that traders would think of. There's a stage before that, which basically facilitates market liquidity, which is what we call funding liquidity. And funding liquidity is really a measure of the credit available in the system, whereby dealers can actually take positions or investors can actually borrow to speculate or whatever it may be.

But it's funding liquidity, which really has become the main driver of, or the main engine of the financial system. And one of the ways that we explain that is to say that it's very different from thinking about interest rates, in really, the sense that what we've got is a financial system that is really, what I describe as a refinancing system. Now, it's not a new financing system. If you pick up an economic textbook or a finance textbook, what it says is, interest rates are really the important fact to look at. Now, what is the rationale for that? The rationale for that is quite straightforward, is

that basically capital markets are viewed as new financing vehicles, and so your interest rate is your cost of capital.

There is an assumption behind, that credit is freely available and you have a project and you compare the return on capital in the project with the cost of capital. And if there's a positive spread, you go for it. Straightforward. The trouble is that financial markets are no longer new capital raising vehicles.

They're basically debt refinancing vehicles. And what we've got in the world is a debt pile of about 350 trillion. Now, the problem with debt is that debt doesn't go away very easily, and it needs to be refinanced. The point is that with a 350 trillion loan on the world economy, on the shoulders of the world economy, that debt has an average maturity of about five years, which simple math says that you've gotta roll 70 trillion every year.

That's an eye watering amount of debt. And essentially you need balance sheet capacity to do that. And balance sheet capacity is liquidity. So in a refinancing world, liquidity is the paramount factor. Now, if you want to quantify that, if you look at capital markets globally, capital markets raise in new financing about 10 trillion, but they refinance, as I suggested, about 70 trillion of debt.

So there's a seven to one loading of refinancing versus new financing, and that is how the world has changed. So liquidity is all important. Now let's just focus on what happens if you don't get the roll on the debt. If you are a homeowner and you've got a mortgage that you wanna refinance, and you can't find anyone to roll that mortgage at the end of its term.

Sadly, you are homeless and if you're a corporate that can't refinance your debt, you default. Okay? So these are, these focus the mind pretty clearly. And so what you can say is that liquidity is in many ways more important in a debt ridden economy than interest rates. And therefore, what we can see looking back over the last 20 years is that every financial crisis has its roots in a refinancing problem.

And that's in essence what we're saying, and you can look at the near term and look at SVB or any of these other regional banks that have had problems. This is all about financing. It's about the funding structure. And what we live in is not just a fragile financial world, but we live fundamentally in a fragile funding world.

And that's really the key point. It's all about funding. And central banks need to wake up to that fact. And what they cannot do is use interest rates in their balance sheet to tighten policy, to essentially

fight inflation, while at the same time trying to preserve monetary stability, because the two are direct opposites.

**[00:06:55] Adam Butler:** So if the central banks can't use classical tactics, manipulating interest rates and manipulating their own balance sheets, what tactics are available to them in order to help to manage the equilibrium between growth and inflation?

**[00:07:14] Michael Howell:** I'm not saying they can't use those, but what I'm saying, Adam, is that they've gotta be very careful in terms of how they tread. There's an old saying in Ireland, which is, *if you want to travel to Dublin, don't start from here*. And the problem is, we're starting from a situation where the debt load is 350 trillion.

We shouldn't have got here. Okay, why did we get to that situation? Because basically, go back 15 years and what did you see, is central banks decided they were gonna slash interest rates to near zero and then incentivize the take-up of debt. Now, why did that occur? It occurred very simply because they misread the inflation data.

Maybe they're doing exactly the same thing again right now. But if you go back to that period immediately after China entered the world economy through the World Trade Organization back in 2001, that basically imparted a significant deflationary shock to the world economy. And what that led to was a cost deflation, because Chinese labor costs were radically low relative to the west.

And so the west could import cheap goods. And that came through in the price level. And essentially it meant that we saw very low rates of price inflation. Now, the central banks misread that wholesale, and what they said was, this is actually a worrying dimension because it's a monetary deflation. And we know what happened in the 1930s with a monetary deflation.

You got depression, the whole system derailed. So what we've gotta do is to avoid monetary deflation by slashing interest rates, and that's what they did. The problem is that it wasn't a monetary deflation, it was a cost deflation. Cost deflations are not really a problem at all, actually. That's what capitalism does over the long term. It creates cost deflation. The problem is that governments and central banks alongside create monetary inflations, and that's effectively the balance or the imbalance in the system. Now what they then said was that we are gonna start to cut interest rates and we are gonna start pumping more money into the system to try and get the level of inflation up and avoid this monetary deflation.

The problem is, that incentivized this huge debt take-up, and that's why we got into this mess. And we've gotta get our way, ourselves out of it, and there's no easy way. But I would suggest one of the solutions, if solution is the right way of thinking of it, is to basically persist with this inflation policy and try and devalue the level of debt.

Now it's not easy, and as I said, if you go back to the to the jokey saying from Ireland, if you want to go to Dublin, don't start from here, you shouldn't be starting from here, but we've got no choice.

**[00:09:47] Mike Philbrick:** Just one question. Is it a function of the last 20 years targeting 2% inflation, was wildly aggressive, then given that as a policy statement and given the disinflation that was coming globally from experiences like…

**[00:10:00] Michael Howell:** A word. Yes. The fact is that what the central banks have gotta pay a lot more attention to is the sources of inflation or deflation and to separate out what we call cost inflation/deflation from monetary inflation/deflation. That's the key thing. Monetary inflations and deflations are very bad things. Cost deflations are probably quite good things. Cost inflations we can debate, but probably on balance, not so good.

**[00:10:28] Richard Laterman:** I wanted to press pause because you've mentioned outdated textbooks. You've drawn an analogy with the 1930s. So I guess what I wanted to do is maybe go back a little bit in time and define or rather explain how this has evolved over time. So we had a certain type of monetary system, up until the end of World War II.

Then we had Bretton Woods, and now we live in a pre-, post-Bretton Woods era. But rather there's even a post-great financial crisis era. So I wonder if you might explain how liquidity has evolved since the beginning of the 20th century when currencies were backed by gold and then we entered the Bretton Woods and then fiat currencies as we stand today.

**[00:11:06] Michael Howell:** Okay, that's a, it's a very good point. Richard, if you go back to what I was saying about monetary inflation versus cost inflation or whatever, what you would basically discern from that is that if you've got a gold standard, it's extremely difficult to create a, monitoring inflation. And ideally maybe that's the sort of world we should be thinking of. You need an elastic currency in times of crisis, and that's basically what, the ill working of the gold standard basically taught us over the two centuries of its of its use, but you don't want an elastic currency the whole time.

Because basically you can't trust governments. And we know that. And if you have an elastic currency, basically what they want to do is to spend. And they finance it, basically through monetary means. Now, let's hold that thought because that's the world that we are entering, big time.

And one of the things that we've been saying to our clients is, look, what you're seeing right now is that basically, central banks are bailing out the banking system, right? But in the next few years, they're gonna be bailing out governments, because the fiscal arithmetic just doesn't work at all. And that's the problem.

And what you've got in the US for example, you've got mandatory spending, which is absolutely skyrocketing because of demographics. And that's even without adding on higher defense spending. So the moment, if you look at CBO, Congressional Budget Office projections, they've got this huge increase in mandatory spending, but they're only assuming levels of defense spending of about 3% of GDP.

If we go to a Cold War-like environment, that must step up easily to 5% of GDP. So that's gonna start to widen the fiscal deficit enormously. And then you've got tax revenues, which are basically sluggish because basically the tax base is already squeezed hard from existing tax rates. Think about what AI could do in devastating that tax base.

So what you've got is a big problem and the only way that you can resolve that gap is for central banks to start printing money and do more QE, in other words, for the central banks to buy the treasury debt that's being issued. Now, in the past, take the US as a great example with a reserve currency. The US has had the luxury of being able to sell one third of its debt to foreigners, who have been the big buyers of that. Traditionally it's been Japan, it's been a bit Europe, UK has been in there and China, is China gonna be taking up as much debt as it did over the last 15 years? I would suggest, not, doesn't mean to say that the dollar is finished as a reserve currency.

I don't believe that the dollar is still in its fundamentally strong position, but there is a funding problem. And funding problems are what disturb financial markets. So what we've got into in basically the last century or so, is a move out of fixed exchange rates where you basically prevented essentially monetization monetary inflation to worldwide monetary inflation, is now the go-to policy for governments. And that's the danger we're in.

**[00:14:14] Adam Butler:** Can we just take a moment because we did spend a minute to define what we mean by liquidity and contrast it against what many traders and other market participants might

describe as liquidity. But I think it's worth taking a minute to differentiate between cost inflation and monetary inflation. So, can you just define what you mean by monetary inflation or deflation in the modern context? And is it different than the way we might have understood that during the 1930s, for example?

**[00:14:49] Michael Howell:** Yeah, I think in the 1930s what you had was a situation where it was very clearly a monetary deflation that was going on, because there was a deliberate shrinkage of central bank balance sheets, which created a monetary deflation. Now let's be clear on what we mean by these two terms. So one, it, so when we're talking about monetary inflation or deflation, it all comes back to the monetary standard.

Are you devaluing the dollar or are you …? Are you revaluing the dollar, essentially? So that's all about essentially the supply of money or liquidity in the economy. It's, it's how you denominate prices, and it's that benchmark which we're changing. The second point is about cost inflation or cost deflation, which is much more about costs.

So that's saying if oil prices jump, okay, that is gonna impart an inflationary impact impulse to the economy. Now, I take the point that could be a relative price move, but still in terms of how we view price indexes, consumer price indexes, the fact is that if all prices go up, retail prices, consumer prices, rise as well.

Equally, wages could be a source, productivity could be a source. Essentially anything which is interferes with the cost structure is an issue. But monetary factors are very separate from that. Now, what policy makers have got to do is to decide whether the inflation or the deflation that we're seeing in terms of the price level is one bucket or the other bucket.

And that's broadly what we're saying. They misread the situation in let's say the early 2000s, where they thought it was a monetary deflation when it was in fact a cost deflation and they got their policy mixed wrong. And we're living with the legacy of that right now. Because that encouraged a huge uptake of debt.

We can argue but it's probably a, say a pointless argument. You know what the mix is right now? I would say it's elements of both. You've got some cost inflation and some monitoring inflation ongoing, but effectively those two things, concepts, have to be separated.

**[00:16:52] Adam Butler:** Okay, so this is incredibly fascinating. So would you mind spending a minute describing why policymakers made the mistake back in, in and around the global financial crisis? Or was it sooner than that? Was it back in sort of 1998, during Greenspan's tenure, when they began to make that mistake between price deflation or, price inflation/deflation versus cost inflation/deflation?

When did they make that mistake and what, why did they make that mistake? What was the nature of that error?

**[00:17:25] Michael Howell:** I think it's hard to be to be exact or precise as to why these errors occurred. But I would say that part of the problem is that central banks have only recently taken on an inflation remit or an anti inflation remit. Traditionally, central banks have been there for financial stability reasons.

That was the origins of central banks. They had to create an elastic currency. That was the reason the Federal Reserve was originally set up at the turn of the 20th century, creating an elastic currency. And that came back to, if you probably recall from the history books, I think it was the San Francisco earthquake and the shift of deposits out of New York banks to try and pay for that.

And that caused a financial crisis, which basically required some lender of the last resort to create a elastic currency. Now there have been other examples in Britain or in Europe. Again the central bank provided finance. Often it was a, it was about wartime, but nonetheless, it was there.

Now recently, central banks have had an anti-inflation remit. Now the problem is, that has been defined in terms of retail prices, and what I'm saying is they need to dig deeper into this whole thing. And from a central bank's point of view, a central bank can't control cost inflation very easily.

And if cost inflation is a relative price move, why on earth should the central banks be involved in that anyway? Okay. That's not part of their game. Monetary inflation or deflation. I accept a hundred percent. But that really comes back to the nature of the financial system of moving away from what was originally a gold standard.

Central banks have the ability now to basically create credit in the system, and that is a dangerous role to play, particularly if they start inflating money and devaluing the currency.

**[00:19:12] Adam Butler:** So I'm a bit confused, because I have the sense that the, that central bankers continue to focus on cost based inflation. They continue to, certainly when they are articulating their, what's motivating their policy stance and their policy leanings, they focus on service sector inflation, housing sector inflation.

These are PCE/CPI elements of cost inflation. But I thought I understood that you said that they were very concerned about a monetary deflation in the global financial crisis, and that's why they took on the policy stance. So is it true that they sometimes are focusing on monetary inflation/deflation, and other times focusing on cost inflation/deflation, and they get when they should focus on one or the other wrong.

**[00:20:03] Michael Howell:** Yeah. I think the, my point is what they should do is to very carefully distinguish within the two, and they don't do that. And they basically, everything is fudged together. Now, central banks, their remit is retail prices. Okay? That's what their, that's what they're supposed to control.

And retail prices are affected both by monetary factors and by cost factors. Now, if you ask the central bankers what causes inflation, they've been an awful lot of foot shuffling and head scratching because they weren't, they can't tell you what causes inflation, which may be a bizarre point to make, but it's a fact.

They don't know what creates inflation, okay? If they knew what created inflation, they wouldn't have made the errors they've made in the last two years, for heaven's sake. Now, part of the problem, in terms of their policy going forward is what you might think of as a Milton Friedman legacy, and everyone thinks of Milton Friedman as basically being the monetarist, and therefore they should be paying attention to monetary aggregates.

But actually that's wrong because the legacy, the Milton Friedman legacy imprinted in the central banks was not the fact that monetary factors cause inflation. It was inflation is caused by expectations. And if you go back to the legacy of Friedman, what he's really known for is the inflation augmented Phillips curve.

Now, the Phillips curve, which is a wonkish concept if you're not an economist, but basically it's the way that central banks think about inflation pressures and expectations, basically then impart themselves on top of that Phillips curve and distort it. Now, what the central bankers are doing the

whole time, and you can hear this echoing in every speech that's made by different governors, is they're trying to influence inflation expectations, right?

This is what they're, because they're convinced that it's inflation expectations that drive future inflation rate. So they're never gonna say, oh, look, hey guys, we're gonna cut rates. They're always gonna say, okay we're still thinking about another rate increase next FOMC or whatever it may be.

That's never gonna go away. That's what they're trying to do, influence inflation expectations, but that's the wrong policy. What they need to do is to focus on controlling monetary inflation. It's a very different thing. Why should they be getting involved in relative prices in the economy? That would be my point.

**[00:22:18] Richard Laterman:** When did this shift occur? When did they stop focusing on, I believe it was the 1908 bank run. I, it really was at the turn, at the very beginning of the 20th century. The, I believe the Bank of England was instituted before that under the ideas of Walter Bagehot, and that lender of last resort.

And so that's what you're alluding to when it comes to monetary stability. When did central banks, and to focus on the Fed here for a moment, when did they start focusing on CPI or other measures of inflation as one of their policy objectives and why did that take place?

**[00:22:51] Michael Howell:** I would, I'm not gonna nail it exactly cause I can't remember, but I would say it was in the 1990s and basically, the first central bank to do that was the Central Bank of New Zealand. And why did they choose 2%, which everyone seems to have followed? I guess two is a nice number, 1.0. 3.1 up 4.1, 0,1, but two was a nice round number, so they chose that. I don't think there's any economic logic for 2% at all.

**[00:23:15] Mike Philbrick:** I think it might be the function of at 2% every 35 years, you cut money in half. And it's a non-noticeable type of scenario and works within the lifespan of a human sort of career/memory. So you can…

**[00:23:29] Michael Howell:** Good.

**[00:23:30] Mike Philbrick:** …it up, but it seems like a nice, it seems like a nice spot to be, right? We've gotta, you, you're gonna have a whole career. It's gonna be under this sort of duration and

you're not gonna really notice this inflation unless you zoom out to a 35 year timeframe. Who knows if that's the truth, but…

## Central Bank Policies and Different Models

**[00:23:45] Adam Butler:** If Central Banks had not been focused on CPI inflation and had not made the mistake of conflating CPI disinflation with the potential for monetary disinflation, which I think I understand motivated their ultra low interest rate policy over that multi-decade time span, from say 2000 till the end of 2021, how would their policy have been different and how do you think the economic model that the economy runs on today would be different.

**[00:24:25] Michael Howell:** It, the fact is it would be very different, but it would be a world that would, all would be unrecognizable to us because it would basically necessitate a much smaller government sector. And the reality is that, you can, governments can only spend effectively what they can tax or that's what it should be.

Now, there are limits to how much you can tax people. We've been through that argument over the last 20, 30 years. Okay. It may have been forgotten, but it will probably come back again because taxation is likely to have to go up in a lot of countries. But the reality is, if you want to take on the spending commitments that have been made, these mandatory spending programs, defense spending or whatever, you simply haven't got the tax resources to do that.

You're effectively entering what you may generically call a wartime economy where you need the central banks to print money. And that's the world that we're in. I go back to what I said earlier on, is that what we're seeing now is the central banks are bailing out the banking system, and what they're gonna have to do in the next decade is to bail out governments.

There is no way that you can afford the fiscal commitments that are being made under current tax rules. Okay? You've simply got to print money. There's no other way out of that, or you've gotta cut back your spending commitments radically. But with defense spending high on the horizon, be on the horizon, it's likely to be high.

You're gonna have even more demands coming through, and that's the sad reality. Effectively what you're gonna have to do is to move to a world that some have called financial repression. And that's, unfortunately the world we're in now that will be characterized by significant monetary inflation.

Now, I can demonstrate some of these things if you like, with some slides and I'm very happy to do that. So I don't know if we can put some slides up and let's just run through a few of those and hopefully I can, with, through them, one of the things that I was talking about, I just want to flag, is global liquidity in terms of definitions.

And what this slide is basically telling us is, what I hopefully argued earlier on is, there's a difference between funding liquidity and market liquidity. And what we are measuring with global liquidity is what you might call the capacity of capital, not the cost of capital. Now a little bit in terms of background. This is the size of the global liquidity pool and how it has grown phenomenally in the course of the last 30, 40 years. So what you're looking at here is a pool of money that is approaching a hundred, hundred and 70 trillion, which is about one and three quarter times world GDPP. So these are big numbers, and what you'll see if you pour over that chart is that China is playing a bigger and bigger role.

Now, what I'm gonna do is I'm gonna whiz through some of these charts, and I'm gonna come to one right at the end, which I'll come back to some of the earlier ones, but just bear with me. These two, this chart here, first of all is what we think of as the global liquidity cycle. Now this is data that we monitor, we cover about 90 central banks worldwide.

In fact, the BIS I think says there are about 160 in total worldwide, but, believe me, 90 gets you right into the tail of those. And this is the flow of liquidity as an index, which is benchmarked to an average of 50, with a range of from zero to a hundred of the flow of liquidity through global financial markets.

Now, I want to stress here that we are looking at financial flows of liquidity, not real economy flows of liquidity. The real economy is a different sphere with which liquidity circulates, but this is purely the financial sphere. And what you are looking at here is a cycle that seems to repeat about every 65 months, and that's the same wave we've drawn on that.

Now, controversially, what I've put there is, or what I show is the latest data, is at a lower inflection point. We're at the trough of a cycle. Bad things happen at the trough. You get banking failures. Good things happen at the peak in the sense you get asset market booms. Hopefully we are moving from a low point to a high point, but made no mistake.

But what we're likely to see is further pressure in the near term because around the trough to reiterate, bad things happen. You get SVBs Credit Suisse defaults, these sort of things occur. Now, the reason that I'm saying that we are in a world where liquidity is likely to go up is basically thinking about this chart, which was the prior slide. This chart is basically showing in orange, the slated take up by the US Federal Reserve of Treasury debt according to the Congressional Budget Office. Okay? These are not our figures. They're official or semi-official figures from the CBO. The dog leg down running from 22 to 25 is the slated QT quantitative tightening program that the Fed is undertaking. Good luck with that because I don't think we're gonna get there. I think the best guess is that orange bar probably flat lines from here. But look at the other side of the dog leg where it starts to go up significantly. And that's showing the projected increase in the size of the Fed balance sheet because of swelling Treasury debt. The Fed has to buy lots of this debt to accommodate the fiscal deficit in the US. But the problem is, that assumes a 3% GDP defense spend level. I think that's too low. I would venture it's likely to be near 5%. If you put 5% in, you get the gray bar. And the percentages are the implied growth rate of the Federal Reserve balance sheet each year thereafter. And what you can see is throughout that period to over the next decade, you're looking at double digit growth rates.

Now, I hope I'm wrong. But I think I'm right. And what that says is you're looking at a significant monetary inflation coming through. QE is not going away. QE is here to stay and therefore investment managers have gotta start to think about living in a world of permanent QE because I can't think there's any way out of this. If that is true, you've gotta invest for monetary inflation and monetary inflation means that certain asset classes do well and certain asset classes do badly.

And I would suggest that fixed income securities are not really gonna be a place to be in the medium term because they're the ones that will likely suffer. Equities may do quite well. Conventional monetary hedges like gold and precious metals should do well. Residential real estate may be a decent investment.

It is always done fairly well during monetary inflations, and it may well be, and this is not an investment recommendations, and observation that cryptocurrency tends to do well in monetary inflations. So these are things to think about, and if I dive back in the presentation, what you'll see is some evidence maybe of some of those factors.

Now I want to maybe, sorry to the words around, I want to start with this slide because this is the near term global liquidity index. And what it shows with the annotations is the fact that at the lower

point you get banking crises, and at the upper point of the cycle you get asset booms, and the annotations are trying to prove that with various facts thrown in.

So you can see basically how the world has moved and what's happening in the various QE phases. In the past, QE by the way, is not a new phenomenon. It's this, it's a clever marketing exercise. It used to be called open market operations, but it's been relabeled for quantitative easy and quantitative tightening.

The other thing to look at is how closely global liquidity moves with asset prices. And this chart is looking at the growth right in orange of global liquidity. And the black line is the returns on a world wealth portfolio. And that world wealth portfolio consists of all bond markets worldwide, all equity markets worldwide.

All liquid assets are residential real estate and precious metals and crypto. And what you can see is the correlation is not only close, but is tightened enormously in the last decade. So we've gotta understand global liquidity. This is what's moving markets now. That's how the profile of liquidity is shifting.

And the red element of the bar is the effect that liquidity has on real estate. And the orange bar is on financial assets. So that's just saying what's happened and how we project things. But what I wanted to focus on was this slide, because this is a very interesting slide, and what this shows is the growth rate of global liquidity once again, shown in black.

The dotted line is our projection through year end, and the orange line is what we call monetary hedges. Monetary inflation hedges. Now, that consists of a very simple metric, which is the value of the gold stock worldwide, plus the value of all cryptocurrencies together. Now, cryptocurrencies were clearly not an issue or not an element early on in that chart, but they became bigger and they rose to become, I think about 10 to 15% of that whole universe of monetary hedges.

But you can see the correlation is remarkably close. And every time that global liquidity flicks up, you see a big move in these monetary inflation hedges. What has happened since the low point in the global liquidity cycle last October, crypto has jumped and precious metals have jumped their monetary hedges.

So the evidence is basically with these elements right now, and therefore we think that you've got an environment where liquidity conditions are likely to continue to expand.

**[00:34:39] Richard Laterman:** So the expansion of monetary liquidity doesn't necessarily lead to price inflation. We, one of the things that I think surprised a lot of people back in 2008, end of 2008 and then 09, and then into QE, the multiple bouts of QE that we've had since then, was that the money printing or the balance sheet expansion of the Fed did not result in price inflation.

And what I've come to understand is that because that money was not what's called, or how Milton Friedman defined as high powered money, right? There's two ways to increase high powered money. One is through deficit spending by the government, spending beyond what it collect in taxes. And then the other way is through banks lending out money and expanding credit. And that's how you create that, the high power money side of things. Whereas through QE, what you're doing is you're increasing financial liquidity. Which essentially inflates financial assets. So you're not necessarily predicting that we're gonna have price inflation, but you are predicting that monetary, that financial liquidity is gonna continue to expand to fund government deficits. Is that correct?

**[00:35:54] Michael Howell:** Yeah, but I would say, let me be a little bit more precise, Richard. I think that the first thing to say is that I think we are gonna get a situation where monetary inflation will be a dominant feature in the future that high street prices are a cocktail of monetary inflation elements and cost inflation elements.

Okay. Or sometimes it could be cost deflationary elements. Essentially it's that hybrid or that cocktail. Asset markets are dominated by monetary inflation factors. Okay? There's not much else in financial market. Cost factors don't really matter that much. Maybe it'll come quietly on house building for sure.

But generally it's all about monitoring inflation. It's how that money is allocated into across different asset classes. So if you look at the impact of inflation going forward, what was the reason that we didn't get the inflation after the global financial crisis? I would say two reasons.

One was, there was significant cost deflation anyway as a result of the recessionary processes. The fact that China was still imparting a deflationary wave to the world economy, and as importantly, that money or liquidity did not get into the real economy. It was basically contained within the financial markets.

And that's another important consideration. So I think if you go forward, what you've gotta say is that it's highly likely we're gonna get monetary inflation. We cannot rule out the fact that monetary

inflation will spill over from financial markets into the economy, and therefore they will impart a positive effect, an inflationary effect in consumer prices as well.

Now, it's difficult to know the net impact because you've then gotta take into account cost factors, which may well affect high street prices, and it may well be that AI causes a massive cost inflation. So then you've got an interaction between these two elements. So it's very difficult to work out what the end result is.

My best guess is we're gonna see volatile consumer price inflation. The average level may be a tad higher, but essentially we're gonna go from probably at the end of this year, very low rates of inflation at the consumer price level to probably in 2024, maybe a pickup again, may even come down in 25, but you get the point. There's gonna be more volatile so that's…

**[00:38:14] Adam Butler:** Thank you. Yeah, Michael, it seems to me that the dynamic that you are projecting over the next decade is actually quite different than the one that predominated over the past decade, insofar as the motivation for central bank balance sheet expansion and ultra low interest rate policy. In the past decade, arguably the past, the prior two decades, was to incentivize the private sector and the banking system to create private sector credit to motivate more private sector demand. It seems like what you're suggesting is that over the next decade, balance sheet expansion is going to be to a much larger degree motivated by needing to finance government spending, right? So government fiscal balance sheet expansion of governments, when government balance sheets expand as opposed to central bank balance sheets expanding.

It seems to me that is, that typically leads to higher end demand and that is a mechanism for the money that in, prior to the past two decades did live in this cloud of financial assets, to come down to roost in the real economy, driving the potential for a pretty substantial uptick in final demand.

How do you think that might, could you foresee a situation where we do, because of this persistence of much higher deficit, spending more money in the real economy on a year over year basis, and sustainably over, over many years does create CPI inflation, does motivate a much higher interest rate policy for longer at the same time as central banks shift from a quantitative tightening bias back to a QE bias in order to finance those government deficits?

And then how do you see the interplay of that affecting financial markets in the next decade, contrasting against what we've seen over, especially the 2010s.

**[00:40:34] Michael Howell:** Yeah, I think all of those things, tick those boxes. I agree with that. Everything you said, but what we are looking at, a very different world. Think of Covid squared or Covid cubed. I mean it, that was the, that's the template you gotta think about.

Okay, what happened when central banks, finance governments basically spent that money in the real economy, what did you see? An inflation pickup. Okay. What we know from years of experience, unfortunately, is that government spending is unproductive. Okay? It's inflationary and it creates demand, but it doesn't create supply. And what we need is more supply. In order to get the world economy, or more particularly the Western economies bailed out, what you need is a return to supply side economics and effectively get the levels of profitability in industry up.

Okay? You may also have to adopt policies that you may think of as normally being associated with northeast Asian economies or Singapore or whatever, which is directed credit to specific industries, to have favored industries and to have the banking system essentially focused on that.

That in a way is happening to a large extent now. Under the green agenda, that is what's going on. But I think we've gotta start thinking more widely in generally in supporting industries where particular countries have national interests or they have clear expertise.

**[00:41:56] Adam Butler:** I think also, we would probably have to take offline the value of shifting further into a supply side orientation economically, because that would spiral into a pretty heated debate I think. But I do completely agree that credit guidance is likely to be, or what did you call it - directed credit?

**[00:42:19] Michael Howell:** Used to be called *Window Guidance* in Asia.

**[00:42:22] Adam Butler:** Yeah. Where governments will be more active in directing, where they will incentivize the creation of credit in the private sector in order to motivate development, pro production, et cetera in certain sections sectors where they perceive to be a strategic deficit.

I do want to take, and this may be a little bit parenthetical and we don't need to dwell here, would you agree that the way that governments have expanded their balance sheets over the Covid crisis was obviously much more likely to lead to a major demand shock without a commensurate supply reaction, because they expanded their balance sheet in order to fire hose money directly into consumer's bank accounts and onto corporate balance sheets, there are ways that they could direct fiscal expansion into investment?

The Congressional Budget Office and the Society of Civil Engineers anticipates a 24 trillion infrastructure budget, or deficit rather. In the US alone were the, were governments to direct fiscal deficits toward investment, for example, in infrastructure or the recreation of a DARPA type program or what have you, that has the potential to substantially increase innovation and productivity that would benefit the private sector and individuals as well.

So there are definitely different ways that governments can expand their, expand a balance sheet depending on how they decide to do it. It will have different effects on different segments of the economy and benefit one segment over the other depending on which direction they go.

**[00:44:14] Michael Howell:** That, that's quite feasible. I think if you look at the sort of math behind these impulses, if you go back to the GFC, immediately after the global financial crisis, central bank balance sheets expanded. Okay? So base money, in economist parlance, went up, but monetary aggregates, like M1 or M2, which are retail bank deposits, did not. Okay. So in other words, money didn't get into the real economy. It stayed in the financial sector. What you saw after the Covid crisis was, basically you saw central bank liquidity balance sheets going up, but you also saw M1 and M2 surging.

Now, that should have been a red light to the policy makers for sure. But it wasn't, for whatever reason. And I don't know why that wasn't, but it showed that there was excess demand in the real economy. Will we get *Window Guidance* that will suggest more infrastructure spending? I have very much hoped we do. I think that's a dream because as long as I've been in financial market since the eighties, that's always been spoken about.

The infrastructure deficit in the US or the UK has always been a hot topic. People always said, oh, it's coming. That's what the Treasury is gonna start looking at. It never comes, the roads get worse. There's no infrastructure. You gotta look back almost to the Victorian era in Britain to actually recognize decent infrastructure.

It's been that long and this is the problem. The whole budget is being soaked up on things like social security spending, unemployment, defense, these mandatory spending items. There's very little room for this discretionary spending.

**[00:45:42] Adam Butler:** Yeah.

Was it Alexander Hamilton who said the Republic will survive until Congress discovers they can bribe the people with the people's money.

**[00:45:50] Michael Howell:** Yeah, I think that's, absolutely. All these sort of old adages are fantastic. I think that they're absolutely right and this is built of experience.

**[00:45:58] Adam Butler:** I don't know how they can engineer policy to provide any higher margins to the private sector though, right? Like the private sector, corporate sector certainly. And the real estate sector have obviously been the greatest recipients of, or benefited to the greatest extent from these financialized, financialization policies over the last 10 or 15 years.

I guess the question is where we had a massive financialization without fiscal expansion in the last decade. What does an economy look like with financialization and or financialization for the purpose of fiscal expansion? It seems to me that this is a very different dynamic where you could have a substantially higher ambient level of CPI and PCE inflation. At the same time as you've got dramatic acceleration in monetary inflation and it's, to me, it's not as obvious what that looks like from an investment perspective as the prior paradigm, which was obvious where the, all of the monitoring inflation continues to live in the financial assets sphere, and benefits financial assets.

So what if, describe or speculate for me, if you will, what financial assets look like with persistent CPI inflation, like core CPI inflation in the neighborhood of 5, 6% interest rates, positive real rates, taking the Fed policy rate into the 7, 8% range at the same time as you have the type of QE environment that you're anticipating.

Does that change the relative attractiveness of stocks versus bonds versus residential real estate et cetera?

**[00:47:56] Michael Howell:** Yeah, hugely. I think that's right. We're moving into a world where government is gonna become more important, if that's the right way of putting it, or certainly a more dominant feature. That's clearly a dangerous regime. I was gonna quote you a second ago, a quote I have sitting next to me, which is from Ronald Reagan, which basically says the government's view of the economy could be summed up in a few short phrases. *If it moves tax it. If it keeps moving, regulate it and if it stops moving, subsidize it.* And that's the world that we're basically moving into. We're moving to a world where government is becoming more dominant. They're gonna, basically they're creating the background of, monitor inflation. They're basically gonna start *Window Guidance*, I think, to direct credit into certain areas that they deem to be important.

Things like Central Bank digital currencies are coming because that gives them an extra degree of freedom. You could actually say after SVB, implicitly, we're a short step away from that, because if the Treasury is implicitly guaranteeing all US bank deposits, then you know, it's a very short step to say, okay, you're actually got a liability now in the government. Or in the Federal Reserve, and by definition, to the Treasury.

So I think all these things are coming. What does it mean for investment? Okay. Number one, I think you've got an inflationary high street inflationary environment, which is higher, but more importantly, more volatile than we've seen before.

Okay. So there'll be about some inflation, about some temporary deflation, but generally the average level will be higher. There will be attempts to enact yield curve control. That's my view. Why is the, what's the reason for that? Is it because basically under this regime, you cannot stomach a high interest rate environment.

And we said interest rates have gotta be obviously above zero. But the question is how high? In Japan where everybody knows that interest rates are near zero? Interest payments take up an eye watering 25% of the budget already in the US already. Interest payments are running a trillion dollars a year, okay, even at these interest rates.

Okay what's the budget deficit? I think it's about a trillion and a half. So you've got, these are big numbers to start thinking about, and if interest rates go any higher, it's gonna get worse. So effectively you are issuing debt to pay interest. These things compound. We're on a knife edge, so monetary inflation is happening now. What does it mean in terms of asset investment?

My view would be equities don't look too bad in this environment providing we don't get very high inflation rates. With high street inflation rates, then I think there's a problem. But, assuming that we get moderately high inflation, I'm talking about two or 3% above where we are now. So maybe let's say an average level of maybe 4, 5%. In the medium term equities can still perform.

You will find that big corporations as the last result season pretty much showed, can make money in this environment because their nominal sales growth is good. Okay? It may, this is part and parcel of the higher inflation environment. The monetary inflation goes somewhere. It's going into profits.

So equities can do pretty well. If you've got yield curve control and financial repression, you don't really want fixed income. That's a dangerous area I think to be in. It may be safe for some by

definition, but for the average Joe, it's gonna be a problem area. Gold and precious metals, I think stand out as a decent investment.

You go back to the last time that the US authorities started a massive monetary inflation, and that was in the 1930s. It became illegal to hold gold. Now we're not back to that world because they can't do that again, I don't think. You get the point that basically it's an asset that people can actually make money out of.

Gold could go up a lot in this environment. If there is, if there are questions about the integrity of the US dollar in a global sense, what are other central banks going to buy? They don't wanna buy Renminbi. They're probably not gonna buy Euros. They're gonna start buying gold. There's a limited stock out there, but look what the Chinese are doing.

Look at what the Russians are doing. They've been accumulating gold. They know it's a decent asset. So I think that's one thing. Crypto, dangerous word, dangerous prognoses. But, effectively it's an asset that steps outside of the normal monetary frame. And traditionally short history, it's actually proved a pretty decent monetary inflation hedge.

So I would be building a portfolio about those things. You don't wanna have a hundred percent in crypto, but if you put 5% in, you've got a, you've got you're in the game, skin in the game.

**[00:52:29] Richard Laterman:** It's hard to believe that policy makers aren't seeing a lot of the dynamics that you are describing. Perhaps maybe not with the right amount of nuance or taking the same conclusions, but it's hard to believe that they're not seeing this picture. Do you believe that because of the debt overhang that we're currently in, and that continues to grow at a pretty rapid pace, demographic headwinds that are, that appear to be, especially in the west, growing, stagnant growth, do you think that they recognize that inflating the debt away is their best out?

It's because the default is too painful, so this is their way out. And despite rhetoric, they actually want higher levels of inflation so that they can achieve some amount of deleveraging into the system. Do you think that it's feasible that they're actually calculating towards an end of that sort?

**[00:53:21] Michael Howell:** I think it's feasible among the policymakers. I don't think it's feasible. I don't think there's any necessarily joined up thinking among the politicians. The politicians are never gonna get a grip with this fiscal problem. They're gonna kick the can down the road as much as they can.

I think the policymakers are struggling in the face of that practical reality. And therefore they've gotta find ways of actually funding things. If you come back to what the Federal Reserve is doing, and I think the Federal Reserve is doing a pretty good job here, generally. And, the fact is that if you take US bank reserves which are not a bad heads up to the amount of liquidity that the Fed is injecting into money markets, those are broadly speaking, flatlined.

Since the UK Gilt crisis last September. I think the UK Gilt crisis was a wake up call to a lot of policymakers because it showed what could go wrong. The spike in British gilt yields British … and debt yields was eye watering at the time. It caused some big problems among pension funds and insurance companies, but it showed what could go wrong.

Had that same event occurred in the US Treasury market, there would undoubtedly have been a global financial crisis akin to 2008. Fortunately it didn't, but I think the US Treasury and the Fed woke up to that risk, and I think there's been a deliberate policy since then to basically ensure that there is sufficient liquidity in the financial system.

Since then, there's a slide, if you wanna look at the slides, I can show you a slide, which basically demonstrates that if there are some slides that we can put up.

**[00:54:46] Adam Butler:** Yeah. Ani can you put the slides up for us? Yeah.

**[00:54:49] Michael Howell:** Let me just on to, this is the slide, which shows US bank reserves. At the Fed, the orange line is the actual data. What I've done is arrowed the UK Gilt crisis.

And since that point you can see that there's, broadly speaking, been a flat lining, that the trend has been broken. The red dotted line is what US academics deem to be a level of ample reserves for banks to operate in the system. And because there is a tail in the distribution where the smaller banks actually don't have the same access to reserves as the big banks like JP Morgan or Citibank or whatever, what I've done is drawn a one standard deviation dotted orange line there to show, this is where the threshold really bites.

And what you're looking at is you are walking along that knife edge right now. So that's basically illustrating what the US authority's doing. I think they've understood the problem, but my view would be they've gotta get liquidity up from here. Now, what has that meant for the market?

Here is a nice little chart which basically shows Nasdaq, which is shown there as the orange line. And the red line is Federal Reserve liquidity injections on a weekly basis into the market. Now tell me that liquidity doesn't matter, because it does. Nasdaq is a great long duration asset. It basically, in other words, it responds to the liquidity and you can see the response here.

If the Federal Reserve has gotta keep pumping liquidity, these are the investments you wanna be thinking about.

**[00:56:21] Richard Laterman:** So given the misalignment of incentives across policymakers, particularly the elected sort that are more focused on the electoral cycles than anything else, and spending the people's money towards getting them reelected, walk forward for us. You have these projections about the unsustainability of where we're headed right now.

Where do you think we're headed in terms of a tipping point and where do you see this going?

**[00:56:48] Michael Howell:** You mean in terms of a tipping point as regards to crisis or…

**[00:56:52] Richard Laterman:** Yeah, as regards to the sustainability of QE forever, if you will. You suspect that we're headed for another large bout of QE. Where are we headed from here? Do you have a timeframe in mind? And what do you believe will, would be a tipping point?

**[00:57:06] Michael Howell:** I think the tipping point would basically come if you saw, number one, significant high street inflation coming through. I'm not gonna say that won't happen. I'm not gonna say it will happen, but clearly that's a time when you've gotta start rethinking what the outcome could be.

**[00:57:23] Richard Laterman:** Put a number for us. Give us a range of inflation that, that fits the description that you're

**[00:57:31] Michael Howell:** Historically, if you look at, if you look at how the US market has been priced, the US market has tended to have a sweet spot at about 2% inflation. Now, that's the 2%. I'm not saying that central banks took that 2% target for this reason, but if you look at the data taken from the, from Robert Schiff's website on inflation and market multiples, what you can work out is that 2% is a fairly good sweet spot to say that's when valuations in the market were highest on average, either side of that.

Deflation is bad for stocks. A lot of inflation is bad for stocks, okay? It starts to get very bad for stocks once you get significantly above 5% inflation rates. So if you're talking about 5 to 10, that's not good. Above 10, we haven't really had periods very long. Seriously above 10. Go back to the seventies for that.

It was really a question of finding whatever high street inflation hedges you could get, and that was commodity prices, precious metals, real estate. Those things tended to do well in high inflationary environments. We're not there yet. We're still moving in the foothills of that, but that's clearly a danger.

Another case could be you've got a serious devaluation in your currency, and that is clearly a risk. What would happen in that case, I would suggest, is that policymakers would have to start thinking about capital controls. And the interesting point is that if you're among policymakers and you start to mention capital controls, there's no resistance.

They seem to accept it may be a possibility if you're in a smaller economy, an emerging market economy, that's probably a realistic thought anyway, to try and preserve your sovereignty. And at the end of the day, what you've gotta say, and the clear case of the British Gilt market is a wake up call here, is that the paramount concern of policy makers is the integrity of their sovereign debt markets. That's what they really care about. If that goes awry, they jump in with a …. The UK overnight switched from a regime of QT to QE. They bailed the market out very quickly.

**[00:59:36] Richard Laterman:** So why hasn't the, why hasn't the Bank of Japan then jumped on this with the alacrity that you're describing? Given that we now see JGB'S going for days without trading What are we missing here in terms of a lot of people like to look at Japan as the end game from a demographic standpoint, from a growth stagnation standpoint.

And now we see you're describing a future or near future where we could have yield growth control in maybe Europe and in America. We already see it in Japan. Why have we not seen more of a reaction from the BoJ or from the government in Japan, given the lack of a, any meaningful liquidity in the JGB market?

**[01:00:18] Michael Howell:** I think the fact is that we, that you could say that actually that, what they've achieved is what they want to achieve. So basically what you've got is the government or via the bank of controls, the B market. Ok. It's pretty stable out there. They're operating a yield curve control.

People are suggesting that yield curve control may be dropped. Actually, what I would say is gonna change nature. It's never gonna be dropped. They're gonna try and control this. If you got a budget, as I alluded to before, where 25% is interest payments, believe me, they have to control interest rates because otherwise the thing blows up.

So you're gonna have yield control in Japan, and you are absolutely right Richard, to say, look, Japan is a template here. Japan is 20 years ahead of everybody else. We're looking at a Japan application, in many ways, what you've seen in Japan is demographic pressures. You've seen negative inflation.

In other words, deflation. You've seen QE policies, you've seen QT policies, you've seen yield curve control. Everything the Japanese have experienced has been reinvented 10 or 20 years later in the west. So yeah, we're gonna get yield curve control if we haven't already got it. They've got it in the Eurozone for heaven sake.

It's called, it's this spread control against different national bond markets. But it's happening. It's gonna happen in the US in some form.

**[01:01:36] Adam Butler:** What's interesting is that the JBS were never played the role of Tier One collateral in the financial system. JBS were only ever held by Japanese citizens. And over the last 20 years, they've been effectively absorbed by the JGB, by the BoJ, rather.

**[01:01:53] Michael Howell:** In, as fact it did, just to correct that. They were held by the banks and basically what's happened is that the BOJ has bought them from the banks. And that's why, because they bought from banks, there hasn't really been any massive monetary inflation in the real economy.

So the monetary aggregates in Japan have not really blazed ahead because of this QE, because they've been buying the stuff from the banks. And that's a wonkish operation. But believe me, it's one of the reasons that you haven't had the big inflation problem in Japan. Now, if they start to get the monetary aggregates moving, then you will get inflation in Japan. It's starting already.

**[01:02:27] Adam Butler:** yeah, so that, thank you for that correction. That's fair. I guess where I was going with that is that Treasuries are Tier 1 collateral, but they're all also a primary savings vehicle for foreign governments, foreign central banks, foreign sovereign wealth funds, and domestic savers, domestic insurance companies, and pension funds.

Interest rates on JBS don't really matter because they're just paying higher interest payments to the Bank of Japan, whereas higher interest payments, if you get to a point in the US and in Europe where we're paying 25% of our budget is going to interest payments, that is a massive subsidy to the private sector as well.

That's a massive transfer, wealth transfer, income transfer from the government every single year to the private sector, is another mechanism where in Japan, again, that wealth transfer is irrelevant because all of that wealth moves from the fiscal balance sheet to the Bank of Japan balance sheet.

When you move that wealth to the private sector, that starts to become a major potential consumption impulse as well. Like you get into a situation where CPI inflation begins to accelerate by virtue of the fact that the government is having to transfer so much of its budget, year in, year out to the private sector, just in the form of interest payments.

So it becomes this self-perpetuating inflation spiral. Unless, or until the point where the Fed and the ECB owns so much of the Treasury market and the European sovereign bond market, that it again, just becomes an effective accounting transfer between one government entity and another government entity.

But in the meantime, that is an interesting lever that needs to be considered as these, the percent of government deficits that flow towards interest payments continues to accelerate in the context of this continued expansion of government spending that you see on the horizon over the next decade

**[01:04:49] Michael Howell:** Yeah, but they're paying for that in the west through printing money. So effectively it's a monetary transfer to the private sector, but it's a monetization. So what you're doing is you're creating more and more, it is more and more QE, more and more monetary inflation, and that's the problem.

The other issue you've got is that this government debt, Treasury debt, particularly US Treasury, is collateral in the system. So the trouble is that the more you play around with that, the more you mess up the financial structure. And one of the things that, you know, actually, it's one of the reasons that I don't believe that there's gonna be a deep recession in the US, because the yield curve, which is a lot of economists metric as to how bad things are gonna get, this deeply inverted yield curve.

Actually, one of the main reasons the yield curve is deeply inverted is the fact you've got highly negative term premia at the far end of the curve. Now that's a very wonkish concept, but the reason you've got very negative term premia, like record lows on, in record negative lows, is the fact that … a shortage of collateral in the system.

**[01:05:52] Adam Butler:** So it's not that there's a lack of demand at, for the far end of the curve, it's just that there's such an unbelievably insatiable demand for Tier 1 collateral in the, at the very short end of the curve, and that's why it's tipping the curve into inversion?

**[01:06:08] Michael Howell:** Yeah. Yeah. Term frames are very negative.

**[01:06:11] Richard Laterman:** And I think that brings the shadow banking system, which I think we haven't really touched on today, but the Eurodollar market and this sort of parallel system that exists for financing outside of the purview of the Treasury and of the US regulatory framework in Europe, in Asia. How does that affect the Fed's ability to control monetary policy, given the size of this…

**[01:06:39] Michael Howell:** Yeah, maybe to correct. The Eurodollar market is a bit of a misnomer in a way. It's nothing like as important as it used to be. It's a sort of generic term that people often use. There's a big difference between Eurodollar flows, which is basically actual lending flows. Basically offshore lending flows, which have actually, look at the BIS data. They've shrunk, quite significantly as a proportion of total capital flows or total flows in the last 15 years.

And the Eurodollar futures market, which is basically the market, or traditional market in terms of hedging the yield curve, now that's moving more onshore into the SoFi market now, but in the US, but effectively this is a futures market. So let's not confuse the two in terms of offshore funding, which is probably Richard, your point there is a lot of ability of US banks, not necessarily Euro based banks, to do lending through things like FX Swaps.

That's a big market. That's probably a more important market I would venture. And there's a lot of engineering. But behind that, you need collateral. And the lending system that we're looking at now, which is again, wonkish for a lot of people, is fundamentally based on collateral. It's not based on trust.

Trust disappeared in 2008. Everything now has to be collateral based. And if you look at what's driving liquidity in the world, it is effectively both central bank balance sheets and the pool of

collateral that's available to borrow against. Now that pool of collateral is consisting fundamentally of Treasury debt, Sovereign Treasury debt in the big economies.

Okay? Now, one of the things that this sort of says, is that you've gotta look at that pool, and that pool has to be expanding if you want liquidity. In the medium term. So it can either come through expanding central bank balance sheets, which I'm saying we're gonna get, or that pool of collateral's gotta expand, but that naturally will happen because of more debt issuance probably.

So that's something you are looking forward to. The other thing to say is the reserve currency status is absolutely critical, and that's one of the things we've gotta start thinking about. And that's why, broadly, I would come back to what is probably a contentious statement is that we're still in Bretton Woods 1. We've now left Brett Woods 1.

The dollar is still paramount. Okay. And if you look at the backdrop of what Bretton Woods 1 really was, almost every box is still ticked, apart from the fact we've got floating exchange rates and we've got free capital movements. But free capital movements are always an aspiration, and I will contend you couldn't have free capital movements and fixed currencies anyway.

So essentially everything is still there. Dollar is central. US military backstops, the World Trade Center, IMF and World Bank still police payments and balances. The systems that exist. All those people that suggest that China is suddenly gonna muscle in and displace the dollar dream on, that's never gonna happen.

**[01:09:38] Adam Butler:** Yeah. Yeah. I that's such a good point because, and you made this point all along and it's this part of, it's just clicking for me, but in an economy where the flow of trade capital is dwarfed by the, by the need for re-funding capital. The desire for a few countries to get together and form a trade block in a different currency denomination is completely irrelevant.

The only thing that matters is what assets represent Tier 1 capital that collateralize the entire financial system. And what currency is that Tier 1 capital denominated in? The reality is the only Tier 1 capital is still short-term US treasury securities and denominated in US dollars. So until we completely change the entire funding status of the global financial system, there is no contender for another competitor global currency.

**[01:10:46] Michael Howell:** In other words, to be, to run the global currency, you have to act as banker to the world. What that means is that if the world needs credit, you give it credit. If the world

needs savings products, you give it savings products. Why is the US dollar dominant? Because US financial markets are dominant in the world.

They're deep, they're liquid, and that's the simple reason why the US has the big trade deficit, because it's financial sector is sufficient.

**[01:11:12] Richard Laterman:** There's definitely been a lot of chatter and a lot of noise around peak dollar. And what Adam was alluding to a moment ago, re regarding the BRIC countries stating very publicly that they'd rather trade in their own currency, or create their own medium of exchange and step away from the dollar.

So that seems like a lot of narrative. It sells a lot of newspapers, but a, as you've so eloquently described today, the need for refinancing dwarfs everything else. But do you agree, or how do you think about, given the sanctions and given what's happening geopolitically, the appetite at the margin for foreign central banks and foreign actors in general that might find themselves on the opposite side of any major issue against the US and risk having their assets seized or frozen in any capacity, do you think that reduced propensity at the margin to allocate to Treasuries.

Could that be a factor of any meaningful magnitude? And would that perhaps force the Fed to have to buy more Treasuries and expand their balance sheet faster? How do you think about that?

**[01:12:22] Michael Howell:** I think that the, you know what I alluded to earlier on, was there was a coming fiscal problem in the US, but let's be clear here that the US is probably the cleanest shirt in the laundry. In the global laundry. Everyone else has got a far, in a far worse situation.

In terms of paper money, the dollar will stand out as being, I think, a currency in demand. And I still think that the paper dollar, let's stress that word, *paper dollar*, is still in a long term bull market because I think that people are waking up to the idea that why, you can try and diversify, but what are you gonna diversify into?

In paper money terms, you can try and diversify into Chinese Renminbi. Good luck there. Okay. The Swiss Franc is too small. Sterling is probably toast. The Euro is very fragile currency. So what are you left with? There's nothing else. The Japanese don't want people to hold Yen, so you're really left with the US dollar.

And the other alternative could be gold. And I would say that gold is an interesting vehicle, but then, what I would argue is that the dollar may not go up against gold, but the dollar will go up against all these other currencies. And in this world where collateral is important, reserve currency status is absolutely paramount.

Now, the problem that a lot of these countries, other countries have got, take for example Saudi Arabia is, if Saudi Arabia has got a large surplus, trade surplus through oil, where is it gonna deploy that surplus? What can it invest in? And that's really the question. The only thing you can really invest in is basically in financial asset terms, is US instruments.

They would dominate the portfolio. China hasn't, doesn't have the depth of financial market. I wrote a book a few years ago called *Capital Wars*, which was very much on these themes. And basically it said the, the great irony here is that basically the Chinese economy's on a dollar hook. They've got a whopping great industrial sector.

They've underdeveloped their finance sector and they basically, at the end of the day, export dollars, that's one of their major exports. And, they've gotta get off the dollar hook, but they can't do that very easily. It's a huge challenge for China.

**[01:14:29] Adam Butler:** I think it makes sense to, I don't want to end this conversation with at least discussing implications for the debt ceiling. Obviously this is a great dramatic conflagration at the moment. From a political standpoint, do you see any major potential for real dislocation here, or do you expect that this is gonna be resolved amicably, or without some sort of major signaling mechanism from financial markets that's gonna motivate politicians to converge on a solution?

**[01:15:00] Michael Howell:** Okay. I'm clearly looking at things from the outside. In being in Europe, maybe I can take a sort of more dispassionate view. But I think that, it strikes me it's very much in Biden's interest to let this thing run as long as he can, because it will cast the Republicans in a bad light if there is any disruption.

I think that if there is, if it does come to the wire, the normal progress is the, or the normal procedure is the interest payments are made first, so there'll be a government shutdown, in whatever form. I don't think the Republicans would be as foolish to let that happen because it would be a gift to the Democrats, in this situation.

But that's my view from the outside. I think from a US national point of view it's anyway, becoming a gift to the Chinese. You don't wanna do this. This is not clever politics, geopolitics the end of the day. What it's telling us is there are limits on government spending and we are getting near these thresholds.

But the fact is that we've got a situation where mandatory spending in the US, in Europe, in Britain is potentially skyrocketing because of demographic pressures. And we've got, as societies, to come together and think about how this is resolved. The politicians aren't gonna solve it.

They're just gonna kick the can down the road. And we're gonna face more of the same. There'll be more debt ceiling issues in the future as sure as eggs are eggs, but this one I think is unfortunate. Hey, I think we get through it. I think the interesting question, which a lot of people are voicing about, how the markets react to this is that, clearly if there is a default, rates, I think will spike and there'll be a significant selloff.

If that's the case. I don't think we're gonna get there, but, never say never in financial markets. I think the other side of the debt ceiling issue is one about how quickly is the Treasury General Account at the Federal Reserve refilled. It's right down to about 80 billion right now, which is rock bottom levels.

The Treasury is actually, Yellen is talking about raising to 600. That would be a withdrawal of liquidity from the markets. And if that happens, it's a, market's gonna go down if that's the case. I don't think the Federal Reserve is that foolish. They read the same newspapers as we do, and now, therefore I would suggest that the reason that 1 trillion in Treasury bills are being mooted as an issuance pattern in the future, is that they're very concerned about liquidity and therefore if they do this, they will try and withdraw money from the *reverse repo*, which is essentially a sterile pool of liquidity, which is not in the market, and that will be the way to resolve it.

If you, to put it another way, if you're raising a trillion dollars in Treasury bill issuance, in other words getting the reverse repo down and you're only increasing the Treasury General Account by circa 500 billion, there'll be a net liquidity impulse into the markets. And that should be positive.

And I think that's what the markets need, the banking markets need, because they're basically, are running on low levels of equality right now. And we can see that.

**01:17:55] Adam Butler:** So Michael, for the benefit, I didn't quite close the loop on what the actual mechanics are we're right down to the wire. We've got, the Treasury General account is almost empty, as you say. It's I think you said it was around 80 billion and we're gonna get closer to zero over the next couple of weeks unless the things get resolved relatively quickly.

Yellen has said she wants to get to, I think you said somewhere in the neighborhood of six or 800 billion into the TGA. There are a few different mechanisms for that to happen. One is for the Treasury to issue debt into the market, which would be net liquidity draining from the market.

But the other one was to drain the reverse RICO facility. Can you just walk through what the actual mechanics of that are, relative to issuing new debt?

**[01:18:43] Michael Howell:** Yeah. What you've got is about 2.6 trillion which is on the Fed balance sheet in something called the *Reverse Repo Pool*. That is money which is outside of the money markets, outside of the banking system. If that Reverse Repo Pool came back, bank reserves would go up by measured amounts.

So in other words, you'd see a one off shot of 2.6 trillion back into bank reserves if the Reverse Repo disappeared. Okay, so it's that important. Now, they can't, they won't get the whole thing out, but what they're talking about is, or mooting is maybe issuing treasury bills of maybe a trillion dollars.

And that will be money that the money funds, money market funds, they, like government paper and Treasury bills, are a direct one-to-one substitute for a Reverse Repo. A Reverse Repo is, another way of thinking of it is a bill issued by the Federal Reserve. That's all it is.

**[01:19:40] Adam Butler:** I see, I understand. So the idea here is, they will still issue debt, but they'll issue debt in the form of bills rather than coupons. And therefore it won't draw funds out of the global liquidity pool, but rather it's effectively just a substitution for the what's already in the …

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**[01:19:59] Michael Howell:** Yeah, exactly.

**[01:20:00] Adam Butler:** Okay. I gotcha. And then, so in aggregate, that would be liquidity neutral, but because the market is fearful that they might issue some coupons as part of the mix, in order to

refill the TGA, you feel that the market would feel some relief on that announcement, because it's less bad than some had maybe been fearing,

**[01:20:25] Michael Howell:** Yeah, exactly. In actual fact, it may be, it may add liquidity to the system if they manage to get the Reverse Repo down significantly.

**[01:20:32] Adam Butler:** And how would they, but issuing bills instead of coupons doesn't actually pull money outta the RP? Would they then change policy to incentivize the funds of the RP to move back directly into bank reserves?

**[01:20:45] Michael Howell:** You are, you're right to say that it's not automatic. We're just guessing here to say that it's logical that if you had a lot of bill issuance, that the money funds could substitute. You'd have to obviously give a slight interest rate incentive, they could move into the bills rather than the Reverse Repo.

So the Reverse Repo would naturally come down. The TGA would fill up to an extent, but government, ongoing government spending would then basically release the money markets,

**[01:21:12] Adam Butler:** I understand. I got it. So you're just shifting money. The money that's in the RP will be used to purchase the new bills and the new bills would need to be, at the margin, slightly more attractive in order to entice them out. Yeah. Understood. Okay. Thank you.

**[01:21:27] Richard Laterman:** Michael, you've been really generous with your time. I feel like we, there's so many threads that you've laid here that we could continue to pull and continue on for another hour easily, but I guess that's just a good reason to have you on again soon to continue the conversation.

Guys, I think this might be a good place for us to put a pin on the conversation. And Michael, where can people find you? How can we continue to follow your work?

**[01:21:51] Michael Howell:** It's very kind. Crossbordercapital.com. is the website. On Twitter we have a handle, which is @crossbordercap. And if you want, if anyone's interested in this wonkish stuff and has sleepless nights, there's a book I wrote a few years ago called *Capital Wars* which is published by Mellon Palgrave, which is generally quite readable. It's a bit, it's a bit academic, a bit wonkish in places, but generally it speaks about all these liquidity issues.

**[01:22:19] Adam Butler:** Is there another book forthcoming?

**[01:22:21] Michael Howell:** I, the publishers want me to update this for Covid, but I, it's a big job, but I'm thinking about it.

**[01:22:28] Adam Butler:** Thank you. Michael, yeah, this has been incredibly fascinating and illuminating. Really appreciate your sharing expertise and taking the time with us today. Hopefully we'll have you back sometime soon to update views and continue the learning process.

**[01:22:42] Michael Howell:** Great guys. Thank you. It's been a pleasure.

**[01:22:44] Richard Laterman:** Much.