Jeff Snider Eurodollar University Part 4
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Jeff: Again, we want to keep in mind that over time this behavior evolved more and more at the margins. And originally, you're right, the role of banking in society is to manage savings. And, throughout this evolution of the Eurodollar system, that role, or that intention, became eroded and replaced by what really is a bastardization of the entire idea of not just banking but money itself.

And so, you know, that stuff still went on. Banks were still lending to companies so that they could invest in their vital operations and do productive things with it. But the whole concept of savings itself was obliterated and replaced with what is essentially a system unto itself.

In fact, I think, in the housing mania portion of the middle-2000s, it came to that kind of an extreme where this financial system just – for no other reason than just expansion for the sake of expansion.

Your point about regulators and regulatory review is well taken. But by their own standards these banks were behaving according to regulatory standards. Nothing we see here is illegal. That's an important point to stress as well. This is not illegal. It's just a very poorly-designed system where the flaws apparent in it – that are very apparent today – weren't readily anticipated at the time.

Erik: Now, Jeff, in the last series of slides that we've been through we're talking about Bank A, Bank B, Bank C -- obviously these are fictional entities. Let's try to pull this together in a real-world example. How real actual financial entities have manipulated balance sheets and -- give us an example. I think that's what you're coming to on Slide 45.

Jeff: Yeah. In Slide 45 is a company called Primus Guaranty, which is probably a firm that nobody's ever heard of. There's really no reason you would have ever heard of it. Except for the fact that Primus wasn't just some unnamed firm out in the middle of the street.

It was founded by a guy named Tom Jasper. Tom Jasper was a giant in the derivatives industry who in 1985 practically invented the interest rate swap. Or at least the modern standardized contract, what became the modern standardized contract. And because of that he was named the official first chairman of the ISDA. Or, at least, I believe he was a co-chairman.

So Primus Guaranty was founded by a guy who was a legend on Wall Street. Especially in these types of things that we're talking about here. So all he had to do was raise a little bit of capital

and then started writing credit default swaps.

What I've presented here is the height of the housing bubble in 2004-2005. And what you see in analyzing their balance sheet, even though Primus had written about $14 billion in gross notional in CDS across 535 entities, it doesn't really appear on the balance sheet. That $13.5 billion shows up in the notes.

And all that does appear on the balance sheet is, again, the market value of those contracts. Not the guarantees themselves, but the market value of the contracts. Which were a fraction of the total obligations if those CDS were ever converted into actual default events. Which, of course, Primus judged to be a very low probability because they were written on high-quality names.

In fact, Primus actually failed in 2009, I believe, not because they were going to have to pay out on those CDS contracts, but because the probability changed where then they might have to pay out more than the capital they had on their books.

So they had guaranteed an enormous amount of contracts and swap premiums based on a very thin liquidity margin. And on their balance sheet they had something like $600 million in cash and investments netted out by $200 billion in long-term debt. So they had basically $400 backing $13.5 billion in CDS.

Erik: Moving on to Slide 46, I think that's a summary of what you just said a minute ago as we were talking through the information on Slide 45.

As I come to Slide 47 and see AIG's logo, this one really got my attention. I think a lot of our listeners are familiar with the way AIG had to be bailed out during the financial crisis. Because they had written so much credit default swaps across the board, with so many counterparties. If they had failed, it would have basically created a domino effect that could have taken out the whole financial system. I think a lot of our listeners probably knew that part.

I was amazed when I read your slide that more than half the lion's share of all of that CDS that AIG wrote with no particular reserves or ability to service it – that was being sold to people who were buying it for the purpose of playing this game of manipulating their balance sheets in order to qualify for a reserve ratio or a capital requirement that didn't realistically reflect the risks they had in their portfolios. It's just amazing.

Why don't you talk us through this story, and how AIG fits into the whole Eurodollar story.

Jeff: Yeah, I think most people would be surprised – not only that this took place, but to the extent that it took place, and where it really mattered the most. AIG had somewhat of a shaky reputation even before 2007, and largely because they had been transformed from an insurance company into what was essentially a money-dealing company.

Not only were they involved in credit default swaps for regulatory capital relief, they also were heavy into the securities lending business, which is the rehypothecation that we talked about earlier in the repo markets. As an insurance company they had a portfolio of securities that were just sitting there doing nothing. And they figured, why don't we add additional spread to our income stream and start lending out securities.

So AIG as a whole was into a lot of these types of hidden shadow-type activities that allowed the Eurodollar system in the aggregate to run in all of these various ways that it did. And so, as one of the central parts of that system, a failure in AIG would have been catastrophic. At least that part of Secretary Paulson was correct.

I don't think anybody could accurately predict what would have happened had those credit default swaps gone too much further awry. Or even some of the other parts of AIG's businesses. The worst part about it is that, for the Federal Reserve at least, when they took over AIGFP's portfolio, AIG never lost a nickel on it. In fact, I believe they made an $4 billion profit.

So the issue here wasn't ever default. AIG didn't actually have to pay out on the credit default swaps. The issue, as always, is volatility and liquidity. AIG could not handle what was in 2007 and 2008 an uptick in modeled and expected volatility that reduced the probability that AIG was going to be able to pay out on the credit default swaps should it ever have to.

And in the course of doing so, as AIG was being forced to reevaluate all of these positions that it had written before, what had happened is other counterparties started asking for collateral from AIG that it didn't have. So AIG's issue was one more of liquidity than solvency.

Because, again, AIG wrote all of these credit default swaps under the idea that it was just going to pocket those premiums and never pay out a nickel. If you think about it in terms of a traditional insurance company, that's the best of every world for them.

They were going to get paid to essentially guarantee against something that could never possibly happen. But that was the basis for – as they note explicitly on their 2007 Annual Report – that was the basis for this regulatory capital relief going on, primarily in Europe.

And so it kind of ties together in a real-world example everything that we've been talking about up to this point. The Eurodollar system is offshore plus wholesale. It's all of these various other – the thing about it is the money multiplier effect that doesn't have any money involved in it. You know, how can these banks and how can these dealers create leverage from nothing? Or from at least an accounting gimmicks. Or through derivative trades.

So that is what happened and AIG was in the middle of a lot of those different dimensions and streams that in 2008 would have made a bigger deal than it already was.

Erik: It's just amazing to me, Jeff. I keep waiting for you to get to the end of the list of all of

these things that have happened that just fuel this creating of more and more Eurodollars. And, I see here on the very next slide, we're not done yet.

There was legislation introduced in the late '90s called Gramm–Leach–Bliley which, supposedly, was intended to provide a better experience for the retail customer. One-stop shopping. You could buy all your financial products, your mutual funds, your life insurance and everything in a bank branch.

And the idea was that this was sold to the public as a way for Americans to get all of their financial services needs met in a single place. But you're saying here that's not really what the real story was. It's another excuse to create more Eurodollars.

Jeff: Yeah, is it ever that kind of a sunshine thing – oh, this is great for the people. I don't know if it's ever that way in any of these kinds of things. But that's exactly what happened.

We're talking about the evolution of the Eurodollar system. One of the final impediments for it to go completely crazy in the way it did in the 2000s was this restriction between traditional depository institutions and what were investment banks. Or insurance companies, or companies like Travelersor AIG.

And what Citigroup – the first to actually try to test those limitations – what they were really after wasn't so much that they wanted to sell travelers insurance products in their depository branches to their depository customers. They wanted, Citigroup as a depository institution, to better be able to manage their balance sheet in the way that shadow banks had been doing it, these investment banks, had been doing it all along.

In other words, they wanted in on this game of expansion and leverage. And the only way that they could possibly do that was by removing Glass–Steagall. To obliterate the last legal restriction for the depository side of the banking system to get involved in the shadow side of the banking system.

And that's exactly what happened. Right at the tail end of the 1990s it all came together. Including some of the other smaller dimensions that we haven't talked about and we probably won't get a chance to get to. But it all kind of came together around the year 2000 and 2001 where everything was working in the direction, as we talked about before, of expansion just for the sake of expansion.

And you were absolutely right to point out before, that banking is supposed to be a societal beneficial transformation of money into credit into economy. And when all of these things started to come together in the 21st century it just went way off the rails. That's why we ended up getting so much carnage by 2007 and 2008.

Because it became – I think insane is probably too strong of a term, but I think you know what I mean. It just completely lost all sense of itself. And all sense of societal purpose.

Erik: And, of course, Henry Paulson, who was head of Goldman Sachs in the late '90s, personally played a very instrumental role in lobbying for the removal of Glass–Steagall, eliminating that set of restrictions and laws that were designed to protect the system.

And then went on to be in charge of coping and dealing with the mess that was made as a result of the repeal of Glass–Steagall, which he took credit for as being the savior and the guy who was the hero in the story. It's absolutely amazing.

Jeff, we've been talking at a high level about some of the things that were happening in the late '90s. Let's look at the hard data in terms of what the result was in the early 2000s.

Starting with Slide 49, why don't you talk us through the data that you're presenting here, in terms of the results of some of these actions of the late '90s.

Jeff: Slide 49 is taken from the Office of the Comptroller of the Currency, one of the regulators of the banking system. They compiled call reports from each of the banks, primarily the large banks that were dealing in, especially, credit derivatives.

And what we find is the derivative system, or the derivative part of the Eurodollar system, going essentially parabolic in the 2000s. In other words, once all of these evolutions in money started coming together in the late '90s and early 2000s, the system just took off on itself.

Here we have on Slide 49, credit default swaps that just go parabolic. We've been talking about this idea of a money multiplier creating leverage in the banking system, out of nothing more than what was really an accounting thing. The point, I think, is really that the Federal Reserve had a role here.

In the middle-2000s, of course, Alan Greenspan – in the Federal Reserve under Greenspan, raised rates in order to slow all of this stuff. Theoretically that was the way it was supposed to work. Starting in June 2004, the Fed was going to tighten monetary policy through the federal funds rate, which was supposed to transition into the rest of the credit system.

But we see very clearly here, especially in credit default swaps, they paid absolutely no attention to monetary policy whatsoever. And so the idea of – going back to beginning here – that the Federal Reserve is at the middle of the monetary system is just wrong.

The Eurodollar system evolved outside of the Fed. By the time the Fed started to get a sense that something was awry it was already too late. And so the monetary system – the full nature of the Eurodollar system – again, these cross-border flows between American banks trading derivatives with European banks, and European banks supplying new dollars to some bank in Japan, and all of the stuff taking place – far beyond the ability of the Fed to actually control it on the way up.

Erik: So Slide 49 was talking about credit derivatives, was entirely about credit default swaps.

I see here on Slide 50 that we're moving on to interest rate derivatives. And then on Slide 51 it looks like we're talking about bank derivatives more broadly.

So walk us through these next couple of slides. What's this story telling us?

Jeff: You have to be mindful that the examples we presented before are only one angle to this. In other words, the credit default swaps usage in regulatory capital relief were only one angle for balance sheet – I don't want to say manipulation, but management. In other words, how derivatives played a role in giving banks the ability to maintain and create leverage.

Interest rate swaps were used as another tool of balance sheet management, which is volatility. So, even though we didn't go through the example of this, there are other avenues of managing a balance sheet so as to create the maximum efficiency from the point of view of the bank.

So in the middle-2000s, again, what you see with interest rate derivatives, like credit derivatives, is that there's absolutely no response to what the Federal Reserve is doing because there is actually no way for the Federal Reserve to play itself into the space.

The banks were intent on expanding – and we have to remember by and large at that time they felt that there was very little risk to doing so – even though things were growing parabolically in some places, they believed that there was no risk to that.

Because everything that they had created throughout the decades before, they thought had been tested enough – especially in 1997 and 1998 with LTCM – so that it could withstand anything. And, oh, by the way, if things did get out of control they actually believed the Federal Reserve would provide a liquidity backstop if it was ever needed.

So we have this assumption, which is really an inherent contradiction, that we can create, or at least present, banks that show very little risk who can engage in monumental amounts of risky behavior. The system itself was, again, inherently contradictory, because the real world just doesn't work that way. So it was doomed almost from the start.

Erik: It just blows my mind, Jeff. You know, you hear about all of these people that work in finance in very senior positions in risk management, and to the casual lay person you would assume that means that they're managing risk.

But what you're saying here is that those people are really working on how to manipulate and redefine their balance sheets to exploit loopholes and weaknesses in regulations – that are designed to actually manage risk – in order to reduce their capital requirements and take on more risk.

So they're not really risk management. They're people whose job is to figure out how to get

away with taking on more risk than the books show there to be. And it just blows my mind that this industry actually works this way.

Let's tie things all together now. On Slide 52 we're going back to one of the very first pictures that we presented in the first episode of this series, which is showing us how the banking system is meant to work.

So bring us up to date, or, maybe, pull this all together in terms of the big picture.

Jeff: When we started out, we had this acceptance market, or banker's acceptance market, that was intended to mediate global trade. You made this point before – which is a tremendous point – the monetary system and the banking system are supposed to provide the economy with necessary resources so that economic activity can take place. That's what's supposed to happen here.

And what happened over time, especially from the 1960s forward, and particularly in the 1990s forward, was that as the Eurodollar replaced other forms of mediation in global trade. What actually happened was it became a parallel banking system unto itself.

In other words, it was funded by these Eurodollars in all of these various dimensions – not so much that a company in Japan could import goods from Sweden. But so that the banks in Japan or Sweden or Switzerland or anywhere around the world could participate in this Eurodollar system that at the time was stoking a US housing bubble, while at the same time creating vast bubbles in emerging market (what we call today) hot money.

So what we're describing here is almost an entire massive complete system, monetary and otherwise, that existed offshore and wholesale, in the shadows, because there was no regulatory authority, there was no government authority good or bad, there was no government authority over the conduct of this system.

It was essentially a self-contained system that operated beyond the reach of everybody around the world. And of course that was a particular point of failure in 2007 and 2008. Because when push came to shove, when the system started to realize contradictions between risk and return, there was nothing there.

If we go back to some of the initials slides where we went through the initial Eurodollar deposit-making that Milton Friedman described in 1971, it's, essentially, Eurodollar is a figment. It's a phantom, as I call it. Because there is no Eurodollar. There is no thing called a Eurodollar. All it is is a system of banks trading liabilities that allow them to manage their balance sheets in a manner that is hugely risky, with great leverage, that doesn't appear to be risky.

Erik: So, again, the people that most lay people would assume are employed to manage risk are actually engaged in manipulating regulations, and figuring out ways to exploit loopholes, in order to take more risk than the spirit of the regulations was intended to allow – but still to

comply with the regulations to the letter of the law. While making things so complicated that it's extremely difficult for most people to look at a balance sheet and even understand what's going on there.

Moving on to Slide 53, it looks like you're drilling down into some of the details of how some of this accounting works. So let's continue with the story, as amazing as it is. What's happening here on Slide 53?

Jeff: I want to make one more point about what you just said. I think we have the benefit of hindsight here, and also the benefit of being outside of the system looking back in. I'll bet if you asked any of the AIG managers back in 2005 let's say, they would have said we're not manipulating things at all.

What we're doing is what we believe is positive business, low-risk business. Because we believe in the mathematical models that we've created that show us exactly what we're doing, what we're supposed to be doing, what our counterparties are doing.

I don't want to get too far in assigning blame as if this was an intentional act of sabotage. But more so the fact that I think it was a failure of imagination. I don't think the people working inside of it could see the whole picture. They got lost in the forest because they were paying attention to individual parts that each one played out and each one acted out.

From the perspective of that time and of that age, it did look like it was a stable system. It looked like the math was all good, the math was all legitimate, all of the models, all of the regulations appeared to be working. Because, let's face it, from the 1990s, and even in the 2000s, the economy was relatively decent – in the 1990s much better. Inflation was low. It did appear like everything was working as it was supposed to.

So when a person at AIG was writing credit default swaps, they did so under that understanding, or under that paradigm, where they thought all of this stuff was legitimate. It's hard, I think, for somebody in that position to stop and say, hey, what are we doing here? This doesn't make sense.

It becomes a contradiction where – I don't think it's easy at all to swim against the tide where, especially in the banking system, you either grow or you die. You know, for a bank to say, hey, I think we're doing something wrong here, I'm going to stop doing it – well, they know very well that they're going to be gobbled up by the guy that is.

And so I think there's an element here of almost psychology, where it becomes self-reinforcing – the herd instinct of humans anyway, where because everybody's doing it and everybody appears to think that it's working, that everybody at the end believes that it is.

Erik: Indeed. Those are excellent points, Jeff. And I agree with you that, at the time, I'm sure it seemed to the people involved as though they were doing the right thing. But of course

systemically in the end it proved to be a disaster.

Let's go ahead and briefly cover what you've got on Slide 53 here, walking through some of the numbers.

Jeff: On 53 we just want to sum up what we're talking about with the Eurodollar, using Bank B as our primary example.

Bank B has constructed its balance sheet through short-term wholesale funding, borrowing from Bank A which is our stand-in for the money markets in the wholesale format, expanding their leverage as much as they possibly can. While at the same time doing so through engaging in derivative activities primarily, presenting themselves as little risk as possible.

I think what we're really getting toward here is, you know, when Bear Stearns failed, how could it fail as a well-capitalized bank that had enormous leverage. I forget the exact number, it was 33 and 35 to one. Lehman Brothers, the same thing. These banks were well-capitalized by the basic standards, yet they had enormous leverage.

So what we're revealing here is how that happened. How did these banks create money and credit from nothing so that what looked to be a sound system – especially for those, as we just said, inside of it – really wasn't. In fact it was a dangerous system that included so many different points of failure. Primary among them was this geographical divide between the Eurodollar and the domestic system.

Erik: So we've been talking at quite some length now, Jeff, about the mechanics of how the Eurodollar system expanded. Let's take a step back and look at the big picture of where this left us as we move on to Slide 54.

This whole process we've been discussing creates more and more Eurodollars. More and more dollars that are essentially money that's been conjured out of thin air by these complex systems that banks use to manage their balance sheets.

How big is this whole picture by the time we get to the end game?

Jeff: That's one of the biggest problems with all of this. The term "shadow banking" is appropriate. Because all of this stuff takes place not just outside of our view, but, as we've gone through throughout this presentation, it takes place outside of balance sheets or traditional accounting.

So all along we don't really know exactly to what extent the Eurodollar system grew. And it wasn't until after the crisis was over that people started to go back and take a look at exactly what or how big the system had gone.

One of those attempts was by the Bank for International Settlements in October 2009. They

went out there and looked at bank balance sheets, and call reports, and BIS statements, and all sorts of stuff. And what they saw was that the outstanding stock of banks – when they use "banks" here they mean all global banks in all jurisdictions – their foreign offshore claims grew from $10 in 2000 to $34 trillion by the end of 2007.

So, not only was it enormous expansion in cross-border funding, in cross-border credit creation, all of this was taking place in a place that wasn't supposed to exist. So it was an enormous hidden, misunderstood, misplaced banking system, misplaced monetary system, that was just waiting to be a big problem.

Erik: I want to ask you a question about how well regulators understand these issues. Because I've certainly learned a huge amount just from doing this series with you. I was aware of the simplest definition of a Eurodollar as being a dollar denominated in United States currency that's on deposit in a foreign bank someplace. This whole wholesale model, and how it has contributed to the expansion of money supply, is new information to me and I thought I knew a lot about this stuff.

Do you think that Janet Yellen and the rest of the FOMC members understand all of this? Is this all old news to them? Do they understand all these workings? Do they understand the extent to which Eurodollars have expanded in the system during the last couple of decades? And what it might portent in terms of what's coming next?

Or is this still something where even the senior regulators don't fully understand the big picture?

Jeff: Economists and regulators, they might have some inkling there's something going out outside of their purview, but they have decided long ago that none of this matters and it's all unimportant.

You can go back through the academic literature throughout the history, and what you'll find is – especially in the 1970s – US officials totally denying the Eurodollar as money at all. I'm talking about just the deposit end of it. Let alone the stuff we've been talking about here. So, officially, none of this stuff exists.

As far as economists are concerned, the US economy is a closed system. In other words, it has its own money supply, there are trade linkages to foreign sources, but monetarily there isn't supposed to be much transit between the US and outside the US.

Obviously the Fed was aware of the Eurodollar market going back to the 1960s, but the extent to which grew, especially qualitatively in all of these various facets, it's beyond the orthodox canon, the orthodox framework of understanding how all of these things work.

So when Janet Yellen sits today and analyzes the money system, she analyzes the money system from a perspective where none of this stuff really exists.

Erik: You know, Jeff, I find Slide 56 really interesting, because a view that I've held for a long time – since the financial crisis at least – is that this rally that we've seen in stocks since March of 2009, I think, has been fueled primarily by excess liquidity supplied by central banks.

And as much as I really think that that's been the driver, I have to look at a longer-term S&P chart and think, well, gee, all of that accommodation from central bankers that's occurred since 2009, that wasn't happening in the '90s. Yet we still see a very steep trajectory of the S&P 500 moving dramatically to the upside during the '90s, which of course was a boom time for the economy.

But it sounds like – if I'm assimilating this whole picture, and please correct me if I'm wrong. What you're really saying here is that it was around the time that the Eurodollar system started expanding – which has a very similar effect to quantitative easing, it's providing a whole bunch of new liquidity from sources that not everybody really understands or is used to in the system – that may have actually been responsible for some of the stock market boom in the '90s.

Am I overreaching to assume that that's what you mean with this slide?

Jeff: Erik, I think that's exactly right. The reason we got asset bubbles in both the stock market and the housing market in the United States was the fact that the Eurodollar system was growing exponentially at those time periods. In other words, the shadow system was creating both the liquidity as well as the credit resources for those things to actually happen.

And it's not coincidence, at least in my opinion, that we see this major inflection, especially in stocks and housing in the United States around 1995. Because that is when the Eurodollar system – especially under, now, JP Morgan's risk metrics program – that is when the Eurodollar system really started to fully mature into its final state.

In other words, where all of these various parts of balance sheet management, money multiplication without money, cross-border financing conduits, and all those kinds of things really started to happen. And to happen in a way that made a big difference in how things changed and how things evolved.

Erik: And as we move on to Slide 57, looking at housing permits, it looks like we see a very similar inflection point. It makes me wonder if what's going on here is these games that were being played as a result of the Basel Accords were somehow enabling popularity of mortgage-backed securities to really expand dramatically, starting around that same time, 1995.

Is that right?

Jeff: Yeah. I think people in 2007 and 2008 were wondering why were German banks failing from housing in Florida, California, and Arizona. There was an incongruity there that was never

really fully explained.

And that's exactly what we're talking about here, that the US asset bubbles were not just limited to the middle-2000s, nor were they limited to just American banks. It was a global phenomenon where this Eurodollar liquidity, along with its ability to expand leverage, created the resources and the financing that allowed those things to happen. And, in addition, all of the things that happened in China, Brazil, and emerging markets around the world. It was an enormous asset bubble that scarcely didn't touch one part of the world.

Erik: And I see here on Slide 58 that we're just seeing more of the same. That around the time that the Eurodollar system started to really expand, that's when we see both volatility and a lot of bidding up of asset prices.

So this has been a fantastic and very fascinating series for me. I'd like to ask you just to summarize, at this point how many people really understand this? And what are the consequences now that the Eurodollar system has grown so dramatically, and you have this wholesale creation of money supply that's going on as a result of unorthodox mechanisms that a lot of people don't understand.

What are the potential knock-on effects, consequences, risks, and so forth that you see as we continue to operate in an environment where money is being created that not everyone understands?

Jeff: The biggest problem is the fact that we don't understand what happened. And if you don't understand what happened ten years ago, let alone 50 years ago, then you don't really know where we are or why we are where we are.

And that's a problem for not just monetary policy but anybody that lives in the global economy. We're forced to live with the consequences of the effects of what was really unfettered, unrestrained monetary growth that went on for so long that it just got totally out of hand.

So the consequences of it are that, when it actually started to doubt itself, and the Eurodollar system started to be aware of its contradictions in 2007 and 2008, there was nothing that could be done about it. The Fed couldn't step in, because where would it?

Even in the quantitative easings that happened afterward – whether it was in Europe or in the United States or even Japan – none of those really had much of an effect. Because once the Eurodollar system started to fall apart there was no stopping it.

So the lack of a global recovery after the Great Recession is a monetary problem. And it's one that the Federal Reserve, so long as it persists in believing that the United States is a closed system, and that the Federal Reserve is at the center of the US money supply, will never be able to fix. It will never be able to solve it.

And that's exactly why it has not. It has failed time and time again throughout the last 10 years, because it's not even involved in any of these kinds of qualitative expansions.

And I think that what's really point here is, through a lot of this we think of asset bubbles and we think of monetary imbalances as sort of a quantitative phenomenon, but that's not what the Eurodollar was. I often get asked "what is a Eurodollar." And I can't give an answer because there is no thing that is a Eurodollar. It's a system that evolved qualitatively, transforming the entire definitions and nature of money right down to the ground foundation of it.

So, until we go back and really understand what happened, I don't think we're going to be able to solve the problems that we're faced with today. We're still in many ways on step one, which is getting a handle on all of this stuff that actually is, rather than what authorities and economists and policy makers theorize it's supposed to be.

Erik: Well, Jeff, I'd like to thank you tremendously for a fantastic series here with Eurodollar University. And, just to set the context for our listeners and maybe to set some expectations for the next steps, the way that this came about was we've had you appear several times now on the MacroVoices podcast. And we got very different feedback. Most of our guests, you know, some of the listeners love them and some of the listeners hate them.

What we got from our listeners in response to your appearances was, wow, this is obviously a brilliant guy. But even our finance professionals were saying, we don't even know what he's talking about with some of the background. You've got to start from the beginning and get into Eurodollars. What does it mean, why is this market important?

And that's what brought about this Eurodollar University.

So I think the next step is we need to invite you back on MacroVoices to do another of these interviews where we'll set this entire series as a prerequisite so that our listeners hopefully will have taken the time to listen to this series to know all of this background.

And, with that background under their belts, I'm going to ask you to give us perspective on current markets, current events, what you see going on, what Eurodollar futures are telling you. And I'd like to get you back so that we can really tie together where we're headed in the future. How the past that this whole system has taken us through translates to what we can expect in the future. And what the current signals are.

So after we've aired this entire series, which was originally conceived as a single one-hour session – it's obviously grown to much more than that now – once our listeners have heard that we're going to invite you back on the MacroVoices podcast to do a perspective on current markets and current events that takes into account this Eurodollar system.

And I think it's going to be fascinating. So, listeners, be sure to stay tuned for that.

Before we close, I'd like to summarize the key points that we covered in all four parts of this series.

In Part 1, the story began in 1944 when the US dollar was chosen to serve as the world's reserve currency at the Bretton Woods Conference. Because this meant that the dollar would be used for all international trade settlement, that meant that all other nations around the globe needed to have dollars in order to transact international commerce.

By the 1950s, an offshore market for US dollars had developed in the form of the banker's acceptance market. Effectively, banker's acceptances were like money orders or cashier's checks that were payable in US dollars. These dollar-denominated IOUs were the first incarnation of the Eurodollar market.

By the 1960s, there was a full-fledged offshore Eurodollar market operating entirely outside of the US banking system and therefore without US regulation. But the Federal Reserve didn't even gain awareness of what was going on in the Eurodollar market until about 1962 when the phrase "Eurodollar" first starts to appear regularly in FOMC minutes.

Through the 1960s, the Eurodollar system created new US dollar money supply out of thin air, at the stroke of a bookkeeper's pen, with no backing by gold or by physical cash issued by the US Treasury. And all of this happened in the 1960s when the United States was still on the Bretton Woods gold standard system.

In a series of articles, Milton Friedman demonstrated how the Eurodollar system had created $30 billion of new US dollar money supply out of thin air without gold or physical cash backing. Because all of this was happening outside the US banking system, it was exempt from regulation that would have prevented it from occurring inside the US banking system.

Not wanting to be left out of the profits that were being made by offshore banks, the major US banks established European subsidiaries so that they too could participate in this opportunity to conjure money out of thin air without gold backing.

The key point to remember is that, through all of this, the new money that was being created at the stroke of a bookkeeper's pen somewhere in Europe was never backed by an ounce of gold, or a penny of actual money issued by the US Treasury. It was all occurring entirely in the shadows, and it was exempt from oversight or even the awareness of US regulators.

In Part 2, we went on to expand the conversation into the wholesale component of the Eurodollar system which essentially allows US banks to create money supply out of thin air through creative accounting.

We learned that by 1974 the Fed realized that they didn't know how to measure the money supply accurately, because the system had become so complex.

We discussed how the repurchase system, which is used by banks to facilitate short-term financing, played a key role in expanding the wholesale component of the Eurodollar system. Officials at the time were challenged to even understand what was happening and didn't know how to categorize repo transactions, because their full effect was not completely understood.

Official statistics of the day did not accurately reflect the money supply that was being created in the wholesale Eurodollar system or the role that the repo market played in creating it.

We heard the fascinating story of how major banks – Salomon Brothers most visibly – were overbidding for Treasury paper in the early 1990s, because they'd figured out a way to beat the system and rehypothecate the very best collateral assets, using them to collateralize multiple loans. Thus, effectively, conjuring even more money out of thin air using the repo market to create wholesale Eurodollars.

Jeff opined that the Fed's literal inability to accurately measure the money supply that was being created by the Eurodollar system probably played a key role in the early 1990s policy shift in which the Fed began targeting the federal funds rate rather than money supply as a monetary policy tool.

In Part 3, Jeff described Alan Greenspan as an accidental genius, suggesting that what seemed at the time to most observers to be organic economic growth through the 1990s may really have been bolstered to a great extent by new money supply creation that was occurring in the wholesale Eurodollar system.

And of course that money creation has a stimulative effect similar to what quantitative easing was intended to accomplish in the wake of the great financial crisis.

We discussed the role that the Basel Bank Accords played in enabling banks to increase their leverage considerably while maintaining the same on-paper capital ratios, thanks to provisions of the Basel Accords that allowed some collateral, including mortgage-backed securities, to enjoy a special discounted reserve ratio requirement.

This led to increased demand for mortgage-backed securities to serve as collateral to fuel the growth of the wholesale Eurodollar system. And that extraordinary demand may have contributed to the overall failure of the investment community to realistically price default risk in those securities.

Off-balance sheet accounting further enabled growth and expansion of the wholesale Eurodollar market.

And Jeff walked us through a series of hypothetical examples illustrating how this process occurred.

And then, finally, in this episode, Part 4, we heard the story of Wall Street legend Tom Jasper's

Primus Guaranty, which wrote $13 billion of notional credit default swap exposure entirely off-balance sheet, leading to its eventual failure in 2009.

Something I never learned until this interview is, not only was AIG at the center of counterparty risk in 2009, but much of the credit default swaps they'd written were sold to banks who were using them to play accounting games and further leverage their balance sheets through the Eurodollar system and its ability to create money. So AIG was all over every aspect of the Eurodollar system from credit default swaps to repurchase agreements.

We heard how the Gramm–Leach–Bliley legislation was sold to the public as an enabler of financial one-stop shopping – supposedly good for the consumer – but how, in reality, it enabled retail banks to play in the same Eurodollar wholesale money creation playground that the shadow banking institutions had been enjoying for years.

Jeff explained that the Fed was asleep at the switch in the early '90s, focusing monetary policy decisions on the federal funds rate with no apparent cognizance of the massive money supply creation that was occurring at the time in the wholesale Eurodollar market.

We discussed how – although the supposed purpose of the banking system is to facilitate the efficient formation of capital to finance the expansion and creation of new businesses – ever since the 1960s the Eurodollar system has really taken on a life of its own, creating bubbles as money creation occurs in the shadows with no regulatory oversight or even awareness on the part of regulators that it was occurring.

Jeff opined that this contributed to the 2007-2008 housing crisis, because the demand for collateral to facilitate Eurodollar money creation helped to fuel the bubble in sub-prime mortgage-backed securities.

Jeff explained that even to this day hardly anyone really understands how big the Eurodollar system is or the role that it plays in the global financial system. Regulators basically don't pay attention to it. It's not on their radar. Economists don't recognize the Eurodollar systems in their models.

Jeff believes that Eurodollar system money creation fueled the 1990s stock market boom, and few people appreciate that point.

And, finally, the point that Jeff made most emphatically is that we cannot possibly expect the problems and risks that are being created by growth of the Eurodollar system to ever be corrected until, first, regulators develop an awareness and understanding of the system's true inner workings and the risk that it poses.

That concludes my summary of all four parts of this series.

Now I'd like to share a personal recommendation with our listeners. Now that you've listened

to all four parts, I recommend that you go back and listen to some of Jeff's past interviews on the MacroVoices podcast, which you can still find on our home page at macrovoices.com.

Jeff was featured on August 18th of 2016, then again on February 16th of 2017, and then again on May 25th of 2017. Just look for Jeff's picture on the home page as you scroll through all of our back episodes.

Now, long-time regular listeners, I know what you may be thinking: But I already heard that show and I remember what it said. Look, my experience, going back – I didn't understand the wholesale aspect of the Eurodollar system when I taped those interviews. I only learned about it when we did this series. My experience going back was I learned a whole lot more listening again with the benefit of this background.

So I really encourage you, if you are interested in this material, to go back and listen to those interviews.

Jeff, I want to thank you again. Before we close, though, let's just give our listeners a quick rundown on what you do at Alhambra Investment Partners.

Jeff: I basically focus on dollars and Eurodollars. Alhambra Investment Partners is an investment advisory firm, a registered IRA, and what we do is try to make sense of the world so that we can invest intelligently and prudently. And, unfortunately, trying to do that in the last ten years (even before that) has been incredibly difficult because – as I hope your listeners have appreciated through the presentation here – the world doesn't look the way it's supposed to look.

There's a lot more to this story that is very much relevant to 2017. Somebody once said that you can't know the future without studying the past. I believe that wholeheartedly. And I hope that what we've done here will help people understand that as well.

Erik: Well, we're going to leave it there folks. Believe it or not, talking to Jeff off the air, he had to cut a lot of content out to get this series down to its current size. There's quite a bit more content, certainly a lot more in Jeff's brain. We're going to be tapping that as we invite Jeff to come back every several months for an update on what signals the Eurodollar market is sending us, and what we can expect in financial markets and the broader global economy. So be sure to tune in for that. And thanks again for joining us on this Eurodollar University.

Patrick Ceresna and I will be back as MacroVoices continues, right here at macrovoices.com.