



Economic Affairs Committee

Corrected oral evidence: Central bank digital currencies

Tuesday 19 October 2021

3 pm

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Members present: Lord Forsyth of Drumlean (The Chair); Lord Bridges of Headley; Lord Fox; Lord Monks; Lord Stern of Brentford.

Evidence Session No. 3

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Questions 20 - 37

Witnesses

I: David Birch, Adviser and Commentator on Digital Financial Services; Stephen Bonner, Executive Director, Regulatory Futures and Innovation, Information Commissioner's Office.

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Examination of witnesses

David Birch and Stephen Bonner.

Q20 **The Chair:** David Birch, Stephen Bonner, thank you so much for taking time to come to the Economic Affairs Committee. Welcome. Perhaps I could begin by asking the first question. How concerned should we be by the privacy implications of central bank digital currencies?

Stephen Bonner: In our experience, there is no sustainable innovation without trust. Therefore, to get the benefits that these initiatives can offer, privacy has to be considered right from the start and embedded within it so that people build trust and are therefore willing to embrace them. We think privacy is vitally important for the success of these kinds of initiatives.

David Birch: I hate to start off in this vein, because you will just think I am an annoying consultant, but it depends on what you mean by privacy and what you mean by central bank digital currency.

The Chair: The sort of answer that we would expect from a politician.

David Birch: One thing that I think does not come over is that there are different kinds of digital currencies. If we are talking about a retail digital currency for the use of the public, Stephen is 100% correct and we should not rush into things. The potential for making a huge privacy mistake is very real.

If we are talking about wholesale central bank digital currencies for the use of institutions, none of this applies. They are already covered by all the relevant regulations. If we are talking about other kinds of digital currencies—for example, the sort of industrial digital currencies envisaged by the Germans—they would have very different privacy, because they would be related to sectors and industries.

It is not an easy yes or no, but if you are talking about retail, as per the G7 principles that were published earlier in the week, Stephen is 100% correct.

The Chair: So you would be against it for that reason.

David Birch: I would be against rushing into retail digital currency. I am a very strong supporter of retail digital currency, but I am acutely aware of the potential for a colossal privacy catastrophe if we do not build in—

The Chair: How would you avoid that, then, if you think it is a good idea?

David Birch: I do not know if you would agree, but the issue is largely to do with the wallets where the currency will be stored and the know your customer—KYC—anti-money laundering and counter-terrorist financing, so it is about the wallets. The suggestion in the G7 recommendations, which I can summarise as saying that as long as somebody knows who

you are, not everybody has to know who you are, seems to me to provide the sort of compromise that we would need to make it practical.

Q21 **The Chair:** This committee's sub-committee has been very struck by the way in which a lot of the protections have been dismantled by HMRC in its desire to close what it calls the tax gap, so why are you confident that it would not? As we have seen already, HMRC can get access to people's bank accounts and so on. Surely, it would be very tempting.

David Birch: I can construct an easy example to illustrate the point. Let us imagine that my bank gives me some sort of digital wallet, but it does not say Dave Birch. I can pick a name, like I can with Gmail or Hotmail or something, so I am Manchester City Fan No. 1 wallet. I can go about my business buying things, selling things, and transferring money around. If HMRC or any other legitimate law enforcement agency has some concerns, because of monitoring, that I am doing something I should not be doing, they can take a warrant to the bank and say, "Who is Manchester City Fan No. 1?" and the bank will tell them.

In my head, all parties to a transaction knowing that I am Dave Birch, and somebody knowing that I am Dave Birch, which can be disclosed under due process, are quite separate things, and the former has great dangers associated with it.

Stephen Bonner: Our sense is that the rules and principles we have that apply to the existing banking system can probably be applied sensibly to any new initiatives, as long as they follow those same principles and the controls we are likely to achieve are broadly equivalent.

The Chair: And you are confident that if there were a central bank digital currency there would be an existing system.

Stephen Bonner: Clearly, at this point, there are not the necessary details to answer that specifically. When we get into the specifics, we will be able to provide guidance to those who do it, but there are certainly proposed ideas that would achieve that. There are proposals and thoughts out there that might impinge on those principles, hence the need to get privacy considered up front so it is embedded within it. But I think it is possible to construct one that has an equal level of protection as the existing banking system under the principles and laws we have at the moment.

Q22 **Lord Bridges of Headley:** Just to build on your point, Mr Birch, payment companies and banks already have an enormous amount of data, obviously. To me, as a citizen, what is the real difference between the step towards a CBDC and what we currently have?

David Birch: I am not sure it would make any difference to the man in the street. If you ask people whether they are concerned about privacy, they say yes. As is well known, if you ask them for their password in return for a Mars bar, they will give it to you. I think it is more of a seatbelt-type thing where, as an industry, we want to build in the right

privacy-enhancing technologies to prevent future abuse rather than requiring citizens to take care themselves.

If you look at the extent of the frauds being perpetrated in account takeovers and all this sort of thing, it is clear that the current system cannot quite be working as well as we would hope. People's personal information is too readily available, and if we can take some steps in that direction I think it would be a good thing.

Stephen Bonner: The core difference you may see is that currently there is quite a fragmented approach to this data. It is out there, it can be gathered, but there are positives and negatives about that. It is inefficient to gather that data at the moment. If you centralise that you will get efficiencies, which can be positive.

Equally, there are benefits of a fragmented system in that you have higher levels of consumer choice, and if there are failures of parts within the system it is unlikely that the whole system will fail. Eggs all in one basket has great benefits: you can look after those eggs very carefully, you know where they are. Equally, you could have additional risk. If there is a problem in there, its impact is likely to be higher.

Lord Bridges of Headley: Is it possible, and if it is, should we be aiming to get the same level of privacy that one currently has with cash, which is obviously completely anonymous?

David Birch: I do not want to make myself awfully unpopular right at the beginning, but I think no. I think the extent of the criminality, money laundering, tax evasion, bribery and everything else that goes with cash is a little out of place in a modern society. It should not be beyond the wit of us to design a better system that balances the different goals of the different stakeholders.

I cannot remember off the top of my head, but I think the Bank of England's own figures are that something like a sixth of the cash in circulation is used for transactional purposes. In Germany, I think nine in 10 banknotes that are printed are never used in transactions. I would not like to speculate as to what the money is actually used for, but we can apply our imagination.

Stephen Bonner: As we have said, if the principles of privacy are applied, you can generate something where we have a proportionate system that allows us to operate other parts of the financial system that have large amounts of personal data. We would expect to see a similar level of control applied to this. It would not be the same as cash. There are advantages and disadvantages, but you could have something that fitted within the principles of the current data protection law.

Lord Bridges of Headley: Jumping quickly to a specific, how do you view the Bahamas' approach to this? Are either of you able to comment on the strengths or weaknesses of their approach?

David Birch: I think you are referring to the Bahamian sand dollar.

Lord Bridges of Headley: Yes.

David Birch: I would prefer a more distributed solution, much as the Bank of England has already said in relation to retail digital currencies. Having banks and other regulated institutions distribute the digital cash to people and take care of the KYC and related initiatives is probably the right way forward. Aggregate centralised tracking is probably appropriate in those circumstances, but not the tracking of individual transactions.

Lord Bridges of Headley: Sorry, just to pick you up with a layman's question, are you saying that in your ideal system banks would be providing the KYC and AML function that they do now?

David Birch: I would say banks and other regulated financial institutions. You could imagine specialist institutions, like payment institutions or something, doing that work as well.

This is not completely relevant to your question, but I would flag up that you would have to present me with some pretty concrete evidence that the current system actually works before we decided to replicate it in CBDC. I imagine CBDC as being built as a parallel system, not on top of the existing system. If you look at the amount of money that is spent on KYC, AML, CTF and PEP in the current system compared to the criminal funds that are intercepted, it is not a cost-benefit analysis that would be considered acceptable in most businesses.

Stephen Bonner: It is not a product that we have looked at in great detail, as it is not UK based.

Q23 **The Chair:** Mr Bonner, when you were talking about baskets and eggs, I was reminded of Churchill's remark about not wanting to put all his baskets in one egg, which I think was about the Comet at the time. We would be putting all our baskets in one egg, would we not?

What are the dangers of people being able to hack into the system? Is it sensible? You would be very vulnerable unless you had impenetrable systems, and as some of the most secure computer systems in the world regularly get hacked by 14-year-olds, how confident would you be about those baskets in the one egg?

Stephen Bonner: In our work looking beyond privacy into some of our critical infrastructure and security oversight, we see weaknesses in many parts of infrastructure. It is very hard to build a system that is perfect for ever. If you have a large, widely distributed system with many players within it, that may add points of weakness that allow entry into the system that can spread throughout the system.

If you are aware of the value of an asset, you can then protect it appropriately. That is probably a question for a body like the NCSC to give you judgment on that, but it would definitely have to be considered, because one of the advantages of cash is that it continues to work should all your systems fail. Thinking about what the fallback would be should

the system have a problem would clearly be a key part of the design to make sure that it is resilient to those kinds of challenges.

Q24 **Lord Fox:** Before I get on to the questions on the paper, I want to come back to a couple of things you said, Mr Birch. At the beginning, you made a sort of St Augustine claim: "Retail digital, but not yet". You talked about people giving away their password for a Mars bar, and you also said, "We can design a better system". If we do have a retail digital currency, what is the Mars bar, and what do you mean by better? Better for whom?

David Birch: Yes, I am using "better" in the horrible, mechanical sense of lowering the overall total social cost of payments in the country.

Lord Fox: So less friction.

David Birch: Well, less cost. I recognise that in the retail case there are different stakeholders—law enforcement and so on—and I think it will take time to come to the right balance. In the retail case, we do not have what you might call a burning platform.

Lord Fox: But you did say that you were a fan of it—

David Birch: Yes, I am.

Lord Fox: —so I wonder why you are a fan of it and what the benefit is. Is it just the fact that it is more efficient, or are there Mars bars for the retail customers of these currencies?

David Birch: At the retail level, I would say there are probably three areas that we would want to think of as benefits in this case. The first, which I am sure you do not want to particularly talk about today, is political. There are some issues. You can imagine if everybody in the UK had a little app on their phone and they found it more convenient to use digital dollars than to use actual sterling. That would have implications.

Lord Fox: Yes, so there is a competitive issue.

David Birch: Yes, so there are political implications, which obviously we do not want to talk about. We would like a well-constructed central bank digital currency built for sterling to add to our system. We would like people overseas to use that.

There are the economic issues to do with social inclusion, sustainability, all these other issues, and I would have thought that we would want to see a digital currency built to support all those goals.

On the purely technical side, the issue of resilience that you referred to just now, I, and I think a great many other people, do not envisage the digital currency system being built on top of the existing system. The existing system is already being overhauled and developed as it is. For this vital piece of critical national infrastructure, we would want it constructed as a parallel system so that the overall resilience of the UK payment systems goes up. You are probably aware of the economist John

Kay's comments on the general uselessness of the financial sector but the astonishing utility of the payment system. If the stock exchange stops working for a couple of days, you know, but if the payment system stops for two minutes—. It is vital.

Q25 **Lord Fox:** I think we have covered most of my question, but if you are building a completely new infrastructure, are we not in danger of putting new wine in old skins, because the rest of the banking system is built on almost decades and decades of legacy?

David Birch: No, I disagree with that—and, again, this may be a too technical version—but the existing system is about electronic money. Electronic money lives in bank accounts, essentially, and moves between them. Cash lives in your pocket, your car or your drawer. Similarly, electronic cash would live in devices—it would live in your mobile phone, your television, or wherever else—but it would not live in bank accounts.

If I send you some money from my Barclays account to your NatWest account, those claims are being transmitted through the existing system. We have all sorts of measures to look after it, although they do not seem to be working terribly well at the moment, judging by the figures on authorised push payment fraud. But if I send an electronic pound from me to you, it goes from my wallet to your wallet and that is the end of the story. It does not go through banks or other intermediaries or so on. It is crucially different, in my opinion.

Lord Fox: If this was travelling across international boundaries, how would the privacy issue be affected? Perhaps, Stephen, you might want to come in first on that.

Stephen Bonner: Like the G7 paper that David has referenced, there is also the OECD 108+ principles. We see the long and strong push internationally to come up with common standards around this area, so that we can have the free flow of data and this kind of initiative but with trust. There is definitely a direction to building that as much as possible.

Lord Fox: But it is not a given unless we negotiate standards probably earlier rather than later.

Stephen Bonner: Yes.

David Birch: I think it has incredible degrees of complexity around it when you start talking about it.

Lord Fox: That would be my assumption.

David Birch: Let us just say under the Financial Action Task Force travel rule as it stands at the moment, if I send some money from me to my friend in France, we have to send my name and address and inside leg measurement and everything else that goes with it. I guess we are okay to do that, because we think that France will probably act responsibly with that data, but that is not a given, and it is certainly not true of a

great many countries in the world where you are essentially forced to send personal data in order to get anything done.

For example, what we regard as privacy has some cultural context and political norms that may not apply to other people. If we say, "We think that central bank digital currency should have these privacy things attached to it", that might be completely unacceptable in other places and vice versa. So once we start talking internationally, it is very problematic. I am slightly uncomfortable with the idea of forcing people to transmit personally identifiable information alongside a payment. I am not sure that enhances our position in the long run.

Lord Fox: Of course, France has a maximum limit on the amount of actual cash that you can bring in and use. I think I am right in saying that. Turning that on its head, is one way of minimising some of the impact to have a lower limit—a *de minimis*—for which the identification of people using electronic digital money does not reveal their details?

David Birch: I do not feel that that is a useful way forward, because if we say, for example, that you do not have to do KYC for wallets that hold less than £500, if I am an international drug-dealing, Nazi, child pornography smuggling no-good, I will just have 1,000 of those wallets. Without a working digital identity infrastructure—Stephen and I agree that we are still some distance from that in this country, but I think we both agree on the priority of it—you cannot make the thing work. If you allow anonymous wallets of any form, you are essentially allowing anonymity. Personally, I think the long-term danger is too great.

Lord Fox: If I open something for my daughter with five digital pounds in it, I still have to go through the same hoops as someone doing £5 million.

David Birch: Yes, but there are other ways of reducing those costs. I have been at Barclays for I do not want to say how many years but quite a—

Lord Fox: I am similarly unmoved in my bank account.

David Birch: If I go round the corner to NatWest to open an account, they will treat me like I just got off the boat. I cannot use my Barclays reputation in order to minimise the cost of transactions elsewhere in the financial system, and that does not seem quite right, so I am sure we can find another way, with a proper, working digital identity infrastructure.

Lord Fox: To date we have not, though.

David Birch: Correct.

Lord Fox: And you say there is a big cost involved.

Q26 **Lord Bridges of Headley:** Mr Birch, so that I understand you correctly, you are saying that we set up a CBDC system that runs parallel to the existing system.

David Birch: Yes.

Lord Bridges of Headley: So in the new CBDC system the actual payment system is entirely new, or is it using, in some shape or form, the current payment system but remodified and redesigned? I ask, because when the Bank for International Settlements looked at all this, it wrote: "Existing retail payment system designs (eg those supporting cards or credit transfers) exchanging originator and beneficiary information at every step in the payment chain could struggle to offer the level of privacy required for a CBDC system without redesign". Is that your justification, therefore: that we have to start all over again?

David Birch: I am not sure that I would say justification, but the point is correct, which is that we have an existing electronic money system that has evolved over many years to provide a pretty terrific service. When I go to the train station and stick my card in the machine, it works and I never think twice about it. There is no obvious reason for disrupting that.

For other reasons, if we want to have a digital currency system in place, which I think we do, there is no reason why we would build it the same way. Those things were built many, many years ago. I will give you one very simple example. It took a great many years for computer chips to show up on your credit card, to enhance the security and so on, but to all intents and purposes everybody has one of those chips inside their phone now, so why would you not just use the chips inside the phones?

The Chair: Not everyone has a phone.

David Birch: No, not everyone.

Lord Bridges of Headley: I am still struggling, though. I hear exactly what you are saying about the design. I am just trying to think through the benefit. At the moment, I can zap my card very quickly on a merchant's terminal and pay. I am just trying to see what, if you have the twin tracks, will attract me as a customer to use those tracks?

Lord Fox: It goes back to that Mars bar, does it not?

Lord Bridges of Headley: Yes.

David Birch: You will probably want to talk to Andrew Cregan in the next session, but I would imagine that merchants would be strongly motivated to incentivise people away from the existing system. I think I read an article from Andrew about every other day about quite how much it costs merchants to support the existing system.

These issues to do with privacy and other things are just as important. For the purposes of the discussion, if I was to pick out a single reason for doing it, I think the Bank of England was right to point towards innovation—or, to put it very crudely, £5 notes do not have an API. If we had a central bank digital currency system in place, which involves no credit risk to anybody—it is cleared funds that are used at all times—and that system is a platform for innovation, for new products and services, for people in the proverbial garages to build things that none of us can imagine at the moment, that would be a much greater net benefit to UK

plc. The cost savings are substantial. If we are not driving trucks around filling up ATMs and using all those single-use plastics to wrap banknotes and so on, of course those cost savings are real, but the net benefits to UK plc I would think will come more on the innovation side: building new products and services.

Q27 Lord Monks: Mr Birch, you mentioned the fact that there is considerable suspicion about holders of paper currency. You mentioned both the UK and Germany. Is it not absolutely possible that a new digital currency could suffer from exactly the same problems: that the more you guarantee anonymity, the more you guarantee privacy, the more you try to say, "This is safe and secure", the more the door opens to people and ne'er-do-wells of one form or another? Is that not a major factor?

David Birch: I agree with you completely. That is why Stephen and I do not use the words privacy and anonymity interchangeably. I am strongly in favour of building real privacy into the infrastructure, not relying on people to do the right thing but actually making it part of the structure. We have the privacy-enhancing technologies at our disposal, would you not agree?

Stephen Bonner: There are certainly innovations in that space that can assist with this, yes.

David Birch: But that is not the same thing as anonymity. Anonymity is unconditional, and I think the dangers of that are far too great.

Lord Monks: Surely, to stop it you need some sort of regulation. You need somebody keeping an eye on the different movements. At the moment, the banks do know something about money laundering—probably not enough, but they do. Who will keep an eye on this?

David Birch: I will use the example I gave earlier, I have a wallet that says I am "Manchester City Fan" and I am sending it to a friend of mine who is "Chelsea Fan". In the system, it is "Manchester City Fan" and "Chelsea Fan". It is not "Dave Birch". No one can spy.

Let us suppose keeping an eye on it, in my mind, in this future world, you are talking about machine learning and processing vast quantities of data, which we did not used to be able to do but we can now. If the robot spots that "Manchester City Fan" seems to be sending an awful lot of money every couple of days, to a cave in the Bora Bora mountains or something, it can put up a flag. Then law enforcement, under proper procedures and processes, can obtain a warrant, go to Barclays and say, "Who is Manchester City Fan"? Barclays, because it is a law-abiding organisation, will tell them, "It's Dave Birch". I cannot use it to get away.

I am absolutely in favour of that monitoring using the most automated techniques imaginable, but what I am against is the routine invasion of privacy without the proper—I do not know what the word for it would be—

Stephen Bonner: Authorisation.

David Birch: Authorisation, yes.

The Chair: That kind of power in the hands of totalitarian Governments is quite frightening, is it not?

David Birch: Correct. I do not think this is a flip statement, but if we have a totalitarian Government we have lots more to worry about than them working out what I am buying down at the corner shop.

Q28 **Lord Monks:** Just as a follow up, I have this vision, from the questions that Chris was asking earlier, of a single currency emerging out of all this. There are competitive central bank currencies and some are more attractive than others. Some might be because the regulation is laxer than others. Is this not some gateway to some international world currency or whatever?

David Birch: I think world currency is unlikely, but you are certainly right to raise the issue of currency hegemony. In fact, I wrote a book about it last year, so I am rather glad you did raise the issue.

We are not here to discuss the politics of it, but it is very clear that the use of different currencies in international transactions represents a form of extension of state power, which we might be for or against in different circumstances. Were there to be widely available working digital dollars, digital pounds, digital yuan, there certainly might a great many currencies around the world that would just disappear because nobody would use them. There are many countries where people would much prefer to hold US dollars or euros than the local currency. It is rather obvious, I would have thought.

Q29 **Lord Fox:** There are two sorts of data. There is the individual personal data and then there is the bulk data. What we are seeing with the NHS is that we are being assured that our private data is not being sold or parlayed, but, in fact, the population bulk data on health is becoming increasingly valuable. It would seem to me that the bulk economic data of this nature would itself become quite valuable. Who owns that, and how should it be used?

Stephen Bonner: In order for that bulk data to become bulk data, we have in the UK this idea of pseudonymous data and anonymous data. At a high enough level, it becomes anonymous. One of the fascinating things about payment data and cash data is that it is generally quite easy to reidentify the people buying the tube train ticket.

Lord Fox: The same is true with health data.

Stephen Bonner: Yes, indeed, hence a very high level of concern among citizens about how their data is being used. When there is clear transparency about what it will be used for and how it will be used, people are very supportive of those goals. If you explain, "We're going to aggregate the data about transactions to better plan the economy, to identify criminals—"

Lord Fox: We sort of know who owns the health data. I am interested to know who we think owns the bulk data of a digital currency. Is it the retail banks or whom?

Stephen Bonner: It would depend on the implementation. If there is the central one without the banks issuing the wallets, the data would be held centrally and they would be the data controller having that data, so the institution running the central currency would have that. You can see a model where, as David just said for the KYC, the banks have some of that data and some of that and then they—

Lord Fox: It ceases to be bulk data at that point when it becomes balkanised, or it becomes less usable if it becomes balkanised by the retail banks or whatever.

Stephen Bonner: Certainly at the moment that data within those banks is used and is useful as a sample of the whole set, but, going back to the basket of eggs, if you bring that all together you have a comprehensive view, which is probably more useful, but you then have aggregate data that could be at risk.

Lord Fox: You would agree that this bulk data would have value to commercial concerns as well as making government decisions.

Stephen Bonner: There is definitely an extreme level of interest in this kind of data, and in our work with some of the data brokers we have identified that some of the use of that data historically may not have followed UK law, and that is where we have done our work to reduce that. But there are ways in which users benefit from having their data used in innovative ways, particularly if it is anonymised. That provides them a level of comfort.

Q30 **Lord Stern of Brentford:** Would you envisage somebody preventing you, Dave Birch, from opening an account that is “Manchester City Fan 12345”? If they knew you were David Birch, they would prevent you from having a load of wallets.

David Birch: That is a very clever question that is very difficult to answer because of sanctions and so on. In other words, Barclays knows that I am “Manchester City Fan No. 1”. I can maybe go to HSBC and open an account as “Manchester City Fan No. 1”, because Barclays has already done the KYC. However, it is not “Manchester City Fan No. 1” that is on the sanctions list, it is Dave Birch. So how would HSBC know that I am on that sanctions list?

In other words, I hate to sound like a broken record on this, but you have to have a proper digital identity infrastructure to make this all work. My name, Dave Birch, and my address, are attributes; they are not my identity. You need a way of sanctioning me, not those attributes. So you are absolutely right to highlight that, and there is no simple answer to it. This is one of the reasons why I do not think that we need to rush into this, and why we need to think about this a little more.

Lord Stern of Brentford: That was my follow-up question from Lord Monks.

Q31 **The Chair:** Are the Government actually working on a digital identity system to your knowledge?

David Birch: That is a complicated question. The new DCMS digital identity framework is pottering along.

The Chair: What is the difference between a framework and a system? My question is really: are the Government working on this, and are they doing so in order to deal with the point that you have just made?

David Birch: I think that DCMS's decision to opt for a more framework-based approach is the right decision.

The Chair: I am not asking that. I am asking whether you think they are doing that with a view to preparation to deal with the problem that you have just identified.

David Birch: I could not say. You would have to ask them.

Q32 **Lord Stern of Brentford:** We like to think of the Bank of England being as little politicised as possible. Central banks are politicised, but we try to do our best to keep that level of politicisation down. We are talking about structures where they would take on more responsibilities, one way or the other, of the kind that we have just been discussing, particularly on privacy and data protection. I guess that would up the degree of politicisation. Do you think that it would do so to an extent that would be worrying?

Stephen Bonner: I think the idea that our key institutions should respect the laws of the land, including the privacy ones, is not that controversial or worrying. As long as it sits under the framework of the existing laws and approaches as other elements of the financial system that the Bank and Treasury operate parts of, I think you can operate that without concern as long as you have built in privacy from the start, given people comfort you are making the right choices and fitted it in with the existing legal frameworks that we have.

Lord Stern of Brentford: Do you not think it is rather big? For many of us, what the state knows about us and what it does with it is at the heart of the political relationship between the individual and the state. I worry that you are slightly complacent in the way you put your answer.

Stephen Bonner: Given that we, as an organisation, dedicate our time and effort to make sure that all those things are in place, I hope that I do not come across as complacent; we absolutely do put time and effort into that. But in moving from a number of banks where the data can be collected to a central point where the data can be collected, we face those same risks in the distributed system, just with slightly added frictions. Obviously, we are very keen to ensure that the right principles and rules are applied, whether the system is distributed or whether it is

centralised. Being the data controller of such a large set of valuable data definitely comes with responsibilities, but I think we have seen that when people take those responsibilities seriously, design it well and build the trust, that can work very well.

Yes, there have definitely been circumstances, in the commercial and the government world, where things have not built that trust and it has caused disruption and delay to important initiatives. We hope that people will take advice and guidance to meet those requirements to make it easier to deliver these things, but it is something that they absolutely need to take seriously, so apologies if I—

Lord Stern of Brentford: No, I did not mean to overdo that word. We live in a country where people, for understandable reasons, would be rather antipathetic to identity cards. Does that not underline just how sensitive we are to these kinds of issues?

Stephen Bonner: When we see initiatives like this, as David mentioned, privacy is the top issue that people have as concerns about. I am sure that is why you have invited us here today and why we are engaged with the Bank of England and Treasury working groups on this: because, absolutely, it is of grave concern to people that if this does not have the controls and constraints that we all expect and have embedded in law, it is not a positive contribution and it will not succeed. It is vital that people take privacy seriously on this.

Q33 **Lord Stern of Brentford:** I have one other political issue here that, David Birch, you raised—rightly so—and that you assumed we did not want to talk about it. Perhaps we do. That is that if these kinds of facilities around the world make some currencies still more attractive than others, that increases seigniorage, does it not? The US has been able to run deficits for decades and benefited from that, because that gets goods and gives people bits of paper. Would this accentuate that problem?

David Birch: That is a factor that is not unknown in the US, and because of the sums involved, relatively small falls in the proportion of dollars used in international transactions translates into significantly higher financing costs for the US. The dollar is used in such an overwhelming majority of international transactions that the demand for dollars and dollars in related securities is much higher than it otherwise would be. This is the exorbitant privilege that America accrues. If that was to fall, the cost of financing the US deficit would go up. Those figures are widely available.

There are other more sensitive issues that I am not qualified to comment on to do with the extension of soft power and the extent to which you can use the financial system as a method of censure or support, which I think everybody understands but it is a complex issue.

Lord Stern of Brentford: It would be likely to increase the potential of seigniorage; in other words, the US, if it were the US, being able to get—

David Birch: There are so many different scenarios. Again, I am not making political points, just illustrating, but suppose it turned out that the digital yuan became the standard currency along the belt and road. That would obviously be very good for China. In parts of the developing world where, for example, Facebook is essentially the internet, some sort of Facebook money might become very attractive to most people.

There are lots of different scenarios. You need somebody much more well versed in the economics than me to talk about it, but I think your sense of the fact that there is an unknown here is absolutely correct. If we do not do it, will we be at a long-term disadvantage? Probably, yes, we will.

Q34 **Lord Bridges of Headley:** Mr Birch, to come back to the point about digital identity in response to Lord Stern's initial question, can I clarify whether you are saying that to make a CBDC work you need to have some form of digital identify framework so that the individual who is applying for the digital wallet is part of that framework and, if so, what data needs to be in it?

David Birch: To answer the first part of the question, I think I would want to say yes. I am looking nervously at Stephen. I think we need an infrastructure to make this work. On the second part about what data you would need, I am not completely sure.

Stephen Bonner: So much depends on the implementation, and we have discussed here running a parallel one separately. There are models where these are more embedded in the existing system, and then you could leverage some of those identities used within that. Clearly, if we had an effective digital identity, that would make a number of things an awful lot easier—although, of course, if we then tried to do international elements of this, how that identity scheme from one country would trust others would become another part of the data flows and trust and data that would need to be had.

There are many models where having it is advantageous. I do think that you could construct a scenario of running something in this space that did not require it. Whether that would be the right thing to do is a little beyond my remit. I think you could design ones that did not have it, but it would be a lot easier if we did have it.

Lord Bridges of Headley: Assume that we followed your ideal scenario and that you have the existing track and a new track. All of us would need to apply to be on the digital identity framework system, whatever it is. That is the only way we would be able to make it work, correct?

David Birch: I would hazard a guess that you all already have bank accounts, in which case the bank has already—

Lord Bridges of Headley: You assume that the data, which would be KYC and everything else, would just plug straight in.

David Birch: I would think so, yes.

Lord Bridges of Headley: That would suffice.

David Birch: Would that suffice? I think quite probably, but we would need to think it through.

The Chair: Would it be very unkind of me to suggest that you both seem quite enthusiastic about the prospects of this currency but you are not really able to explain how the system would operate without avoiding some pretty big risks?

David Birch: I could certainly explain how a system could operate. Whether it would be the system or not, there are so many different issues coming in here. If you asked me whether I could take a piece of paper and sketch out roughly how I think it should work, yes, I could.

The Chair: I asked you about this in the hands of a totalitarian regime, and later you said that perhaps China might get ahead of us if we did not move forward on this. I certainly regard China as a totalitarian regime, and the effect on liberty and world trade and so on could be quite chilling. You seem very relaxed about this.

David Birch: If you are asking me whether on balance I would prefer in most circumstances to use a Canadian digital currency or a Chinese digital currency, I might opt for the Canadian one, because they have a track record of being concerned about privacy issues and have strong data protection laws. Is that true for everybody in the world? It would be wrong of me to say that. I think some people might prefer that.

Q35 **Lord Fox:** Carrying on a bit, in one of Mr Bonner's answers, he reeled off digital inclusion as being one of the potential benefits of a retail digital currency. In the meantime, everybody who is even included now will have to if not start from year zero then rebuild their profile in the new system. How will the people who are already not plugged into the system suddenly magically be attracted to this?

Again, this comes back to what is in it for them. Presumably, if you are saying that the people who are not plugged into the system have to do it because they do not have money, they have no choice, that is not exactly digital inclusion; it is kind of marching people into the digital world whether they want to or not. We should call it what it is, if it is that, or is there something else that would draw these people moth-like towards the light of a digital currency?

David Birch: I think the issues are actually rather more distinct. We already live in a country where anybody can get a basic bank account, and there are a million people who do not have one.

Lord Fox: That is my point. You are talking about digital conscription, really.

David Birch: Right, there is clearly digital conscription. I will steal that; that is great. I want to use that. Look, we shut off people's analogue telly when it was for the better of the nation.

Lord Fox: Therefore, we shut off the analogue money.

David Birch: I am just saying that it would be a possibility. I just want to make one very specific point on inclusion. What people who are excluded need is not a bank account. A bank account is a very complicated and expensive way—

Lord Fox: No, an identity is what they need.

David Birch: Yes, I was going to say that. What I need is a way to get paid and I need to get a way to pay. That need not necessarily be a bank account. That could be some form of digital wallet that is provided by Vodafone or Tesco or anybody else. Bank accounts are very expensive ways of trying to include people, and they patently do not work since there are lots of people who are not included.

Lord Bridges of Headley: I understand that. I was just actually looking at the last Treasury Select Committee report, I think, on financial exclusion. It points out that customers who do not have bank accounts are often those with no permanent address, who move often, who do not have a passport, who do not have a driving licence, and a third of unbanked people have had a bank account before and do not want one.

When it comes to the overarching objective of the CBDC, I often ask, “Is this the guiding objective?” I think it comes back to the point you were getting to earlier. There are other bigger potential macro points that Lord Stern was talking about and financial exclusion and inclusion can be dealt with in a different way. Would you not agree?

David Birch: I agree with the priority of dealing with the inclusion issue. It is not good for society if there are people who are excluded. Remember, people who are trapped in a cash economy are the people who pay the highest prices for everything. They are the people who get mugged and robbed and all this kind of thing, so inclusion is really important. Does a CBDC in and of itself help with that? That is not clear to me at all. It is much more related to these issues of identity and so on.

Q36 **Lord Bridges of Headley:** Can I quickly come back to a point and direct it to Stephen Bonner? If we introduce a CBDC alongside some of the lines that we have been discussing, which Mr Birch set out, does it change the Bank of England’s relationship with the ICO and its levels of accountability, and does it drag it into a whole new realm of privacy data issues—clearly it does, given this conversation—and what does that mean for the Bank and its relationship with other institutions?

Stephen Bonner: The Bank is no doubt already a data controller for some elements of private data, but obviously this would massively expand what was in there and it would need to resource and skill up appropriately to discharge its responsibilities around this, and that is part of it. I am unclear about the implementation. It may not be the Bank that runs this. It might form another entity to operate this. That would be the controller of the data who would need to have this but, absolutely, whoever is intending to operate in this space needs significant investment

resource and capability to cover their privacy responsibilities. It is well understood by many of the people I talk to in this space that it needs to be done correctly but, absolutely, it would be a step change in the Bank's responsibilities as it moves from a predominantly wholesale to a much more retail environment.

Lord Bridges of Headley: I have one final question. You started off, Mr Birch, with a very interesting point about the focus of this. We have been primarily discussing the application of CBDCs in the retail sphere. Should we actually be focusing on wholesale and driving headlong into that? I read today in the *FT* about what the French are doing on the wholesale markets. Are we in danger of seeking perfection on the retail front whereas, actually, the competitive advantage for the City lies in wholesale?

David Birch: I agree completely. The thing that makes the City a more or less attractive place to do business is the cost of doing business. A significant way to reduce the cost of financial intermediation is through the use of wholesale digital currencies, which allow people to exchange financial instruments without the clearing and settlement associated with it. I would have thought that most institutions in the City are probably already investing in this, so I agree with you as a priority. Of course, that does not include any of the privacy issues that you are talking about today. In a way, it is easier.

Q37 **Lord Fox:** Just to make your life hard again, coming back to the retail situation, you said at the beginning that you are keen on it but not yet. What are the three or four priorities that need to happen in order to make that "not yet" now? In other words, what needs to happen to make it possible, from your point of view and Stephen's?

David Birch: For me, the priority is a working digital identity infrastructure. That would be the single most important step we could take forwards in this area.

Stephen Bonner: Just to clarify, you said earlier that I was enthusiastic. As an organisation we are neutral about any of these. I think it can offer great innovation.

Lord Fox: Yes, I think Mr Birch was the enthusiast.

Stephen Bonner: Yes, I just need to be clear on that. That said, we have no objections, and it can be done well if the right principles are considered. The key thing, and we are seeing strong efforts in this space to do this, is to consider these issues and turn the nebulous situation into a concrete proposal, which then clarifies many of these balancing issues we face.

The Chair: Given Mr Birch's answer to Lord Bridges' question about the threat to the City, is not the pace at which this is being considered rather slow?

Stephen Bonner: It is outside my remit, I am afraid.

David Birch: I think work is progressing on the wholesale side of things. The Bank of England has already made certain regulatory changes around the provision of omnibus accounts to allow third parties to hold tokens that will be settled in central bank digital currency. Bringing those into these new, more sophisticated and more complex trading environments is, I think, moving. To what extent it needs regulatory change I am not sure; that is outside my remit. But it is not as if there is nothing happening; that is my point.

The Chair: When we took evidence from the work that is being done by the Treasury and the Bank of England, it did seem over quite an extended period of time.

David Birch: On the retail side?

The Chair: Yes.

David Birch: Yes, but, as I say, I am not necessarily exercised about that. I think the risk of making a mistake is real.

Stephen Bonner: I would highlight that if you lose trust by rushing in and not considering these issues correctly, you put things back far further, so sometimes you need to go slow to go fast on the retail side.

The Chair: Thank you very much, Mr Bonner and Mr Birch. It has been a very useful session and we are very grateful to you for giving your time.