



Anatomy of the US Dollar End Game Part 2 of 5

Hosted by Erik Townsend and starring Jeffrey Snider, Mark Yusko and Luke Gromen
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Erik: MacroVoices episode 96 was pre-recorded back in late November, 2017, to air on December 25th, 2017. I'm Erik Townsend; happy holidays!

This special edition of MacroVoices will not include a market wrap or postgame segment. Instead, the entire episode is dedicated to Part 2 of our 2017 year end special, Anatomy of the U.S. Dollar Endgame, featuring Alhambra Investments' CIO Jeffrey Snider, Morgan Creek founder Mark Yusko, and Forrest for the Trees founder Luke Gromen.

You definitely want to listen to Part 1 of this series first, so if you missed it, please go to MacroVoices.com and start with Episode 95 which aired on Dec. 24th. You also want to be sure to have Jeffrey Snider's slide deck, as it provides the outline and reference material for this entire episode. MacroVoices registered users will find the download link in your Research Roundup e-mail, or if you're not registered yet go to MacroVoices.com and look for download instructions on our home page.

Now let's go back to the conversation with our guests, right where we left off at the end of episode 95.

Erik: So, Jeff, before we go on, I want to make sure we've got the big picture of your argument here right, because your Eurodollar University series basically taught us that there's this system that regulators don't fully understand that was creating a massive, massive amount of money supply over the years.

And, what you're really saying now is – well, Eurodollar University only went up to 2007 when this Eurodollar system broke down. And it's no longer creating this massive money supply that never was really understood by regulators. That's creating a dollar shortage, which you've equated essentially to a short squeeze.

And that means that with the Eurodollar system no longer functioning the way it used to, there is a scarcity of dollars. And it does not mean that it's fundamentally bullish for the US dollar as a wonderful currency.

It's a message that says the US dollar is going to be scarcer, because the Eurodollar system has broken down. Is that essentially the essence of it?

Jeff: Yeah. And we could think about it in simple economics. You know, even if the demand for dollars falls, but the supply for dollars falls faster, what happens to the price? I think that's kind of where we are in the process. Where, as we talk about China and various other places,

they are actively trying to reduce their dollar requirement. Because why wouldn't they? I mean, it's a major problem, it's a chronic problem that they haven't been able to solve.

So you try as best you can to deal with it, which means increase the dollar supply into China. At the same time you decrease dollar demand. The things that Luke and Mark talk about, repricing oil into CNY as best you can. It would be a huge positive in terms of reducing dollar demand. As would bilateral trade. Trade with Russia, trade with Africa.

We also know that the Chinese were repaid in oil last year, a huge amount, from African loans that they had lent to those nations in dollars. So, in one sense, they've found a way to convert Eurodollars into oil, which, to me, is a genius kind of a thing.

But, you know, again, it's talking about how do you deal with a chronic dollar supply problem without, in my opinion, without a workable solution or workable alternative ready to go today. And so, how far along are we in that process? It's difficult to gauge, because this isn't something that just happened yesterday.

It's been ten years already, and I have to believe that if there was a workable alternative one would at least have been tried by now. Or at least have been tested, or been floated, or there would have been something by now that would make me think that this was something that would be available in a reasonable timeframe.

Erik: Now, you've likened your dollar scarcity argument to a short squeeze. If I think about a short squeeze on the stock market, it can be very misleading. Because novice traders who don't understand the mechanics of people being forced out of those short positions are looking at the market going up and up, and it goes faster and faster to the upside.

Of course, what's really happening is people whose fundamental view is that it should not be going up are panicking, because they're underwater in short positions and they're forced to abandon them at a loss. That results, usually, in kind of a blow-off where all the last short got squeezed out. There's nobody left to buy. And it's a precipitous drop from there.

So does that mean that, even though your argument is essentially a dollar scarcity argument, the dollar should appreciate against other currencies? Does it eventually lead to that point where the last short gets squeezed out and there's nobody left to buy, and it collapses from there?

Jeff: That's one of the possibilities. You know, I think Mark's talking about a binary arrangement. That's one of the trees in the binary arrangement. If push comes to shove, and China just says screw it, I'm going to ditch the dollar tomorrow – because they have no other choice and they come to that kind of conclusion – then, yeah, everybody who's short the dollar is going to be really squeezed. And that could be catastrophic, in my opinion.

I don't think that's necessarily a likely case. Because irrational actors don't take irrational

decisions all that often. But that is definitely a risk. And I think that's one of the reasons why the dollar system remains in a chronic condition, because people understand that the risks involved in the dollar business are extremely high.

It's especially the case because one of the major transformations from 2007 and before was that people in the dollar business – these global Eurodollar banks – all believed that, if push came to shove, the Federal reserve, the ECB, whoever's central bank, would stand behind the system and be able to liquefy it if needed. But what happened in 2007–2008 was that the Fed in particular proved that it couldn't.

Even though it did all sorts of monetary stimulus in their own mind, including dollar swaps with the rest of the world that at one point totaled about 600 billion, it didn't have a palliative effect. It didn't offset the dollar damage that was being done in the private Eurodollar market.

And so the private side – the Eurodollar banking system, since 2007, has learned essentially that there is nothing standing behind the Eurodollar. It is what it is at any given moment. And if it starts to go awry again, as it did in 2014, there's nothing there to support it.

So that's a huge risk to the system that could get out of control. It could snowball into something precipitated by anything. It could be, you know, the Chinese moving away from the dollar. It could be any number of things that precipitates the mother of all squeezes.

Erik: Okay, I just wanted to make sure I had the big picture before absorbing all the details. I think I left you on Slide 27. Please continue.

Jeff: If you go back to Slide 27, what we're talking about is the Chinese trying to deal with a chronic dollar problem. And I think they've done it in increasing measure. Not just Hong Kong, but the Eurobond pricing – which sets a benchmark for any Eurobonds that come out – and I think it was Mark who called it the Tesla option, which I think is hilarious. Because in many ways I think that's an apt analogy.

You know, you use the bond market as a last resort kind of measure, because, for many reasons, among the primary is because it's much more costly to borrow bonds than it is to have a short-term funding arrangement. But also the Chinese have opened up the securities business all of a sudden, in the last month, last couple of months.

They have resisted those kinds of measures for decades, really. Even going back to when they opened up the markets in 1995 to some securities businesses, some securities companies. For the first time, they're actually going to allow majority ownership in some of these joint ventures. And I think the reason is they're trying to increase the size of the inbound channel for dollars into those markets. And I think there's some other reasons too. But, primarily, it's a way to try to increase the amount of supply of dollars into China.

And at the same time, again, they're searching for ways to decrease the amount of dollars they

actually need. Which makes sense. If you're trying to deal with a chronic dollar problem, you've got to reduce it as much as you possibly can.

Luke: Is there an element where any of these actions will, as they take them, are the dollars sticky or staying in and then coming back out? In other words, every action they take here sort of helps in a more structural way, even though it's being driven out of a level of desperation. Or is it still just –

Jeff: I wonder if it's the opposite. Because, look, the Chinese CNY currency, they went up the middle of the year. It was massive appreciation, which was – I think you were right, it shocked a lot of people. Because nobody was expecting CNY to rise.

But to me it was an artificial rise that the market detected as artificial. The reason it was rising was because they were borrowing all the dollars through Hong Kong. And that left a lot of telltale signs, including the fact that the Chinese were "buying US Treasuries" during that period, but they didn't show up on the PBOC's balance sheet.

In other words, they were artificially absorbing Treasuries. Which, I think, they were renting them, essentially, from the Eurodollar market. Which had the effect of, I think, convincing a lot of dollar participants that this was not a real thing. The CNY rise is artificial, and therefore it's not indicative of an inflection back to something more positive, but more of a, hey, the PBOC is getting even more desperate, therefore we probably should still avoid China.

And I think that's the case when central banks get involved in a lot of things. They tend to – unless it's a really temporary issue – they do tend to make it worse. Because a lot of people rightly conclude that if it's bad enough that a central bank has to get involved, then it's probably bad, or worse than we think it is.

Erik: Before we move on, from – I think we were on Slide 27 there – I think we skipped over Slide 25 and 26. You've got some interesting quotes there. Can we go back to that? And please tell us what's going on there.

Jeff: Earlier in November, the head of the PBOC, Zhou, published on the PBOC website sort of a cryptic essay in which he described some of the problems facing China at the moment. And he alluded to leverage in the Chinese system. Which everybody knows, the Chinese have created enormous amounts of debt as a countermeasure to what's happened over the last ten years.

But what he was really saying was that the debt itself wasn't necessarily the problem, but a symptom. Just to distill his essay into a couple of paragraphs here, he said, at present, and for a period in the future, China's financial sector is in a high-risk prone period. And it's in that position because it's under the pressure of multiple factors at home and abroad.

And the abroad part is what sticks out. And he mentioned that these risks are hidden, complex, sudden, contagious, and hazardous. And so what are we talking about here? Hidden, complex,

sudden, contagious, and hazardous, and abroad. I think what he's saying is that China has a dollar problem.

And the fact that he took to the PBOC website to do this very publically, to issue a warning in that situation, I think goes along with what we're talking about here, an increasingly desperate central bank that is increasingly unsure how this is all going to work out. They have a massive dollar problem that they just cannot solve.

One of the reasons you can't solve it is because it's not really dollars, it's this Eurodollar system that takes any number of forms. Including derivatives, and FX derivatives that may be or may not be routed through Hong Kong and Japan and everywhere else in the world.

And so it's a very complex problem that, no matter what the central bank throws at it in China, it doesn't seem to be able to solve it. And so I think that's one of the reasons why he warned a couple of weeks ago that things are escalating. The Hong Kong workaround is unwinding, going back to September. And that may be increasing the risk of a dollar accident, again, in China in the near term.

Mark: Is it a smart – is it possible that that it's a form of gamesmanship, in the sense that it seems to line up nicely with when people were calling for us to label them currency manipulators again, and Trump was going to make the trip over and try to renegotiate the trade deals – which I think is just the most ridiculous rhetoric, given the way we're more dependent on them for trade than they are us at this point – going forward probably.

But that said, this feels to me like a way of messaging to the US – hey, we are connected at the hip because our currencies are linked. And, therefore, don't do anything stupid with your currency and play games like we were talking about earlier in the summer. But maybe that's silly.

Jeff: I think there's a lot of that involved. And I think that a lot of it is just a cry for help. You know, again, if we go back to China trying to get out of the dollar system and having nobody in the West to talk to about it because they don't admit there is a dollar problem. And so I think part of it here is the head of the PBOC saying, hey, look, we're trying here, we're doing all sorts of things and it's not getting us anywhere. So don't blame us if it all blows up again.

Because, at least, we're doing something. You guys are doing nothing. You did a bunch of QEs and balance sheet expansions that got us what? Exactly zero. It didn't fix anybody's problems. And at least we're doing something about it. And if it goes bad again, it's going to blow up not just here but everywhere else. And so, don't blame – it's almost a CYA kind of a thing – don't blame us if it all goes bad again.

It's not our problem, it's your problem and you guys didn't do a damned thing about it.

Luke: The quote you have on Slide 26, to me, is really interesting though. Do they really not

know they have a dollar problem? I mean, the quote from 2009 where we were sort of in the teeth of near collapse, Zhou came out and just said, the problem's the dollar.

At the end of the day, the acceptance of credit-based management of currency, I mean, they have to know it's a dollar problem. Or, don't they? Is it less that they –

To me, that quote speaks to they know and they've known for ten years they've got a dollar problem (or maybe longer) they either don't know how to get out of it or they're afraid of. You can see relations between the United States and China have deteriorated from a geopolitical standpoint to some degree over the last five years. Coincidentally – or, in my opinion, not – with China moving away from the dollar as a commodity-pricing mechanism.

I mean is there – do they really not know they have a dollar problem, do you think?

Mark: You see, Luke, I come at it a different way in that it sounds like the old adage: You borrow a thousand dollars, you've got a banker; you borrow a million dollars, you've got a partner.

Jeff: Right, that's exactly it. And, Luke, to your point, it's one of the most frustrating and maddening things to me that the Communist party in China, the Communist central bank over there in China knows more about the dollar than anybody here in the United States. How the hell can that be? But that's exactly the case.

He is the only central banker I've seen anywhere – and I've looked – he's the only central banker I've ever seen anywhere correctly identify the system as a credit-based system. And, yeah, to your point, the Chinese do know they have a dollar problem.

I think what happened was in 2009 they said, hey, there's a dollar problem here that you guys need to do something about, but we're going to let you guys work it out. Because, for whatever reason, that's the path of least resistance. There's probably going to be an economic recovery in 2010–2011. We'll just let it happen, but we're not happy here.

And then what happened in 2012, when things started to unravel again, was they said, okay, this thing isn't going to be fixed so we need to start thinking about ways that we can deal with it. And, originally, in 2013 or '14, they thought, well, we'll let the market deal with it. We'll let our internal RMB system deal with the dollar problem.

Except that didn't work either. And I think that's why they're getting increasingly desperate. Because time is working against them and everybody else. Here we are, ten years later, and nobody in the West has even said that there is a dollar problem. After ten years of being on the wrong end of everything, what are you going to do? I mean, you can't negotiate with Janet Yellen because she doesn't even agree with the premise. And I think that's where we are.

Luke: You know, that's a fascinating point, because, you know, they got through 2012, nothing

was being done. I think they did start to do something. I think most investors in the West are paying no attention to it because it involves physical gold and nobody in the West watches physical gold flows. But what China – looks to me like what they did is they showed up in early 2013 in London and said give us gold.

And if you look at Eurostat data, you know, I want to say in 2013 the UK exported, like, 14 hundred tons of gold. Which at the time was like 60% of global non-Chinese gold supplies, mine supply, on an annual basis. Except, of course, the UK has no mines, right? That was London gold leaving –

Jeff: Right.

Luke: All gone, right? So they showed up and they took the gold. And then in November of 2013, to me, I thought that was a very cryptic but important headline from, again, I think it was Zhou at the PBOC. It was the PBOC, I think it was Zhou, but he said it was no longer in China's interest to stockpile FX reserves. Which was – so they went and they got – give us our gold – and they basically blew up the gold derivative, the paper gold market.

For the prior 25 years, gold forward rates had gone (or gold flow rates) had been negative for a total of five days, five trading days. And it was the first Gulf War, the '87 crash, 911, Lehman, and then beginning mid-'13 they went negative and they stayed negative for like two thirds of the next two years.

And then that early '15 you know kind of stuff, publishing arm something happened –

Jeff: They stopped publishing the rates, right?

Luke: Right, they stopped publishing the rates. So I look at it and go the PBOC, – you know, the PBOC said it in '09, we need a neutral reserve currency. And, to your point, you know, you guys need to fix this thing. And then 2011 the IMF came out and they had a white paper. They talked about pricing.

Or let me back up even a little further. 2010 the head of the World Bank, Robert Zoellick comes out and says in an op-ed in the Financial Times, says we need a new system and it will have the big five currencies, the yuan needs to be made convertible to some degree with open capital account to some degree – and we should consider using gold as a reference point. And everybody goes, whoa, Robert Zoellick at the World Bank is talking about using gold as a reference point. It's a huge deal.

And then early '11 you had the IMF under DSK come out and say we should consider pricing oil and gold in SDRs. You know, like, okay, here we go. China was making progress. They're going to get oil and gold – the commodities – priced in a non-dollar currency. And of course three months later DSK is unceremoniously disposed.

Mark: Shocking.

Luke: Yeah. And that was the end of this discussion until, like I said, early '13. Like, when I look – it's fascinating, your quotes really trigger for me this. Two things – #1 they lay it out, hey, we need a neutral reserve asset. You started to see progress. It was short-circuited in '11. 2013 they show up and buy up a lot of gold, and then they say we're not going to stockpile FX reserves anymore.

And your second quote of, hey, you know, what Zhou just said, looked at through that lens – could it be a narrative of setting up the cover, setting up the narrative, right? Because, at the end of the day, if they have enough gold they can fix this thing tomorrow.

Mark: Well that's where they're going. That's where they have been going. What's amazing about this is look at the date on Slide 26. We're talking about eight years ago. This is why I say all the time China's playing "go" and the rest of us are arguing how to set up the damned checkerboard. This is just gamesmanship at a whole nother level of grand master.

Luke: Well Mark, here's my counterpoint. What are they waiting for? If they've been doing this stuff since 2009, if they've been preparing for a gold-based currency since 2013, why go through all of the pain of the last four years?

Mark: I think it takes a while to get the gold.

Luke: What are we waiting for then? If they're ready to go, go.

Mark: I also think, you know, they had to get included in the SDR. That was a big step and the IMF kept hemming and hawing. But they finally got that in August. And so, I think, unceremoniously deposed is such a nice way of putting it, that Luke says. You know, the guy was the king of the world and then suddenly he's a scumbag and kicked out. You know, if you challenge dollar hegemony, you can disappear. And I think this – this is getting very close to the third rail.

Jeff: That argument doesn't apply to a Chinese situation, because, I mean, look, nobody in China's going to disappear for challenging the dollar.

Mark: On, no, no, no, I agree. We're agreed. I'm talking about the other side. Resisting.

Erik: Well, hang on a second. Jeff, wait a minute, I want to throw in another view here. Because I think that the things that you guys are saying make, to me, perfect sense together. What if China – remember that China's strategy in general, culturally, is they're very patient. Look at how they got Hong Kong. They just said we'll make a deal that doesn't actually close for 50 years, and Margaret Thatcher's, like, I'll be long since retired and forgotten, not on my watch, I don't care. And they managed to get that treaty signed.

What if China is saying, look, if we go and assert a new currency to compete with the dollar, we're going to be perceived as the troublemakers. What if, instead, we quietly say we're smart enough to recognize that the dollar is doomed.

Let's get our act together so that we are ready to save the day in the eyes of the rest of the world. Well, let's wait for the dollar to run into serious problem on its own, and let's be the nation that's ready to assert the next dominant global currency that's going to last for the next hundred years. And, rather than go and upset everyone by trying to push that agenda, let's quietly do it and –

Look at what PBOC is doing, hiring Blockchain engineers to design a digital yuan. Maybe they're working on a grand strategy that we in the West have no idea about, that replaces the dollar with a digital RMB which is a crypto currency controlled by the Chinese government. And they're going to wait to introduce it until the point where it is not going to be perceived as threatening but rather as saving the day when the system is collapsing, as a result of falling in under its own weight.

Does that answer the question of what are they waiting for?

Luke: I think that makes a lot of sense.

Jeff: Well it could.

Luke: I think it makes a lot of sense. I mean, why would you be the bad guy? You know, when you look at the United States' entitlement picture, if you're China, if you're Russia, all you have to do is stop stockpiling FX reserves. And, you know, to the announcement in 2013, China said it's not in our interest anymore. We're done here.

And as soon as you just stop sterilizing those outflows, those dollar outflows, by stockpiling them as assets, now all of a sudden the United States' deficits matter. For the first time in 70 years. No one alive trading has ever seen a time when US deficits matter.

And so all of a sudden, if you're China, the way I would play it if I'm them is, yeah, I just stop stockpiling FX reserves, I play defense in all the ways that you've laid out, throughout '14-'15-'16 into '17, in terms of making sure I don't collapse first.

And then the math is the math. The compounding of the math is so powerful. The dollar doesn't have until 2030. It doesn't have until 2025. You look at US entitlements and US demographics, the best case is 2022. And, if we have a recession, it's 2019. And you just stay out of sight. All they have to do is wait for the Fed to have to come back and print money, and that's their cue, right? They just have to make the Fed cry "Uncle" first.

Mark: Well, let's hurry up and pass that tax bill and increase the deficit another trillion and a half, Luke. We better do that really fast.

Jeff: Well here's the counterpoint, though. I mean, the counterpoint is that none of these things are tradeoff-free. There's a cost to everything. And there's a risk to every kind of idea. And so you're assuming that China can make it as long as the US. And it's almost like a game of chicken. Who gets destroyed first? I think that maybe you're underestimating the risk that the Chinese are undergoing right now.

The fact is that China's economy is a wreck. Their fixed asset investment in October was the lowest it's been since 1999. Fixed asset investment is China. It's the urbanization and modernization of China – private fixed asset investment was almost flat. Now, it has contracted in the middle of 2016 as a consequence of China's RMB tightening. Because of their 2015 passive approach.

But then it reflatd a little bit as the result of their stimulus in 2016, but in the middle of this year it started decelerating all over again. And so by October it was nearly flat again. And the trajectory is down.

And I think, to me, that's what triggered Governor Zhou's statement, the fact that in the race to the bottom China might be closer to the front of that race than the back. And so the inherent strategy of, well, let's wait it out and be the good guys to pick up the dollar pieces has a huge inordinate risk to it – which is that China could actually wait that long.

And so, again, I get back to the point of why haven't they done what they're going to do? If they were able to do it, they would have done it by now. Because what all of this has left them – and the last ten years has left China in a very precarious position, both financially, monetarily, as well as economically.

Luke: I don't necessarily disagree they could. I do think, up until about 18 months ago, I think I agreed more with you on that front. I think, you know, Brexit, and I think Trump. I think all of a sudden there has been this realization in the West of uh-oh, the hoi polloi aren't happy. I keep saying to people, look – you know Ray Dalio has this great chart, all of a sudden out of nowhere, populism, in the West it's the highest level since the '30s. It's like, the '30s wasn't a good time to own sovereign debt or currencies. After the crash, they were written down enormously over the next ten years.

And I look at this and, regardless of how people feel about Trump, I've been saying to people, look, you've got 65,000 Americans died of drug overdoses last year. You go to flyover country and you see what's happening out here – you know, I'm from Cleveland. Regardless of how you feel about Trump, if things don't start to get better Trump's going to look like Mary Poppins compared to the next guy.

And I'm not saying that the next guy is going to be some dictator. I think the next guy is going to give people what they want. And what the people want is not dollar-positive, right? They want all the stuff they were promised, and it's all going to have to be funded with printed money.

The Fed's going to have to fund it all. All those entitlements.

Jeff: It's the same side of the dollar coin though. It gets back to the fact that people, in the West in particular, have been told there's no problem. Except everybody knows that there is one. And, you know, your point about the opioid crisis is exactly it – people know that there's something wrong with the economy, even if they don't know what it is.

Luke: They don't know what it is out here. It's absolutely fascinating. It's ironic, right? Because people look at – you've seen surveys saying that, you know, people in the Midwestern United States, people – the millennials, they survey very favorably towards authoritarian – they survey favorably towards Putin.

And you look at this, and the reality is, unless you live in the Washington DC area, the New York City area, or the West Coast, the dollar system is killing you. Literally killing you. And it has been for 40 years. You're more aligned with China and Russia, unless you live in New York, Washington, or California. And, because for 40 years your politicians have been making decisions against your interests.

Jeff: I guess they don't even know there's a problem. I mean, how do we get to the point where we can actually get somebody in an official position to say, hey, you know what, there is a problem. Nobody believes that. In fact they're busy trying to deny it. They're trying to deny that there's any impulse to the populism at all. There's no legitimacy.

Like, we keep saying, oh, everything's fine. And of course a central banker's going to say that because if they say otherwise would mean that they did a horrible job – chronic intractability of the dollar problem in the fact that there's a whole range of ways that this could all work out. And not many of them are very good. They all tend to be bad things.

I think the only positive would be the white knight scenario where people in the West actually wake up to the dollar problem, to the dollar issue, and actually say, you know what, maybe we should negotiate with China, Russia, and everybody else to create a workable global currency before it all turns to crap and blows up everywhere.

Luke: I think that's exactly what this election was. I mean, it's not a political statement, but if you listen to what Trump says –

Jeff: I agree with you. I absolutely agree with you.

Luke: I mean, he said it in his inaugural address. Basically, you know, when he stood up and said, from now on every decision is going to be made with American workers and American families in mind. Under the dollar system, under the Eurodollar system, the dollar could come first or American workers could come first. But they both couldn't come first.

And so, and you're right, no one's talking about it in those terms, virtually, other than, you

know, again, probably the people on this call. But what happened last fall wasn't like half the country lost its mind. Half the country said we're done with this dollar system. Fix it.

Jeff: It was more than half. I mean, look at the left side, the Democrat side. Bernie Sanders was the opposite of Donald Trump. Like you pointed out before, millennials and young people in particular who are dissatisfied for every legitimate reason with the economy, decided they were going to vote for socialism and Bernie Sanders.

And who can blame them? Their entire adult life has been under the last ten years of no economic growth. It's hard to say, you know, hey, why would you vote for Sanders? Because at least he has some ideas.

Luke: Well, it's interesting right? Because – when you say the end of the dollar system is bad, is it really bad? You know, is it bad for Washington? Yes. Is it bad for Washington's ability to run deficits and, you know, fight wars? Yes. Is it bad for China? If you rebalance this, yes, the dollar has to go down a lot. But is it really – you would have such explosive global economic growth it would be unbelievable, if the dollar system got hit.

Jeff: Yeah, I agree with you. I think what I'm saying more so is how do you get from A to B? So B is a very happy place. We all want to get to B. B is a system where the Eurodollar doesn't exist, and where the monetary system is stable, and we get emerging market type levels of growth in the United States. Which I think can happen.

But how do we get from A to B is the problem. And when? I mean, how much longer can we afford to wait? Which I think is really the problem. If we can't afford – you know, the clock is ticking here. The rising populist movements around the world are a response to this very issue. And we're already ten years in, and the people in the West still don't think there's a problem.

So how do we get from A to B is my concern. And my concern is nothing is going to change, which raises the risks that how it changes is the worst kind of change.

Erik: Excuse me guys, if I can just point something out, I think the conversation that Luke and Jeff have been having kind of falls in line with a sequence of slides in Jeff's deck, starting with Slide 28.

So, Jeff, why don't we pick it up there? Talk us through these slides.

Jeff: Well, what we were talking was this systemic dollar problem is essentially an economic problem too. It's not just a financial issue with the crash and panic that happened in 2008. It's an ongoing chronic process that has worked out in the global economy (not just the US economy) as something like a persistent drag on economic growth.

It follows right along with the monetary growth back from 1995-2002 (whatever). Tremendous rapid Eurodollar growth that aligned with growth, not just in the United States but especially emerging markets. And what happened in terms of the type of growth in the United States and

emerging markets, where Ross Perot's famous quote "a giant sucking sound" actually became an option.

Because the Eurodollar financial system allowed emerging markets the financial and monetary resources to take advantage of global trade in that fashion, where manufacturing jobs could move to China and everywhere else around the world.

So what you had was a period of rapid monetary growth and a period of rapid growth in those other areas like emerging markets. But that all changed in 2007 when the Eurodollar system started to break down. And so between (especially) 2002 and 2007-2008, that's what the falling dollar was – or the weakening dollar – was this rapid monetary growth in the offshore Eurodollar system.

And of course the opposite would be where monetary growth has been restricted since that time, the short squeeze that we're talking about.

Again, I don't want to call it a dollar bull, because I think that leaves the wrong impression of what we're talking about here. But at least a rising dollar, but one that doesn't go in a straight line. It goes into these periods where the pressure becomes much more acute and negative, such as 2008, 2011, and again 2014–15. And then it relaxes.

So we have this alternating cycles, really, of pressure, then kind of deflation, then more pressure, then kind of deflation. So it doesn't move in a straight line, and that has very drastic economic as well as monetary effects.

If we look at economic statistics throughout the globe – starting with China for example, because that's the point of discussion that we're having here – you can see the effects of restrictive monetary Eurodollar growth. Industrial production in China has fallen off to, essentially, less than 8% for something like almost three years now. When 8% was pre- Chinese miracle types of growth. I mean, that's 1990s growth, that's not modern China growth.

And with it we've seen the falloff in fixed asset investment (which we talked about before), which is really the lifeblood of China's modernization. Their fixed asset investment recently has fallen to a low, again, that we haven't seen since the 1990s. And on the private side it's fallen almost to a negative again.

So the economic consequences in China are very sharp and very real and very acute.

We go to Slide 33, you can see very easily the trace of Chinese industrial production and how it fits with what we're using as a proxy (or one proxy) for the Eurodollar system. In this case, take foreign holdings of dollars. The more that there are of dollars, the better China does. The less that there are of dollars, the worse China does.

And it's not just China. Again, if we go to Slide 34, Brazil has probably gotten the worst end of

the dollar system. The Brazilian economy in the last couple of years has been absolutely decimated. What's really interesting about it, what's kind of a universal symptom of the Eurodollar decay here, is that every time it goes through one of these downturns, the economy doesn't get back up. It doesn't recover.

Even though the Brazilian economy over the 2014–15 and '16 contracted by a huge degree in the last couple of years, while the Brazilian real has rebounded a little bit, retraced partially that decline, it hasn't recovered. There's really no momentum. I didn't extend the chart here to 2017, but industrial production in Brazil in 2017 is barely above the bottom in 2016.

So the dollar's effects in its decline phase aren't necessarily one-to-one or linear. There seems to be much more to it than that. And it's a persistent, chronic drag, in that it keeps coming in these intermittent episodes. You know, where there's pressure and then it releases, but the economy never recovers from those reflations.

Skip to Slide 35, the US economy. Again, we see the same thing. It goes through these dollar events where it gets knocked down and never comes back forward. And part of the reason is because of these intermittent repeated dollar events that don't allow for economic momentum to increase into what we would call or what we would expect in recovery.

So the economy gets weaker and weaker and weaker. Even though GDP is positive, even though a lot of economic statistics are positive, in non-linear terms the economy is still contracting.

Slide 36, we look at the basis for the US economy, which is capital expenditures. Real private non-residential fixed investments, same thing. And we go through these intermittent phases, and, each one, we get weaker every time.

What's really going on here, I think, as we get to Slide 37 and Slide 38, is, again, the Eurodollar system as something completely separate and distinct from what central banks do. Everybody seems to have the impression that quantitative easing or any kind of large-scale asset purchase, like what the Bank of Japan does, amounts to money printing.

But there's absolutely no evidence that's the case. And the reason is because what happens in a quantitative easing transaction is that the byproduct of it is nothing more than a bank reserve.

Now, in the old system, if you go back before the 1950s, a bank reserve meant something monetarily. But as the Eurodollar system supplanted that older traditional banking system, and modern wholesale banking evolved in its place, the bank reserve had no role.

In fact you can see it right there on the chart on Slide 37. There were no bank reserves, or practically no bank reserves, in the US system up until the week before the Lehman bail.

And the reason was simply because there was no role for them in the Eurodollar system. The

Eurodollar had evolved its own way of using reserves. In fact, the Eurodollar is a non-reservable currency system, at least in terms of what our traditional bank reserves were.

So when the Federal Reserve created bank reserves as a byproduct of, first, dollar swaps, and then quantitative easing, they didn't really do much. It wasn't money printing, because the Eurodollar system doesn't view bank reserves as money. It doesn't use them as money.

And that's a universal thing. It's not just for the central bank and the dollars. If you go to Slide 38 you can see the same thing with Europe and the ECB. The ECB created trillions – especially in the last quantitative easing since 2015 – trillions in supposedly money printing. But yet the European economy, just like the US economy, has only gotten farther and farther behind. It's non-linear contraction.

And the reason is, again, because central banks don't print money. They print bank reserves, which have been essentially written out of the Eurodollar system.

Getting back to what we were talking about with Luke, the political consequences or the social consequences of this economic cost – or these huge, enormous economic costs – are partly due to the fact that the central banks don't even know that there's a problem. Or, they don't even know what it is. They have no idea what they're doing in terms of a functional approach to what is both a monetary problem and now a tremendous economic problem.

Erik: Mark and Luke, any reactions to all this?

Mark: It's Mark. I think part of the challenge is, Jeff, you've got the perfect analysis of the economics. But I think what might be missing – I'm not saying it is missing; it's not you're missing it – but I think what's missing in all of our thought process around this is intent.

I have a thesis that the intent of the banking system has really nothing to do with generating economic growth, it has to do with bailing out the bankrupt banks and keeping the cabal in place and transferring wealth from the masses to the few. If that's the goal, then I think they've done a spectacular job.

If you look at – the banks were essentially bankrupt, they should have let them fail. But they didn't because that's not what banks do. They bail each other out. And zero interest rates were clearly, in my mind, a mechanism for recapitalizing the banking system.

None of us on this phone line borrow at Fed funds. The only people who borrow at Fed funds are banks. And then, as your graphs very appropriately show, they leave it in the system and they arbitrage it. And they do things like borrow it at cheap prices, and buy US Treasuries, and have no losing trading days. JP Morgan had zero losing trading days.

So I think that we're kind of looking at this from a lens that I'm not sure is 100% right.

In Slide 35, that dark blue line that's shifting down of economic growth, I'll blame it on the Killer Ds. Bad demographics. It turns out 65- to 85-year-old people don't buy as much or spend as much, and they're not as productive as 45- to 65-year-olds. Shocking, I know.

There's too much debt. And for every dollar of debt we're adding to the economy, it's having a crowding-out effect, particularly government debt. That's why this tax – I won't call it a plan, because that would be too nice – this tax disaster that they're trying to get passed is going to be further debilitating and disastrous for the economy and for growth. Because of the crowding-out effect of government debt as a negative multiplier. And pernicious deflation because of this massive mass of debt.

And so I think where we're headed is the way Japan is leading the way, toward this whole idea of a debt jubilee where they're just going to cancel it all out by buying it all back.

So I think it's a very interesting dilemma we're facing.

Jeff: I was just going to say that, to Mark's point here, it has not been a good ten years to be a bank. That much we know for sure. Because all of the banks have shrunk. We look at any of the big Eurodollar banks, they're smaller today – or at least marginally larger than they were in 2007. It has not been a good decade to be a bank.

So I don't see that there is any benefit to bailing them out, because they then didn't do anything with what their new life would have been.

Mark: Well, the management got really rich on their stock options. And the shareholders got really rich. But, again, I think that's where we come to what's the incentives? And how are things incented? And I look at Dodd-Frankenstein as their example.

We've turned the banks into utilities. Which I think – to your point – it's has been a really tough decade to be a bank. And we've downsized, and we've taken away their ability to lever up their balance sheets, taking up prop trading – which I'm not actually not in favor of – I think Dodd-Frankenstein is a disaster. I think we should go back to Glass-Steagall. Bring back Glass-Steagall and just separate church and state and banking, and we'd be better off.

But I don't want to go too far down this rabbit hole. I want to give Luke some airtime here.

Luke: I think back in March of '09 – so shortly after things started to finally get calmed down – there was an article written by a gentleman named Simon Johnson who was the former Chief Economist of the IMF. It was called "[The Quiet Coup](#)" and it was in the Atlantic Magazine.

It was really interesting, because what it said was, I've been with the IMF, if I showed or if I laid out the statistics of the United States' economy being driven by this Eurodollar system – that Jeff's highlighted – if I laid out the statistics and just took the name of the country off the nameplate –

We've seen this before. We saw it with Russia, we saw it with Argentina, we saw it with Mexico, we saw it with Latin America.

He said that what the United States suffered through in '08 and '09 was a type of crisis that only ever, ever happens in emerging markets. It never happens in developed economies.

And the whole point, Mark – to your point – of this article was the United States is now on the clock. They need to reform.

The quiet coup he referred to was basically the financial –

Well, he said that one of the things we always find is when the IMF shows up after one of these emerging market crises like the United States just suffered – or capital, if you've got a capital problem – and we go to the government and we say you need to clean up your oligarchies, separate the oligarchs from the government. And if you don't then the IMF will leave and we'll come back when it gets worse and then see if you're ready to be serious.

And Simon Johnson's point was the United States government has been captured by the financial oligarchs, by a financial oligarchy. And that the United States was on the clock to get fixed. And if they didn't do some of the things that you were talking about, Mark, then this was going to come back and it was going to be worse.

Mark: I look at all this, and the math of it totally makes sense. And, to me, what it speaks to is we didn't do anything. We had a chance and now we're ten years hence. And they didn't separate the financial oligarchy, they didn't put Glass-Steagall back in. They didn't do any of it. And so now what do you do?

Jeff: Yeah, and I would argue, Luke, that that was a mistake on almost everybody's part. And everybody in the mainstream expected in 2008–2009 that it was a temporary deviation, that the Great Recession was actually a recession. As deep as it was, there was this persisting idea that it was just a recession. And, therefore, after a couple of years everything would just go back to normal.

That was certainly the idea in emerging markets and places like China. But it was here as well. I mean, everybody believed that the Fed would fix the problem and that would open up a pathway that we would just go back to 2007 and before, again.

So I think, to your point, it was a tremendous wasted opportunity. But also, to my point, it speaks to the fact that they couldn't do that. And that there was a monetary reason that we couldn't get back, that the Great Recession wasn't a recession.

And I don't think it's just debt. I mean, debt is certainly a symptom of the problem, but it wasn't as if 65-year-olds started retiring in 2008 because they came to that age. The economy didn't

fall off in 2008 because of demographics. The economy fell off in 2008 because there was a drastic monetary event that marked a period between the Eurodollar system that worked and the Eurodollar system that didn't. At least that's what I keep coming to.

Luke: Well, and to me, I look at it and go, if this was an emerging market crisis as Johnson said, then the other thing you do in these crises is very clear. In every single one of those currency crises – Russia, Argentina, Venezuela, Southeast Asia, Mexico – the same thing happens every time.

What happens to the currency? The currency collapses. The currency has to collapse before you can actually fix things. Right? Because that clears the debt overhang. And, instead, of course the dollar strengthened for the exact reasons you've highlighted in this presentation.

But – and we ran QE, which shorter weakened the currency – but, to me, the problem is the banks. This issue is the dollar is not even in the right zip code for where it should be trading if we actually want to have a recovery.

Jeff: Yeah, that I agree with. I mean, absolutely. Again, the symptoms of the causative effect, we have a huge debt problem. And there's no question about it. And the reason we have a huge debt problem is because nobody thought it was ever a problem. It was always something that you could put off until tomorrow.

And now we're getting to the point where today is tomorrow. Or at least we're approaching tomorrow. And what you've highlighted about, you know, the US being in something like an emerging market type situation. I think that's absolutely true.

And the only difference is that the US system is based on the dollar, the global system, the global monetary system is denominated in dollars. And that's the only reason that we haven't been forced to deal with our unbalances, is that we've been using this tremendous privilege. And if we lose that privilege, that's a very bad day for everybody.

Luke: It's a bad day for people in the dollar export business, to Mark's point, which is Washington and New York. It's not a bad day for a guy in Cleveland if oil goes to \$150/barrel. Parker Hannifin's order is going to be up 30% next month and 40% the month after that. And wages are going to go from \$15/hour to \$20/hour to \$25/hour.

It's fascinating because, essentially, what it amounts to is a political question. And what we're doing by sort of limping along here is, effectively, treating the bond market dogmatically. Like people treated the gold standard dogmatically from 1929 to 1933, where we can't. It'll be the end of the world.

You read history books at the time, it's the end of the world if the US goes off the gold standard. Four to five years of just pain, limping along, sub-optimal growth.

And then one day FDR walks into the White House and goes, hey, guess what, we're off the gold standard guys. And the Treasury Secretary literally looked like he was going to throw up in the corner, the history books say.

But it was a binary, unilateral – and, what happened? The next month industrial production exploded. What had to happen was this big devaluation. And it didn't happen. And I think exactly right, for the reasons you've highlighted, that you weren't ready. But in the ensuing ten years there's clear signs people have been getting ready.

One of my best relationships on the Street just keeps saying to me, any given Sunday, any given Sunday, we could have the modern version of FDR walking into the White House or Nixon getting on TV and pre-empting Bonanza and going, guess what guys, deal's off. Right?

Mark: Yeah, but you know what. What's amazing about this is we don't learn our lessons. Right? We elect people and put them in power that have one job. Which is to enrich this elite group of oligarchs.

And you can go back in time. You can go all the way back to Hoover and the Republican sweep, and you can go to the Reagan Republican sweep. You know, Regan's tax cut was actually the largest tax increase in the history of the United States, up to that point. Which was only exceeded by the Bush tax cuts. Which became the largest tax increase in the history of the United States. And now we're talking about tax cuts (quote unquote) again, even though no one's actually going to get cut except the rich people.

So this just absolute abomination of system and abuse of the system by those in power – and, again, I think if we go to this idea of what's the incentive of the people making the decision? I always marvel that Tact Iraq, which I'll argue was for currency purposes, not one member of Congress had a child in the military. Not one. I mean, that's just statistically impossible, actually. But it's easier to make a decision to send kids to war if none of your kids are going.

And it's a lot easier to make decisions on cutting people's Medicare and Medicaid and Social Security if you don't require them, you don't rely on that, because you've got a lifetime benefits package that you voted for.

You know, one of my favorite definitions is what is an entitlement? An entitlement is a promise you make to yourself that you don't fund and you ask your kids to pay for. Who the heck would vote for that? So I think we are, we're going to have to lie on the bed we made.

But for us to be surprised that wealthy people in power make decisions that make them more powerful and more wealthy is just mind-numbing to me.

Jeff: I see your point, Mark. I think that, when people voted for entitlements, it was the intent that your grandkids were going to pay for them. And now we're facing the reality that it might be your kids that pay for them.

Mark: Or it might even be you.

Jeff: And I think that accelerated timeframe is making a lot of people not just nervous but making a lot of mistakes in both analysis as well as trying to craft solutions. Because all of a sudden we're now facing something we've never faced before.

Mark: But it's like a budget. If a family spends more than they earn, they will have to borrow money. And their future growth rate will go down. Their future ability to enjoy will go down because they'll have to service their debt.

And the only way out – as we've all been talking about and kind of the point of this whole conversation – the only way out is to ultimately devalue your currency. Through inflation. Which, at the extreme, is this concept of the debt jubilee where you buy back all the debt –

You can't do that. You can't just retire the debt. Well of course you can. If you buy it all up and you've given people currency, right? This is where, actually, people do print currency. When you actually print currency and give it to people in exchange for their hard-earned asset, like a bond, now you've actually slowly and carefully devalued your currency over time. And so you don't have the massive hyper-inflation that everybody's worried about.

So, I don't know, I think we're at a very interesting spot. And in one way I still maintain – I think Luke and I are simpatico on this – the dollar is going much lower from here because of this. And that we are a banana republic. The only difference between a banana republic and the United States is world reserve currency status. And that is slowly and carefully being eliminated by the Chinese. So we've got a tough row to hoe ahead.

Erik: Mark, I think that your argument that the dollar is eventually going much lower, probably we would all agree with. But, as you hear Jeff make the argument that there's this short squeeze effect that's going to cause the dollar to appreciate first, before that happens, do you disagree with that? Or do you just focus on a different timeframe?

What's your reaction to Jeff's assertion that we go higher before we go lower?

Mark: I like his analysis a lot and I'm compelled by it. I guess the only place I would differ and therefore wouldn't completely embrace it is I think the dollar/petrodollar impact – I think – overwhelms it. And that's where I could just be totally wrong.

But my belief is that, while I'm compelled by his short squeeze argument, I feel like the continued de-dollarization around the world of trade, particularly trade in oil, and us going from being an importer to more – We're not an exporter of oil. Everyone likes to say we are. Unless we're oil-independent we're not. But the balance of power is definitely shifting.

And we're not importing as much, particularly from Saudi. So now they've got to deal with

China. And if they denominate that in renminbi I think all bets are off.

So I'm compelled by Jeff's argument but I'm going to stick to my view that, even in the short run, we're probably headed lower not higher.

Jeff: Yeah, I think if I would break it down into some very simple terms, what we're really disagreeing on is not even really much of disagreeing. It's not *what* happens but *when*. And how we get there. And I think that's pretty much all it is.

Mark: Oh, it absolutely is.

Jeff: That's the hard part, really. You know, the last ten years has proven to all of us that this is not working. That part's easy. What comes next is the hard part. And that's, you know, we're in a historical situation where there is no – it's not like we can fall back on a whole lot of historical examples to tell us how this ends. These kinds of things tend to be very messy.

Mark: One thing, and then I'll throw it to Luke. One thing on that is in some ways it's similar to what I just wrote about in my quarterly letter about the equity bubble. Which is, I have believed that we were on the path of a 1929 equity bubble and it was going to pop here in September and we were going to have the correction.

And now it appears that it's going to go longer than I originally thought. And I was compelled by Jeremy Grantham's analysis that margins were going to stay higher etc. etc.

So I think it's the same thing here – while I believe that the equity market needs to go lower, it wouldn't surprise me if it went a little higher. Same thing is true here. While I believe that the dollar should go lower, it actually wouldn't surprise me – based on the elegance of Jeff's analysis – if it could go higher in the short term.

Luke: I agree that the key question is the when. I disagree that there are no historical episodes. I think if you look at – historically, if you have a nation operating under a fiat currency system, the number of times that a nation with a fiat currency system has chosen to preserve its currency and starve its government tax receipts – I'm still looking. I don't know that it's ever happened.

So if we understand that it's never happened, in all likelihood, in all of mankind's history, then, to me, that starts to offer some very valuable insights into when this starts to be a problem for the dollar. What I mean is, we've seen how this math – this short squeeze – drove the dollar 2013–14–15 into 2016.

In 2016 we saw trailing 12-month tax receipts fall year-over-year for the first time since the recession. The deficit widened as a percent of GDP for the first time since the recession. We have a chart in our slide deck (we'll get to I'm sure). It shows that over the last 20 years, once US tax receipts begin falling, the US government has reacted extremely quickly any number of

ways – jawboning etc., the Fed cutting rates – to begin weakening the dollar.

Now, historically, US tax receipt declines have been the very last thing to go. Normally there's been some tremendous emerging market blow-up, or externality. And that funnels its way back to the US government tax receipts and we have a problem.

The difference is that this time, US tax receipts, they fell. And it's interesting, the pattern held again this time pretty much tick for tick. If you invert the dollar against tax receipts, once tax receipts were down in the 2%–3% range year-over-year, the dollar started weakening and tax receipts began improving. And they're still around flattish.

But, to me, *when* is important. And I think it's important for positioning. US government tax receipts were down year-over-year with the dollar at 102. What happens if it goes to 110? If it goes to 110, US government tax receipts are going to be falling 10%. 5%–10%.

And if that happens, remember no one's funding Treasuries. Which in theory is a positive for the dollar. It's another short squeeze. It's higher. But, again, we're not dealing with the United States of ten years ago, 20 years ago, 30 years ago.

We're dealing with the United States that's a banana republic in all but the name of the country. We've got a debt to GDP that's over 100%. We have an economy that's highly, highly financialized. You take interest rates up enough, and you're going to start to be talking about nominal US Treasury default.

And so, I look at it and I keep going back to that historic: no country with a fiat currency has ever chosen to preserve the currency over its own tax receipt income. And 102 was the line in the sand. So, to me, could it keep going? Yeah. If it got near 102, I'd start to look to put those dollar shorts right back on.

But in the meantime – to your point, Jeff – each time it gets a little bit lower, a little bit lower, a little bit lower in terms of the GDP – you know, the reflation impact – that would imply that that number is next time, it's not 102, it's 100. And the time after that it's 98. And the time after that it's 96. Right?

Jeff: It would seem that way, wouldn't it? I mean, it's like the day of reckoning should be coming closer.

Luke: I think it is, and I think some of it's being politically driven. But if you look at the math – I mean, if we have a recession, we could be running just a modest recession, you know. We could be running trillion-plus dollar deficits by the end of 2018.

Who's funding those? It's not China. It's not Saudi.

Jeff: The thing that strikes me about this is I've been following this forever. And, you know,

as bad as the dollar system has been, it's shown a remarkable resiliency. Even though it's clearly dysfunctional and nobody benefits from it, in my opinion. It's been a terrible, terrible decade for banking.

So, you know, the question is why does it persist. And I think part of the answer is (#1) that there's no alternative, at least not yet. And I think you guys make compelling arguments that there is starting to become, or at least exploration toward alternatives.

But the other thing is, I think what really matters – it's almost like a prisoner's dilemma, like giving in to game theory – is that everybody is all in on this system, and they have no way to get out. And it may be the case that the first person to defect, or the first part of the system to defect, wins. But it's not good for everybody else. And so everybody just kind of sticks with it, and it kind of functions as best as it can. Just because nobody knows what else to do.

And, just to finish up my slide deck here, the rest of it is basically about continued indications of dollar tightening, dollar tightness. And part of that is the Eurodollar futures curve and the US Treasury curve, which are classic signs of monetary tightness. When you have low flat curves at low nominal rates, that is – as Milton Friedman pointed out many times and many years ago – a classic sign of monetary tightness.

So I think – to a counterpoint of what you're saying, Luke – there is definitely a default risk, or at least jubilee risk as Mark might call it. And I don't want to put words in Mark's mouth, but in the Treasury yield there are long-term risks that are not being appreciated at ten-year being at 230.

However, I think what is overcoming those risks are the more immediate liquidity risks of a tight monetary condition. So that's why I see yield curves and Eurodollars futures curves that are collapsed and flat – especially the long Treasury yields. It's a more immediate problem of liquidity risk rather than, hey, you know, we're going to have to deal with the debt problem at some point in the future but right now we need to worry about this.

And so I think that's why the US government has been able to get away with borrowing so much as it has over the last ten years. They're actually taking advantage of a tight money situation.

Which is exactly what happened in Japan. Let's not forget, the Japanese have been running these kinds of deficits for a quarter of a century. And, yet, they have not been forced into any kind of jubilee or any kind of real evaluation situation. For many of the same reasons. I think it's because people have just accepted that this is the way that it is, this is the way it's working – or at least not working – and we're just going to continue on forever.

I don't think the US has the same kind of luxury that Japan does. But at least there's an example there for what happens in a tight money situation. And, again, that's what Milton Friedman was talking about in 1998. He was talking about low interest rates in Japan indicating tight money.

Luke: I'm not sure, Jeff – I agree with you that Japan has been able to do it, but I think it's a very different case in the US for a number of reasons. I mean, not least of which is, in essence, Japan's been a US protectorate since WWII. They run significant trades in current account surpluses. They self-fund their debt.

They're internally funding, as opposed to the US which runs big current account surplus or deficits, and they're externally funding. So Japan's been able to limp along. They don't have to pay for their own military, in essence. They've been able to sort of limp along because the people that are being the creditors, being hurt by it, are internal.

So as long as you have internal deflation, the math works. Your real purchasing power is being held up okay. When you have external creditors, and you're running this same game, or you get into that same game, the patience, in theory, is much less.

Now, in the case of Japan, they're going to be patient with us, right? There's a quid pro quo. They don't want to have to pay for their own military.

That does not exist in the case of China. It probably does to a certain degree in the case of Saudi, although it does put Saudi in an awkward position, of course – what Mark was hinting at with China. So I do think it has longer to the horizon than we think.

I think, depending on how we define that horizon, I would argue that this system really started breaking down with the formation of the Euro, back in '99. That was really the first shot at the Eurodollar system, at the dollar itself.

And that was sort of papered over by taking interest rate derivatives from \$50 trillion notional to \$800 trillion notional over the span of eight years. That bought time for us, in no small part because the collateral underlying a lot of that was Treasuries, ironically.

One way to say it is, I agree, it has a long runway. But we're at least ten years in and we might be 18 years in.

Mark: Jeff, just looking at Slide 45 with the fails to deliver, Treasury fails to deliver, they just keep rising. That's just another symptom of tight money, then, I take it. Right?

Jeff: Yeah, and more so in what really is the Eurodollar system, which is balance sheet capacity. This is the kind of stuff that makes a real capitalist cringe. Because, a repo fail should never happen. It just shouldn't exist. Because if you own a security, you own a security.

But that's not the way the repo market works. The repo market works as almost an entirely different currency ecosystem. Where collateral has its own dimensions, it has its own factors, it flows, it moves. Banks trade collateral, they rent collateral, they buy collateral, they do all sorts of stuff with collateral.

And there are times when a strain in bank balance sheet capacity has the effect of straining collateral flow. In other words, if you're a securities lender, there may be times where you lend out securities – re-hypothecating them of course (which means that you lend the same Treasury to different counterparties at the same exact time) – where you're not able to do that as freely and easily as you used to. And therefore, if you restrict the amounts of collateral that you're loaning into the system, that has a chain effect where all sorts of other collateral users in the system –

It could be a single point of failure, it could be a systemic point of failure, whatever the case may be – there are these periods where collateral can be constrained to the point where collateral is actually more dear than cash. That's what you see in some of these fail episodes, especially in 2008: Repo counterparties would rather have the US Treasuries than they would cash.

So what's happened since 2015, I think, is partially due to what we're talking about with China and China's dollar problem.

I think the Chinese are attempting to address their dollar issue in the US dollar repo market. That places some pressure upon US dollar counterparties for a couple of reasons. I think it has to do with the accounting with official Chinese assets. Where if the Chinese are borrowing securities from, say, JP Morgan, or HSBC, or, more likely, one of the Japanese banks – if they're borrowing Treasuries from them, they're actually taking them out of the collateral flow.

In other words, if you lend the Treasuries to the Peoples Bank of China, you can't at the same time hypothecate it like you would in other circumstances. So I think if the Chinese increased their dollar presence in the repo market as an ad hoc workaround for their dollar problem, it has the effect of straining global collateral conditions.

So that's what I see in terms of going back to 2015 when CNY was originally devalued. By the way, that's when we started to see a lot of this Hong Kong stuff take off due to the fact that there's a Chinese presence in the repo market.

If you go to Slide 46 and 47, I think that's pretty much been confirmed by recent activity. In the week of September 7 of this year, they had a massive spike in repo fails – the same week that the four-week Treasury bill went insane on that one Monday or one Tuesday I think it was, September 5th – that was the exact same moment that both CNY and HKD shifted.

The Chinese exchange rate started to fall again, while the Hong Kong dollar started to rise. And I think it was the Chinese had put so much pressure on collateral that it strained the system to the point where it almost broke.

And it broke for a couple of weeks. I mean, the repo fail spike lasted for three weeks and it really hasn't calmed down yet. So I think that's why you see the HKD thing and the Hong Kong workaround unwinding; I think the Chinese put too much pressure borrowing dollars through

Hong Kong.

Erik: That concludes the portion of our conversation that was driven by Jeff Snider's outstanding slide deck. In the next episode, we'll start with Mark Yusko's slide deck, and then move into Luke Gromen's deck. Download links for Mark and Luke's slide decks will be provided when we release the next episode, this coming Thursday Dec. 28th, 2017.