Prof Steve Keen: The Real Risk is in Private Credit

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Erik: Joining me next on the program Professor Steve Keen from Kingston University. Steve, it's so good to have you back on the program. It's been way too long.

I want to start with a topic that you and I have talked about a lot before, which is the massive overhang of sovereign debt around the world. And the view that I've been coming around more and more to is I'm convinced that we're headed towards some kind of a financial crisis as a result of all of this excessive debt in the system.

The thing is, everybody seems to assume automatically, okay, financial crisis, stock market going to crash. And what I'm starting to realize is, boy, I think the driver is going to be bond markets, sovereign bond markets that are in some cases negative-yielding. I mean this is crazy. Eventually it all has to come falling down.

And I'm starting to wonder, is it necessarily the case that that means there is a stock market crash? Or could it be that if the bond market is distressed and Treasuries are no longer a safety trade? And that the stock market is actually supported by that?

Or maybe it's not supported – it doesn't get taken down as much. So the next financial crisis, which is the topic of a book that you wrote recently, and it has been extremely popular, we know there is a financial crisis coming.

Is it mostly about the bond market? Or is it mostly about the stock market? What is the driver and how is it going to play out?

Steve: We're going to have a good old argument here because I'm actually of the opinion that, except in the case of the Eurozone, it's not sovereign debt that matters. It's private debt. And there will be issues with private debt with countries running trade deficits.

So that includes potentially a country like Australia, for example. But it doesn't include countries like China or let's say South Korea that have substantial foreign trade surpluses, un-beholden to whether they can finance their debt in their own currency or not.

So let's go back to basics. Where do we start on that one? I do see a rise in bond rates, and therefore a fall in bond prices, because there is a sense of normalization going on right now with global interest rates. A false sense, but I think it will last between one and three years. As that does happen, of course, with interest rates going up, bond prices go down.

But I think the governments that have issued bonds in their own currency still have the backstop of their central banks. And this is the thing that people who are expecting a bond market apocalypse aren't taking into account properly.

Erik: So you think that the bond market crisis, if it is a bond market crisis, is driven by corporates. Does that mean that sovereigns are still a safety trade? And they are supported to some extent? And what we're looking at is really a change in spreads between corporates and sovereigns? Or does everything fall together?

Steve: I think a change in spreads is more likely. You've probably heard of modern monetary theory. Have you heard of that new non-orthodox approach to economics?

Erik: I have, but for any of our listeners who haven't, why don't you give a quick overview?

Steve: I'm generally inconsistent with it. I've criticized parts of its arguments on international trade that I think are, frankly, bonkers. So I'm not an MMT fanboy in case anybody is worried about that. In fact, I am criticized by a lot of MMT fanboys.

So let's just go back to what I say is completely correct [about MMT] in an accounting sense. First of all, if you think about the financial world, you have to understand your own financial position. Regardless of how many physical things you own, when you look at the financial value of what you've got, you work out your net equity by subtracting your liabilities from your assets.

And the classic lore of accounting that assets minus liabilities equals equity. And we all, of course, strive to have positive equity. Now, what we don't do – and this is where I think I'm the leading person on the planet about doing it – is seeing what does that mean at the macroeconomic level? Because, individually, everybody has assets minus liabilities equal to equity, and we all strive to get positive equity.

Now, you look at the global economy – forget about national borders now and imagine we've got an overall global economy – then for every asset there is a liability. What is an asset for one person is a liability for another. That therefore means that if there is one person whose assets minus liabilities give them positive equity, and you take that person out of the equation and say, what does the rest of the world look like? The rest of the world has to have negative equity precisely because that person has positive equity.

And that applies no matter who you're talking about, whether you're talking about a person or a sector or a country. If assets minus liabilities leads to positive equity for Sector X, then Sector Everything Except Sector X has got negative equity. That's just simply a mathematical rule. In that sense, there is a conservational rule applying. And what I'm doing is looking at the implications of that.

Now, modern monetary theory is done on the same thing and has argued that, if you look at a national economy, then – because one person's asset is another person's liability, one sector's asset is another sector's liability – if the government is trying to achieve positive equity – so it's trying to make sure that what it gets in taxes is greater than what it pays out in services – it's change in equity is going to be the opposite of the change in equity of the people it's taxing.

So if the government pushes itself more towards its flow of spending, except its taxes are greater than its spending , it means it's reduced the equity of the rest of the economy by that much. So the government's attempt to save, to get back to a balanced budget for example, or even running a budget surplus, means, by definition, the rest of the world with which it's interacting goes negative equity.

And they therefore say, that's not a good idea. Because, in fact, if the government runs negative equity – if you and I run negative equity, if we get caught in that situation, then several possibilities exist.

One is, if we're a bank, we're bankrupt. Period. Banks have to have positive equity.

Secondly, if we're a company, we can handle having aggregate negative equity so long as we're getting enough turnover to service our debts as and when they fall due out of the profit we're making.

Households will often end up selling assets in that situation or try to speculate in assets to get ahead.

So when you look at the aggregate level, you can't say we should all strive to get positive equity, because that's like saying we should all strive to be on the up side of a seesaw. I'm sorry, there is no such possibility. If one side is up, the other side is down.

So the question is, who can sustain negative equity? Can banks? By definition, no. If they're negative equity, they go bankrupt.

Can firms? Yes, if they've got enough cash flow coming in. But, of course, if cash flow diminishes they can go bankrupt as well.

Households will feel stressed in the case of negative equity.

The only institution that can sustain negative equity indefinitely is an institution that owns its own bank and the bank's liabilities are accepted as payment by everybody else in that particular society. By definition, that's the government.

The government, which usually has its own currency, has a bank that effectively underwrites any bonds that it sells. And, if it can't sell those bonds to the private sector, if there is a shortfall, then the central bank can buy them. What actually happens throughout the market operations is a convoluted way of doing that.

So long as you are able to issue bonds in your own currency, as a national government you can then back them up with your central bank effectively operating as an underwriter that you own. And it returns any profits it makes back to you.

So, in that accounting sense, it's foolish to worry about whether a national government issuing bonds in its own currency can run out of money to buy those bonds in the first place or to service the interest rate. It can do both.

Erik: Let's focus on the corporate side of that because, as you say – and I think you make an excellent argument – if you're the government, you can get away with a lot. What you're saying is that corporations can get away with things as long as they're positive cash flow, even if it takes them into negative equity.

But, Steve, we've been, over the last 10 years, through this cycle where what happened is so many corporations have seen the opportunity to finance share buybacks using, in a lot of cases, junk debt. They're issuing all kinds of junk bonds. And they're massively, massively indebted. And everybody is assuming that in this Fed-created economy that we have thanks to quantitative easing, everything is going to continue hunky dory.

At some point, if the cash flow is not there, as I think you're alluding, it would seem that the huge risk is to corporations not being able to service those debts anymore. And you would think that markets would see this coming and we'd be seeing high-yield spreads blowing out to extreme proportions.

But, in actuality, we've seen the opposite over the last six months or so where high-yield spreads over sovereign yields have tightened. And we've got junk bond indices making new all-time highs in the last few months. How is that possible?

Or I guess what I should say is, why isn't the market seeing what you're describing coming? Because it seems to me that you make a perfectly persuasive argument. But I sure don't see the market fearing that we're about to have a junk bond blowup. If anything, there seems to be increasing complacency around the security of this very, I think, excessive corporate debt that's been built up to fund all of these share purchases.

Steve: I think that's a very good analysis. And that's what worries me. And I think it is the spreads that are going to matter. And the reason is, if you think about the issues of junk bonds and all this stuff that's been happening – and the share buybacks in particular – it has been enabled by the Federal Reserve running quantitative easing for the last over a decade. And now they're going towards quantitative tightening.

Now, while they were doing quantitative easing, what it meant was that – first of all, if you take the Federal Reserve, the US case, which is the clearest case – the Federal Reserve committed itself to buying $80 billion worth of bonds per month, which is roughly $1 trillion per year. What they're effectively saying is – if you go over market operations, which they engage in all the time to try to keep the interest rate within the target band they have set – they were saying, we're going to be on the buy side net $80 billion per month indefinitely.

And they weren't just buying government bonds. They were buying supposedly high-rated corporate bonds and so on.

What that meant was, effectively, the financial sector was handing over $1 trillion worth of bonds every year to the Federal Reserve in return for a $1 trillion worth of cash.

Now, you don't want cash. You want something that's going to be an interest-rate-returning object. You've sold what could have been junk to the Federal Reserve at a nice price, thanks very much. But you now want to put the money that you've got back, you now want to use that money to buy something else.

Now, you can't buy bonds. In this instance, you can't buy government bonds because the government said, we're going to be on the buy side substantially. You can't buy high-rated corporates because, again, that's what the Federal Reserve is buying.

What can you buy? You can buy shares or you can buy low-rated corporates. And I think that's what's going on. A large part of the demand we've seen for the low-rated corporates and for shares – and particularly in financing share buybacks – has been the impact of this massive creation of – not a creation of money in the real economy, but creation of money in the financial sector by the government running quantitative easing to the tune of $1 trillion a year.

What they're doing now is they've started to feel confident. First of all, that's giving you a background of people who have taken that as that's the scenery. That's been happening for a decade. That's therefore the scenery. That's the context in which they're trying to interpret the current arrangements.

Of course, at the moment we know the Fed is trying to switch from quantitative easing towards quantitative tightening. And to go from buying $80 billion – at the moment they're selling between $30 and $50 billion per month back to the private sector. And of course when they sell it they put all of those processes into reverse.

Erik: So let's discuss how this plays out. For anyone who is not aware, you've written a book called *Can We Avoid Another Financial Crisis?* The book has been extremely well received. But, for anyone who wants the executive summary: No, we can't avoid another financial crisis.

So how does this play out? Because it sounds like you're saying the real problem is private debt and the excessive amount of corporate credit, including these low-rated corporate credits. And I couldn't possibly agree more with you, Steve, that it makes brilliant sense, everything that you're saying.

Except for one thing, which is the market keeps paying more and more and more for European junk bonds that are actually yielding lower. Lower than US 10-year Treasuries. For European junk-rated corporate debt. And, obviously, this is a result of governments monkeying with the economy.

But if the expectation is at some point there is going to be a ah-ha moment, the market is going to recognize that the junk debt is overpriced, people are going to short it aggressively and there is going to be a crash.

Well, I agree completely with the logic. But it seems like there are plenty of signals in the system right now that things are starting to get dicey. Yet, we haven't seen any real dislocation in all of these low-rated corporate fixed income issues.

So are people just afraid to short it because they don't want to pay the carry on it? What's going on here?

Steve: That could be the case. Shorting is always dangerous, as you know. You can be right and get your timing wrong, and go bankrupt because you are right at the wrong time. So shorting is always a dangerous prospect for most people.

And I think what that means is we don't actually see the turnaround until after the panic hits. You'll get individuals who say to themselves, well, I've got deep pockets and can handle a bit of a loss for an extended period. But the majority wait until the turn occurs and then it's everybody for the doorway at once. And that's when you see the crunch.

So, if you're talking about low-rated European corporates being overvalued right now, I think that's a classic case of the market reacting too slowly and then overreacting when it does. The European corporates are much more exposed to the dangers of bad government policy than the US corporates are, because they've got the European Central Bank and they only have the euro.

And with only the euro, of course, you have 18 countries, effectively, that don't have their own central bank backing themselves in their own currency. Therefore, if they start running trade deficits or if they start getting the insanity of the Maastricht Treaty imposed upon relatively trivial government deficits (at the moment), then those economies could have a crunch. And of course it will feed through to the corporates, who won't be able to service their bonds.

So I think that's an obvious play coming up right now: Exploiting the misunderstandings people have about the actual thing, where they tend too much to worry about sovereign debt issued by nations with their own currency. And, at the same time, those nations – and particularly the ECB, now, which manages a disaster called the euro – they are likely to be trying to return to what they think is normal, without understanding where the first crisis came from.

And I think they're going to trigger recession in their own economies over the next couple of years by trying to return to what they think is normal, with the central bank interest rates rising up towards 3% and 4% again.

Erik: Steve, as we look at how another financial crisis might occur – let's start with the last one. It started in the United States, really because of this securitization phenomenon where there was just so much fraud, frankly, that had occurred in issuance of sub-prime mortgages that it created a credit crisis in the United States. And the contagion spread around the world.

I think a lot of people make the assumption that it has to work the same way next time.

How would you see – since you wrote the book on the subject of the next global financial crisis – where would you see it starting? Does it start in the United States the way the last one did? Or does it start somewhere else? And, if somewhere else, where else and why?

And how does it proceed from there? What is the mechanism of transmission? And how does it eventually grow in scope to reach the global economy?

Steve: Well, the starting point is what actually caused the last crisis. It wasn't so much that securitization caused the last crisis. That delayed the last crisis so that it became bigger when it finally occurred.

What drove the last crisis is what has driven every financial crisis in history, and that's too much private debt growing too rapidly. Because when it does grow too rapidly, what's actually happening is credit is too high.

Take the United States data series for private debt, which you can find at the Bank of International Settlements, for example, and take it right back to 1950. Back in 1952 or 1953, the level of private debt in America was roughly 50% of GDP. And credit was running at about 5% or 6% of GDP.

Fast-forward to 2005, and the level of private debt had risen to 160% of GDP, so more than trebling. And credit was approaching 15% of GDP.

Now, credit, which is the annual change in debt – the reason I've defined credit as the change in debt is, when you get a new loan from a bank, that's the change in debt. You accept that new loan for $1 million that the debt that gives you, because the bank has put $1 million in your bank account. They are precisely equal.

You would not accept the bank saying, here is $1 million of credit and we're recording $1.1 million of debt against you. You'd say, hang on a second, you're going to record $1.1 million? You give me $1.1 million.

So the credit, which is your spending power, borrowed spending power, is precisely equal to the change in debt.

Now, conventional economists ignore this because they have this mythical view of banking that said banks are like introduction agencies for mature people who want to cheat on their spouses. They don't provide the service you're looking for, but they introduce you to somebody else who will give you that service. I call it the Ashley Madison theory of banking.

What banks actually do is originate loans and originate money at the same time. And the borrower doesn't borrow for the sheer pleasure of being in debt. You borrow because you want to spend the money. That increase in debt, which is credit, is spent into the economy and becomes a significant part of aggregate demand.

Now, a crisis occurs when that borrowing leads to ventures that fail and people can't pay their debt back, when people get too worried about the leverage of assets they've bought and they stop borrowing for that reason, when banks get scared about the level of leverage they have got themselves into and they stop lending as well.

All of those things bring it to a crunch and you go from positive credit to negative credit. When you have negative credit, that's actually taking money out of the economy and directly subtracting demand. That's what caused the crisis back in 2007–2008.

When I look at the data, credit between 1950 and 2007, maximum levels in 2007 when it hit 15% of GDP. And by 2010 it was down to minus 5% of GDP or minus 6%. That's what actually caused the crisis. 20% of GDP turned around in credit from positive to negative.

That also happened in the UK on a larger scale there. It was bigger still in Spain, gigantic in Ireland. These are all the countries that had an obvious financial crisis during the GFC. Iceland, as well. All those countries that had a huge – it often was driven by housing booms, of course.

Countries that avoided the crisis are the ones that continued to borrow through the crisis or even started their borrowing after, like China. They are the ones where I think they are going to have a crisis, because their solution was to have more of the problem.

To give you my favorite example – which is actually a county most people wouldn't expect – it's France. If I take a look at France and say, what was France's level of private debt when the financial crisis hit? The answer is 150% of GDP. What is its current level of debt? 192% of GDP.

In America's crisis, you had private debt rising from 50% of GDP back in the 1950s to 166% when the global financial crisis hit. And topping out at 170% and then falling from there to 150% now.

On the other hand, France just sailed straight through the crisis with borrowing rising, so its debt level back in 1970 – about as far as I can go back – was about 80% of GDP. It flat-lined at about 100% of GDP in the middle of the 1980s.

Then, when the euro was formed, it took off from of the order of 130% of GDP to 150% by the time the global financial crisis hit, well below America's level at that time. It is now 192% of

GDP.

So France avoided the crisis by continuing to borrow money. Now, what it means is when they flat-line they're going to have a gigantic fall in their level of demand. So I expect France to be one of the next major centers to have a financial crisis.

The other countries I include in that list are Australia, Canada, China, and South Korea. But I distinguish between the first two and the last two, because Australia and Canada are both running trade deficits. And that makes them, in my opinion, very exposed to a failure to have credit continuing.

Whereas China and South Korea are both running large trade surpluses and, with that trade surplus, they can mask the problems. Because the trade surplus creates money, making up for the money that gets destroyed when credit runs out.

France is actually in a similar situation. It is pretty much running a balance of trade. It's relying on a large amount of credit. It's got a huge amount of accumulated debt that has to stop growing. When it does, they'll either have a serious crisis or a serious slowdown.

And my money is actually on more of a slowdown than a crisis because, even though they've got this huge level of private debt, they haven't reached the levels of borrowing that America did.

So, at the moment, the level of credit in France is running at roughly 9% of GDP versus 15% for America when its crisis hit. But it's got a higher level of leverage. As I said, it's got 192% of private debt right now, versus America when the crisis hit had about 30% of GDP lower.

Erik: So, if I'm assimilating all of this correctly, it sounds like countries like France and Canada and Australia – to a lesser extent China because, even though their debt problem is just as big, they have the cushion of a trade surplus to help them service that debt. You're saying those would be the places where the next global financial crisis might start to occur.

How would that happen? What's the transmission mechanism? What are the signs? Does this happen primarily in credit markets? Or does it happen in equity markets?

And, if it starts in those countries, how long does it take? And what will it look like as it starts to go through the process of contagion into the rest of the global economy?

Steve: The contagion won't have the same impact as the contagion had from the States because, again, what happened when the States fell over, we're talking about the world's biggest economy at the time. Add in the UK, which is one of the world's top 10 economies, also having the same sort of credit crunch. And then Spain and Ireland and a global tendency for credit to slow down.

The countries where it turned negative are the ones that had the crisis. That's definitely the UK, USA, Spain, Ireland. Credit went from massively positive to massively negative. And the same thing was transmitted throughout Europe by the euro and by the Maastricht Treaty. So, in the case of Spain for example, credit went from 40% of GDP to minus 20% over the crisis.

In Greece, it was about 15% to minus 20%. Italy about 10% to minus 5%, something of that nature. So large turnarounds. I don't see the same large turnarounds being triggered by this happening.

But what I see happening at the same time is many of the countries that experienced the crisis and then have slowly navigated their way out of it through quantitative easing and through, to some extent, government stimulus spending, those countries are now thinking, oh, the crisis is behind us.

Of course we know that it wasn't caused by credit because we're listening to conventional economists and they tell us to ignore credit. So let's get interest rates back up to normal levels again, which means from about 4% for central banks. Like the Federal Reserve's favorite interest rate is 4%.

And as they get back to that level, what they don't realize is they're making corporate rates at least 6%, probably 7% on mortgages. And let's say the average rate of interest on private debt then hits about 6% of GDP. That means that, because America is carrying a debt level of 1.5 times GDP, pretty much 10% of GDP has to be used to service existing debt.

Now that is big enough to mean that corporates, and certainly a lot of households, are going to say, we can't afford this anymore. Bang, we cut back on spending. That's the voluntary decision.

But we might also have to declare bankruptcy. That's the enforced decision. And that will happen to a lot of corporates I think. And what you'll see as a result is a substantial fall in credit in America as well.

Not on the scale of what happened back in 2008, but more like what happened back in the 1930s, what's known as the Roosevelt recession. What happened then was Roosevelt was persuaded by his advisors that the worst was over. By this stage, unemployment had fallen from the peak of 25% in 1932–33 down to 11%.

And he said, get that budget back into balance again. He tried to get balance back in the budget. I think there were some rate rises as well. And the private sector decided to deliver again. And unemployment, having fallen from 25% to 11%, blew out to 20% again.

Erik: Steve, let me interrupt you there because we've had several guests on this program tell us, look, if you want to know where the huge credit expansion has occurred since 2009, China, baby. That's where it's at. If you want to know where the credit crisis that's going to take down the global economy is going to start from it's going to be China.

And it sounds like what you're saying is, yeah, maybe the numbers are there in terms of credit expansion in China, but China runs a trade surplus and that's going to help them with cushioning the blow.

I guess I don't quite follow the logic, because it seems to me that if there is contagion to the rest of the global economy, then the demand for Chinese exports is going to go down. And that's going to impair their ability to use that trade surplus to service that debt.

What am I missing here?

Steve: Not a lot. I think I agree with that, generally. But I want to put some background on it. Again, for a start, China has its own currency and they're trying to make that currency a global player as well. France does not.

So, in terms of the government's capacity to counter what goes wrong, France hasn't got the capacity. China does. And that means that you can expect the Chinese government to be pumping large amounts of government fiat money into the economy at the same time as credit money is running out.

Now, to give you an idea of some of the numbers here, I'm looking at the data from the Bank of International Settlements. If you look at the level of private debt in China when the global financial crisis hit, it was about 120% of GDP, which is below my absolute danger line of 150% but still high.

But it was trending down. Because, with the scale of trade surpluses, China was running with government spending as well. That enabled the private sector in China to continue de-leveraging.

The crisis hit and, of course, when the global financial crisis hit, exports by China to America plunged by something like 40%. You had a massive immigration of people out of the coastal cities and the factories there, back to the rural counties where they are registered. Because there is no employment for you except where you are registered in China, so they had to leave.

Huge political challenge to the communist party at that stage. The response was to basically tell the banks – which, of course, are mostly state-owned or state-controlled – to lend to anybody with a pulse. And the biggest property bubble in history began in China.

If we go to 2009, the level of credit in that year started jumping. It went from, at that stage, 16% of GDP and it blasted up to 39% of GDP by 2010. Now it's been running lower, not at those high levels. But certainly, if I go to 2012, it was running at 22% of GDP. By 2013 it's 30% of GDP.

We're talking substantial numbers, twice the scale of what I was talking about for America. By 2016, it's still 28% of GDP. It's trending down now. It's still huge. It's about 20%, maybe 19% of GDP. So, of course, a turnaround from that point towards negative credit with nothing else to counteract it would be a major crisis and feed through to the rest of the world.

But at the same time, China is spending massively on the Silk Road project, the One Belt One Road. And massive attempts to decarbonize the economy – which, of course, at the same time other parts of the government are pumping out coal-powered power stations – but lots of attempts to put solar and wind power into China. The high-speed rail.

All that expenditure, according to some sources I've seen, is totaling excess of government spending over taxation in China of about 15% of GDP.

To put that in context, that's 3 times the size of the New Deal and 1.5 times the size of the stimulus under Obama in 2009. If that much is coming in from the government, while the credit is going negative at the same time, and the country is running a trade surplus, that buffers the extent of the downturn.

So I do think there is a credit crunch happening in China. I do think it will be big. But the Chinese have got a capacity to mask it with the level of government spending. At the same time, because banking is basically double-entry bookkeeping, and people can cheat at double-entry bookkeeping, I expect the Chinese government to tell its banks to cheat and continue operating if they are in negative equity.

So you won't see the same impact on the downturn that you saw in America where that sort of thing can't be done.

Erik: I want to pick up on something you said a minute ago about China trying to make the RMB, its currency, into a global currency. And this really brings back to my mind the subject of de-dollarization. Sergey Glazyev in Russia is trying to persuade other countries to stop using the dollar for international trade settlement, for purchase of oil in particular.

Now we've seen China with this yuan-denominated crude oil contract on the Shanghai Futures Exchange. But, in the past this has been China and Russia complaining that they don't like the hegemony the dollar has over the global financial system. No surprise that China and Russia don't like what the United States is doing.

But what we've seen, Steve, just in recent weeks, is, to my thinking, a fairly dramatic change. The German foreign minister made a public statement with so much frustration over President Trump's very aggressive use of withholding access to the SWIFT payment system as a way to impose sanctions, not only on Iran, but on any country that's doing business with Iran, including countries that have not sanctioned Iran.

So what we saw was, first, Germany in August making this public statement that really surprised me because it seemed like, for the first time that I can remember, Germany is publically taking Russian and China's side of this argument and not supporting the United States who is their long-term ally.

But in late September, about a month later, we saw the European Union's foreign policy chief stand shoulder-to-shoulder with the Iranian foreign minister and announce that the European Union was committed to creating a mechanism to bypass the SWIFT payment network.

And that is to allow European corporations to continue to do lawful business with Iranian corporations and with the Iranian government, intentionally working against US sanctions because those US sanctions have been imposed unilaterally and did not carry the weight of a United Nations blessing.

So, all of a sudden, the European Union standing shoulder-to-shoulder with the Iranian foreign policy minister saying the United States is wrong and we're committed to building a workaround to the SWIFT system? It gets me thinking.

And it clearly hasn't happened yet, Steve, but if Russia and China can somehow win over Europe and get them on their side of this de-dollarization thing, that, to me, really brings serious question to the dollar's certainty of maintaining its reserve currency status in the long run.

Am I crazy to think that?

Steve: No, I don't think you're crazy. I think it's been crazy to use the American dollar for that length of time anyway. Donald Trump is very happy to talk about how he's great at making deals and we've got to get all these bad deals to reverse.

Well, there is one bad deal he should reverse straight away and that's using the United States dollar as the reserve currency. That was Harry Dexter White at the 1944 Bretton-Woods Conference rolling over Keynes, who wanted to bring in an international payment system based on a non-national currency that he called the Bancor.

It was to be issued by a body that was the International Clearing Union – in some ways, its simile would be the International Monetary Fund today.

That currency would have been issued proportional to the size of each national economy. So America would have got the biggest number of Bancor, obviously. And then for trading you would have to convert your national currency into Bancor to buy something off anybody else. And they were controls to stop deficits and surpluses exceeding – wait for it – 1% of GDP.

Now, we have Germany running a surplus of 9% of GDP. China is fairly similar. And these surpluses, of course, necessarily mean deficits elsewhere in the world. One of those places being America, which is normally running a trade deficit of about 5% of GDP.

And, indeed, it has to maintain a trade deficit in that sense because, since it is the reserve currency, other countries and corporations and people around the world have a demand for US dollars over and above their desire to buy US goods. Which means, of course, that US industry is handicapped by an overvalued dollar.

I'll just go with a rough ballpark saying it's got to be at least 30% overvalued. I've seen people claim it's twice the value it should be. In that situation, the only benefit America gets out of it – and it is a big benefit – it's got the financial muscle to push the rest of the world around. And we've normally seen that in terms of American corporations being able to buy assets in the rest of the world with US dollars.

But it also means things like the SWIFT payment system used as the American dollar. And the Americans say, we're not going to let Iranians use SWIFT. Then, bang, Iran can't trade with anywhere in the world. And we get political blackmail on top of a stupid bloody system in the first place.

So I think – and I've been making the case myself as an academic for 30-something years – that we should go to what Keynes originally wanted, which was the Bancor for international trade, not the American dollar. And have controls to stop deficits and surpluses getting out of hand.

The myth that the market would do it itself is obviously wrong, given the sustained surpluses we've seen in countries like Japan and Germany – Japan in particular – for 30 or 40 years. We have to have another system.

Now, it may be that the biggest gift Donald Trump is giving to the world is he's making it so intolerable to use the US system that we might finally see countries like Germany and, as you say, Iran, Russia, and China coming together and saying, let's devise a different system.

And I know that the Chinese Central Bank has been talking about a Bancor. I hope this is what's going to happen.

Erik: Well, Steve, great minds think alike. I happen to be writing a book about this very subject. And my hypothesis is as follows: I think that China and Russia have already figured out that digital currency technology, invented by the cryptocurrency crowd, gives them exactly the leverage that they need to create, effectively, the Bancor.

And it will come in the form of a global digital currency that is designed for the express purpose of upstaging the US dollar and replacing it as the world's global reserve currency. I'm not talking about cryptocurrency. I'm not a cryptocurrency believer. I don't think that that movement has a whole lot of steam left in it.

But the technology inventions of distributed ledger and double-spend-proof digital cash are exactly what you need to build a global digital currency system that, I think, has the opportunity to upstage the dollar. And I'm convinced that China and Russia are already working on it. Which is the subject of my book.

I'm very curious. Do you think I'm nuts to think that that's a possibility? And what do you think the odds are of someone such as China and Russia asserting a potentially gold-backed digital currency designed to replace the US dollar as the world's global reserve currency?

Steve: I don't know about the gold-backed side. But you know I'm a gold skeptic because I think the whole idea that people believe currencies need to have backing in terms of a commodity or anything of that nature is nonsense. The backing of a state apparatus or an agreed system between states is all you need.

If you have China and Russia and Europe and Iran saying, okay, we're going to invent an electronic trading system where we'll pay in Bancors to buy Iranian oil, to buy European goods and so on, and we recognize that and accept it, that's enough for it to work.

And, of course, the distributed ledger side of blockchain I think is a disaster, because of the enormous amount of processing time that gets wasted with millions of people maintaining the same ledger – and all the time delays built into the system as well.

But if you're talking a number of central banks just maintaining a copy of a ledger so that they know that the transactions are verified and accepted, and it's a reproduction of the multiple accounting system at the level of central banks, that works perfectly well. So you are quite right, I think that's actually a very sensible speculation.

Erik: Well, I'll send you a draft of the book. I agree with you completely that blockchain is for the birds. I think blockchain is going nowhere. I'm talking about a permission-distributed ledger which is thousands of times faster than blockchain and eliminates dependence on the proof-of-work algorithm, which is the whole problem with performance that you're talking about.

Anyway, let's save my book for a different day. I want to come back to your book, which is *Can We Avoid Another Financial Crisis?* For anyone who is not familiar with it, give us just a real quick rundown of that and then I want to move on to your work at Patreon.

Steve: The basic thesis of *Can We Avoid Another Financial Crisis?* of course is what caused the last one. And, as one of the handful of people who saw the crisis coming, the reason I did was I focus upon private debt and credit.

And what I saw in the case of the last crisis was private debt in my home country of Australia and in America as growing too rapidly. Meaning we're too dependent on credit. And meaning that, when debt stopped growing, total demand would fall. And it would hit asset markets first and then pass through to the real economy. That's what happened in America on a grand scale.

My home country, Australia, avoided it because the government encouraged the housing bubble that was starting to burst at the time to restart by doubling, trebling the amount of money they gave to first-time buyers to get into the market. And that credit burst, followed by what China did with its gigantic internal stimulus as well, put Australia into one of the survivor categories. It didn't have a crisis back in 2008.

So, to me, it's a debt-driven credit-driven crisis. America, UK, Spain, and Ireland in particular had their crisis. Europe made it worse with the euro. But that's the basic crisis back in 2008.

Now, looking forward from that point in time, I'd say the countries that had a crisis then are now what I call the "walking dead of debt." They are carrying such a level of private debt, any boost they get out of credit will be short-lived.

Looking at America in that case, for example, debt peaked at 170% of GDP in 2009–2010. It fell to slightly below 150% by 2012. It's now rising again. But the rate of change of debt, which is what creates credit, is much lower than it was before the crisis. It's flatlining at about 6% or 7% of GDP. So you don't get much of a boost out of the economy.

And when the authorities – who don't understand this at all, I'm afraid to say – when the authorities like the Federal Reserve decide to stabilize the economy by putting up interest rates to fight inflation, they will trigger another downturn.

It will be the private sector going back into deleveraging again. That's what hit Japan for the last 25 years. I call these the "walking dead of debt" – they are never going to quite get out of it.

The "zombies to be" are the countries that managed to avoid a crisis by continuing to borrow money through the crisis back in 2008, keeping credit demand positive. But, of course, accumulating more private debt in the process.

The primary country that did that is China. But China, as I've mentioned, has the fallback of enormous government spending as well.

The countries that don't have that fallback, that have had the same credit-driven avoidance of the financial crisis back in 2008, they are the ones that are going to have a crisis in the near future.

In particular, it involves Canada and Australia, which are the most obvious examples. It also involves France, which is the next biggest economy that has also relied on credit to get through the crisis.

And then, of course, you have a number of smaller countries, some of which are running trade surpluses so they may manage to buffer themselves from the crisis.

But, fundamentally, all crises are caused by excessive private debt. All crises come to an end when private debt stops rising. And you then find yourself in the aftermath.

We are now carrying an aftermath of private debt that is so great that I think the global economy is caught in credit stagnation rather than secular stagnation, and will stay there until we reduce the level of private debt. And we won't do it deliberately. We'll most likely do it by fighting climate change.

Erik: Steve, last time we had you on the program, you were exploring something new and, I thought, very exciting. You have, for a long time, had the reputation of being the guy who, despite having a PhD in economics, still speaks and writes in plain English and is very good at explaining economics in plain English.

In addition to your work as a university professor, you were undertaking something to create, essentially, a program on Patreon to get people who wanted to learn about economics to support you through the Patreon funding mechanism and you were going to supply a flow of writing and other services. It was a brand new idea that you were just experimenting with last time we spoke to you.

How has that gone? How many followers have you managed to get on Patreon? Is it going well? And is it something that you're going to continue to do?

Steve: It's going very well. These things always grow more slowly than you expect. And of course there are growth spurts when you think they're going to go backwards.

When I started Patreon, in the first month I got to about 300 subscribers and $2,800 in revenue. I'm now running at about just under 1,000 subscribers and the revenue is running at about US $6,700 US a month. That's not quite as much as I was earning as an academic, but it's enough to mean I can continue being a rabble rouser and not have to worry about all the nonsense that dominates universities these days.

I've got quite a lively community of supporters there. Most of what I post goes up publically. I use YouTube for my videos and I put my posts up for free after a short delay for my patrons to see them first.

But as I start writing the next couple of books, all the draft chapters are going to turn up and I'm going to get feedback from my audience as I write them. So the main benefit is that feedback learning process.

And what I'm going to consider doing as well – when I cease working at the university sector, and at the moment it looks like being September of next year I'll cease being employed at a university – I'll still be a professor but I won't have a teaching role – then I'm going to start developing online courses using Patreon.

Erik: Well, that's fantastic news. I think that to give the world at large the opportunity to learn from someone with your perspective and, needless to say, having called the 2008 financial crisis in advance and having explained publically why and how it was going to happen, you have a lot of credibility.

For people who want to pursue this and find out more, where do they sign up or where do they find more information about what you offer on Patrion?

Steve: Patreon.com/ProfSteveKeen and they'll find me. So Prof Steve Keen is the handle. And, of course, if you follow me on Twitter you can't avoid seeing it there in most of my Twitter posts. So it's quite easy to find.

The lowest level is $1 a month. And the highest level that anybody's actually put in is $100 a month. There are various benefits for that. I give various goodies out – signed copies of books and stuff like that.

But the main reason people are there – and this is why I appreciate it so much – is they know we need a new economics and they regard me as the leading person developing that. They want to do their bit to try to bring about a realistic economics, because we can see the damage that unrealistic economics has done to the global economy and to human society. And it's about time we stopped it.

It won't happen at the universities. It will only be rebels like myself, and maybe institutions like the OECD, that are doing some work to try to bring about an alternative approach to economics that will get us away from the religion that we call economics as it is at the moment and get us something realistic. Forget ideology, let's just understand capitalism before we destroy it.

Erik: Well, I could not possibly endorse that view any more strongly. So amen to that and I encourage all of our listeners to check out Steve's work. You'll find a link in your Research Roundup email to Steve's Patreon page.

Steve, thanks so much for a fantastic interview. Patrick Ceresna and I will be back as MacroVoices continues, right here at macrovoices.com.