



## Economic Affairs Committee

### Corrected oral evidence: Central bank digital currencies

Tuesday 26 October 2021

3 pm

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Members present: Lord Forsyth of Drumlean (The Chair); Lord King of Lothbury; Baroness Kramer; Lord Monks.

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Questions 47 - 55

#### Witness

**I:** Tom Keatinge, Director, Centre for Financial Crime and Security Studies, The Royal United Services Institute (RUSI).

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## Examination of Witness

Tom Keatinge.

Q47 **The Chair:** Welcome to the Economic Affairs Committee. Our first witness today is Tom Keatinge, director of the Centre for Financial Crime and Security Studies at the Royal United Services Institute. Welcome. Perhaps I could begin by asking the first question. To what extent is a Chinese central bank digital currency a threat to the dominance of the US dollar?

**Tom Keatinge:** We are all watching what China is doing as relates to central bank digital currencies because it clearly is, in terms of major economies, ahead of the rest of the world. As you have discussed in previous sessions, the problems, if there are any, that central bank digital currencies are trying to address vary around the world. Is a central bank digital currency in China a threat to the US dollar? No, not necessarily. Of course, it depends on what the United States chooses to do in response to developments in China.

Regardless of whether a central bank digital currency moves ahead in China, the fact of the matter is that the global financial system is balkanising and many countries around the world are trying to figure out how to operate beyond the reach of the US dollar, for all the sanctions and other security implications that that brings. We are at a point where central bank digital currencies might accelerate the balkanisation of the global financial system and the ability of countries to move beyond the reach of the US dollar. Therefore, it may be the case that a Chinese central bank digital currency is a threat to the US dollar, but I would not say that that is the only threat that the US dollar faces.

**The Chair:** Do you want to just develop that point about balkanisation and how the US might respond to it?

**Tom Keatinge:** We meet a week on from the US Treasury publishing its review of US sanctions policy. You could summarise that document in one way, which is to say that the United States realises that the overuse of sanctions by the US could reduce the effectiveness of sanctions in the future; otherwise people are not going to sit there and say, "You know what? I'm just going to sit around and accept the fact that the US has this control over me".

Over the last 20 years, perhaps, there have not been many options around if you wanted to use an economic system beyond the US dollar, but those options are beginning to emerge. Countries that want to trade with China might well find themselves in a position where they are unable to use the US dollar as part of the trade deal that they do as part of the belt and road initiative deals.

My point is that there are new options emerging, which might allow countries not to rely on the dollar to the extent that they have been doing. I am not suggesting that there is going to be a big bang moment where that will happen suddenly, but it is certainly the case, when you

travel around the world and speak to anyone in the financial system, that those who find dealing with the US dollar troublesome would choose to use something different, were it available to them. That is developing around the world as we speak.

**The Chair:** Another way of putting that is that it is not just about the dominance of the US dollar; it is also about the power of the United States to operate.

**Tom Keatinge:** And the rise of China as a magnet for trade and everything that goes with that.

Q48 **Lord King of Lothbury:** On that issue, the demand for balkanisation has been evident for quite some time, for exactly the reason that you gave. You have talked about the US Treasury report. There are two dimensions to the impetus of balkanisation. One is sanctions imposed by regulators in the US, to which the US Treasury is closely linked, but the other is the Department of Justice and the extent to which the US has tried, really through extraterritoriality, to use not sanctions but the legal system to intervene in transactions carried out using dollars. The recent measures, the approach of the Treasury and the use of sanctions could change, but is the legal system in the US also likely to back off somewhat its extreme extraterritoriality, which is also driving balkanisation?

**Tom Keatinge:** That is very unlikely. I have sat in many offices around the world when a US Treasury official has recently passed through, and these messages are delivered very clearly to them: "We control the US dollar. You use the US dollar. Figure out what message we are delivering to you". The United States will continue to use that exorbitant privilege that the US dollar brings. It may use it more judiciously, because overuse will encourage people to run into the arms of alternative systems. That is not necessarily a function of CBDCs, although CBDCs might provide an outlet for that rush away from the US dollar. I would not expect the Department of Justice to go any lighter. I would not expect banks in the UK to feel the hot breath of the New York DFS any less than they did in 2007, 2008 or 2009, and have done since.

Q49 **Lord Monks:** If I can follow on from those particular questions, what are the key risks to national security posed by central bank digital currencies? How resilient can they be made? Can we see that with any confidence? Are these likely to be honeycombed by various attacks of one kind or another?

**Tom Keatinge:** It is certainly the case that there are countries around the world that make it their business to hack cryptocurrency exchanges. I am not suggesting that a cryptocurrency exchange will have as strong a security system as the Bank of England or the Federal Reserve in the US, but the bottom line is that, when it is online, it is potentially open to a degree of attack that things that are not online are not. For example, North Korea has made extensive use of the fact that cryptocurrency exchanges and so on can be hacked. It ran a nearly very successful attack against the Bangladesh central bank a few years ago.

When it comes to taking payments and money online in this way, we need to be very cautious. That being said, an awful lot is already accessible to hackers and the like. When the ATM network of a bank in the UK goes down for an afternoon, it is catastrophic, so we need to think very carefully about whether we are opening ourselves up to additional vulnerabilities, and we need to foresee those. Part of this phoney war that is going on at the moment in the CBDC world is countries figuring out the technological answers.

This is an example not from me but from a fellow academic in Washington, who made a very good point: people remember the Ford Model T. It was not necessarily a good car but the thing that made the Ford Model T was the way in which the conveyor belt technology was embraced. At the moment, people are trying to work out what the right rails and technologies are that could underpin central bank digital currencies, and that will probably determine who the winners are. It will not necessarily come from China or the United States; it will come from the best technology underlying it. What we all need to be thinking about now is the technology that we need, and that includes the necessary security. It does open us up to vulnerabilities if we are not careful.

**Lord Monks:** We will ask you a little later about competitive digital currencies and what effects they may have, but it seems that, looking at the situation, you cannot have a lot of confidence in the technology—in many possible uses of central bank digital currencies—that they will not be vulnerable. What is the worst-case scenario that could develop?

**Tom Keatinge:** To answer the first part of your comment, that is why you hear some commentators saying, “Look, it’s fine. We can catch up”. I am not sure that catching up will necessarily be as easy as we think, because you have to have developed the technology, and you do not develop the technology overnight.

If you look at the way in which companies are held to ransom by hackers or at what happened to the Bangladesh bank, which nearly lost \$1 billion, but for some fat-fingered typing that got picked up, the worst-case scenario is theft of national wealth.

We will probably come on to the question of UK economic security. The City of London is a major engine of finance and tax revenue. We need to think about the extent to which we might see the City of London’s influence and, therefore, profitability atrophy as a result of developments elsewhere in the world, if we do not get ahead and ensure that we have a viable offering on the CBDC front as well.

**Lord Monks:** So we cannot stand aloof.

**Tom Keatinge:** No, we cannot. It is a question not of if but of when. I know that, previously in this committee, there was a discussion: “Is this a matter of central banks trying to keep control? Do we really need a CBDC in the UK? We have a pretty well-functioning financial system here already”. We have to think very carefully about this. We may not see a

problem that CBDCs can solve in this country, but other countries see problems in their own countries that CBDCs can deal with. Therefore, we need to put ourselves in the shoes of those who are developing them more rapidly around the world and consider what we could perhaps contribute to their problem, rather than necessarily thinking about what it is going to do for the UK payment system.

**The Chair:** Could I just follow up on that? When you talk about the possibility of the theft of national wealth, that is quite scary. I find myself thinking, "Why would you put all your eggs in one basket, if the risks are that you might lose all your eggs?"

**Tom Keatinge:** Why would a nation choose to do that?

**The Chair:** Yes.

**Tom Keatinge:** That is a very good question. I am not necessarily sure that that is what the UK would want to do. There are some countries that have already dollarised their economies. They have, if you like, put all their eggs in the dollar basket. An example is Ecuador. El Salvador is in the process of putting all its eggs in the bitcoin basket, for goodness' sake. There are certain countries that are, for their own very good reasons, choosing to make those decisions.

I do not think it is a decision that the UK would make. One reason is that our domestic payment system seems to work pretty well and efficiently already. What problem are we in the UK trying to solve? I suspect the answer might eventually be that we are trying to solve the problem of keeping the City of London relevant in global finance at a time when new architectures are being developed that might divorce the UK from the position of dominance that it currently has.

**The Chair:** Perhaps I should not pursue that, but one of the reasons that the City of London is so dominant is that people believe there is security, fair dealing and the rule of law.

**Tom Keatinge:** I entirely agree with that. Indeed, London has continued to grow in dominance as sterling has declined as a global currency. The question is whether new technology comes along that means that the systems, the procedures and everything that the UK offers become less relevant.

Q50 **Baroness Kramer:** To follow up on that, is there such a thing as first-mover advantage in a major economy? For example, China is certainly ahead of the pack. Is the concept also relevant when trying to keep London dominant within the global financial market?

**Tom Keatinge:** There is. I am not sure you can develop a central bank digital currency overnight. If you look at what the Chinese are doing, they are testing, testing, testing. They are encouraging brands such as McDonald's to make the eCNY available in their outlets. They are learning a huge amount as they go through this process. They may be learning things that we already perhaps think we know in the UK. I do not know

what they are learning, but the fact of the matter is that learning by doing is probably going to move us forward.

If you look at the way that some of the most successful private sector cross-border fintech companies have developed, they started small and have grown, and are now multibillion-pound companies. I am just not sure that you are going to be able to take a solution off the shelf, implement it in a short time and say, "Off we go; we are in the game". You are going to have to grow and learn over time what works for your economy, what technology is going to keep you secure and all the rest.

**Baroness Kramer:** Perhaps you could help clarify this for me, because I am slightly confused. That is not your fault but mine. In order to keep London at the forefront of global finance, were you saying earlier that we have managed to do so despite the fact that sterling is less and less of a global currency, because we put systems in place ranging from the rule of law to payment systems et cetera? Those things that have kept London at the forefront could be substituted by the development elsewhere of central bank digital currencies, stablecoins or whatever.

**Tom Keatinge:** I do not want to paint a Cassandra picture that means that the City of London will become irrelevant overnight. There was that sort of talk around Brexit, for example, yet things still seem to be going reasonably well. My point is that London has offered processing, systems and things such as the rule of law that appeal to those trying to conduct finance around the world. If we start to see, as you are already beginning to see trials of, for example, China and the UAE hooking up early-day CBDC activity, maybe that starts to remove the need for London. Does London become disintermediated in global finance as time goes on? Again, this is not going to happen overnight, but will we turn around 10, 15 or 20 years from now and go, "Well, London is not what it used to be, partly because of this process of disintermediation"?

**Baroness Kramer:** Would a sterling central bank digital currency delay, deny or offset that, or would it have a temporary impact?

**Tom Keatinge:** I am not sure that a sterling central bank digital currency is necessarily going to be the silver bullet answer. Not that long ago, we were talking about what role London should be playing in clearing Chinese yuan transactions, for example, or raising funds in foreign currencies. I spent 20 years in investment banking and capital markets, and I saw plenty of ways in which London was very creative in doing things in the capital markets that were not obviously of any interest to the UK, apart from the fact that the brains and the capital were here to conduct those transactions.

What is the City of London doing to ensure that it remains relevant to whatever central bank digital currency market develops? That is a question that we should ask ourselves, rather than whether we need a Bitcoin that is going to rule the waves and be the global currency of choice. That is not going to be the case.

**The Chair:** Following up on that, are you saying that, to protect the City of London, you would need to have a wholesale system rather than a retail system?

**Tom Keatinge:** From a security perspective, it is the wholesale side of this that concerns me: the ability of countries to communicate financially between each other without the need to transact through the US dollar or to necessarily use the systems that are in London. We need to think about how London is relevant to that kind of ecosystem that is going to develop.

There is a phrase that people like to use on the internet about walled gardens. Facebook is a walled garden. You can live your entire life in Facebook, if you want to, without having to use any other bits of the internet. We need to make sure we are inside that walled garden of whatever is developed in intra-central bank payments in the digital world in the future.

**The Chair:** There are quite a few poisonous plants in that walled garden. Could I just ask you, because I did not quite understand the point, about the Chinese and McDonald's, where you were arguing that the Chinese were using systems to learn? Should the Bank of England be doing that?

**Tom Keatinge:** At the moment, China appears to have a twin-track focus. The wholesale cross-border relationships that they are building with places such as the UAE are one. The second is the use of central bank digital currencies on the retail front. That is where I referred to McDonald's.

**The Chair:** I am sorry to interrupt you but I thought you were saying that they were learning on the job.

**Tom Keatinge:** They are, correct.

**The Chair:** So my question is whether the Bank of England should be thinking along these lines.

**Tom Keatinge:** It should be asking itself whether there is learning to be gathered from doing that and from running those kinds of pilots.

**The Chair:** If it asked you to answer that question, what would you say?

**Tom Keatinge:** I would say yes, because we need to learn what this would mean for our retail financial services industry, just as the Chinese do. We may choose to dismiss it at that point, I hasten to add.

**Lord King of Lothbury:** Let me leave to one side the domestic arguments for and against what is called a central bank digital currency—it is not a currency in any sense, but a technique for making payments—and just look at the international side. Leave to one side what you might think of as the typical role of the City of London, whether in merchant banking, providing advice or facilitating transactions, and just stick to payment systems for the moment. This comes back to what you said

earlier about balkanisation.

At present, all the international payments in the world go through SWIFT. There is a lot of resistance to that, because of the ability of the Americans to access SWIFT. The fact that many of those transactions are in dollars is just another reason why people would like to develop an alternative to SWIFT. People are debating and discussing that. That seems to me the biggest threat to the current method of making payments and to the governance of that payment system, which is dominated by the G10 central banks.

What is the role of a central bank digital currency developed in other countries overseas in connection with people pursuing new payment systems or alternatives to SWIFT through which international payments and transactions will be made?

**Tom Keatinge:** As you know better than I do, SWIFT is a messaging system, and so there is a lot of work being done, again in countries that we would view as adversaries, to try to develop messaging systems that would allow banks in those countries to communicate debits and credits to each other without having to use SWIFT. SWIFT exists successfully because it offers a very efficient service. The question then is whether there could be other ways of communicating those debits and credits between banking systems.

How might a UAE-to-China central bank digital currency tie-up work? It could well be used as a way of balancing accounts between countries. It could use the underlying technology. It could be used for transmitting the messages between bank A and bank B in the different countries as well. If I was in the fintech world, I would say that the SWIFT model is ripe for disruption.

The technology that comes with developing CBDCs may well bring with it other benefits and changes that perhaps we are not focusing on at the moment. It could well be exactly what you are talking about, which is another way of communicating those messages currently carried by SWIFT.

Q51 **Lord King of Lothbury:** Would this lead to alternative payment systems for international payments being generated that were driven not solely by technology but also by what used to be called politically motivated people—groups of countries saying, “We don’t mind having a slightly less efficient system, but no one can access it; no one knows what these payments are about”?

**Tom Keatinge:** That is very probable. That feels to me like the direction we are going in. Going back to the discussion about sanctions, in some cases it is politically motivated. In others, it is motivated because the route that you normally use is being blocked by banks refusing payments in New York or wherever.

**Lord King of Lothbury:** What should the role of the UK authorities be in trying to influence these developments?



**Tom Keatinge:** Not to go back to the City of London, but the UK is an influential player in the financial landscape. The UK has a role to play in trying to keep the international financial system as cohesive as it is. This fragmentation that we face is a risk. Countries may end up finding that they have to choose: "Do you want to be part of the Chinese walled garden or part of the United States walled garden?" To some extent, that is already possibly happening.

I would like to see the UK out there, taking a leadership position. The financial system should be a common good and it has become a battlefield, to some extent, in recent years, which is not good for anybody. It is certainly not good for the United Kingdom.

**Lord King of Lothbury:** Is there any prospect of countries coming to an agreement on a common framework for these payments together with standards for security that would ensure privacy of transactions that every member country could genuinely rely on or trust, or are we going to end up in a world where we ask ourselves, "To whom would I like to disclose my payment—the US or China?"

**Tom Keatinge:** I fear the latter. A place where the UK could take leadership is in whether we could agree, through the BIS or some other body, a common standard on how these are going to be developed. At the moment, everyone is doing their experimenting and, at some point, I would hope that that would come together and we could agree a common standard. Maybe that is a role that, as one of the leading global financial centres, the UK could play.

I fear that we are heading more in that direction—"You're either in our club or in someone else's"—and that that will proliferate, rather than a consensus, but maybe the UK should be trying to develop that consensus.

**The Chair:** Just following up from that, if you had states using their central bank digital currencies for illicit purposes, and the kind of framework that you are describing, what kind of sanctions could we apply to them?

**Tom Keatinge:** You already see that occurring to some extent, because there will be countries that, for example, want to import Iranian oil, certainly contrary to US sanctions and, at times, international sanctions. They will do that through a barter system or through some way that does not require them to use the international financial system.

Were that to occur, the US will always have the ability to issue sanctions, and those sanctions still have a good degree of bite. When that activity is taking place and yet countries can operate without needing to touch the US dollar, again we shall see a deterioration and disintegration of some of the norms that have held together international security in past decades. What will you be able to do? Potentially nothing, other than choosing not to trade with them because you say that they are an illicit actor.

**Lord Monks:** How do you stop your own citizens using a digital currency, particularly if it extends to the retail area, where it seems to me people can then choose which digital currency they use? Am I right in thinking that I could decide to make my payments in digital euros or digital dollars?

**Tom Keatinge:** It will depend entirely on the technology. The one thing about a digital currency is that, depending on the how the technology works, if we are just doing it peer to peer, I can come to you and say, "Look, I'm going to pay you in whatever currency I've got on my phone this afternoon". If it is being managed more centrally, there will be much more control over it. I know you have had quite extensive discussions previously in this committee about that. It will depend enormously on which systems people end up deciding to go for.

Q52 **Lord Monks:** That begs a big question about whether there are systems that would allow that. Would they be likely to be a feature of the systems or is it something that people would try to close off right at the start?

**Tom Keatinge:** It will depend on how authoritarian the regime is in wanting to control what its citizens or those in its country do with the CBDC that it issues. I cannot imagine that being something that the United Kingdom would do, but I am sure that there are countries around the world that perhaps would want to exert that sort of pressure.

**Lord Monks:** Can you see a world of competing digital currencies, with certain countries issuing ones with very little regulation, and others trying to do things very properly and so on, with the risk that the loosely regulated ones would undercut the properly regulated ones?

**Tom Keatinge:** I have to say I have not given thought to that form of currency war, but there certainly may be situations. We know that countries adjust interest rates and the like to affect the way they receive direct investment and that sort of thing, so I could see that spill over into the central bank digital currency world. Whether the argument will be that "our central bank digital currency is less monitored than their central bank digital currency", it is too early to say.

**Lord Monks:** How might a digital currency be used to help tackle money laundering? I know that it is quite a big problem at the moment, but is it going to get bigger under a central bank digital currency?

**Tom Keatinge:** Again, this will depend on what the underlying technology and process is. If you run your central bank digital currency as an all-seeing eye, there is the possibility that that will help tackle money laundering, but I am not suggesting that cash is going to disappear, so there will still be plenty of avenues through which people can launder money if they want to.

There is no doubt that there is plenty of money laundering in the formal financial system but, over the last 10, 15 or 20 years, there has been a good degree of displacement. That displacement will always occur, so there will continue to be money service businesses, Hawala and art. All

the tools of money laundering will still exist, and it is not as though we are getting rid of those. We are just going to create a new form, not of currency but of exchange, that might be monitored more easily, but we will not be getting rid of other traditional tools.

**Lord Monks:** As a final question displaying a little bit of my own ignorance, could you describe to us what a retail digital currency would be? Can I use it to go into Tesco and buy my groceries?

**Tom Keatinge:** If that is how it is designed, then yes. Just in the same way as you can walk in with a £20 note and pay, that will, essentially, be what you have on your phone or whatever device you are using.

**The Chair:** I am quite struck that when we ask, “Could this horrible thing happen?” or “Could this go wrong?”—I am not directing this particularly at you—the answer, invariably, so far in this inquiry has been to say, “It depends on how you design the system and how it would operate”, which is fair enough. If you look at how the Government are looking at central bank digital currencies, are they doing that in a joined-up way? I am thinking of the Treasury, the intelligence services, the Home Office et cetera.

**Tom Keatinge:** I wrote last year about the lack of an economic security strategy in the UK. One of my points was that it is not obvious to me that there is a central drive to understand all the different limbs of economics and finance that impact on the UK. The simple answer to your question is no; I do not think there is.

**The Chair:** Do you not think that is rather scary?

**Tom Keatinge:** Yes, I absolutely think it is scary. If you read the integrated review or other documents that come out from this Government and other Governments, we lack an understanding of the way finance is used against us. Whether it is purchasing adverts to try to influence elections or whatever it might be, the bottom line is that finance is a weapon that can be used against us, just as it is a tool that we can use to trade around the world or, through sanctions, to try to restrict adversaries. We are an open economy, and the Government celebrate that, but if you are an open economy you had better be prepared to deal with the kind of inbound threats that might take advantage of that. I absolutely think that that is scary, yes.

Q53 **Baroness Kramer:** You talked about the importance of establishing some international norms for best practice and security concerns. Is it your case that, for the UK to play a role in that of any significance, it needs to be well ahead in terms of developing a central bank digital currency and going through that process?

**Tom Keatinge:** It needs to be a credible voice, and you cannot be a credible voice unless you can point to what you have done, what you are doing and what you have learned, and have the experts sitting there who can talk about the UK’s experience. We cannot fall back on saying, “Well, we’re a global financial centre; ergo we are entitled to a seat at the

table". I am not sighted in detail on what is going on at the Bank of England, but the UK is contributing to what is going on at the BIS. A lot of the standard-setting, one would expect, would come through the BIS, and the UK is an active member of that, but we need to develop the expertise, so that we can be credible, for sure.

**Baroness Kramer:** Is it your perception, when you look at the discussions from the Bank of England and others, that we are doing this in a very inward-looking, belly button, insular way, looking at our own payment system and whether these would advantage, for example, retail clients, when we should be taking a completely different view, looking outward and thinking of this primarily as part of an international framework?

**Tom Keatinge:** Both are going on. I have been involved in conversations where people are clearly thinking about what threats to national security these developments might throw up. I would suggest that the UK could move more quickly, visibly and energetically on this issue. To answer the previous question, that includes a joined-up approach—sorry for the cliché.

The UK has gone through a situation over the last two or three years where it needs to rethink how it is going to use finance to continue to project global Britain or to underpin the trade deals that it wants to do. Certain banks are removing themselves from parts of the world at the same time as the Foreign Secretary and others are going to these countries and saying, "We want to do trade deals with you". What is your strategy for using the financial power that the UK has to continue to be relevant on the international stage? That is a question that is unanswered.

**The Chair:** Just thinking about China and us, does China have a comparative advantage because it is less fussy and much more relaxed about issues such as surveillance and identities than a liberal democracy such as ours? Does that give it an advantage in pursuing a central bank digital currency?

**Tom Keatinge:** I am not sure whether it gives it an advantage in the areas that I am thinking about, which are the wholesale, international connections. It might give it an advantage in developing its retail offering, but I would note that Sweden is well advanced when it comes to central bank digital currencies, and we would probably respect the Swedes when it comes to personal privacy and all of that.

Their disregard for personal privacy might help the Chinese deal with, for example, money laundering, corrupt individuals, monitoring people's habits and all that sort of stuff, and they may well gain valuable data from that. When we think about international security, I am not sure that that is necessarily—

**The Chair:** I am just thinking, in order for wholesale to be secure, whether that implies that you need more surveillance.

**Tom Keatinge:** Again, it will depend on the technology. Sorry to use that answer, which I know is frustrating you, but it will depend tremendously on what technology we use.

**The Chair:** It is not frustrating me. You are giving a perfectly sensible answer to a question. What is frustrating me is that there seem to be so many risks here, and it is not obvious that they are being looked at in the context of the areas that you have already covered.

**Tom Keatinge:** You make an extremely valid point. If you look at the cryptocurrency world and the massive variation in security and governance around all the different cryptocurrencies that have been developed, that shows you just how varied the landscape could be when we start thinking about central bank digital currencies as well.

Back to the point that was made earlier, an important recommendation to make would be that the UK needs to be in the vanguard of setting international standards for whatever CBDCs come along. That is not how they operate, but the fundamental principles that govern the development of CBDCs.

**Baroness Kramer:** The early proponents of cryptocurrency saw this as liberating trade and stimulating economic growth by removing some of the heavy hand of legacy payment systems and bureaucracy, but the fragmentation and balkanisation that you are talking about feels as though it pulls very powerfully in the opposite direction. If we do not get a grip on this and establish international standards that permit interoperability, are we seriously at risk of creating something in the range of an economic crisis at its worst?

**Tom Keatinge:** I do not know if we are at risk of creating an economic crisis, but certainly the integrated global financial system that we know and have known over the last 20 years or so will look, or could end up looking, very different. It is the ingenuity of the private sector and of these fintechs that has driven organisations that are, as I say, now worth billions of pounds on the stock market. They started because the system was so inefficient, and moving money between the Baltics and the UK was something that cost a lot. Therefore, they decided, "We're going to figure out how to do that more cheaply". I worry that the developments we are seeing will create barriers that we have spent the last 20 years trying to get rid of in international payments.

Q54 **Lord King of Lothbury:** I want to go back to the question of security and resilience, particularly in respect of international payments but perhaps more widely too. The advent of digital technology has clearly changed the risks involved in the operation of the financial system. We do not get any good old-fashioned bank robbers any more. They seem to have disappeared.

**The Chair:** There are plenty of masks.

**Lord King of Lothbury:** Yes, but not over the eyes. Now it is much more to do with digital security. If you were put in charge of a review body on

digital security of the UK financial system, would you think that central bank digital currencies are a new source of risk, a means of mitigating risk, or something that is only a small part of the risks that exist in the current system?

**Tom Keatinge:** They have to represent a potential new source of risk, if only because they will represent something new. Could they contribute to resilience? Yes, depending on the design. Again, you will be far better placed to judge this than I am, but what we should not do is introduce CBDC because everyone else is doing it. Someone referred previously to this fear of missing out. That would potentially be cataclysmic and we probably would face the possibility of creating something that adds risk. Might we be making existing systems more efficient? Yes, possibly, so we might be taking more risk out of the system, but at the moment it is not clear to me that we have thought through those pros and cons.

Frankly, we should be looking at the financial system and asking, "Where does it need to be improved? Let's improve that". CBDC may be something that helps that improvement, but I sometimes wonder whether the CBDC is being presented as a solution without figuring out what problem we are trying to solve.

**Lord King of Lothbury:** This goes to the point that the Chair raised earlier around retail versus wholesale. One of the tendencies after the global financial crisis was to say, "Here are some things where we saw risks, so let's change the way in which systems clear". But then you concentrate the risk in one point somewhere else and it is not obvious that that is safer.

The risk here, if you had a retail central bank digital currency, is that you would be concentrating a lot of the risk in one particular digital system—the computer systems of the Bank of England. Although I have great respect for the computer systems of the Bank of England, to say that they will never, ever make a mistake is going too far.

There may be merits in diversifying and having lots more nodes through which transactions are channelled, so that, if one of them goes wrong, it is not the entire system that goes down. That is very much what we have today, with the Bank of England dealing with the banking system, and the banking system dealing with individuals. I just wondered whether you had any thoughts from the security perspective on that choice.

**Tom Keatinge:** This is where I was going when I was saying that perhaps CBDCs could end up making improvements in efficiency in the current system. I would favour tokenisation: the model where the banking system continues to play the role that it plays. In the UK, we already have that very efficient system, where the Bank of England is dealing with the commercial banks. Would CBDC make a huge difference? I do not know.

I definitely would not want to see concentration of risk, because, yes, the Bank of England might have good security systems, but the North

Koreans have proven very good at getting around some of the best security systems. Putting all our eggs in that one basket would be very unwise.

**The Chair:** There is also the point that we do not know where technology will go with quantum computing, and the ability to undermine existing systems could be enhanced.

**Tom Keatinge:** Absolutely, 100%—and what vulnerabilities are we opening ourselves up to in the future?

**The Chair:** It is quite hard to reverse.

**Tom Keatinge:** Correct.

**Lord Monks:** There is another dimension to the issue. We are talking about central bank digital currencies, and that is the scope of our investigation in the committee, but we are aware of the bitcoin-type development and the fact that Facebook and probably others as well are thinking of establishing their own digital currency, for want of a better word. How do you see the relationship between these privately run digital currencies and ones that will be run by a central bank?

**Tom Keatinge:** If I was a central banker, I would look at the way in which control is seeping away from me and be somewhat alarmed. I have not studied the extent to which private digital currencies or cryptocurrencies could impact financial stability, but I was there on the trading floor at JP Morgan when I saw money market funds, which were never going to lose their value, suddenly start to lose their value in 2007 and 2008. I can very easily see exactly the same happening with stablecoins. Suddenly, you discover that what you thought was a stablecoin is far from a stablecoin, because you end up with a run on the stablecoin and a demand that it cannot meet.

I might be being unfair here, but some of the motivation for all this energy around central bank digital currencies might come from thinking, “We need to come up with something that looks as cool and as smart as that stuff being developed in garages across the UK, the US and elsewhere. What can we learn from that?” I would be very concerned about the way the private digital currency market is going, if I was a central banker, because it is running out of your reach, if you are not careful.

**The Chair:** So what would you do about it?

**Tom Keatinge:** Organisations such as the Financial Action Task Force are trying to introduce regulation to, first of all, try to regulate the financial crime risks related to those. I watch with interest what is happening in the US around some of these stablecoins, which I think should be regulated like money market funds. That is what they are, so the international community should be very quickly getting its arms around the market risks of things such as stablecoins.

It is interesting. Look at the journey that Facebook has been on with its stablecoin. Put aside the fact that it has the Facebook name attached to it, which I am sure means that it cops a lot more scrutiny than it perhaps would otherwise. The fact of the matter is that it has stumbled, on a yearly basis, to try to get its stablecoin running, because people have been picking at the integrity of the collateral that backs its stablecoin.

We need a lot more regulatory scrutiny of stablecoins to ensure that they are, indeed, stable. That might well put some of them out of business, because being genuinely stable may not be economically attractive.

**Q55 The Chair:** I have one last question, which touches on something that I asked earlier. Listening to the evidence that we have heard so far and your testimony this afternoon, there are a lot of risks here. If you were Prime Minister, what would you do to get things moving? At the moment, there is the Bank of England and the Treasury, but it just feels that the pace and scope are a little slow for the way in which things are developing. What would you do?

**Tom Keatinge:** I would like to see more energy around the topic, not that everything has to run through what we do at RUSI. We find it quite difficult to engage with the central bank digital community in the UK to try to energise some of these discussions. It does not feel like something that is being prioritised. We would certainly like to see it prioritised much more actively than is the case now, because otherwise we will get left behind.

**The Chair:** That sounds like a politician's answer. What are the practical things that should be done now?

**Tom Keatinge:** We should look around at what other countries that are ahead of us have done and are doing, and ask, "Should we be doing that?" Should we be running the kinds of pilots that we were talking about earlier? What dialogue do we have with other countries around the world to see whether we should be setting up the kind of cross-border wholesale networks that the Chinese seem to be setting up with the UAE and others? Countries such as Thailand seem more advanced in their cross-border thinking than the UK are—no offence to the Thais. It would be nice to see the UK get on the front foot, because, at the moment, I would say that we are watching from the sidelines.

**The Chair:** Thank you very much indeed. That has been a really interesting session.

**Tom Keatinge:** Thank you for having me.