Jeffrey Snider: Eurodollar University Part 2
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Erik: MacroVoices Episode 82 Alpha was recorded on September 28th, 2017. I'm Erik Townsend.

Today's feature interview with Alhambra Partners CIO Jeffrey Snider was pre-recorded back in July of 2017 as Part 2 of our Eurodollar University project. There's a slide deck to accompany this interview, and we recommend that you download it before listening as we'll be referring to the charts and graphs it contains throughout this program.

Registered users at macrovoices.com will find the download link in their Research Roundup email. If you're not yet registered, go to www.macrovoices.com and look for instructions to register and get the download, next to Jeffrey Snider's photo on our home page.

This four-part series came about after listeners to the MacroVoices weekly podcast asked for more in-depth coverage on the Eurodollar system. In Part 1 we discussed how the Eurodollar system came about, how Milton Friedman demonstrated in a series of articles that fully $30 billion in new US dollar money supply was created in the Eurodollar system by the end of the 1960s, and how this occurred at the stroke of a bookkeeper's pen without a single penny of actual cash issued by the Treasury or a single ounce of gold bullion to back this $30 billion of new money supply.

So, without further ado, let's jump right back in where we left off. Here is Alhambra Partners CIO Jeffrey Snider.

Jeff: One of the things that we have to be aware of is that the word Eurodollar, as I said before, is not a technically precise term. At least, the way I use it, it's not a technically precise term. I use it as a catchall to describe what is, essentially, a radical monetary evolution away from the traditional format that was based on deposits of dollars toward the more indescribable and ill-defined interbank market of these bookkeepers' pen ledger balances moving back and forth.

The wholesale part of it is just as important as the offshore part of it. I think we want to describe in a little more detail what we mean by wholesale finance.

Erik: To elaborate on that part about wholesale, let's move to the next few slides, where we're getting to the 1970s. It looks, if I'm getting the gist of this, like maybe the Fed is waking up to the fact that their own money supply statistics are not really accurate because of this growth of Eurodollars, which are dollars that exist outside of the banking system that they're

regulating.

What's going on here with Slide 16?

Jeff: Well, this is from the FOMC discussion from 1974 where the open market manager, Charlie Coombs, was essentially saying they needed to scrap M1 as a money supply indicator, because it was no longer valid. And what he was saying was that they should start focusing on M2, but even M2 was going to become obsolete in the future and that they should develop something like M3.

And the reason for that was what we talked about before, this revolution in money where the traditional formats that they used to define before were no longer valid. And at least – remember, this was the Great Inflation – and one of the bases for the Great Inflation was the fact that the monetary system itself was becoming unrecognizable to the people who were supposed to be able to define it best and then also control it.

And so it was a major, major, radical revolution in money supply and money demand, where the entire system was being defined in ways that were outside of the traditional mechanics of simple CDs, or whatever else is in M1.

Erik: And to keep this in context for our listeners, in August of 1971, President Nixon suspended indefinitely – he said temporarily at the time, but it is still suspended – the convertibility of US dollars into gold, because there had been, effectively, a run on the banking system where foreigners had figured out that the US dollar was not really worth the gold it was redeemable for and people were redeeming gold en masse. And that caused the US to slam the gold window in '71. Then you get inflation starting. And now, according to this, the FOMC in '74 is figuring out that their traditional measures of money supply don't work anymore.

Moving on to Slide 17, you've got a quote from Ben Bernanke in 2006 here. How does that fit into this story?

Jeff: What essentially happened was that, in the 1970s, as all of these money supply targets and all of the money definitions were breaking down, many economists noticed it – because it was hard not to, essentially – it was the Great Inflation, after all – and started to investigate what was going on in the monetary system.

And a prominent economist, a Princeton economist, Stephen Goldfeld, wrote what was essentially a famous paper, which he titled "The Case of the Missing Money." What Ben Bernanke was referring to was essentially this: The idea that the monetary system was evolving ways that economists at the time (even today) didn't fully grasp and didn't fully understand. And Stephen Goldfeld, in his paper, went looking for how and why the monetary system was changing, and what could be done about it. And what he essentially came up with was the idea that money demand forecasts were off. And off by a significant amount.

We're on Slide 18 now. And his conclusion was that they would forecast money demand for whether it was M1 or one of the other aggregates, and they would always come up short in the actual money demand. And the reason for it was the undeniable fact that something else was satisfying economic demand for money, which was clear at the time.

Again, this was the Great Inflation, even though the economists and policy makers at the time didn't know what it was. It was obvious that there was something else monetarily satisfying economic demand for money. And Mr. Goldfeld wasn't able to characterize exactly what that was, other than to clarify that this was indeed happening.

So it became the case of the missing money for at least him in that part of the 1970s, where they weren't sure exactly what it was that was going on. They would continue to investigate, and by the later 1970s they had a couple of different candidates. Among them was the repo market.

Erik: Before you go on, Jeff, I want to touch on this point you're making on Slide 19, because the definition of Eurodollar that I found on Wikipedia was "time deposits of US dollars outside the US banking system." Now, you're saying here that it's not just that, it also includes the transformation of banking into a wholesale model that is free of deposits altogether. That's very much at odds with the definition that I understood.

So please explain what you're talking about. What is the wholesale model, and how is it possible for Eurodollars to exist if there are not bone fide deposits of US dollars that are on deposit in some bank some place?

Jeff: The Wikipedia definition goes back to the same thing that Milton Friedman was talking about 50 years ago. Essentially, that we have a very difficult time describing the Eurodollar market, because it assaults all of our traditional sensibilities about what money is and what it's supposed to be. But the fact of the matter is that we have this wholesale model that is often – some of the later versions of it – completely free of deposits altogether.

What we're essentially building is bank balance sheets that are using various forms of liabilities that are not deposits. They are often interbank transactions, all sorts of different kinds of trade in liabilities. I know it's a difficult concept, and we want to describe it more fully. And that's, I think, what we're going to do here.

One of the first, first, primary wholesale methodologies is the repo market.

Erik: Jeff, before you go on, I just want to test something with you, because the description that I've always heard if you pose the question: Why was the US forced in 1971 to abandon the gold standard, and why did the US begin experiencing this huge inflation that lasted for a decade? What most people would tell you is, oh, well, the answer is excessive spending on the Vietnam War forced the US to essentially not be able to defend the dollar's convertibility to gold.

It sounds to me like what you're saying here is this Eurodollar system growing out of control that nobody understood at the time probably has just as big, if not a bigger, role than war spending in explaining what happened. Am I correct about that?

And, please elaborate. What role did Eurodollars play in the decision for the US to go off of the gold standard? And what role did they play in fueling the very large inflation that occurred in the US in the 1970s?

Jeff: I think the first part is correct. There was a problem with deficit spending, primarily. In Allan Meltzer's terrific history of the Fed, he attributes the Great Inflation to what he called the "even keel" policy, where, by regulatory requirements, the Federal Reserve had to allow the US Treasury to sell its debt at auction in the best possible manner. In other words, they would increase the level of bank reserve before an auction took place, and then remove them afterwards. The purpose behind that was to make sure that the monetary system was sufficiently liquid so that the US Treasury could sell its debt.

So, when the Vietnam War began to escalate, and deficit spending increased – also because of the Great Society – the Federal Reserve was adding reserves to auctions, which became more frequent, and then they never ever removed them. Essentially, they were printing money based on this deficit spending of the Treasury to make sure that the Treasury could always sell its debt at auction.

So that was certainly part of it. I think Meltzer's correct about that.

And we also have to recognize that, philosophically, there was the idea, from early 1960 – the famous paper by Samuelson and Solow where they essentially created what they've called an exploitable Phillips curve, which was the idea that you could buy lower unemployment through increased inflation using the Phillips curve effect so that the Treasury deficit, monetarily financed, would create inflation which would reduce the unemployment rate – which was one of the reasons why Milton Friedman became a Nobel laureate, because he criticized that philosophy as completely wrong.

So there were a couple of different developments that are apart from the Eurodollar system that do explain the Great Inflation, but I don't think they're comprehensive. I think we have to be aware of the fact that there's this missing money era where officials weren't really sure about what the money supply in the United States even was. They couldn't define it under their traditional statistics.

That was what was so important about the discussion in 1974, was that we have Federal Reserve officials on record talking about the fact that the M1 monetary indicator had already become obsolete. And that there were things going on – according to Stephen Goldfeld's work – where they needed to do more investigation about how do we define money in the 1970s? And, oh, by the way, this is taking place during one of the greatest inflation episodes in global

history, because it was a global event.

So, I think the Eurodollar story is an important part of that explanation.

Erik: Let's go ahead and dive deeper into this, Jeff, as we move on to Slide 20 here. You talk about the era of missing money. What's the missing money? Where did it go? And, particularly, how does the repo market fit into this story?

Jeff: The repo market in the 1970s was primarily the biggest missing money component. And you can understand why there was a reluctance to add repos to the monetary definitions at the time, because it didn't seem to fit the idea of money. It's not that officials didn't know that there was this repurchase market out there, because in some form repurchase agreements go back a long way into the earliest days of the Federal Reserve. And in foreign capacities even farther than that.

So the repo market wasn't a new phenomenon. People knew about it. Officials knew about it. But they were reluctant to treat it as a monetary component, because, at that time, there was actually no standard definition of what a repurchase agreement actually was. And I think a lot of people have problems when they try to intuitively understand repo, because it's called a repurchase agreement, and it is, in its transaction, a sale and a buyback of a security.

What exactly are people doing when they're doing that? What is the motivation for a firm to sell a security one day and agree on the same day to buy it back the next day or further down the road? It doesn't intuitively make sense, and it certainly doesn't intuitively make sense in a monetary capacity.

In fact the whole history of the repo market was one of confusion and irregularity. And official treatment of repurchase agreements were by case treated as either a collateralized loan or an actual purchase and sale of securities.

One of the most famous cases of the repo market, that established the repo market in 1969, was Union Planters v. US where the court ruled – rather than clarify what a repurchase agreement was, the courts actually ruled that repos were to be taken on a case-by-case basis.

Even earlier, in 1957 for example, the Office of the Comptroller of the Currency had started trading repos as collateralized loans. But then in 1964, decided, well, we're not going to do that, we're going to treat them again like we always have, as actual purchases and sales of securities.

So from the outside, even officially, the idea of repo as money might not have seemed like a legitimate explanation for the missing money. But, in fact, the way that the banks were actually using these repurchase agreements, as the Federal Reserve Bank of New York found out in the spring of 1979, was that corporations were depositing assets into these other accounts where they would use a repo transaction that would be settled the next day. And then they would use those accounts to undertake monetary transactions. In other words, they would actually write

checks against the repo account, even though the funds were segregated outside of the traditional definition of a deposit, and then they would be settled against that account.

So even the repo transactions started to act monetarily. And what the Federal Reserve Bank of New York found in 1979 was, when they went back and actually tried to quantify the growth of repurchase agreements – and in the 1970s, what they found was a great deal of this missing money was explained by the rise of the repo market. And also other things like money market funds too. But it was the rise of these things that were outside of the traditional definitions of money. And, even though they weren't defined as money under the deposit schematic, they were being used as money anyway.

Erik: So you've described repo transactions. Let's focus on how they fit into this whole missing money equation. As we move on to Slide 21, you're saying missing money equals wholesale. What do you mean by that and how does repo fit into this whole story?

Jeff: Well it was missing because the traditional banks, or the traditional monetary statistics, didn't include it in their definitions. Because, again, what we said about the complexity and the (essentially) insanity of the repo markets and how they were operating. So, from the perspective of officials using M1 statistics, there was missing money because of the repo market, and other wholesale formats like money market funds, that were actually taking place. And they were actually taking on a monetary role outside of the traditional definitions.

And so, essentially, the repo market was another form of bank liabilities to be traded between banks – or even between corporations and banks – that didn't meet the traditional or official definitions of money at the time. And so, in terms of the missing money era of the 1970s, it wasn't really missing. What was missing was the traditional understanding, or the official mainstream understanding, of what money was. Because the economy itself, as Stephen Goldfeld described in his paper, was using these various other formats of money to undertake economic transactions.

So these other forms of money were being used to actually fulfil a monetary role. It was just the idea that, officially, they didn't understand at the time exactly how that was taking place, or how much it was taking place. Which is an important consideration, especially in a period like the Great Inflation. Okay, we know these things are taking place, we know they're happening. But how much of it is happening and to what degree? And to what degree does that affect the economy at large, inflation, GDP, and all those other kinds of monetary aggregates?

Erik: On Slide 22, you're essentially summarizing to say that Eurodollars are really two things: The Wikipedia definition is offshore Eurodollars, and you're saying that these wholesale banking transactions create another money supply of US dollars that doesn't really get captured in the official statistics.

Moving on to Slide 23, we're shifting gears here, outside of the 70s, moving forward, I think, into the 80s and 90s. And talking about – you're describing this as off in the shadows, probably

bringing into play the so-called shadow banking system. So how do we know how many Eurodollars there are, if they're not being captured in the official statistics, and what their impact is on the global economy?

Jeff: Well, you're right, that's exactly what we're getting into. People remember from 2008 and the great financial panic then, we started talking about shadow banks and shadow banking. But I don't think it was ever fully described or fully investigated. In fact, I'm pretty sure it wasn't. The fact is, shadow banking didn't just come out of nowhere. It didn't just spring up in the middle of the 21st century. In fact, it was a process that had gone back into this missing money period of the 1970s.

Because this missing money was taking place outside of official definitions. Even though, officially, the Federal Reserve and economists work on various ways to incorporate things like repurchase agreements and money market funds into the official statistics, we often did not have success in doing so. So a significant amount of this monetary stuff, this money supply that doesn't conform to the traditional definitions, was taking place in the shadows. And the shadows are, essentially, bank liability constructions, or the liability side of banks. And how they operated their various financial and monetary activities.

Because there aren't good statistics on exactly what was going on at that time, especially into the 1990s, what I use is a couple of good anecdotes that give us an indication that all of the stuff that's out in the shadows is starting to have a very enormous impact on the financial system and thereby the global economy.

Erik: And on Slide 24 you've got Warren Buffet's picture here. How does he fit into this story?

Jeff: The story of Warren Buffet is his takeover of Salomon Brothers, or rescue of Salomon Brothers. Salomon Brothers is a well-known bank from especially the 1980s. It was given prominence in Michael Lewis's book, *Liar's Poker*. And essentially what happened in the early 1990s, what was described as a rogue trader, a guy named Paul Mozer, was bidding in excess for US Treasury securities at auction, even though there wasn't an apparent reason for why he might do that.

Throughout 1990, for example, Mozer was bidding sometimes more than 100% for what was placed by the Treasury at auction. In one particular auction, in June 1990, he bid more than 100% for Salomon Brothers accounts for the entire $8 billion in notes that was auctioned.

Now the Treasury Department noticed that this was taking place, and, in fact, the deputy assistant secretary Michael Basham called Mozer and told him, hey, knock it off. You're not supposed to be taking the entire auction for yourself. And eventually, you know, a week after that phone call, Mozer did it again for Salomon Brothers, and that led the Treasury to create what was the 35% rule that they even named after the guy. But yet he persisted. Even after Treasury had defined a rule, Mozer kept bidding for more US Treasuries at auction than they were supposedly allotted for.

And the point was that, by August 1991, the Treasury Department had finally had enough. And they were so fed up with this tactic that they actually threatened to suspend Salomon Brothers, which led to Warren Buffet's intervention with the Treasury Secretary, and even testifying before the House and Senate. Even after he took over – rescued – Salomon Brothers, he published a two-page letter to shareholders in October 1991 in the *Wall Street Journal* and the *New York Times* and the *Financial Times of London*. So this was a big deal for Salomon Brothers. Essentially, they were facing what was to them a death sentence by being kicked out of the Treasury market.

And what was important about this episode was nobody could figure out what was going on. Why was Salomon Brothers threatening their own existence? The *LA Times*, for example, wrote a story in February 1992 talking about all this. And they called it "Mozer's inept little scam." Because in the mainstream they couldn't understand what was going on. Why was Salomon Brothers so intent on overbidding at auction for Treasury paper? From the outside it looked like it was small potatoes. They weren't making a whole lot of money on the transactions, so it wasn't like they were buying paper for the paper itself.

And, in fact, that led to a government investigation in January 1992 – a joint investigation from several government agencies including the SEC, the Federal Reserve Bank of New York, the NYSE, the NESD, the OCC, and all the alphabet soup of government agencies – to try to figure out what was going on. Because their purpose was to maintain the integrity of the auction process.

What they found was that, looking at GSE options of mortgage bond securities, everybody was doing this. They sampled, I believe, 98 dealers and found they all were overbidding for MBS paper at auction. Something was going on here. Why was it that all of these people were going to such lengths to obtain auction on-the-run securities? And they were doing so in flagrant violation of all of these rules. And often, on the MBS side, the joint report on the government securities market found that some of the dealers were actually maintaining two separate sets of books so that they could do this.

And, again, I don't think – even in the government report it wasn't clear to the government: Why were these banks doing this? And the answer to that was the rise of the repo market. The idea that collateral had become an important part of the monetary system, especially on the interbank side of how banks obtain funding. Getting funds from the repo market was so important at that time, it had become such an important part of the overall funding side, that these dealers were going to illegitimate lengths to obtain collateral.

Erik: So the description that you've just given, Jeff, I think covers Slides 24, 25, and 26 where you're describing the things that you just described.

What does Slide 27 tell us about the role of repos and where they came into this story. Because it's just amazing that these banks would take such extreme risks and violate so many rules to,

as you say, overbid for Treasury paper. What does Slide 27 show us about the repo market and how it was growing at the time?

Jeff: Well, it shows us again what we're talking about. The era of missing money and how repo was one wholesale avenue of what was not really missing. It had become an important part of bank funding. And so, because it was such a rising important part of bank funding – the buyback on the liability side – that meant, because a repo is essentially a collateralized loan, that collateral is in high demand. Specifically, on-the-run collateral. On-the-run simply means any security that is just auctioned off.

So when the US government sells its Treasury bonds to primary dealers in the auction process, those on-the-run securities that were just auctioned off are the best, most pristine collateral out there. And so that's why these banks were, essentially, trying to get as much as they could possibly get their hands on of the best prime collateral. Because, by the early 1990s it had become an enormously important part of their funding dynamic. And that was true also of the MBS market, though at the time it was a much smaller component because the MBS market was still in its infancy.

But even there, you know, you could see from the Treasury Department's report, the government official report on the auction process, that, if so many dealers were willing to overbid for what would become on-the-run securities, we can infer from that the importance of the repo market for each of these dealer banks. By the early 1990s it had become something that I don't think most people, especially most officials, really appreciated as the role in redefining monetary circumstances.

Erik: Before we go any further, Jeff, I think we need to clarify. You're saying that these banks were all overpaying for Treasury securities and trying to take up the entire issuance if they could possibly get their hands on them. Now, bankers don't do something like that unless there's a return on it.

So, I've got to believe that their intention is somehow involves a multiplier effect. That if they're overpaying for that collateral, they're going to use the collateral in order to achieve some greater leverage or something. How does that actually work?

Jeff: There's a couple of different ways they can do it. One of them is, essentially, to make sure that they have access to the most pristine collateral, which are these on-the-run securities, for their own funding purposes. Number one.

And number two is so that they have the best collateral that could be rehypothecated at the best price. And rehypothecation is, essentially, the multiplier of securities in repo transactions. In other words, if you hold an on-the-run security in your inventory, you can actually lend it out to somebody else at the same time you use it. In fact, you can lend it out not to just one somebody, but often multiple somebodies.

And so, in a repo market, it would not be uncommon for a collateral security to be used several times to obtain repo funding. And so there is a multiplier effect where you start to appreciate collateral as itself currency-like. In other words, it had a value that was beyond just holding a US Treasury or buying a US Treasury from auction. It had a role in interbank financing of various balance sheets in various different ways.

Erik: And presumably as that rehypothecation is occurring, it means the same asset is pledged as collateral more than once. And that means that the underlying system is at risk, because if there's ever a default there's not really collateral there to back all of the transactions that were occurring. Is that right?

Jeff: That's correct. And, again, you get sort of a multiplier of collateral. And so you can have a run in collateral, which, in fact, did occur, starting in 2007. Because you had rehypothecation of not just US Treasury securities. You had immense rehypothecation of MBS securities. Because the MBS, during the housing bubble, became an enormous portion of the repo market and the way in which banks were funding their balance sheets through the repo system using that as collateral.

And so there was enormous potential for, essentially, a run on collateral. Again, we start to see the beginning parts of that in these early 1990s activities that, at the time, people didn't know what the hell was going on.

Erik: Moving on to Slide 28, it looks like you've got a couple more anecdotes here to help us understand in the early '90s how the Eurodollar system was growing. Please elaborate.

Jeff: A lot of people may be aware of the sterling crisis in 1992, if for no other reason than it brought us the prominence of George Soros. How was Soros able to, supposedly, break the Bank of England? And the reason was there was currency trading in volumes that had, by the early 1990s, become so large that they dwarfed anything that any central bank could actually put together. So it was relatively easy for the sterling crisis in 1992, for the Bank of England to be simply overwhelmed.

A couple of articles I have picked from that time period – the one from the *New York Times* was marveling at the fact that there was so much currency trading that it was more than the market value of the ten largest American companies at the time. The fact that there was this immense offshore currency market – that, I think, in many ways surprised people. They were not aware that this stuff was taking place.

And, again, we're trying to connect the dots between the missing money era, or the 1960s and 1970s, as well as its offshore component. You know, recalling Milton Friedman's multiplier example of how the global supply of dollars was growing independently of whatever the domestic supply of dollars was.

And so by the early 1990s and the sterling crisis, what we get is the sense of the growth outside

the US in its wholesale formats and the Eurodollar format was immense even by then. Throughout the 1980s it had expanded to such a high degree that people were shocked in the early 1990s by what was actually going on outside the US.

Erik: Okay, Jeff, at this point in the story, we're up to the '90s. So, by now Alan Greenspan has taken over – back in '87 I think – as the head of the Federal Reserve. And at that time Mr. Greenspan was heralded by many people as the maestro, the genius, the smartest guy ever, God's gift to central bankers. I'm guessing that's not exactly your viewpoint.

Fill us in on Slide 29 where we see Mr. Greenspan's picture, and how he fits into this story.

Jeff: Many people associate the period of the 1990s with Alan Greenspan in a very positive fashion.

But, if you actually listen to what he said throughout that period, it was, in many ways, like the missing money period of the 1970s. And, even in his most famous speeches, like his 1996 "irrational exuberance" speech for example, the reason he gave that speech was about this topic of missing money. What he said was, in effect, the correlations with money demand, correlations even with money supply, had long ago gone way off the rails, had got to the point where the Fed couldn't even predict either side of the monetary equation.

And so it was a difficult path for a central banker to try to handle monetary policy under conditions where they couldn't define money. He wasn't explicit in stating that it had happened this way, that monetary policy had evolved into a discretionary format because they couldn't define money, but that is what he said in various hints and reading between the lines of many of his speeches.

And so we have to recognize the fact that maybe the 1990s weren't exactly what everybody thought they were.

Erik: And, of course, the big change in monetary policy of that era is that the Fed made a shift from targeting money supply to targeting the Fed funds rate. And we're seeing that here on Slide 30. Tell us what's going on here and how it fits into the story.

Jeff: We don't even know exactly when the Federal Reserve started targeting the Federal funds rate. In fact, they've never specifically come out and said, this is the date we stopped targeting money supply or money demand actually, and started targeting the Federal funds rate. But when you're in a regime where you can't define money, either supply or demand for it, what do you do as a central banker?

What they came up with was based on Milton Friedman's work and Milton Friedman's principles, where inflation in particular is certainly a monetary phenomenon. And so what they decided, especially in the 1990s, was that monetary policy would be effective (they assumed) as long as inflation stayed low or within their target range. Of course the inflation target at the

time was implicit, not explicit either.

But, still, if inflation was well-behaved, they would assume – only assume – that it was because monetary policy was effective. And the way monetary policy was determined was the discretionary approach to moving the Federal funds rate either higher or lower based on, essentially, a seat-of-the-pants type of assessment of the economy and the markets.

And so that's what happened. The Fed flew by the seat of its pants throughout the 1990s. But, because things seemed to be very good and very well-behaved (especially inflation), everybody assumed that the correlation was between the economy (especially inflation) and monetary policy. In other words, Greenspan must have been a maestro for doing whatever it is he did.

And, in fact, Greenspan never actually came out and said exactly what they were doing. All he did was raise and lower the Federal funds rate, but nobody could really determine, nor did he specify, exactly how they did that. You know, what caused the Fed to raise the rate 25 basis points one day and then the next meeting maybe lower it. And, in fact, what we know today is that it was a completely discretionary policy that had absolutely nothing to do with money whatsoever.

Erik: Okay, Jeff, this is probably a good place to wrap up Part 2, since your next group of slides is discussing the role of the Basel Accords in the development of the Eurodollar system, and that's going to take more time than we have remaining today.

So, to summarize the key points that we discussed today, many people already know about the offshore definition of Eurodollars, which refers to time deposits denominated in US dollars that are on deposit in banks outside of the US banking system. But in this discussion we reviewed 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 really didn't know how to measure the money supply accurately anymore, because the system had become so complex.

We discussed how the repurchase system 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 and the role that the repo market played in 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 supply 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 probably played a key role in the early 1990s policy shift in which the Fed began targeting the Fed funds rate rather than the money supply as a monetary policy tool.

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: We're going to leave it there for this episode, folks. Be sure to tune back in, though, for Part 3. We're going to begin by diving in to the role that the Basel Accords has played in shaping the evolution of the Eurodollar system through the '90s and early 2000s.

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