



HOUSE OF LORDS

Financial Services Regulation Committee

Corrected oral evidence: Growth and proposed regulation of stablecoins in the UK

Wednesday 4 February 2026

11.10 am

Watch the meeting

Members present: Baroness Noakes (The Chair); Lord Davies of Brixton; Baroness Donaghy; Lord Griffiths of Fforestfach; Lord Hollick; Lord Lilley; Lord Sharkey; Lord Smith of Kelvin; Lord Turnbull; Lord Vaux of Harrowden.

Evidence Session No. 2

Heard in Public

Questions 12 - 20

Witness

[I](#): Professor Arthur E. Wilmarth Jr, George Washington University.

Examination of witness

Professor Arthur E. Wilmarth Jr.

Q12 **The Chair:** Good morning. This is a second session of evidence on our new inquiry into stablecoins. I am grateful to you, Professor Wilmarth, for agreeing to join us because I know it is fairly early where you are. It is late morning here but rather early morning where you are, so we are particularly thankful for you joining us. I gather you are happy that we go straight into questions?

Professor Arthur E. Wilmarth Jr: Yes, that would be fine. Thank you very much. It is a pleasure to be with you again.

The Chair: Excellent. Thank you. Professor Wilmarth, we are often reminded that the future is digital. Do you see stablecoins as a natural component of future financial systems? If so, what will or should they be used for?

Professor Arthur E. Wilmarth Jr: I do not see them as a natural component of the financial system. To me, anything that stablecoins can do, tokenised deposits can do better. I feel strongly that a payment device like a stablecoin should be offered only by a fully regulated bank. It is dangerous to allow a core payment activity to migrate outside of the banking system.

For those of you who have read any of the materials that the staff might have provided which I have written, the United States has made a terrible and, I believe, disastrous mistake in passing the GENIUS Act and allowing non-banks to offer stablecoins. I argued strongly that we could accomplish all the declared objectives for digital payments, real-time payments and perhaps, hopefully, lowering the cost of payments through tokenised deposits offered by banks. To the extent that there are concerns about financial inclusion, those are better addressed through basic banking accounts that give everyone who has reasonable financial resources access to basic banking services, including payment services.

We can discuss the risks, but non-bank stablecoins pose tremendous risks: financial stability risks, risks to legal compliance and law enforcement and risks to monetary policy control and sovereignty. I strongly recommend that you do not follow the terrible mistake we have made by allowing non-bank stablecoins.

In my papers, I said that if for some reason banks determined that stablecoins were preferable to tokenised deposits, I would not stop banks from offering them. I personally do not see how that is true in the sense that, on our side of the Atlantic, the banks are talking about stablecoins but, to my knowledge, not a single US bank of any size has introduced one. They are pursuing a number of projects connected to tokenised deposits and, as usual, what happens in the market tells you something. Banks in the United States are pursuing realistic and quite sincere plans to offer tokenised deposits. Some of them already have: JP Morgan

already has, and a consortium of smaller regional banks also has its own tokenised deposits.

However, I do not see the banks moving towards stablecoins. What we have seen in the United States is that stablecoins are essentially an arbitrage play that allows non-banks to get into the money business. Regulatory arbitrage is always dangerous because you undermine the integrity and resilience of a system that has been built up over centuries in the banking system. We make very big mistakes when we allow that system to break down and permit core banking functions to migrate outside of the regulated banking system.

The Chair: Is it not the case that the banks only started looking at tokenised deposits in response to the competitive threat that stablecoins appeared to present to them? Would banning them, which I think would be your preferred option, by non-banks take some competitive pressure out of encouraging banks to innovate for the benefit of their customers?

Professor Arthur E. Wilmarth Jr: Yes, that is a fair comment. Would banks have moved toward tokenised deposits as rapidly as they did without that pressure? This is a constant problem when you are looking at financial innovation. If the banks are not doing what you hope they would do, for example modernising payments, providing more financial inclusion and perhaps providing more competition for us in the credit card space, then the answer is to address that directly by regulation—perhaps, in our country, anti-trust or, in your country, competition policy—to make the banks do what regulators and public policymakers think they should.

On the other hand, you can allow lightly or weakly regulated non-banks that are not subject to the same prudential requirements and do not have the same safety mechanisms for customers, and use them as a club to get the banks to do what you want. We have done that in the United States since the 1970s because we introduced money market funds, and we can talk about that. Introducing money market funds was a bad mistake also for the United States, as it turned out. It contributed directly to the great crisis of 2007 to 2009. Hilary Allen, whom I think you heard from recently, and I have talked about stablecoins as shadow banking 2.0 where money market funds and repos were shadow banking 1.0. But if you use non-banks as a club to get banks to do what you want to do, it is like the sorcerer's apprentice. You suddenly discover that the non-banks have become very large and uncontrollable, and then you have to struggle with what to do with them.

Q13 **Lord Smith of Kelvin:** I have read in great detail your arguments about the GENIUS Act and the dangers involved. To what do you attribute this amazing growth in stablecoins in the United States? Was there a market gap? People are using it a lot. Why, if there is no market gap in the banks?

Professor Arthur E. Wilmarth Jr: As best I can tell, stablecoins have three main uses right now. It may fluctuate, but somewhere between 85% and 90% of stablecoin usage is for trading in crypto assets on

crypto platforms. As some people have said, they are like poker chips at the casino because, to engage in crypto activities, you have to convert your fiat currency into stablecoins, execute your transactions and then, if you want to cash out, convert them back into fiat.

We could talk about why that is true. A lot of it has to do with the fact that with stablecoins, you can engage in transactions pseudonymously. It is not anonymous; you have crypto identification keys for your stablecoins. But many participants put their stablecoins in unhosted non-custodial private digital wallets, which means that the wallets are controlled only by the trader, the participant or the owner, not by the crypto exchange. No one knows who owns that wallet. It has a cryptographic identifier. The trades can essentially be done close to anonymously.

That gets into the second major use of stablecoins, which is unfortunately for all sorts of illicit criminal activities, money laundering, sex and drug trafficking, and movement of money by sanctioned regimes and terrorist groups. Again, it is easier to hide your tracks using stablecoins, unhosted private digital wallets and various cross-chain hopping techniques to move from platform to platform. You may convert your stablecoins into bitcoins or Ethereum and back again. It is not impossible to trace but very difficult. Chainalysis issued a report that said that illicit crypto activity had just about tripled in the last year to about \$160 billion that they could track. Of course, they admit they can only track so much of it. Some 84% of that illicit activity occurred through stablecoins.

I am beginning to call them digital C-notes. Perhaps it will be familiar to you that people refer to our \$100 bill as a C-note, I suppose because it is a century note, and \$100 bills have long been the favourite payment instrument for criminal gangs because they are dollar-based and anonymous. Unfortunately—and this is particularly true of Tether, which is the largest global stablecoin issuer with about 60% of the total global market, close to \$190 billion—Tether has been linked to all sorts of illicit activity and is considered the stablecoin of choice for illicit players. I believe Tether is headquartered in El Salvador; anyway, it is a Latin American country. As you know, Tether withdrew from the EU because it was not willing to comply with the EU's compliance regime for stablecoins. It has announced that it will introduce a US stablecoin for US customers but will not bring its main stablecoin onshore, which tells you something. They will not bring their main stablecoin into compliance with the GENIUS Act. That is the second thing. You have crypto trading activity and then you have all sorts of illicit crypto activities.

The third activity, which has been growing, is that we see stablecoins used to some extent for cross-border transactions, particularly in the developing world and for business transactions. That is because many of these countries do not have stable banking systems. Perhaps they do not have the best payment systems and may have unstable currencies. Stablecoins give them a dollar-denominated instrument that is more stable and more accepted across more jurisdictions. Interestingly, the

amount of usage of stablecoins in the US domestic market is low. It is a tiny percentage. Most households do not use them at all. I have not seen a great deal of usage, certainly domestically, among businesses, but there is some cross-border usage.

Again, stablecoins to me are a payment instrument that is largely native to the crypto exchanges and lurks in the shadows otherwise. I have yet to be convinced that any market case for stablecoins could not be met much better, and much more safely and securely, through tokenised bank deposits.

Q14 **Baroness Donaghy:** Professor Wilmarth, you have indicated that the vast majority of stablecoin activity globally involves the trading of unbacked crypto assets. How do you expect the use of stablecoins in retail and wholesale real-world payment systems to develop in the US? You might possibly be able to comment on the UK as well.

Professor Arthur E. Wilmarth Jr: Yes. I will add one quick note to give a sense of the dollar concentration of the stablecoin market. Somewhere between 96% and 98% of all stablecoins that are linked to any currency are linked to the US dollar. The fact that it is a global reserve currency-denominated instrument is of critical importance to understanding its attractiveness.

I notice that there are less than \$1 billion of euro-denominated stablecoins, and it is not for a lack of trying. Société Générale is probably the only major bank I know of that has had a stablecoin out in the market for some considerable period. The last I saw—I checked yesterday—it has less than \$60 million of stablecoins outstanding after a couple of years of trying. The euro-denominated market seems to be less than \$1 billion. Will this instrument really affect all currencies and become a general-purpose payment instrument? I am sceptical, because the market indicators do not show that.

The other problem is that stablecoins operating on public permissionless blockchains are not functional at all as retail payment instruments. They potentially could be used in large wholesale transactions, where you do not have too many transactions occurring at one time, but with any public permissionless blockchain—and I discussed this in my long paper—you have two major problems.

One is scalability. Because the consensus protocols are difficult and time-consuming to execute, you cannot do too many transactions at one time. If you do, the whole system gets gummed up. They tend to charge higher fees as a gatekeeping device to say, "If you want to do transactions when we're busy, you will have to pay a higher fee". Scalability is definitely a problem. We could talk about that and how they have tried to get around it, but it seems unavoidable in a true public permissionless blockchain, where the idea is that you have to get consensus for these protocols across a wide number of participants. That is not easy or quick to do.

The second problem, which to me is even worse, is immutability. Once you complete a transaction on a public permissionless blockchain, it is virtually impossible to undo it. It does not matter if it was fraudulent, mistaken or outright theft. It simply cannot be undone without an enormous amount of difficulty. The Bybit hack that happened early in 2025 was the largest on record, about \$1.5 billion. It was executed by North Koreans; Ethereum could have undone it by doing what is called a hard fork. If you think of a pruning exercise, you cut off the main trunk of the tree and go back to a branch, then start again from that branch, but you cut off the main trunk of the tree.

Ethereum did that once many years ago, and it was traumatic and caused a lot of blowback. People said, "Wait a minute, this is not what a public blockchain is". The whole idea of a public blockchain is that it is supposed to be immutable and permanent. It is not supposed to be changed, at least not without getting everybody's buy-in, which means close to 100% in most cases. They were unhappy about it. When this came up again in the Bybit hack, people asked, "We don't want to reward the North Koreans for this terrible theft. Can't we do a hard fork, cut them off and start again?" The Ethereum community rebelled and said, "No, we did that once. That was several years ago. We will not do that again." It is against the whole idea of a public blockchain.

When you are talking about payments, the idea that you cannot undo a payment once it is completed is drastic and undesirable. In other words, you cannot correct for fraud or theft, or a bad mistake. Even with our banking system, we have to be careful about instant payments. Everybody wants instant payments, but they have the same problem. You can undo or reverse them, but it is often a costly process. There is some virtue in having a certain amount of time to review a payment before it is executed and make sure it is right. The key point is that you can reverse payments that go wrong in the banking system. It is often a painful process, but it can be done. With public blockchains, it simply cannot. Therefore, I do not see them as a feasible retail payment system for certain.

Even in the wholesale space, you run into the same problems. What if you have a large wholesale payment executed on a public blockchain and it turns out to be unauthorised, fraudulent or theft—a mistake that cannot be undone? It seems to me that a stablecoin on the public blockchain, which is what most of them intend to do, does not answer the problems that we need for a better, more secure, more effective payment system. I am sympathetic to the Chair's remarks about the banks often not moving as fast as they should and needing prodding, but I am not sure that allowing the fox into the henhouse is the way to get hens to lay more eggs, if I can use that metaphor.

- Q15 Lord Vaux of Harrowden:** At the outset, you touched briefly on the risks to financial stability and to the real economy. Could you expand a little on what those risks are and how they arise?

Professor Arthur E. Wilmarth Jr: Yes. You have a number of problems with any short-term financial claim, whether that is a bank deposit, money market fund or a stablecoin, or indeed a repo or short-term commercial paper. In fact, stablecoins are essentially functionally equivalent and closest to money market funds in the assets that back them, but they are also close to a bank deposit.

Of course, the problem is that you have a claim that is, essentially, payable on demand. Some stablecoins do not necessarily guarantee redemption on demand, but they lead people to believe that they will be redeemed on demand. I think Tether particularly redeems only in large amounts and with some delay. They often say, "We may not redeem immediately but if you go to one of our friendly exchanges, they will take your stablecoin and give you your money". Of course, that presumes the exchange itself is not in trouble, but there is an assumption of redemption on demand.

Then the question is: how do you make certain that redemption will happen? Of course, in financial crises, that is why we have runs. Before the era of deposit insurance, we had all sorts of bank runs. We still have them. We had a bank run in 2023 in our country and in Switzerland, because people lost confidence in the uninsured deposits being paid promptly. We had two major money market fund runs in 2008 and 2020; we had to bail them out both times. Going back to the 1970s, the people who introduced money market funds—this wonderful innovation that was going to deal with problems in the banking system—said, "The assets backing these things are so safe and so liquid that there will never be a problem and we won't ever have to bail them out. We don't need deposit insurance. We don't need even a lender of last resort."

Of course, what you find is that a money market fund—this will be true for the stablecoin too—is a spread game. In other words, you promise to return the money, the principal, but do you promise to pay more than that? We are struggling with that big issue now in the United States, and the UK would certainly struggle with it if you introduced a stablecoin. Do you allow the payment of interest on stablecoins? Do you allow the payment of rewards or inducements by crypto exchanges that encourage you to bring your stablecoins to them and either keep them there or allow the crypto exchange to lend them out, invest them or something like that?

The minute you start paying anything beyond the return of principal, the question is about where that money is coming from. Of course, we found in the United States that money market funds began investing in more and more risky and illiquid instruments to offer higher yields. Then when it came to 2008 and 2020, suddenly all those higher-yielding instruments they held were not liquid any longer—for example, Lehman Brothers commercial paper—so they could not meet their redemption demands and we had a systemic run.

It was interesting looking at the Bank of England's consultative paper. It said, "We will not allow them to pay interest", so they will be, essentially,

sterile principal-only instruments. The Bank of England did not address whether it would allow crypto exchanges to pay rewards on stablecoins. That is an enormous issue.

For those of you who follow developments in the United States, a major debate is now going on. Our GENIUS Act says that stablecoins will not pay interest, but it does not say anything about rewards and inducements by exchanges and affiliates. Many such rewards and inducements are currently offered, essentially at the money market rate and sometimes better and, of course, the crypto industry does not want to give that up because it wants to offer an instrument that is fully competitive with money market funds and bank deposits—and the banking industry, having played a Rip Van Winkle during the GENIUS Act, despite my best efforts, let it go through without much difficulty.

I do not know how familiar the story of Rip Van Winkle is on the other side of the Atlantic, but it is a good story. Suddenly the banks awoke from their slumber and now they are fighting the second Bill, which is the market structure Bill for the entire crypto industry, and saying, “We will not let it go through unless you stop paying these inducements”. It has frozen the legislation for the time being. But if you have a short-term financial claim, even to return the principal means that your assets have to be incredibly safe and liquid. If you pay anything more than return of principal, that problem is made much greater.

What instruments would you permit as stablecoin reserves? The Bank of England says that it would require 40% of reserve assets to be in its reserves unremunerated, which would be no return at all. It would allow 60% to be in 93-day Treasury bills or repos backed by those bills. That is problematic. I am not sure that you have seven-day Treasury bills in the UK; we do, but in the United States if you offer anything longer than a seven-day Treasury bill, you have some interest rate risk and market risk. We have started to see—I think you have seen this in your country—an unfortunate number of freezes of the treasury market, which people never thought would happen. These suddenly began in our country in 2019 and then in 2020, and we have had disruptions in 2025. Suddenly, as your Treasury markets get large and your fiscal situation gets more unbalanced, people start worrying. Will a Treasury bill always get paid at 100 cents on the dollar or will there be massive inflation in short order? Even 93-day Treasury bills are not foolproof, so what do you do when the market freezes?

The other thing that happens is that if there is a market crash, often the short-term treasuries are what people tend to sell first because they are the most liquid. Even if the Treasury market itself is not under siege, if people are simply trying to dump liquid instruments as fast as they can, you can still have a freeze-up in the Treasury bill market.

Once you talk about repos, you are going onto completely different ground. With a repo, you are dealing with a private counterparty and, in many cases, it is a hedge fund and is collateralised by Treasury bills. What if the hedge fund, the private counterparty, defaults on the repo

and the stablecoin issuer has to try to liquidate the collateral quickly? If you fall below 100 cents on the dollar, to use the US case, people start running. As soon as you break the buck by more than even a penny, people start running, so it is a very tricky situation. I would be worried about allowing many repos, even if they are collateralised by Treasury bills, because counterparties default. The repo market froze in 2008 and 2020. In fact, we had a repo market disruption in 2019.

This is a broader discussion, but I have tried to say to people that the more non-bank financial markets become part of the essential monetary system, the more your Treasury and monetary authorities then have to treat them like banks and they will get the same guarantees and bailouts as banks, even though that may not be explicitly stated. When crises come—this was certainly our experience in 2008 and 2020, even in 2023—suddenly the Treasury and monetary authorities decide they cannot allow the non-bank players that are offering money-like short-term financial claims, payable on demand, to default. If they do, it will then spread to the banking system and undermine the banks. In many cases, the banks are involved in offering these instruments through their own affiliates within the banks' conglomerate structure.

Then you have the Treasury and the monetary authority wrapping their arms around the entire financial system. To me, that was not the intention of financial markets. There was a time when your banks in the UK, in some ways up until the 1970s, were probably more separated from the financial markets even than in the US. We allowed that separation to go by the board, beginning in the 1980s, and we paid a big price for that.

That is why I say that money market funds, commercial paper and repos were shadow banking 1.0, and they were all bailed out in 2008 and 2020. Do we want to create shadow banking 2.0 with a new type of monetary equivalent, a new short-term financial claim payable at par? We can talk about safe assets, but how perfectly safe are they in a crisis?

The Bank of England has some good discussion about that. It talks about what kinds of capital and liquidity buffer should be required. As best as I could tell, the proposed capital was six months of operating expenses or the largest loss under a plausible scenario. The question then becomes whether 2008 or 2020 or even, let us say, 2023, is a plausible scenario. Yes, but then you need a lot of capital to deal with a scenario like that. If you do not have a severe crisis as a plausible scenario, your capital is not likely to be sufficient. The proposed liquidity buffer, as best I could tell from the Bank's discussion, would be something around 0.5%. Is 0.5% really an adequate liquidity buffer? The problem is that if you require a robust liquidity buffer, again it is hard for the stablecoin issuer to make a profit. It has to make a profit somewhere.

I was interested to see that the Bank of England's original proposal was that 100% of the reserves would be in unremunerated Bank of England reserves, again with no payment of interest. I gather from what I read that the stablecoin industry revolted and said, "We can't make any money under that scenario". Should the issuance of money-type claims

be a profitable business unless you accept all the prudential safety and soundness oversight requirements that banks have historically accepted? That was understood as the contract: that you get to issue money that is backed by the full faith and credit of the Government and supported by the monetary policy authority, the lender of last resort, but in return you have to accept robust and vigorous supervision and regulation to try to prevent these bank runs. Of course, even with the best regulation, we do not prevent them.¹

When we change that contract and say that somebody else will be allowed to issue a claim that looks a lot like a bank deposit but they will not have the same requirements and burdens and oversight as banks have, that way danger lies. We have seen it already. I would be happy to invite your follow-up questions because I do not know if I have fully answered the particular concerns that you wanted to address.

Lord Vaux of Harrowden: That is fine. Perhaps we will move on.

Q16 **Lord Griffiths of Fforestfach:** Professor Wilmarth, you have said so much that I find it difficult to keep up with all the questions I had. You have enormous experience in this area. I would like to raise two points on what you said.

First, you said that it is difficult to reverse some of these payments. I know nothing about the subject, so I come from ignorance. As I understand it, we are at the cutting edge of technology. Simply intuitively, it makes no sense to me that you cannot reverse a payment. I simply cannot understand why you cannot do it. That is one point.

The second was about your concession that in global trade, particularly with respect to developing countries, there really was a role for stablecoins. Could you not be a little more positive about encouraging your Government and the Fed to develop this so that, globally, the dollar would once again emerge as unashamedly and conclusively the world's money?

Professor Arthur E. Wilmarth Jr: Yes. First, I was exactly in your position about four years ago when I began to get interested in stablecoins and crypto, because I too knew nothing about them. I have spent the last four years, to the best of my ability, trying to understand them. I will quickly say that I am not a technologist, so my understanding is absolutely built from the ground up. But as I have read more and listened to more people, consistent themes have emerged.

This is, again, a broader philosophical point. Where did bitcoin and crypto come from and what was the dream behind it? The idea of the public blockchain, if you look at it, was that you had a broad community of participants, each of them with their computers plugged into the system, and they agreed on these, in some cases, complicated and burdensome protocols to validate transactions. The idea was that everybody would be

¹ Additional note from the witness: "Of course, even with the best regulation, we do not prevent them, but we have a much better chance of controlling them."

a participant, everybody would be responsible, nobody would be in charge, and there would be no reliance on trusted intermediaries like banks, securities firms, exchanges and clearing houses. The idea was that all that had failed in 2008 and we needed to create a new system that would have no resemblance to the traditional financial system. It would essentially operate outside of it.

It was, to me, an anarchic dream: everybody would participate equally, everyone would be responsible as a group and there would be nobody “in charge”, and no trusted intermediaries to rely upon. My view is that it is a nice dream but totally unworkable. To make that dream work, the idea was that once you had completed a transaction in accordance with the community’s blockchain protocols, it could not be undone. It was permanent. It was visible to everybody. Everybody would have it—

Lord Griffiths of Fforestfach: Can I stop you for a minute? Why can it not be undone? Intuitively, that does not make sense to me.

Professor Arthur E. Wilmarth Jr: The only way to undo it is, as I mentioned, through this notion of a hard fork, which is to look at it as a tree-pruning example. You decide that the main trunk is rotten and corrupt, so you have to cut it off and allow the tree to grow out of maybe the largest branch that is left. Ethereum did that once, several years ago in 2018 or 2019. It was another major hack, much smaller than the Bybit hack, but creating the hard fork caused almost a revolt and meltdown within the Ethereum community. In fact, some people said, “We are staying with legacy Ethereum”, which is the old Ethereum before the hard fork. “We are not going with this new Ethereum that you cut off the trunk”. That was such a traumatic experience.

You have to understand—it is not so easy for me to understand it—the philosophy of the public blockchain, which was that it is immutable because it is visible and everybody agreed on what would happen and the protocols were fulfilled. A lot of these blockchains operate on smart contracts, which simply means that they are automatic code and, if you meet the contract, it is done with no way of changing it. The idea was that the immutability was, in a sense, preventing a control group or some power group doing something that the community did not agree with.

It is possible that if you can get 100% of the people—or whatever the protocol says, close to 100%—to agree to undo something, they could. As you know, to get 100% of people to do anything is almost impossible. Even at 80% or 90%, it is almost impossible. That is what happened with Bybit. They could not get 100% buy-in to undo it. Many participants threatened them that Ethereum would be discredited if they did it.

I agree with you. This philosophy is foreign to me. It is not the way the world works. It is certainly not how the financial world works. What is strange is that as these arguments have gone on about how crypto should be regulated, crypto keeps bringing up this public blockchain concept where everybody is responsible equally and there is no control group. Nobody can be held responsible when things go wrong because it

is the whole group, so it is a way of avoiding accountability, yet in many cases there are disguised control groups.

In many cases—and I realise this discussion is somewhat technical—they start using level 2 solutions, where they delegate responsibility to smaller groups to approve something and bring it back. Suddenly, you start to see trusted intermediaries or responsible people coming into play. Yet they will say, “You can’t regulate us like a bank. You can’t regulate us like a securities exchange or a clearing house, because we’re all a nice, decentralised community.” In the United States now, one big issue with the major market structure Bill is whether so-called decentralised platforms will receive little regulation at all, because the idea is that nobody is really accountable or responsible. My sense is that you cannot have a financial system working where people are not responsible, accountable, identifiable and able to be held to account.

I contrast that with the private or shared permissioned distributed ledger, which is just an electronic digital ledger of financial transactions controlled by either a single bank or a group of banks. As you may know, there have been experiments with doing digital electronic instantaneous clearing using some kind of shared distributed ledger, in which the central bank participates, and then clearing is done through a combination of central bank money and tokenised deposits. The critical point is that somebody is in charge: either one bank or, in this case, a consortium or group of banks, perhaps with a central bank being a participant, but someone is accountable. In that case, yes, even though it may not be easy, you can reverse transactions because everybody in this small group can agree that a transaction should not have occurred if it was fraudulent, unauthorised or a big mistake. Even though it will be difficult and someone will probably have to incur a loss, we can reverse it. With a private permissioned distributed ledger or shared permissioned distributed ledger, you can do that.

Again, I share your befuddlement with public blockchains. The idea is that it is against the spirit of the community to undo something that the community authorised and was done in accordance with its protocols. The fact that someone was able to finagle something to abuse those protocols to get it done is just too bad. That is the way life goes. That is the price you pay for not having somebody in control or not having a control group or an intermediary. I am like you; I do not see how that is at all workable or feasible for a financial transaction.

The Bank of England discusses this in its paper. It says, “Many people have come to us and said that they want to do stablecoins on public permissionless blockchains. We have great questions and difficulties with that because, again, of this problem. Who is accountable? Who is in charge? Who would we go to make things right or, if need be, punish? We do not see that those questions are answered.” It also asks the same questions about the unhosted, non-custodial private digital wallets, which I mentioned, that people put their stablecoins or other digital assets into, and nobody knows who the owner of that wallet is except the person who

has the encrypted keys. Yet many of these people are transacting on all sorts of crypto-friendly platforms. The Bank of England asks this question: "How can unhosted private digital wallets be consistent with know your customer anti-money laundering laws and the basic laws that we all accept are needed to avoid illicit transactions?"

To me, crypto wants to live in the shadows and yet wants to have all the advantages of being a regulated bank. That is neither desirable nor compatible. I think you had a second question.

Lord Griffiths of Fforestfach: Can I interrupt you, Professor Wilmarth? You have convinced me that we need a sheriff in the Wild West, so thank you very much.

Professor Arthur E. Wilmarth Jr: Yes. The casino needs to have some security.

The Chair: Lord Sharkey had a follow-up question.

Lord Sharkey: Yes. I was going to ask who can prevent a fork in the chain, but Professor Wilmarth has given a comprehensive answer to that already.

The Chair: Good. Let us move on to Lord Davies.

Q17 **Lord Davies of Brixton:** I am trying to get the numbers in mind. I am sure in some stage of our study we will have some definitive figures, but we have before us a couple of your articles. I am looking at your *Time Bomb* article and the figures in there. My eyes alighted on a figure of \$300 billion market capitalisation of global stablecoins. By anyone's metric, \$300 billion is a lot of money, but what are we comparing it with? We have to get used now to talking in trillions. My more specific question is about that paragraph, which goes on to say that 90% of stablecoin payments are "linked to crypto trades". Is that 90% a small or large part of crypto trades? I imagine that crypto trades are vast and probably in trillions.

Professor Arthur E. Wilmarth Jr: I believe that the figure is at least 85% of crypto trades are executed through stablecoins. Stablecoins and crypto platforms have a symbiotic relationship. The vast majority of participants are using stablecoins for those transactions. That accounts for a lot of the use of stablecoins. People say that it is more technologically friendly to use stablecoins, but I keep coming back to the fact that people using unhosted wallets want to be anonymous in the markets. They do not want people to know who they are.

Lord Davies of Brixton: So it is about being anonymous. That is why it is used for this purpose.

Professor Arthur E. Wilmarth Jr: Of course, originally they thought that bitcoin or Ethereum would become payment instruments. If you have watched the price movements for bitcoin and Ethereum, they quickly decided that those are unstable, fluctuating, volatile instruments;

they are not feasible for doing trading transactions where you expect to have a certain amount of stability between the time you initiate the transaction and when you settle it. Stablecoins emerged to deal with the fact that bitcoin and Ethereum would not be feasible payment instruments.

Q18 **Lord Lilley:** Could you tell us the technical basis of the difference between a stablecoin and a tokenised deposit?

Professor Arthur E. Wilmarth Jr: Yes. There are a number of important differences. I will start by saying that I do not know of any tokenised deposits that are issued on public permissionless blockchains. I have heard of a few that are traded or used but the JP Morgan coin, for example, essentially originated on the bank's own permissioned-distributed ledger, and it is responsible for it and does all the clearing of payments for it.

The USDF consortium of seven or eight mid-sized banks would be an example of a shared permissioned ledger, and experiments have been done on wholesale clearing between major international banks and central banks. Both the Bank of England and the New York Fed have done these experiments. That is a shared permissioned ledger where the banks are using tokenised deposits and the central bank is using central bank money to clear large-value transactions between major institutional participants.

If you are talking about Tether or USDC, which is Circle, that is on public permissionless blockchains, with all the problems I suggested that make it quite problematic. The question is about correcting errors and problems and then finding accountability. To me, there is a huge difference between allowing payments to go through a permissioned ledger, shared or private, for which somebody or some group is responsible and you can make sure that they are held accountable if things do not go well, versus taking the public permissionless approach.

The other major change—this is true for money market funds as well as stablecoins—is that these are backed by so-called safe assets. They are largely Treasury instruments, short-term Treasury instruments or repos backed by short-term Treasury instruments. The GENIUS Act goes into some dangerous territory, for example, by saying that bank deposits are a permissible reserve asset. Of course, we saw what happened with the Silicon Valley Bank collapse that would also have collapsed Circle, which had billions of dollars in uninsured deposits at SVB. One main reason that Silicon Valley Bank got bailed out was to stop a collapse of Circle, which would have probably unravelled the crypto industry at that time. The crypto industry was certainly begging for a bailout. We have already seen a bailout of crypto in the United States.

Stablecoin reserves are held in short-term instruments. They are mainly government-connected. If you allow bank deposits, you are exposing the banking system to problems in the stablecoin industry, which is dangerous. Linking any set of financial players to your treasury market

raises a whole host of questions, which we could discuss. One big problem is—

Lord Lilley: Sorry, getting back to my original question about the difference between the two, I got the point. Theoretically, the tokenised deposits could be reversible. We have got over that. The other problem you mentioned with stablecoins was that they could not handle multiple transactions at the same time. Can that be done with tokenised deposits?

Professor Arthur E. Wilmarth Jr: Yes, because you do not have the same scalability or immutability problem with tokenised deposits. With the private distributed ledger, you do not have the same clog-up of transactions because they are executed more promptly by the people in control. Of course, the people in control can reverse them. It is not easy. Someone often has to bear a loss, but they can be reversed.

A tokenised deposit, of course, is simply a deposit that can be invested in consumer and business loans, and so on. With tokenised deposits, you are not cutting off the flow of credit to your consumers and small businesses. We have seen this problem with money market funds. To the extent that bank deposits migrate to the money market funds or the stablecoins and they go into government treasuries, that is money taken out of the hands of consumers and small businesses because money market funds and stablecoins cannot invest in those loans. They are not permitted to. You have a credit flow problem, in my opinion, if you go towards stablecoins as opposed to tokenised deposits.

Lord Sharkey: Professor Wilmarth, could you explain to us how KYC and AML controls typically fail in the case of some stablecoin transactions?

Professor Arthur E. Wilmarth Jr: Yes. Requiring all stablecoins to be held in hosted wallets, or wallets where names were attached, would address some of the problems. You can also require the issuers and exchanges to be compliant. Of course, that is not what the crypto industry wants. It is used to having the unhosted private digital wallets that cannot be easily traced, and is resisting a move away from that.

In our country, the GENIUS Act says that AML, BSA and KYC requirements will apply, but the rules have not been issued. The rules are not due until, I think, early next year. Many people are waiting to see what will happen with that. I do not see how those requirements can be satisfied unless they indicate that a US stablecoin issuer dealing with US residents and citizens can no longer allow them to hold their stablecoins in unhosted private digital wallets. That will become a big flashpoint. I was interested to see that the Bank of England, quite rightly, targeted that as a major issue.

Q19 **Lord Turnbull:** Could you say a bit more about the state of the debate in the US? You expressed some extremely trenchant views, such as: “The GENIUS Act is a disastrous law that poses grave and unacceptable threats” et cetera. Are you a lone prophet or does a growing body of opinion share your doubts?

Professor Arthur E. Wilmarth Jr: There is certainly a division of opinion. Professor Allen very much shares my viewpoints and I have benefited greatly from her own work. Others like Nobel laureate Simon Johnson and Barry Eichengreen have raised questions about the safety of stablecoins.

We are struggling with another issue in the United States. I think the Bank of England did not discuss this but it is a major issue. Do you allow the stablecoin issuers or their affiliates to do anything but issue stablecoins? In our country, we are seeing that the companies involved in stablecoin issuance or their affiliates are involved in issuing leveraged crypto derivatives.

If you have been noticing, the crypto market seems to be entering another crypto winter. It has lost a third of its value since last October. This morning, they were talking about the unwinding of many of these crypto derivatives trades, which are highly leveraged. Of course, these are trades on unbacked crypto assets, but many of the same people who have been offering derivatives are also offering stablecoins. I tried to suggest that combining stablecoins with crypto derivatives or other speculative crypto activities is creating considerable dangers. Of course, stablecoins are a way for them to get relatively cheap money, which they can then use to promote their speculative crypto strategies and derivatives. A number of exchange-traded funds or other stock-related vehicles are basically backed by nothing but crypto and a lot of those are unwinding right now.

The concern is that the last crypto winter, which was in 2021-22, was damaging. At least three of the banks out of the four that failed—were brought down—in our country were linked to crypto. At that time, quite deliberately, crypto had been held at arm's length from the rest of the financial system. Now crypto is becoming much more integrated with the rest of that system, and stablecoins are one way in which they are doing that. Do you want to integrate your traditional financial system with such a speculative volatile industry? That is a major question.

I was speaking there about the fact that the stablecoins are a strategy for crypto to get money, which they then use for speculative leveraged strategies. Is that responsive to your question?

Lord Turnbull: I am confused. Who are the actual regulators? Who has the decision power if we are to make any changes? Is it the US Treasury, the Fed, the controller of the currency or the White House?

Professor Arthur E. Wilmarth Jr: This is the problem. Traditionally, for us, the SEC and the CFTC, which together are similar to your FCA, have been responsible for regulating trading of non-banking and non-deposit investments, the CFTC on the commodity futures side and the SEC on the securities side. Of course, with the market structure Bill that is being fought over now, who becomes the primary regulator? That is not yet determined, although it seems that the industry wants the CFTC, which has been generally a weaker regulator. Yes, it is fair to say that nobody is

really in charge. The SEC and the CFTC are issuing guidance, but it is a fluid and clouded situation. You are right that the crypto industry has grown up and it has resisted regulation.

The former SEC Chair, Gary Gensler, did his best to try to regulate them, mainly through bringing enforcement actions saying that if you sell securities—and he thought these crypto assets were securities—you should register them and follow the rules. Of course, they did not want to do that. He is out of office now and the current SEC chair thinks that his attempts were retrograde and unhelpful. I have a somewhat different view. I agree with you. Who is in charge? Who is the regulator?

Lord Turnbull: That is not a happy note to end on.

Q20 **The Chair:** I have one final question, Professor Wilmarth. You have been pretty clear about your general view of the GENIUS Act; that is to say, it should be repealed. Does the GENIUS Act have anything good that we should copy in the UK?

Professor Arthur E. Wilmarth Jr: I am sorry to be so negative. I have a hard time finding anything that I agree with in the Act. If you read my long paper, I deconstruct it and argue that Congress made a number of wrong, unfortunate choices. From what the Bank of England said, it is proposing a significantly more robust and restrictive regime than the GENIUS Act. I suspect that it will get a lot of blowback and that the crypto industry will not be happy.

I realise that one question I did not answer was the international one. Stablecoins have a lot to do with the role of the US dollar as a global reserve currency. Many people now are expressing concerns that the dollar stablecoins are undermining monetary and currency stability in a number of countries, of course, which may have their own problems in that regard.

Even for the UK, would the UK be comfortable allowing an unlimited number of dollar-denominated stablecoins to be introduced in the UK and used? They are in some ways similar to the euro-dollar phenomenon, which creates unregulated dollars sloshing around in the global financial markets. China is quite strict in saying that it does not allow stablecoins at all. In other words, they do not want the renminbi to be challenged as the domestic currency. For many countries, this is an issue. You could imagine US dollar stablecoins arbitraging to some degree the monetary policy control of the central bank. It becomes essentially a black-market currency in that regard. The IMF has expressed some concerns on this point about monetary policy control and sovereignty. I thought I should at least mention that issue; the IMF has real concerns about it.

The Chair: That was very helpful. Professor Wilmarth, you have been an admirable witness for us, clear in your views and knowledgeable. We have benefited greatly from the session with you. Thank you very much again.

