HOUSE OF COMMONS

Treasury Committee

Oral evidence: The crypto-asset industry, HC 615

Monday 14 November 2022

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[Watch the meeting]

Members present: Harriett Baldwin (Chair); Rushanara Ali; Anthony Browne; Alison Thewliss.

Questions 1 - 101

Witnesses

I: Susan Friedman, Head of Policy, Ripple; Ian Taylor, Executive Director, CryptoUK; Daniel Trinder, Vice-President, Government Affairs, Europe and MENA, Binance; Tim Grant, Head of EMEA, Galaxy Digital.

Examination of witnesses

Witnesses: Susan Friedman, Ian Taylor, Daniel Trinder and Tim Grant.

Q1 **Chair:** Welcome to the Treasury Committee evidence session on the crypto-asset industry. Can I ask our witnesses to introduce themselves for the record?

Daniel Trinder: Daniel Trinder. I am a VP in government affairs, covering UK, Europe, Middle East and North Africa, at Binance. I am also an honorary professor at Queen Mary, University of London.

Susan Friedman: Good afternoon. My name is Susan Friedman. I am the head of policy at Ripple Labs Inc.

Tim Grant: Good afternoon, everyone. My name is Tim Grant. I am the head of Europe, Middle East and Africa for Galaxy.

Ian Taylor: Good afternoon. My name is Ian Taylor. I am the executive director of CryptoUK, the UK's trade association.

Q2 **Chair:** Thank you very much. I should say for the record that, until my election as Chair last week, I have been a vice-chair of the Crypto and Digital Assets All-Party Parliamentary Group, but I have stood down from all of those groups since I was elected Chair.

With the collapse in so many different "crypto-assets" in 2022, and the news last week, which we will drill into in greater detail as we go through, would you say that crypto-assets are the tulip bulbs of the 21st century?

Daniel Trinder: I would not say that they are tulip bulbs. The key failure last week, plus the ones earlier in May, are largely down to issues relating to failures around governance, risk management, excessive leverage and, if we believe the reports, inappropriate use of clients' assets. These are traditional failures that have plagued traditional finance. I do not think that there is anything inherent around the failures that I am aware of around crypto or the technology per se at this moment.

Susan Friedman: I would absolutely agree with that. Crypto covers many different tokens, projects and businesses. The point that we would want to make is that Ripple is a business-to-business enterprise. We work with licensed financial institutions. We are just one player in this ecosystem. There are other businesses that are consumer-facing. In terms of many of the tokens that are out there, people certainly speculate, but they are built with real utility in mind. The token that we use is specifically designed to help facilitate cross-border payments, and it is important that we not paint all of industry or all tokens with one broad brush.

Tim Grant: It is important to consider what crypto-assets represent. Ultimately, they are, in some way, like technology stocks. They represent some sort of claim or some sort of representation of something going on underneath. There is no question that, if you look across the entire gamut, there are many thousands of coins that, like many technology stocks in the early part of the internet boom back in the late 1990s and early 2000s, ended up not being worth much, but it would be wrong to throw the baby out with the bathwater and say that all crypto-assets are purely speculative, do not have some economic value and do not have some element of value creation built into them.

Certainly, from our side at Galaxy, we trade directly with some of the largest institutional customers in the world across sovereign wealth funds, hedge funds and asset managers, et cetera. The level of sophistication that they have got to in assessing the value of those underlying crypto-assets is pretty significant.

The last thing that I would add is that, if you look at those technology stocks that I am referring to, some of the reduction in value in 2022 is greater than that we would see in crypto-assets. We see the crypto-assets acting like a risk asset, as it should be when the institutional marketplace is the primary trader.

Ian Taylor: This is a highly risky and volatile asset class. At CryptoUK, we always advise people who want to invest to do their homework and perhaps be prepared to lose 100% of their investment. As our founder members of CryptoUK testified to this Committee in 2018, we need regulation of certain centralised market participants. Perhaps if we had had some regulation, some of these recent events may not have taken place, where we have seen some pretty poor business practices. Perhaps over the forthcoming weeks, we might see some criminal behaviour.

Q3 **Chair:** The Panel has referred to these as assets, so what is the intrinsic worth of one of these assets? Why should my constituents hold them in their savings?

Ian Taylor: I am not giving any investment advice here, but, if your constituents would be interested, we know from an HMRC summer report that 10% of UK adults hold crypto as an investment. Fidelity produced a report stating that eight in 10 institutional investors will put crypto-assets in their portfolio model. Not all tokens are born equal, as my fellow panellists have mentioned. There are thousands of different digital assets or crypto-assets, whatever terminology you want to use. Some do not have any inherent value, but I can give you a few examples of many that do. Just because something is intangible, it does not mean that it does not have any inherent value.

Q4 **Chair:** Can you tell the Committee what that distinction is?

Ian Taylor: The UK Government have already given some clarity around the taxonomy. We have payment tokens such as Bitcoin, which has an inherent utility value. It is a peer-to-peer payment network. Utility tokens provide a utility value, and we have someone on the panel who works in one of those organisations. We also have stablecoins, which we know will come into regulation through the Financial Services and Markets Bill later this year. That has an inherent value because it is a means of payment and a good use case to reduce fees for merchants using other payment rails, for example, and reducing trapped liquidity that a merchant may have in receiving payment over a bank holiday weekend. We see a number of different tokens and there is a whole range of them that provide a value to the owner and the user.

Q5 **Chair:** You mentioned Bitcoin, which is now lower in value than it was prior to the rise in value during the pandemic. What has caused that fall in Bitcoin?

Ian Taylor: Yes, it is true that the price has dropped significantly, but, if you draw a chart back in time over two years, it is up significantly from a few years ago.

I am not an expert in this, but I will give you my viewpoint on the reasons. One is macroeconomic conditions. It is a risky asset in a portfolio, so a portfolio manager, during times of economic downturn, will rebalance their portfolio and move into less risky assets. Also, we have seen some issues within the crypto-asset sector, as you have mentioned and alluded to, which is why, at CryptoUK, we believe that, if we can get some regulatory clarity around some of these market participants, that will help the sector move forward.

Tim Grant: The thrust of your first question was around constituents, so let us frame it in terms of consumer protection. Like any risk asset, we would be subscribers to the importance of that being a regulated area; therefore, the provision of information around that should be provided by regulated entities and some level of recourse should be in place. This is true for many decades in traditional financial assets. There are definitely ways that exist that are becoming more and more sophisticated to analyse these tokens.

As all of the panellists are saying, there are very different kinds. There are different frameworks and construction techniques, but they do represent something. If they do not represent anything, they should not be worth anything. Those techniques, fortunately, are now starting to evolve to the point where we could turn that into good advice for constituents, but that is going to be predicated on us having a regulatory regime that allows that to happen. Unfortunately, at the moment, that is not strictly the case.

Susan Friedman: I would just note that not all tokens are built or intended for an investment purpose. Speculation is certainly one category but not the only one. Part of the discussion that we are having is that a regulatory framework is certainly needed that provides for consumer protections, but that framework also needs to be nuanced enough to recognise business-to-business models as opposed to consumer-facing models. The crypto ecosystem needs to be diverse, with different parties in it, using tokens for distinct reasons.

Daniel Trinder: On the use, the primary two uses are, first, investment and, secondly, payments. The way that I think about it is to think about, say, foreign exchange, where somebody may use an FX transaction to hedge a mismatch between revenue and costs, which may be for a payment reason. They may also purchase a foreign exchange for speculative investment reasons, and that is broadly the same with crypto.

Q6 **Chair:** You have convinced me that there is a medium of exchange use for cryptocurrencies. You have convinced me that there may be some that have some asset backing that may give them some value. Are they, like other risk assets, very vulnerable in a rising rate environment? Nobody mentioned the fact that we are now in an environment where central banks are increasing rates. Does that have any impact on the value of these crypto-assets?

Tim Grant: Yes, it does. Ian referred to that in terms of the macroeconomic conditions.

Q7 **Chair:** Is that one of the reasons why values have fallen, in your opinion?

Tim Grant: As a non-asset class-specific and purely general risk asset class, a specific comment would be that the macroeconomic conditions have resulted in deleveraging and moving to safer assets, as Ian rightly pointed out. These crypto-assets are, indeed, quite broadly held by hundreds of millions of consumers around the world. There are, by some metrics, more individuals holding crypto-assets than there are ones holding equities, which is in itself an interesting statistic.

Our view of the world is very institutional. From an institutional perspective, certainly from the beginning of the year, if you look at NASDAQ stocks and Bitcoin, just as one example, they did start to trade very much like each other, which is really due to these macroeconomic conditions, so I would agree with your statement.

Q8 **Chair:** So those who said that, for example, Bitcoin would be an effective hedge against inflation turned out to be to be wrong.

Tim Grant: In the short run, yes.

Q9 **Chair:** You would all agree that there is no hedge against inflation here that you are offering. Can each of you summarise a couple of points about how you contribute positive, productive outcomes to the UK economy, and can you quantify them?

Daniel Trinder: I caveat that because Binance is not regulated by the FCA. The only way in which we can serve clients in the UK is through reverse solicitation.

Q10 **Chair:** But you do have UK clients.

Daniel Trinder: Yes, we do.

Q11 **Chair:** And you employ people in the UK.

Daniel Trinder: We employ people in the UK, so it is direct through employment. We are a large exchange, so we contribute to better prices for liquidity for both institutional and retail investors, subject to our regulatory status. We are also in the process of teaming up with a university around an education initiative for labs and for the technology.

Susan Friedman: Our current business model also does not require Ripple to be registered with the FCA, although, as we expand our footprint in this country, which we are looking to do, we will be seeking those registrations and permissions. We also have a growing London footprint, with 60 employees in our London office, and are continuing to grow.

Ripple's proposition fundamentally is to help value move in the same way that information does today. It is no secret that the cross-border transfer system is broken. It takes three to five days. Up to 6% is chewed up in fees. Blockchain and crypto can help solve those problems and help money move much more efficiently than it does in the current system.

Q12 **Chair:** Have you quantified what the value of that would be?

Susan Friedman: I do not have that information today, but we can look to come back to the Committee.

Tim Grant: Can I ask you, please, to restate the question?

Q13 **Chair:** Can you quantify the positive impact that you have on the productive output of the UK economy?

Tim Grant: It is fair to say that is a complicated question. The intent is to use London as the hub for our Europe, Middle East and Africa operations, bring a workforce together and service clients throughout the region from this hub. As a result of that, from a personnel perspective and tax receipts perspective, that would be one measure. Then you have the institutional taxes that go with that as well, which would also accrue to tax receipts.

Beyond that, our ability to support the growth of businesses in all of our different business units—trading operation, investment banking for capital raising, asset management for raising assets—as examples, and venture where we invest in companies, would generally promote increased economic activity in all of those businesses.

It would be quite a difficult analysis to go down in a granular fashion and get to that number, but the entire orientation of the firm and everything that it does, just like a traditional investment house, where they exist, would be to generate economic growth, not just within ourselves but for the companies that we work with. That is a legitimate statement of value in the UK.

Q14 **Chair:** Ian, what about across your membership?

Ian Taylor: I have brought with me some stats to answer this question. On the economic benefits to the UK in terms of jobs, investment and technology innovation, King's College London conducted research in 2021 into job adverts in the sector. It noted that there were 14,000 LinkedIn job adverts in the crypto and blockchain industry, and the UK provided a quarter of all those adverts.

On investment, according to Innovate Finance, £11.6 billion was invested into fintech companies in the UK in 2021. In 2021, the UK was the second largest crypto investment jurisdiction after the US.

In terms of the technology, tokenisation is a way that you can represent a real-world asset, for example, on a blockchain. The UK Government have launched a sandbox testing the technology for companies within the financial markets infrastructure. The technology can improve on some of the time taken to settle transactions across many asset classes, reduce the cost, and give access to new markets. Europe is also testing a financial market infrastructure framework for the technology.

I will just finish with two other aspects that we see. On financial inclusion, Susan mentioned remittances and cross-border payments. We see the technology giving access to the unbanked and under-banked, and also tax revenues for the UK Government.

Chair: Just for the record, not all fintech firms will be involved in crypto-assets.

Ian Taylor: Correct, not all of them.

Q15 **Anthony Browne:** My first questions are about the series of failures that there have been in the crypto sector, and then I will move on to some other questions. First of all, Tim Grant, your CEO, Michael Novogratz, was a big advocate of LUNA and allegedly had a tattoo made of a LUNA coin. LUNA then collapsed, and that has been described as the biggest destruction of wealth in the whole crypto story. What went wrong at LUNA and what are the lessons that you have learned from that?

Tim Grant: Yes, there are important lessons from that that we are still absorbing, even while we now have some new lessons to absorb from last week. LUNA Terra was a good example of an ecosystem that, at the beginning of its evolution, was very highly regarded. For Galaxy, as you represent, our activity within it represented a good investment case for us and we have a very buttoned-up, as you would imagine, institutionally focused investment committee, which is the thesis for everything that we invest in. It had an approach to building a blockchain technology and an ecosystem that looked like it had a lot of promise.

With time, what happened was that it created an algorithmic stablecoin, so it created a means of stable payment within its ecosystem, with a particular design. There are multiple ways of designing these coins. The algorithmic stablecoin design has certain flaws in certain states of the world and, when they get under stress, they can rapidly unravel. Our CEO was on public record some time before the collapse, in a conference in Miami, stating these very risks and that this is something that could happen.

You can imagine that, at that point, we had absorbed those risks as that ecosystem grew. At some point, the view of the ecosystem changed. This was all to do with, without going into too much detail, a protocol called Anchor, which was offering pretty high yields for investors in that ecosystem to place their capital—at some point it was 19%—and, eventually, those yields were not able to continue to be paid out. What happened was that that algorithmic stablecoin unwound and, for want of a better assessment, had a run on it, and the whole thing collapsed.

This is very unfortunate. It highlights the risks of algorithmic stablecoins. We are not particularly big proponents of that model, especially in light of what has happened. There are other stablecoin models that are, indeed, stable. It also highlights some elements of control. There were certain individuals involved in that story that may have made decisions that would have been counter to the good of the ecosystem, not unlike the one that we will talk about, I am sure, from last week.

That is, hopefully, a reasonably succinct view of what happened. Of course, as a result, we saw, unfortunately, a lot of people lose their investments.

Q16 **Anthony Browne:** Do the others have any views on LUNA and Terra, and the lessons from it?

Ian Taylor: I would just add that this particular project was under-collateralised. We have stablecoin issuers that are members and that are proactive in having fully auditable reserves, holding their clients' assets in insured banks, one to one, with un-risky assets such as cash and short-dated Government bonds.

Q17 **Anthony Browne:** As an investor yourself, or advising investors, how can you tell beforehand whether a cryptocurrency or crypto-asset is going to fail? Is there anything that you should look out for? Tim, you said that Galaxy is not a big advocate of algorithmically backed stablecoins. Are they inherently more unstable than other forms of stablecoin? I am just wondering what you would look at, if you are going to invest, because you have thousands of different ones to invest in.

Tim Grant: Just like any asset—again, I hasten to add that, from an institutional perspective, we are very much in the institutional space—you have to have an investment thesis and then a risk management process going forward that monitors that investment, and you need to know the risk factors associated with it.

In the range of crypto-assets that exist, through stablecoins and the various types of coins and crypto-assets, that still holds. That is our process and, as with traditional investments, sometimes they look good with a good thesis at the beginning and they may be mismanaged, or there may be assumptions that were made that were wrong, and you have to keep assessing them. The same is also true, incidentally, of engaging with exchanges, which is another element that we will come to later.

We have a process. There are warning signs for these different types of assets. Certainly, within the stablecoin world, there are very clear signals of, as Ian said, under-collateralisation or the likelihood of getting your payment back. The same in exchanges, where you want to make sure that your funds are not being used for any other purpose.

There are, definitively, very robust institutional frameworks for doing this. Can we be sure that everyone is applying those? That is not clear, but they definitely exist. We are not in the wild west that we may have been in a few years ago.

Daniel Trinder: Anthony, it is a good question that you ask. I agree with all the issues around collateralisation and reserves not being audited, et cetera. It is just complex for those who are not really in the detail of how these markets operate, which, again, is common to some of the sophisticated traditional fixed income markets, to take one. That is something that needs to change. The market structure needs to become more simplified and the information more easily accessible to investors across all, basically.

Q18 **Anthony Browne:** How do you do that? In equities, you have stock exchanges and all sorts of rules.

Daniel Trinder: Exactly, so you have a prospectus with one piece of information.

Q19 **Anthony Browne:** Yes, lots of rules about what information you do and do not disclose, and when you do it and so on.

Daniel Trinder: Yes.

Q20 **Anthony Browne:** Are you saying that we need something equivalent?

Daniel Trinder: The market needs to become much more transparent, and there needs to be simplification of this information.

Susan Friedman: MiCA addresses these issues square on. It calls for disclosures and for certain parameters around stablecoins, which my fellow panellists have spoken to. It requires certain asset backing. It requires client segregation of funds for exchanges. Without saying or suggesting that the UK should adopt MiCA wholesale, there are portions of that regulation that formulate best practice, which certainly can be incorporated and provide the sort of consumer protection that this Committee is speaking to now. Again, Ripple does not market to consumers and we are not consumer-facing, but, to the extent that consumers are going to speculate in tokens, they should have that information and the disclosures from issuers available to them, so that they can make decisions about how they invest their money.

Q21 **Anthony Browne:** The Three Arrows hedge fund collapsed as well. I assume that they understood the market; maybe you will tell me that they did not. We are all in favour of more transparency, but does it not show that it is so complex or that there is such a lack of transparency that even those people who specialise in crypto-assets do not really understand that is happening or going on?

Tim Grant: That is ascribing a level of sophistication of risk management that does not necessarily always exist. That assumes that people know how to manage pools of assets, which is in itself a specialised topic. You can understand the underlying assets, but, if you do not know how to build a portfolio and manage risks, what happened to Three Arrows will happen.

Q22 **Anthony Browne:** So that was a weakness specific to that firm.

Tim Grant: It certainly seems to be the case, yes.

Q23 **Anthony Browne:** You have all touched on this issue about risk management and the levels of governance. Daniel, you mentioned that we need more transparency, et cetera. Big picture, how do you think the governance needs to change across the industry? Regulation is one issue, but does the industry need to have far more sophisticated governance, rules and procedures around risk management?

Daniel Trinder: Whenever you get an event or a failure, the first reaction comes from the market. It has to, because you are worried about your own institution. You are starting to see more disclosure around some of these things on a piecemeal basis, but that is going to have to move fairly quickly. That is the first thing.

That is not to say that regulation is not needed. Regulation will be needed in this instance. If you look at the Financial Stability Board consultation on crypto regulation and supervision that came out last month, which the UK authorities were very influential in feeding into, a lot of the recommendations there are around risk management, around governance, around disclosure and around business models. These are many of the failures that we have picked up in the industry to date.

The other thing that needs to happen is there needs to be much more of a collective effort by the industry to educate the regulators on some very technical issues around not just auditing but security and wallets. That must go on, because the supervisors, in many cases, really need those industry insights in order to really understand, so they can fulfil their obligations.

Q24 **Anthony Browne:** Presumably, that would be one of the roles for CryptoUK, would it not?

Ian Taylor: If I may add to that, as my fellow panellist, Susan, mentioned, we have the overarching and broad European regulation, MiCA—Markets in Crypto-assets—which covers off dealing with lots of aspects, such as market participants, market integrity and consumer harms. The UK, at present, has a piecemeal approach.

We have been advocating, for the last four years in the UK, for a more joined up, collaborative approach at Government—perhaps a tsar, somebody who could move across different Departments and understands the complex nature of some of the technology—in order to bring together all of the Departments looking at regulating this sector at the moment, to achieve the goal set out in the statement by the Economic Secretary to the Treasury at the time in April, which mentioned that he wanted the UK to be the crypto technology hub. To achieve that, we need more collaboration across Government Departments.

Q25 **Anthony Browne:** Other members are going to ask for more detail on that. I want to move on to questions about unbacked crypto-assets and stablecoins, about their role. The Chair asked some questions on this area, but I just want to pick up on some of the details. Sir Jon Cunliffe, the deputy governor of the Bank of England, gave a speech last year, talking about the volatility in price in unbacked crypto-assets. He said that the main use of unbacked crypto-assets was speculative investment. Do you agree with that?

Tim Grant: No, I would not agree with that. That is true of some. The danger in this space is that certain elements of it end up tarring the entire industry and ecosystem of many thousands of companies and tens of thousands of people around the world. This is precisely happening right now with what happened last week with FTX. I am sure that we will talk more about that.

Bad apples, badly designed projects and badly designed code will never be stopped, and they are always wrong. People will speculate on companies and will find that those companies go to zero in the equity space, which is highly regulated, and that is no different in our space.

It is fair to say that a large tail of the many thousands and thousands of coins that exist really have no real story or value. This is why the institutional space, which is the most sophisticated space, really focuses on a much smaller number of those. Those do have a story, a construct, a value creation element and a narrative around giving value to the user in some way, shape or form.

Again, as I mentioned earlier to the Chair's question, that is a legitimate investment insight, narrative or thesis that can be applied to it. That feels legitimate and we expect that that will continue to grow. In fact, one outcome from this year is likely to be that some very strong projects will emerge that will be great companies or great creators of value going forward, but the nature of those is not purely speculative. It is an investment thesis.

Susan Friedman: In its consultations, the FCA recognised that the fact that individuals may speculate in tokens or unbacked crypto-assets does not detract from the reason for which they were created. Its taxonomy turns on an analysis of whether they are an exchange token, a utility token or a security token.

Ripple uses an unbacked crypto-asset for cross-border transfers. XRP is specifically designed to help facilitate the transfer fiat to fiat, stablecoin to stablecoin, et cetera. As we look at regulations, certainly there needs to be a recognition—and everyone has it—that there is speculation. Consumers need to be protected, but there needs to be nuance built in to acknowledge the fact that many of these tokens are built, as Tim noted, for specific projects and have specific value propositions. That is what should be regulated—the business and the risk attached to it.

Q26 **Anthony Browne:** Tim, you alluded to the number of crypto-coins. The briefing notes here say that there are 21,000 in existence. You said that only a few of them have an investment narrative, as you put it, and a real value proposition. Presumably, most of them do not; you can disagree with that if you want. Why are there so many crypto-coins? 21,000 is quite extraordinary.

Tim Grant: Because there was a vibrant community of people who wish to use this medium to launch tokens. Some of them, without a doubt, were with the wrong purposes in mind. That is the same as traditional finance. None of this is unfamiliar to finance in general. What has happened is that, certainly over the last year to 18 months, the tide has gone out, and those coins that really have no sense, no story, no value creation element and no utility have proven to be worth precisely what that would imply, but there are not many that do.

Ian Taylor: Yes, you are right, Anthony. There are tens of thousands of different tokens. As panellists have mentioned, not all of them do the same thing. Some have a value proposition and some do not. For us, it is both a positive and a negative in terms of the open source, fully auditable nature of blockchains that you can copy somebody else's code, because it is open source, so they can go away and launch a token on a blockchain that you call by a different name.

This is one use case, crypto-asset, as in a new investment class. As I mentioned, the technology has many possibilities, including new forms of payments through programmable money, self-execution using smart contract technology to remove human interaction in certain aspects, tokenisation and Web3. I will just finish on a statistic on Web3. In a recent report, Citibank said that by, 2030, the total market economic value created by Web3, or the metaverse—these two terms are used interchangeably—will be $8 trillion to $13 trillion.

Q27 **Anthony Browne:** You talk about the use case of some unbacked crypto-assets. Do you think that they will be used as forms of payments, given that their value is so volatile, as opposed to stablecoins?

Tim Grant: It would not make sense that they would be, if they were volatile. For payments, you would want to use stablecoins. That would not be a smart use of those assets.

Q28 **Anthony Browne:** So Bitcoin would never become a mainstream form of payment.

Tim Grant: It could do. There is a vibrant community of people looking to potentially allow that to happen. I would not suggest that might not happen over time.

Susan Friedman: It is about choice. With the right regulatory parameters and the proper controls in place, you will get the shakeout of some of these 21,000 coins, no doubt. If there are 21,000 projects, including those that are built for payments, and they can meet the regulatory guardrails that are put in place, that is not necessarily a bad thing. Whether Bitcoin or other unbacked crypto-tokens become a preferred means of payment, the door should not necessarily be closed on that. It is about what sort of protections are put in place.

Anthony Browne: I was not talking about closing the door.

Tim Grant: If I may, it is worth noting that, going back to the question about inflation protection, this is all predicated on the concept that that is denominated in fiat currency. Who are we to say that, over time, people may denominate their base asset in Bitcoin, in which case it would be very legitimate to exchange that as a payment method? That is a longer-term element and it is worth underscoring the question around inflation.

In 2022, I am not sure that there is any risk asset that would have protected against inflation, because inflation has gone up, and assets in general have gone down, so it would be wrong to suggest that, over time, perhaps Bitcoin is not an inflation hedge. Certainly in its lifetime, it most certainly has been and may continue to be over time. In 2022 it was not, but nothing was.

Q29 **Chair:** I think I heard you say earlier that you did not think that it had been an inflation hedge.

Tim Grant: In 2022, it has not.

Q30 **Chair:** But now you are refining that answer to say just this year, but that you think in the longer term—

Tim Grant: Yes, it is important, given the nature of this Committee, to be really clear on that. Over time, it certainly has. 2022 is just a small measure of time. You would not measure inflation in a matter of days and months anyway. I would hope that you would look at it as a long-term investment over years.

Q31 **Anthony Browne:** You said that people might value their assets in unbacked crypto-assets, or might price it in that, like Bitcoin, but they are, so far, incredibly incredibly volatile. Bitcoin has dropped 70% this year, and nobody is going to price their assets on something that can lose 70% of its value in one year. It is far more volatile than almost all other markets, like gold or foreign exchange or anything else. Why is it so volatile?

Daniel Trinder: It is probably two factors. The first is just very high levels of social adoption over the run-up to this year, and then the events that we have spoken about to date from May onwards. It is those two factors for me.

Q32 **Anthony Browne:** It was volatile before that. Bitcoin has been volatile ever since it came into existence, more or less. That is not quite true; there was a period when it was vaguely stable. Why are unbacked crypto-assets so long-term?

Ian Taylor: Earlier on, I mentioned that the factors for volatility are caused by macroeconomic conditions and some credit crunch issues that are going on within the crypto-asset sector.

Q33 **Anthony Browne:** They are a lot more volatile than other forms of assets.

Ian Taylor: I am not an investment manager, but to pivot back to the question of using a volatile asset as a means of payment in the UK, I could not speak to people’s personal choices. Logically, it does make sense, but what does make sense is to use a stablecoin, which is a type of crypto-asset, to make a payment.

Q34 **Anthony Browne:** I am going to come to stablecoins, but I was talking about unbacked assets and why they are so volatile. It seems to me, just as an idea, that a lot of what drives their value is investment sentiment. If it goes up, people think it is going to carry on going up. Some, as Tim said, might have underlying value, but the overriding value is investment sentiment. They think it is going up, but then confidence goes out and it collapses.

Tim Grant: Just like any traditional asset that would be valued in the same way, absolutely. Equities sometimes go to zero. In terms of why they are volatile, certainly in the early years of the growth of this space, it has been primarily a retail space, and a certain lack of liquidity will make things more volatile. In certain elements of the equities market, where they are low-cap and have lower liquidity, they are also more volatile. They are high-beta assets.

The changing nature of the market is an important element to highlight. Again, in our world, we are dealing with the largest, most regulated and most capitalised institutional investors in the world. They are the cohort that are now coming in from the last couple of years, and increasingly so, and there are plenty of headlines around the world of very large financial institutions, regulated institutions and payment processors who are making multiple-dollar commitments to the space.

What you see as a result is this acting like more of a traditional risk asset. To highlight a counter to your point, at certain points very recently, Bitcoin was less volatile than UK rates and the UK currency. Yes, it is true that they have been more volatile, but, at this point, we have entered into a new regime. The institutional investor is participating and we might see that being different going forward.

Q35 **Anthony Browne:** As the market matures, is it likely to become less volatile?

Tim Grant: We would expect that to be true, yes.

Daniel Trinder: That will not be this year, but, yes, over the long term.

Q36 **Anthony Browne:** Coming to stablecoins, what role do you see for them? Why are they needed in addition to unbacked crypto-assets or currencies?

Ian Taylor: As we all know, we are moving more to using digital payments. UK Finance has some statistics saying that 45% of payments in 2015 used faster payments and cards. In 2020, it was 17%. Crypto-assets are the next evolution in digital payments. We do not expect crypto-payments or stablecoins to replace traditional payments, but they offer another option to merchants. The UK Government recognise this, with their stablecoin regulation that is being put through Parliament at the moment in the Financial Services and Markets Bill, which will regulate issuers, similar to e-money institutions.

The final point is that, while we do not know what it is going to look like, we need to make sure that the secondary legislation is practical in its nature, because, at this time, it is unclear. We need to make sure that the Government engage with the industry to ensure that these practical measures and the secondary legislation are fit for purpose for stablecoin issuers.

Q37 **Anthony Browne:** Are these stablecoin companies going to evolve into big technology names like Meta or Google, or are they going to be flashes in the pan as well?

Susan Friedman: I do not think that any company is going to transform into Meta this year. Their proposed project is the entire reason that MiCA came into existence. There are appropriate concerns about the role of private companies in finance. That said, this again comes down to choice, and there are actual use cases for stablecoins that exist today. It is clear that stablecoins can exist right beside sovereign-backed currency issued by the Bank of England.

Q38 **Anthony Browne:** Ian, in your evidence, you said that digital currencies are primarily used as a bridge between fiat currencies and crypto-assets, and Binance agreed in its evidence. In that case, if you did not have unbacked crypto-assets, would you need stablecoins? Is their existence independent of unbacked crypto-assets? If they disappeared, would you still have stablecoins?

Ian Taylor: Again, it comes back to the use cases. The primary use case when stablecoins first started being used was to reduce the volatility within the trading space, which makes sense. People were trading in and out of highly volatile crypto-coins and could swap their crypto-asset into a stablecoin, maintain the value and not have to worry about it fluctuating.

As the infrastructure has been built—and there are some really interesting developments going on across public blockchains—merchants are starting to see the benefit in the UK of accepting a stablecoin as a means of payment versus a credit card payment, because it is significantly cheaper. Credit card fees are over 2% now. A stablecoin issuer can get that down to 1%. In a lot of cases, these public blockchains settle transactions in seconds, so the merchant can receive the receipt for their sale of goods and services in real time and then go on and use it to pay for other goods and services that they may need to run their business.

Daniel Trinder: I was going to say the same in slightly different words. They mix the blockchain benefit with the ability to track a more stable commodity, and that is the key. You do not get the volatility, and that is why they are popular.

Q39 **Anthony Browne:** You maintain the blockchain provenance. Can I come back to the point that Ian made and Susan also referred to earlier about using stablecoin as a form of payment? I totally get the point that it is competition and choice. It is always good to have choice and it will put pressure on VISA and Mastercard to reduce their fees. That is all brilliant, but the banks' payment system has developed a lot over the last 10 to 20 years and faster payments are pretty much instantaneous. My sister made me a payment this morning and I got it within about two seconds of her doing the transaction. We are with different banks, but it worked fine, at zero cost to us.

What is the role of stablecoins? Will they increase competition in merchant fees? I am just really trying to understand why people get that excited by it. I know that 2% is a bit annoying to merchants, but it is not a massive cost.

Susan Friedman: Cross-border payments are one use case both for unbacked crypto and for stablecoins. It is 6% when you are sending money to low and middle-income countries.

Q40 **Anthony Browne:** There are lots of others that you can do for a lot less. There are lots of different websites now where you can make international payments for really quite small costs. I agree that, if you go to a high street bank, they completely fleece you. Always avoid doing international payments through them, but there are lots of alternatives that do not involve crypto-assets. I declare an interest as a Revolut customer. Revolut is very good at doing some forms of international payments at pretty low cost.

Susan Friedman: I am not aware of a traditional finance option that is as quick or offers the same benefits as blockchain in the cross-border space. That is a place that industry seems to universally agree where blockchain and crypto can add real value that does not exist today, just because of the traditional players involved, their entrenchment, the fees that are associated, and the opacity of the system, which blockchain solves for.

Tim Grant: I would love to offer an institutional perspective, and this also opens up another avenue of discussion that we have not touched on before. We use the term blockchain a lot. There are public and private blockchains, permissioned and un-permissioned. That is the substrate and the medium that is used to create and move crypto-assets around.

Stablecoins are another example of that. Tokenisation of real-world assets is often mentioned. A lot of money and time is being spent by the largest financial institutions in the world to consider the tokenisation of equity and debt, just as examples. That is hundreds of trillions of dollars of market cap that those institutions believe will eventually move from the current substrate to the new substrate in time.

At that point, there will be a need for stablecoins in whatever form—and there are multiple forms—to allow for instant delivery versus payment on the blockchain. That level of settlement efficiency is generational in its potential effect in allowing financial services to move to a new, more efficient system. It will not happen overnight, but there are certainly many public examples of very large institutions that are doing this. UBS Investment Bank in Switzerland tokenised a bond just a week or two ago.

The predicate for that to work is that you need a stablecoin, so we must talk about stablecoin in the context of crypto-assets. There is another prize at stake here, which is the potential to use stablecoins in the settlement of equity and debt in regulated capital markets.

Q41 **Anthony Browne:** Non-fungible tokens are often included in this debate, but they are completely different because they are not a cryptocurrency in quite the same way. It is about fine art or wine or whatever else. Are they completely different creatures from what we have been talking about in terms of crypto-assets and cryptocurrencies? Should they be parked as part of this discussion?

Ian Taylor: We see non-fungible tokens, or NFTs, as another benefit that the industry brings. For example, in terms of social inclusion, we saw last year a really big increase in new users of the technology coming in, because of non-fungible tokens. $4.5 billion of NFTs was traded in November 2021. They serve as cryptographically secured certificates of authenticity for a variety of digital goods, from fine art to music, collectibles and video game assets. Global brands such as McDonalds, Nike and a host of others have launched non-fungible tokens as a way to engage with their community. They confer a whole host of benefits and valuable use cases attached to the NFT.

Q42 **Anthony Browne:** A lot of the issues are completely different from what we have been talking about in terms of regulating and doing it over a form of stock market and so on. It is just a very different set of issues there.

Ian Taylor: In terms of regulation, we saw, in Europe, Brussels grapple to include NFTs in its MiCA regulation. There are many questions that we need to ask regarding legal title rights and taxation issues, so we urge the Government to move slowly with how to regulate this particular type of token, which confers a whole host of different benefits.

Anthony Browne: I would love to ask more questions, but some of my colleagues are going to ask about regulation.

Q43 **Chair:** Yes, we are going to go on to regulation, and I just want to ask a few questions about what happened last week. It has come up in some of the answers so far. Ian, with the collapse of FTX, how many UK consumers will have been harmed?

Ian Taylor: To be perfectly honest, I do not know that answer. I hope that any of your constituents who had money in FTX get something back. We do not know at this time, because this is a fluid situation. What we do know is that there are at least some poor business practices and possibly some fraud and criminal activity. This will play out in courts around the world, I would expect, and we will get our answers soon.

What this shows is that we need some regulation around these central actors, such as audits and proofs of reserves on assets and liabilities: “What are you doing with your customers’ funds?” What we have seen in this example is the organisation using its clients’ assets to go and take risk, and leverage and lend out, which is a practice that the industry does not want to see.

Q44 **Chair:** Do you know how many of those clients were in the UK?

Ian Taylor: I do not know.

Q45 **Chair:** You may not know whether they are getting any money back. You do not have any data on that. Does anyone have any data on that?

Tim Grant: Nobody would know that at this point.

Q46 **Chair:** Nobody knows that, but we assume that it is more than zero. There will be some people in the UK who have lost money in this collapse.

Ian Taylor: This is just speculation and I will give you my view. We are hearing that the majority of the funds in that platform were from institutional investors. There are many UK-regulated crypto-exchanges that take retail money, and they are, at the moment, hopefully okay. We have not seen anything, but, as I said, this is a super-fluid situation.

Q47 **Chair:** But this was the fourth largest exchange in the world, was it not, so what does this do to your industry generally and to confidence that people might have? This is not even just the coin itself collapsing; this is the exchange collapsing. Ian, it must feel a bit awkward coming in and talking to us after last week, must it not?

Ian Taylor: It is a terrible situation. It highlights the fact that we need to put in place clear guardrails for these types of centralised actors. This is what our founding members of CryptoUK came to this Select Committee in 2018 to ask for. We need to make sure that we put some clarity around how these operations, which are now worth billions of dollars and use billions of dollars of their clients’ funds, behave and perform. We need more clarity. We need auditing. We need to make sure that customer assets are not used in the way that they were used here.

Q48 **Chair:** This is an exchange that was worth $30 billion only very recently and has now collapsed. How can anyone ever have any confidence that they are putting their own hard-earned money into anything that is trustworthy?

Ian Taylor: Again, I will mention the technology. In the world of decentralised finance, or DeFi, there are exchanges that are fully auditable because all of their transactions are on the blockchain. You can go and verify. You do not have to trust an individual or group of individuals; you just verify on the blockchain with 100% certainty, because this is mathematically proven, what this particular decentralised exchange is doing with its client’s assets.

Q49 **Chair:** Okay, but you all agree that the collapse of FTX has undermined confidence in what you all do for a living.

Tim Grant: I would not put it that way. It is really important to be more nuanced than that. What really happened here is bad actors. We have many instances in recent history in financial services, which have nothing to do with crypto, where that has happened; there is a long list. This is another one of those instances. I would not say "awkward", but are we feeling upset that we have a very bad actor within our midst who was doing exactly what all of us, especially publicly listed regulated entities, which is what Galaxy is, would never do? Yes, because that is going to prove to be a headwind and, unfortunately, we have to answer this very legitimate question. It would be very wrong to tar the entire industry with this one bad apple, which—you are absolutely right—happened to be a very big apple.

We mentioned LUNA Terra earlier. It is also worthy of note that the primary actors who were affected by that, for the most part, were individuals. That is very unfortunate. They were individuals who held that cryptocurrency. In this case, that is not the case. As Ian rightly said, Galaxy was using FTX as a source of liquidity.

Q50 **Chair:** How much have you lost from its collapse?

Tim Grant: We have lost $77 million at this point, which we publicly disclosed last week, which is very important, and we do not feel good about that. The users were primarily institutional. Also, the cap table of equity investors were among the most sophisticated and largest investors in the world. There were a lot of very experienced eyes on this. What it tells us is that this was a bad actor who was doing things behind very closed doors that we had no view into as a broader group. That is not a crypto problem; that is a governance problem.

Chair: It is a problem you did not spot.

Tim Grant: The entire industry did not spot it. That is the same as Bernie Madoff and other instances like that. They were regulated industries. This was relatively unregulated. The corollary is that we must bring regulation and transparency so that we can avoid this. All we could have done was to shine a brighter light on it. We are never going to get rid of bad actors.

Chair: A headwind is how you would describe it.

Susan Friedman: Part of the FTX issue is that it is a case of regulatory arbitrage. They were regulated in the Bahamas. There are many jurisdictions, including the UK, that do not have a comprehensive regulatory framework in place yet to deal with all of the issues that come up with exchanges. The more that we can get comprehensive regulations established and cohesiveness across jurisdictions, the less likely it is that we will get actors like FTX where this sort of situation unfolds.

Q51 **Chair:** I want to ask Binance some questions on this. Was it the Binance

CEO that brought about the collapse of FTX?

Daniel Trinder: Before I answer that, I want to say that I agree with everything Susan just said. To Tim's point, this sets the industry back a couple of years. This is a very big issue.

Chair: Could you answer my question?

Daniel Trinder: Yes. Sorry, Chair. Was it my CEO? No, it was not at all. He was approached about rescuing FTX. We signed a letter of intent for due diligence. We started that due diligence process and realised that something was very wrong, and we pulled out of it. The reason why Binance was looking at potentially rescuing FTX was that we realised the implication more broadly on the industry.

Q52 **Chair:** So the due diligence surfaced an issue that triggered a sequence of events that led to the collapse of FTX. You have to admit that you were a player in that sequence of events.

Daniel Trinder: We were doing our due diligence, yes, on a potential transaction, which we thought would be good for users more generally—not just users of FTX but our users, because some people would be with more than one exchange. That was the premise behind the potential transaction.

Chair: But then the decision to sell all the FTT—

Daniel Trinder: The coins.

Chair: Yes.

Daniel Trinder: That was because of the realisation that they were not worth the value that—

Q53 **Chair:** But it must have been apparent when that decision was taken that that was likely to cause the collapse of FTX, one of your major competitors.

Daniel Trinder: I can forward the Committee the correspondence on that, if it would help, but that certainly was not the intent at all behind the trigger of the sale of those FTT coins.

Q54 **Chair:** It would not have been obvious to your chief executive that that would be the impact.

Daniel Trinder: No.

Q55 **Chair:** Despite having discovered this information in due diligence and then taking this action.

Daniel Trinder: The due diligence on the takeover was later in the events but, if it would be helpful, I can write with the series of events, because it is still evolving, to be quite honest.

Q56 **Chair:** That would be really helpful. When would you be able to get that to us?

Daniel Trinder: Tomorrow.

Q57 **Rushanara Ali:** We have already touched on regulation. I wanted to start off with Ian in terms of what specifically, in addition to what you have said, you would like to see in the secondary regulation that you have mentioned. Do not feel the need to repeat what you have said.

Ian Taylor: At this time, it is unknown what the detail is going to be, and the devil is always in the detail with these things. What we asked for is engagement with the community and subject matter experts. Furthermore, when the current Economic Secretary to the Treasury announced that he wants the UK to be a crypto hub, it was also mentioned that there was going to be an engagement group set up.

Q58 **Rushanara Ali:** Sorry, did you say the current one?

Ian Taylor: No, John Glen, in April. When he made the announcement that the UK was going to be a crypto hub, he mentioned an engagement group. We have not heard anything about this engagement group yet.

Q59 **Rushanara Ali:** He was briefly sacked or resigned—I have lost track—but he is back in post.

Ian Taylor: It is under the remit of the current City Minister, Andrew Griffith, to address this. We asked for engagement from experts in the industry at that engagement group, which we are told is going to be chaired by a Minister.

Q60 **Rushanara Ali:** Is there anything else that you want to add?

Ian Taylor: Do you mean in terms of regulation in the UK?

Rushanara Ali: Yes.

Ian Taylor: We need a joined-up collaborative approach. Let us hire somebody to move across Departments. In my experience when speaking to firms that want to invest in the UK and create jobs, they talk about the time it takes to get through the current money laundering regime and other licensing regimes that the current regulator here, the FCA, runs. We need more resource, more understanding, better training and collaboration.

Q61 **Rushanara Ali:** Do you mean that the regulator needs more?

Ian Taylor: The FCA, our regulator, needs more resource, more understanding and more engagement, to be fair. We had one crypto-asset sprint back in May. We called for more of these engagements with the regulator to help them upskill and understand.

Q62 **Rushanara Ali:** You were referring to the 2018 Treasury Committee report. We made a series of recommendations to the Government. What do you think would have been helpful to do? Would it have been enough, in terms of what we were proposing, to mitigate against some of the issues that we have seen playing out more recently?

Ian Taylor: I will give you two quick points. Perhaps if there was regulation around trading venues or crypto-asset service providers, we might not have seen some of the issues we have seen. Also, when members of the community came to speak to the Committee in 2018, we asked for improvement in getting bank accounts for crypto firms in the UK. This is still a problem four years later. No crypto firm that wants to set up a business in the UK can get a bank relationship. We need Government to step in and support on the competition agenda and promoting UK business to overseas firms.

Q63 **Rushanara Ali:** We have touched on last week's issues. The recent estimate suggests that over 2 million people in the UK own crypto-assets, and, Ian, your submission is that it is unclear if investors understand the distinctions between e-money, stablecoins, fiat currency and legal tender, and indeed where these concepts overlap or diverge, let alone their respective advantages in payments or for other purposes. Is it right that millions of UK investors are investing in crypto-assets if, in your own words, they do not understand the key differences between stablecoins and fiat currency? What should be done about it?

Ian Taylor: We believe that crypto and technology provides financial freedoms and financial inclusion.

Rushanara Ali: Yes, but you have said that there is a financial awareness or education piece that is missing.

Ian Taylor: Yes, we do a lot of advocacy and education at CryptoUK. We are the secretariat of the Crypto and Digital Assets All-Party Parliamentary Group. We spend a lot of time here in Parliament educating MPs and Members of the Upper House.

Q64 **Rushanara Ali:** That is one thing, and that is helpful, but we are talking about the 2.3 million people. What needs to be done to increase their awareness and education so that people know what they are getting themselves into? That is something that has come up. Regulators have talked about it. Commentators have talked about it. Sometimes we have heard very senior people saying that their children are very excited and animated about this alternative world for investment and so on, and they are behind the curve. What else needs to happen? There is a generational shift in how this stuff is working, and a lack of understanding, both among so-called experts and institutions as well as the public.

Daniel Trinder: If people purchase products that they do not understand, it never ends well. To the point you made about younger generations, perhaps the education or the disclosures that are being made are not really being fully understood.

Q65 **Rushanara Ali:** Who should be doing that? Who should be responsible for that?

Daniel Trinder: It should be the same as any other financial product. The onus must go on the industry to make those clear.

Ian Taylor: Advertising is going to be brought into the regulatory regime through the financial promotions order, where companies promoting their products will have to be clear and not misleading. However, this is problematic because a crypto-asset company will not be able to advertise its products in the UK—there is a full prohibition—in the current drafting because section 21 of the financial promotions order under FSMA states that you have to be an authorised firm to sign off on your own promotion. That is fine if you are a bank account because you are registered as a firm with the FCA. No crypto-asset firms are registered with the FCA, so they will not be able to sign off on any promotions, so who will?

Q66 **Rushanara Ali:** The issue is that this Committee has had to deal with a lot of companies selling fraudulent financial products. That is one issue. It is not to do with your sector particularly but it is one issue that we have struggled with. Some of these issues have come off the back of what we have exposed in terms of the Government not doing enough. What do you think would work in your sector, given that what you are describing would not be helpful for you?

On the other hand, Government and those of us in Parliament are very concerned about how fraudulent financial products are being sold to our constituents where they are losing tens of thousands of pounds through the traditional routes. We are trying to make sure that is stopped because it is not on, and it is happening quite a lot. What we do not want to see is your sector also being another medium through which this stuff happens. What do you think should be done that is fit for your sector?

Susan Friedman: My understanding is that, in its submission, the FCA acknowledged that its hands are tied a bit because it does not have authority right now to act in the same way that it would in the traditional financial sector to protect consumers. In terms of including that definition of crypto-assets in the Financial Services and Markets Bill and providing the FCA with the ability to interject itself more forcefully in this space, to potentially provide compensation for consumers who are defrauded and to require more ample disclosures than are already out there, the FCA has been forward-leaning in terms of noting for consumers that, if they invest, they could well lose all their assets. But certainly, between the Financial Services and Markets Bill and additional efforts that the FCA may take on top of that, it is a good first step.

There is certainly more that the industry can do. To the point that Tim and Ian have raised previously, our concern is that we do not want all of the industry to be painted with one broad brush.

Rushanara Ali: I am not clear on what you are proposing industry should do. This is a new area compared to the older industry.

Ian Taylor: We proposed to the Advertising Standards Authority, when it was rightfully pulling down misleading and unclear advertising of crypto-asset products, that the industry can strike a set of guidelines for our members, for example, to adhere to. This is something that MAS, the

Monetary Authority of Singapore—the FCA equivalent—is doing with the community.

Q67 **Rushanara Ali:** Would that be voluntary or should it be legally underpinned? Should it be a requirement? The issue is not so much about the good players, is it? It is how to stop the bad actors from exploiting people and damaging the reputation of the good actors. How do you propose that happens?

Ian Taylor: Enforcement through, say, a self-regulatory organisation.

Q68 **Rushanara Ali:** What does that mean? Do you mean they self-regulate?

Ian Taylor: Powers are given to an organisation that regulates its members and has powers to act to enforce if they do not adhere to set guidelines.

Q69 **Rushanara Ali:** Does anyone else want to add to that? That sounds to me like self-regulation. There are not that many examples I can think of where self-regulation has been satisfactory. It can achieve some things but not enough.

Tim Grant: I very much appreciate the question because you are highlighting the fact that this is lots of new technology that has evolved very rapidly. What has happened here is something that has hitherto never happened before. We are looking in hindsight at something. When financial products and technologies have evolved—look at the electronification of trading and pits going to electronic exchanges—that has happened in a manner where the regulator was able to take the journey with the industry and allow it to be regulated. This did not happen here. This started in 2008 and here we are in 2022 still debating how to deal with it.

In many respects, some people may have lost money because they did not understand it and some people may have lost money from bad actors, but what do we do? We have to empower the FCA and we have to effectively use the extraordinary asset that we have in the UK, which is one of the most effective regulatory regimes and legal regimes, which is used the world over and which has many tools that do not need to be reinvented in order to do precisely what you say.

You cannot stop bad actors—that is too deterministic and too black-and-white, and that world will never exist—but those tools have been very effective over the years in terms of mostly reducing that, and we want to continue to empower that. Right now, we have a situation that pushes everything outside of the regulatory perimeter, and we now see what is happening. There is a fairly clear route to bringing everything within the regulatory perimeter, within reason, and empowering the FCA to do its job appropriately.

Q70 **Rushanara Ali:** Earlier, when you were speaking—apologies if I misunderstood it—you were talking about some of the things that had gone wrong in financial services. You made reference to Madoff and various people, your point being that this has happened in financial services. Surely we do not want bad comparable things to happen in this sector. There was the dot-com boom and then it bounced back but now there are other issues around technology companies, including harms, though lots of good things have come out of it. How do we learn from lessons of the past from other sectors, if we want to avoid further harm being done? As a collective, can you talk us through what the steps would be to avoid large-scale harm being done before we get to that? It would be much more satisfactory if we could end up in that place. Do you have additional points around what we could do?

Daniel Trinder: I will start on the regulatory framework. Most of the regulation we have in place is consumer protection, KYC and anti-money laundering. We do not have in place any of the requirements around governance, risk management and segregation of assets. That needs to come, and it needs to come fast. That is one thing.

On the supervisory issue, in many cases, regulators, when they are fulfilling their supervisory judgment, need a rulebook to apply. They do not have that. That makes it more difficult for them. They also need, as I alluded to earlier, a little bit of help from the industry. Some of these issues are very technical. The issues around lack of resources, et cetera, particularly at the FCA, have been well highlighted. They need industry help. There needs to be a systematic education of the regulators if we want to improve the industry.

Q71 **Rushanara Ali:** Do you feel that the FCA's current anti-money laundering and counter-terrorism financing regulatory requirements relating to crypto-assets are adequate or overbearing, or inadequate or lax, or about right?

Daniel Trinder: This is not something I have heard a lot about. The fact that I have not heard too many complaints means that it is probably about right. There may be others who have different views.

Susan Friedman: It is fine for the problem that it is trying to tackle but it is too narrow in terms of its total remit. The framework that needs to be applied to industry needs to be broader and more comprehensive, it needs to cover risk management and governance, and it needs to distinguish between tokens and businesses. That is the problem: it is not so much that what is in place is insufficient but it is capturing just a minor slice of the issues that affect industry.

Q72 **Rushanara Ali:** Do you all agree with the point that was made earlier that the FCA needs better resourcing to deal with some of these challenges?

Ian Taylor: Yes.

Susan Friedman: The FCA has been very forward-leaning in its engagement with industry with respect to CryptoSprint and the general openness to discussion. We appreciate that. Our expectation is that that will continue, and it has been a hallmark of the UK Government to continue that collaboration with the industry.

Q73 **Rushanara Ali:** One of the written submissions that we have received stated that crypto-assets are the most commonly reported technological enablers of economic crime and that they provide a near instant and pseudonymous way to make significant transfers of value across borders, at times with limited or no know your customer or anti-money laundering controls. This can directly impact individuals in the UK who are exploited by criminals using crypto-assets such as through ransomware or fraud.

Taking this particular agenda, you have mentioned what can be done. Alongside what happened last week, this particular assertion about this particular field is very serious. How concerned are you, even with what you are doing as an industry alongside what you are proposing in terms of improvements to regulation and enforcement, that we can bear down on some of this practice? It is not a very good look for this sector, is it?

Daniel Trinder: That perception is out there.

Q74 **Rushanara Ali:** Is it just a perception or is it reality?

Daniel Trinder: These transactions are traceable, so it therefore comes to the enforcement of that and the enforcement agencies. I know we are doing this work in Canada, for example. There is a lot of work that needs to go on with the enforcement agencies to prosecute these criminals. That perception is there. Fraud is a massive issue. In terms of cases of people using crypto transactions, it would probably be much easier to hide cash than to hide crypto-assets.

Ian Taylor: Financial crime is obviously awful and we as an industry do not want to see crypto-assets as a weak point. As my fellow panellist mentioned, on public blockchains the transactions are open for everyone to see and verifiable. For example, we can backtrace the flow of funds to a personal digital wallet and, ultimately, the exchange where the criminal will have to off-board their crypto—sell it into sterling—will, and do in most places across the globe, conduct KYC and AML. Our members, the blockchain analytics firms, work with law enforcement and Government around such issues as ransomware to be able to trace, track and, in some cases, seize assets that are stolen from economic crime activities.

Q75 **Rushanara Ali:** There are presumably some who are not doing that, which is why this has come up.

I have one final thing. It is assessed, from the same source, that over £1 billion is laundered every year through crypto-assets. This activity cuts across both high-end money laundering and cash-based money laundering, through a wide range of laundering mechanisms, including the use of crypto-asset ATMs and over-the-counter brokers embedded within some exchanges. This activity damages the UK economy through reputation and the movement of significant funds out of the UK. What is your view on assertions like this?

Ian Taylor: One of our members, Chainalysis, produced a report that examined the percentage of overall crypto transactions last year. They stated that criminal activity accounted for less than 1% of all the crypto-asset transactions that they could verify to 100% accuracy on blockchains.

Q76 **Rushanara Ali:** £1 billion is a lot of money though, right? If it is criminal activity that involves serious harm, terrorism financing, organised crime or people trafficking, that is very serious. I am not saying that it is just in this field, and obviously it is serious through whichever route it happens. Is there a complacency here about the dangers of money laundering in this sector? Should your sector do more? I hear what you are saying about regulation and the co-operation needed to make sure that happens in a very relatively new field, but what can you do in terms of leadership to make sure that you bear down on this further? I recognise what you are saying about percentage but it is still a potentially very harmful percentage, especially if it ends up with financing terrorism.

Tim Grant: It is fair to say that nobody in this space wants to support that. We have alluded to it here but let us say it very clearly: the technology that underlines this entire ecosystem allows for a level of traceability and has a number of tools that can be used by regulators, law enforcers and institutions to combat this. This is up and running. This is not an idea. This is already a very significant industry. By the Government allowing regulation to be applied in a way that would allow these tools to be used more broadly, that would counteract precisely what you are looking to do here. These tools exist and you will find that the vast majority of the industry wants to leverage that because that legitimises us further.

Susan Friedman: That is in addition to applying all the typical sanctions and controls that keep us from engaging with individuals who are engaged in illicit activities. All of us at the table are subject to the same restrictions, which acts as a further control.

Q77 **Alison Thewliss:** I want to ask Ian Taylor about the issue of central bank digital currencies. You had written in your submission that there is no obvious current market failure that warrants a retail central bank digital currency. Could that not be said of all digital currencies?

Ian Taylor: As the panellists have mentioned, there are many different design features. To pick on the example of a central bank digital currency, you could have a wholesale central bank digital currency, which is accessible to financial institutions, to a certain amount, to manage a number of economic and monetary policies that a central bank does. Then there is retail. The design of each of these is quite complex. What we advocate for is public-private partnership; the private sector builds technology really well, and then the Government sets fiscal and monetary policy in the case of a central bank.

Q78 **Alison Thewliss:** Is it more that you would regard them as a competitor?

Ian Taylor: Do I regard the Bank of England as a competitor?

Q79 **Alison Thewliss:** Would it be a competitor in terms of a private currency.

Ian Taylor: I do not. I believe that the two can co-exist, as I say, in terms of collaboration between innovators that are building new ways to transact value, such as a programme of money, which a central bank digital currency could be. We need to tread carefully around such issues as privacy and capital controls. When it comes specifically to retail CBDC and the central bank wants to do AML/KYC and all these aspects, that design feature would need to be considered.

Daniel Trinder: I have a similar view to Ian in terms of the co-existence. One is in terms of the adoption more generally of technology, and the second thing is that the stablecoins and CBDCs are broadly going to use similar payment infrastructure. That will be very helpful for innovation.

Q80 **Alison Thewliss:** I want to move on to the issue of taxation within the submissions that you made to the Committee. Galaxy, Binance and CryptoUK have all written in their written evidence that capital gains tax should not be applied to gains from crypto-assets. Why not?

Daniel Trinder: Maybe I was not clear in the response. It is not that the capital gains should not necessarily apply; it is that it then has to be converted into fiat before the capital gains calculation is made, so not on the individual transaction but the one where you convert that all into fiat.

Tim Grant: We have been quite public that we believe everybody should pay their taxes at corporate and personal level. We maintain that stance.

Ian Taylor: HMRC has been very proactive at providing guidance, both for the retail and institutional sectors. For taxation purposes, crypto is classed as property, so it falls under capital gains tax. Nobody in the industry that I speak to thinks that that is a bad idea. To Tim's point, if we make a gain in something, irrespective of whether it is tangible or intangible, you are taxed on that. That is how society functions.

We need to make sure, though, that we get this joined-up approach across Government. We have seen examples in this last year where HMRC has issued some guidance around staking into decentralised finance without consulting the industry and even His Majesty's Treasury.

Q81 **Alison Thewliss:** If significant sums of money are potentially changing hands, why should a gain from a crypto-asset not be treated the same as a gain from any other financial instrument?

Ian Taylor: It is not a financial instrument. It is not regulated as such. For taxation purposes, crypto-assets are property and so fall under capital gains tax. That is a wider problem because we see other

Government Departments looking at crypto-assets as a financial instrument, for example, in certain aspects such as the financial promotions order. We have this problem where old regulation, which may not be fit and proper for the digital age, is being cut and pasted to the new world that we live in, and it is not fit for purpose. That is why we advocate for a more joined-up approach.

Q82 **Alison Thewliss:** You said within your submission that "the UK should consider establishing a user-friendly tax regime which aligns with the actual realisation of income principles". When people talk about user-friendly tax regimes, that often means that they would prefer not to pay tax.

Ian Taylor: Whose submission are you reading?

Alison Thewliss: Yours.

Ian Taylor: It is CryptoUK's submission.

Alison Thewliss: Yes.

Ian Taylor: We, as all industries would do, advocate for a clearer, more transparent way to report tax. The specific issue that crypto found earlier in the year regarding this piece of guidance was that it was over-burdensome and complex for people to report their crypto-asset gains. As I mentioned previously, nobody in our community of members is against paying tax. We just need a little more clarity and work with the community to understand some of these issues.

Q83 **Alison Thewliss:** What exactly do you mean by "a user-friendly tax regime"? How would that work in practice?

Ian Taylor: How would it be user-friendly?

Q84 **Alison Thewliss:** Yes. What do you mean by "a user-friendly tax regime"? What would you be looking for?

Ian Taylor: For example, post the guidance that we saw from HMRC earlier this year, we advocated for His Majesty's Treasury to consult with the industry and we received a public consultation that closed just a few months ago, specifically looking at how we should tax this subset of crypto-assets that is staking within decentralised finance. The community was able to respond to that public consultation, which has now closed. That is what we mean by "more user-friendly". Speak to subject matter experts when you come to drafting policy. This is a larger problem we see in terms of educating at policymaker level. That is why CryptoUK founded the all-party parliamentary group, to speak to colleagues in Parliament regarding these new issues.

Q85 **Alison Thewliss:** I would like to move on to the issues around financial inclusion. A lot of the evidence you have put in would suggest that there is a contribution to be made towards financial inclusion. Susan Friedman, your written evidence states that crypto-assets "can improve financial inclusion across the country" and that there are "1.2 million people who are 'unbanked' and unable to access the full range of basic financial services, such as savings, loans, mortgages and other forms of credit". You say that "digital assets [...] will assist in each of these three areas". Could you tell me exactly how somebody with no bank account would be able to access a digital currency?

Susan Friedman: It comes down to digital access. Anyone who has a phone can have a digital wallet and, with that, can access many players in the ecosystem that are offering credit services and loan services. What exactly they are eligible for and what exactly they are able to do with it depends on the provider. Ultimately, those services would need to be proportionate to the amount of AML and KYC that is able to be done, but the ability to have a digital wallet on a phone opens up opportunities for financial inclusion that perhaps did not exist when the only way to access services is through a brick and mortar facility.

Q86 **Alison Thewliss:** You could not do that without the bank account as the starting point.

Susan Friedman: For those who have it, yes. For those who do not, or perhaps do not want to access the financial system, digital wallets provide different types of services. Also, to the extent that it introduces new players into the ecosystem, you have greater competition and different services than are perhaps available under traditional finance.

Q87 **Alison Thewliss:** In terms of the main drivers for digital exclusion and being unbanked, it is very strongly correlated with age. The FCA has found that 28% of those aged 75 to 84 were digitally excluded, alongside 74% of those over 85. Surely you are not going to reach those people with digital currency.

Susan Friedman: This comes down a little to the education point and educating the population generally about what could be available to them and how to use it.

Q88 **Alison Thewliss:** But you are really not going to be able reach many of those people that you claim to be able to reach with this. Digital exclusion is a significant issue in the east end of Glasgow, for example. They are not going to benefit from this whatsoever. I am just curious as to how you are going to help these excluded people.

Susan Friedman: We understand the point that those in older populations may not be as digitally literate as other individuals. That is not to say that, with greater education or improving digital access, you cannot reach those individuals who do not have services today. The services that they may be looking for are not necessarily the same as those in different populations who are looking, for example, to buy their first house or to access different loans. The point about financial inclusion is meant to be broad and to cover both unbanked and under-banked populations today.

Daniel Trinder: The cases for the UK for financial inclusion are limited. There is a much broader issue around financial inclusion in other countries. One of the use cases we have done is around the conflict in Ukraine, where we have put charity money into a cart that Ukrainian refugees can access around the EU without having to go through banking infrastructure. That is a case in point.

Q89 **Alison Thewliss:** In your evidence, you said that crypto-assets would "allow unbanked and under-banked portions of society to participate in the financial system, removing the requirements for bank accounts and other hurdles". Again, how do you envisage that system working within the UK?

Daniel Trinder: It is much less in the UK. If you look at World Bank data, there are about 1.7 billion people without bank accounts. To your point around the example you gave in the UK, that amount is minimal and is a generational issue. More broadly, in certain pockets of the world, whether it be Africa or wherever, there are examples where people can use this to have access.

Alison Thewliss: You are overstating the case as far as it concerns the UK and being able to help these folk that are digitally and financially excluded.

Daniel Trinder: Yes, it is minimal in the UK.

Q90 **Alison Thewliss:** In terms of some of those communities, who are not engaged in financial services and who do not really understand the complexities of this market, many of them are being targeted by advertising through various different digital companies. I note that FTX had sponsorship of the cricket world cup. Others in the sector have spent significant sums of money in football advertising. That is targeted at fans, is it not? That is not targeted at investors. That is targeted at ordinary people, encouraging them to get involved in a sector that perhaps they do not understand. Is that responsible?

Daniel Trinder: The examples in the UK are minimal in terms of financial promotions. I do not think it is permitted in the UK.

Q91 **Alison Thewliss:** There have been lots of football club-related digital assets.

Daniel Trinder: Do you mean around NFTs?

Q92 **Alison Thewliss:** Yes, and fan coins and that kind of thing. Most people have lost their money out of those, have they not?

Daniel Trinder: I am not sure if they have lost their money but I see the NFT issue as slightly different. It is a little bit like a membership card that entitles you to various VIP type of issues. It is a little like a collectible type of issue.

Alison Thewliss: It does not really entitle you to anything at the end of the day, though. If I am a football fan and I buy a season ticket, I know that I have something from that. If I sign up to some other fan club type of thing, I might get a newsletter or a T-shirt. There is not really anything that people will get at the end of the day for these fan-related football tokens.

Daniel Trinder: They get invites to VIP events and things.

Susan Friedman: The broader point is that the FCA has clearly recognised that there needs to be greater protections around consumer promotions, and they need the authority to do that. Part of this comes down to regulations that they are already promulgating, and part of this comes down to additional powers that they will get in the Financial Services and Markets Bill. The consistent call that you hear is that there is a need to balance consumer protection with the ability to allow businesses to innovate in this sector.

Ian Taylor: I echo Susan's point. We need clarity around how messages are communicated, especially to younger folks in the community. I can give you an example in relation to the so-called fan tokens. Some people in the community provide other inherent benefits in buying an NFT, which is revenue for a football club. The football club perhaps needs additional revenue streams post the pandemic, and so we provide a new revenue stream for a football club so that it stays open and provides local community services, where a holder of the NFT can be part of that community, which confers benefits such as invites to events, choosing what music is played as the players come out on match day or getting discounts for purchasing goods and services within the grounds like food and drink. The potential benefits conferred under a digital token are limitless. These are just a few ideas that I have mentioned now.

Q93 **Alison Thewliss:** There has been a lot of criticism and documented evidence over the years of the influence of gambling within sport. Fans would generally understand that, if they are going to put a bet on, they can expect to perhaps lose their money. By targeting fans with various crypto products of different types by advertising and sponsoring the cricket world cup and football teams, do you feel this is responsible, targeting fans with products that they do not understand and could lose their money with?

Ian Taylor: As long as the messaging is clear and not misleading and talks about the risks. NFTs and crypto-assets are not gambling, in our view. There is an element of speculation but the token confers a whole host of rights, just like if you have a collectible in digital form. You have a whole host of benefits, as I mentioned. Within the football sphere, we are starting to see new designs where fans of the clubs can participate in ways that they could not previously, because of the technology.

Q94 **Alison Thewliss:** I would like to move on to the environmental impacts of the crypto industry more widely. My understanding is that the energy requirements of "proof of work" verification for the Bitcoin blockchain is so vast that Bitcoin consumes more power than several developed countries. Are these "proof of work" crypto-assets non-viable from an environmental perspective? If it is sucking up so much energy to do these transactions, is that really a price worth paying?

Daniel Trinder: The industry realises the problem at hand. There is a huge desire across the industry to improve the energy efficiency. There have been some initiatives taking place of late that have helped, which are detailed in some of the submissions that I have looked at. More needs to be done.

Susan Friedman: Different tokens have different energy profiles. The token that Ripple uses for its product, XRP, is inherently green. All of the XRP in existence was created at the time of its creation. It does not rely on mining in order to validate the ledger. XRP is one example. There are other tokens out there that are also inherently green. As the space evolves, you are going to see more and more projects go along those lines.

Q95 **Alison Thewliss:** What do you mean by "inherently green"?

Susan Friedman: Unlike the "proof of work" protocol, which relies on mining in order to validate ledger transactions, XRP relies on a consensus mechanism. It uses a super-majority algorithm to validate different transactions, so there is no mining involved and there is no energy output in the same way as is associated with "proof of work" protocols.

I recognise the issues involved with "proof of work" protocols. I would point to their use of renewable energies. The issue of energy is one that the industry is paying attention to and trying to tackle.

Tim Grant: We are a publicly traded company and we do mine Bitcoin. Our infrastructure is in the United States. We agree that it is really important to focus on the "E" in ESG, and we are very public about this. The steps we have taken as a company include committing to achieving an 80% sustainable energy mix in our operations. We have also participated in industry leadership, creating an industry body that itself has committed to increased use of sustainable energy, so we are aligned. The good news is that we are quite far from the original very inefficient implementations in China, which were horribly energy-inefficient and used a lot of fossil fuels. China has now put a ban on that. Most of the biggest locations globally are in the US now, and there are much more efficient machines and the sustainable energy mix is increasing. This is all going in the right direction.

There is another element that we have started to look at, which is that the containment of energy in the sustainable energy space is a big problem. In a lot of sustainable energy production, there is often downtime where that energy is not used. This is a fantastic opportunity to put energy back into the grid by leveraging this kind of technology.

We are in a journey. We are not there, but you will find that most of the Bitcoin mining that is currently happening is going in that trajectory, which is good news for ESG.

Q96 **Alison Thewliss:** Where is most of that mining taking place right now?

Tim Grant: In the US, it tends to be in Texas, Georgia and other locations. Those are the bigger sites. The US is by far the biggest in the world at the moment.

Q97 **Alison Thewliss:** What percentage of the mining is that?

Tim Grant: I do not have it off the top of my head.

Ian Taylor: The Cambridge Centre for Alternative Finance has an index on its website where you can see exactly, to the detail, how much energy is being used. Yes, as an industry, we accept that the use for only the Bitcoin blockchain is something that we should not bury our head in the sand about. The Bitcoin Mining Council said that 189 terawatt-hours of energy were consumed by Bitcoin mining on the world's electricity grid, which was 0.1% of the world's energy production. We know this to the absolute percentile because of the public nature of the blockchain. Can we say that about the financial services industry? Can we say that about the energy industry? No, we cannot. We just have to speculate.

What we are also seeing with these miners or block producers is investment in renewable technology. It is really driving forward this beneficial area.

Finally, one of our members, Zumo, which is a crypto wallet and payments platform, announced the launch of its Zero Hero pilot renewable energy purchase programme. The sector is looking to engage and improve on ESG issues.

Q98 **Alison Thewliss:** You talked about how it compares to other parts of financial services. Other digital transactions such as Visa are much faster and rely on less energy. Visa can handle 1,700 transactions per second compared to four with Bitcoin, so the comparison means there is still quite a gap between other financial services in terms of the energy intensity of Bitcoin mining.

There was some talk earlier in the year about Bitcoin mining in Kazakhstan and the impact that that had had, given that there was a relatively creaky old fossil fuel industry there doing a lot of the energy production. If processing can be done in the cheapest and potentially least environmentally friendly places, what is the incentive there to do it in places where it would be more expensive?

Ian Taylor: I cannot speak to Kazakhstan specifically but, to the question before, we know from the University of Cambridge's index that renewables are used in two-thirds of Bitcoin production, and we have seen a shift of miners moving out of areas such as China, when they banned crypto mining, into countries such as North America and eastern Europe, which are using more renewables to mine Bitcoin.

Q99 **Alison Thewliss:** Much of the evidence that we have heard at this Committee has talked about the impact of the global energy crisis that we are facing just now, and the costs to ordinary people in terms of putting on the heating or turning on the lights. Is it ethical to pursue an industry that is so energy-intensive at a time where there are so many other demands on the energy sector? Is it necessary?

Susan Friedman: Bitcoin is one example. Not all tokens have anywhere near the energy footprint that a "proof of work" protocol does, and even "proof of work" is looking to utilise, as Ian and Tim have pointed out, renewables to make it less energy-intensive than it is in prior iterations. The question start from a little bit of a false premise, in the sense that it does not have to be an either/or; there are certainly options out there that are green and that provide utility that can and should be explored.

Tim Grant: It is probably worthy of note that there is a reason why there is practically no Bitcoin mining in the UK. It is because the energy price is so high. It is not really a UK problem. It tends to migrate where the price of energy is low enough that that is not where there is an issue. They do not have an energy problem in Texas; everybody has access to the energy they need. They do not have a heating problem because it is a warm area. The good news with the UK is that it is not so relevant.

Q100 **Chair:** We have covered a lot of different topics this afternoon. I want to conclude on this, because your firm is so much in the news at the moment, Daniel. Earlier on, you were kind enough to offer to send us, tomorrow, some correspondence relating to the collapse of FTX and Binance's due diligence related to that potential takeover of FTX. I want to confirm for the record that that will cover all your internal correspondence and records that exist of the potential wider market consequences of the announced divestment of the FTT, and correspondence and other communications relating to the due diligence that you carried out regarding the potential acquisition of FTX. We would be happy for you to err on the side of inclusion in considering what you are going to include in your correspondence.

On the topic of Binance in the UK more generally—because we started with UK economic activity—my understanding is that your activity in the UK is not specifically regulated in the UK. Could you just outline your relationship with Paysafe and how that enables you to trade in the UK? Is your agreement with Paysafe a way of circumventing the consumer alert that was issued by the FCA that ordered you to stop all regulated activity in the UK?

Daniel Trinder: On the first question regarding clarification, I will give you the chronological date order of what has been going on with FTX and Binance from the coins right the way through. As I said, I will provide that tomorrow.

Chair: Including the internal documents.

Daniel Trinder: Yes. Chair, would that be made public? There are clearly ongoing investigations through the DOJ in the United States and, to caveat that, I just need to check on the material that we are providing to them regarding the case.

Chair: Typically, material that is made available to Select Committees is made public. If there is information that you are unable to disclose because of that, then you need to make that clear to us in your covering information.

Daniel Trinder: Sure, okay. With the FCA, Binance is not regulated by the FCA. We would like to be. We have ongoing discussions with the FCA to further that goal.

With Paysafe, it is really around the customer and people being able to switch from fiat—so cash in their bank account—into Binance. We are not carrying out activities in the UK, but it is around those customers that we have from our Binance.com account being able to access that using a UK bank account. I do not think that is any different from any other market participant who does not have regulatory permissions with the FCA.

Q101 **Chair:** It helps you get around the fact that you are not currently regulated with the FCA.

Daniel Trinder: We cannot advertise. We cannot do regulated business in the UK. Most of the activities that we would do, whether it be sophisticated investors, et cetera, we cannot do through the UK. Clearly, we have people who are based in the UK, both institutional and retail, who use Binance.com. Those people are allowed to undertake transactions.

Chair: They go via Paysafe.

Daniel Trinder: Yes.

Chair: Thank you very much for spending so much time with us this afternoon as a Committee. I know we have all found it very interesting.