Response to the Law Commission of England and Wales Consultation on Digital Assets (November 2022)

This response is provided by a working group of the Centre for Commercial Law at the University of Aberdeen. The working group consists of Dr Alisdair MacPherson, Dr Burcu Yüksel Ripley, Professor Donna McKenzie Skene, Mr Gabriel Uchechi Emeasoba and Mr Mahmoud Ashami.

General Comments

We welcome this consultation and appreciate the opportunity to provide our comments. We have a particular interest in this area of law and have been involved in previous consultations regarding related matters. Along with other members of the Centre for Commercial Law, we responded to the UK Government's Consultation and Call for Evidence on the UK's Regulatory Approach to Cryptoassets and Stablecoins (March 2021), the Law Commission of England and Wales (LCEW)'s Call for Evidence on Digital Assets (July 2021), the LCEW's Consultation on Digital Assets: Electronic Trade Documents (July 2021) and the Scottish Government Consultation on Digital Assets in Scots Private Law (June 2022). Our responses are available at the following link: https://www.abdn.ac.uk/law/research/centre-for-commercial-law/public-policy-stakeholder-engagement-1109.php. In addition, Dr MacPherson and Dr Yüksel Ripley of this working group are two of the Special Rapporteurs for the United Kingdom (UK) and co-authors of the UK Report for the International Academy of Comparative Law's General Report on Cryptocurrencies (Asunción 2022 General Congress, Topic IX.C), which gives attention to the law of England and Wales, the law of Scotland and private international law/conflict of laws issues, where appropriate. They are also the co-authors of 'Digital Assets Law Reform in England and Wales and Prospects for Scotland', Aberdeen *Law School Blog*, 2022, available at https://www.abdn.ac.uk/law/blog/digital-assets-law-reform-in-england-and-wales-and-prospects-for-scotland/.

As we noted in our response to the LCEW's Call for Evidence on Digital Assets, we agree that there is a need for law reform in the UK in this area to provide legal certainty and predictability regarding the legal status of digital assets and to facilitate innovation by appropriate legal frameworks in the UK, which is a leading country in the global financial sector and aspires to be amongst the most innovative economies. As a testament to this aspiration, the LCEW's law reform projects concerning digital assets are very timely and important. In this respect, we emphasise the importance of law reform across the three jurisdictions of the UK to ensure a significant level of alignment among them, given the commercial nature of the topic and the likely cross-border elements that may exist, and to avoid additional intra-UK conflict of laws complications that may otherwise be created. As Dr MacPherson and Dr Yüksel Ripley noted in their response to the Scottish Government Consultation on Digital Assets in Scots Private Law and their blog post (both cited above), engagement and close cooperation between the LCEW, Scottish Law Commission (fed by expert input provided by the Scottish Government's Expert Reference Group on Digital Assets and, in relation to the LCEW's new project on Digital assets: which law, which court?, by the Law Society of Scotland's International Private Law Reference Group) would be helpful to ensure that alignment and to identify the best way forward for the UK. Such an alignment would also be useful for the UK-wide regulation of digital assets and, in particular, we note the area of tax which would benefit from this alignment among the three jurisdictions of the UK on private/property law related aspects. We do,

however, think that the background English law and Scots law within which digital assets are to function must still be respected and accommodated.

In relation to this consultation paper, we think that this is an impressive and thorough piece of work with some ground-breaking law reform proposals. This is a very useful source for the judiciary, academia, legal practice and industry in England and Wales, in other jurisdictions of the UK, and abroad, regarding property in English law and also with respect to digital assets and related novel concepts. The consultation paper brings a lot of useful and up-to-date information together with appropriate care and attention. We think that it will remain a highly valuable reference point in the area.

We will provide our specific comments in relation to the LCEW's proposals and other matters below for each consultation question, but we initially would like to raise the following points for consideration in relation to the consultation paper's approach.

- We, in general, are of the view that, in the categorisation of property, a flexible approach would be preferable to accommodate a number of different types of property. As we will elaborate on in our response to question 1 below, it would be a very restrictive approach to limit this law reform to creation of a category for only digital assets. To assist with the analysis, it might be useful to mention the comparable Scots law position (for further information, please see Dr MacPherson and Dr Yüksel Ripley's response to the Scottish Government Expert Reference Group's Consultation and their blog post, both cited above). As digital assets are not land or a right in relation to land, they are moveable property (rather than heritable property) in Scots law. Although certain aspects of digital assets may resemble corporeal moveable property, tangibility/intangibility (almost always) determines whether property is to be corporeal or incorporeal respectively and intangible property can be equated to incorporeal property in Scots law. Digital assets can therefore be identified under the category of incorporeal moveable property which is a relatively flexible category in Scots law and already accommodates a number of different types of intangibles, beyond simply claim rights. These other types of incorporeal moveables include shares and intellectual property that are transferred using registration or assignation alone (depending on the particular asset) instead of by assignation with intimation (as is the case for claim rights). An expansive category of intangible personal property, with some differentiation across sub-categories would also be useful for English law, including for digital assets, but we appreciate that it may not be justified on the basis of the law as it currently stands.
- The consultation paper considers different types of digital assets and provisionally concludes that currently only crypto-tokens satisfy the three criteria set out in the consultation paper for a thing to be recognised as falling within the proposed third category of personal property. Following this, the remaining parts of the consultation paper are mainly concerned with crypto-tokens and make proposals specifically for them. Given that the LCEW considers that some types of digital assets, which currently do not satisfy the three criteria, may satisfy them in the future if they are designed differently, we wonder whether these proposals made for crypto-tokens would also be applicable to those other types of digital types in the future. If the answer is yes, we further wonder if this has been taken into account in formulating the proposals.
- Under the umbrella of digital assets, crypto-tokens are examined in the consultation paper as a category of digital assets. However there seems to be minimal particular or separate consideration of different types of crypto-tokens in the consultation paper. We therefore wonder whether the LCEW considers that all types of crypto-tokens should

be treated in the same way. We particularly raise this question in relation to Central Bank Digital Currencies which are generally perceived differently from, for example, Bitcoin-like crypto-tokens.

- Regarding crypto-assets, it has been argued that: "*[T]he special feature of crypto assets is their unique use in a system which, from a purely factual perspective, assigns particular electronic values to a particular person or a particular group of persons and thereby enables the possession-like*[1] *attribution of digits to a particular person or group. Although the consequences of the control of particular electronic values are extremely diverse, the fact that a certain value is assigned to a particular person or group constitutes a general feature. It is, therefore, convincing to consider crypto assets as digital data or electronic values which can be attributed to a particular person or group*" (see B Yüksel Ripley and F Heindler, "The Law Applicable to Crypto Assets: What Policy Choices Are Ahead of Us?" in A Bonomi, M Lehmann, S Lalani (eds) *Blockchain and Private International Law* (Brill, forthcoming)). Our understanding is that 'attributability' is not proposed as a criterion in the consultation paper for a thing to fall within the proposed third category of personal property, but instead an element of the concept of control in para 11.112 identifying a given person as the person in control of a data object at a particular moment. Given that the concept of control is not among the three criteria set out in the consultation paper for a thing to be recognised as falling within the proposed third category of personal property and, instead, the concept of rivalrousness is identified as crucial, we therefore raise the question whether 'attributability' should also be among the proposed criteria so that a thing is to be linked to a person in order to attract property rights.
- In addition to the points above and below about data objects, we find Professor David Fox's suggestion that a digital asset may be conceptualised as a specific transactional power over unique data entries on a blockchain ledger system (or as an exclusive power to make valid transactions on such a system) to be an interesting and persuasive argument at least for some types of digital assets.

Consultation Question 1.

We provisionally propose that the law of England and Wales should recognise a third category of personal property. Do you agree?

As we noted in our response to the LCEW's Call for Evidence on Digital Assets, because digital assets do not entirely and easily fit into the division of 'things in possession' and 'things in action', we in general support the idea of creating a category of personal property with a more specialised regime for digital assets, drawing on existing rules and concepts as appropriate but creating bespoke rules where necessary to recognise the specific characteristics of (different types of) digital assets. However, in relation to the LCEW's proposed category and approach, we would like to raise some specific points and make suggestions for consideration.

First of all, ideally overlaps between categories of property should be reduced for legal certainty and predictability in treatment of different types of personal property. Second, it is important that categorisation should be future-proof particularly to be able to accommodate new types of property in the future. Third, we think that unnecessarily rigid boundaries between

[1] See Article 11 of the UNCITRAL Model Law on Electronic Transferable Records and its Explanatory Note para 13, 105-109.

categories could be problematic. If there is to be reform of English property law, it would be a very restrictive approach to limit the newly created category to only data objects. A more flexible categorisation of personal property might perhaps be preferable for English property law, as is the case in Scots property law (on the Scots law position, please see above). As such, there could be two main types or categories: 1) tangible property, which includes things in possession, and 2) intangible property, which includes things in action as well as digital assets among sub-categories. Arguably, further sub-categories already exist under intangible property, for example, intellectual property. This suggestion is, in some aspects, similar to the suggestions cited in para 4.35 of the consultation paper. One advantage of this approach would be that the rules already existent for intangible property could be applied to its sub-categories as appropriate. Otherwise, a totally distinct third category would also bring a need for new rules to be created from scratch. Fourth, we also wonder about the suitability of the term of this proposed category as 'data objects', which stands very differently in comparison to the current category terms of things in possession and things in action and does not fit well terminologically. We think that 'virtual things'/ 'virtual property' or 'digital things'/ 'digital property' might perhaps be a better fit and more meaningful for this new category/sub-category of property.

Consultation Question 2.

We provisionally propose that, to fall within our proposed third category of personal property, the thing in question must be composed of data represented in an electronic medium, including in the form of computer code, electronic, digital or analogue signals. Do you agree?

This seems logical to us based on the LCEW's proposal of creating a distinct third category of personal property for digital assets. However, if a different approach were to be adopted, in the way we elaborated on in our answer to the previous question, this criterion might benefit from some further consideration in terms of how it would fit in that new categorisation of personal property.

Consultation Question 3.

We provisionally propose that, to fall within our proposed third category of personal property, the thing in question must exist independently of persons and independently of the legal system. Do you agree?

We agree with the first part of the proposed criterion, ie the thing in question must exist 'independently of persons'. However, we find the second part of the proposed criterion, ie the thing in question must exist 'independently of the legal system' rather ambiguous in its meaning and potentially problematic.

To some extent, property, regardless of its type, is dependent on the legal system in terms of its recognition in the eyes of the law and accordingly its enforceability under a given legal system. Otherwise, it would affirm the argument raised for crypto-tokens that code can replace law, which, as seen, is not the case. In addition, even if it is hypothetically accepted that a thing can exist independently of the legal system, we are not sure whether the proposed criterion

would cover all types of digital assets which should attract personal property rights. For example, do central bank digital currencies exist independently of the legal system? In our view, they do not as they are issued by an authorised institution of a given country, which is usually the central bank of the country, in accordance with that country's law. If this criterion of existing independently of the legal system is applied to them, this would arguably mean they are not capable of attracting property rights as they would not satisfy the criterion. In addition, if there were to be a statute in the future in relation to aspects of digital assets or of specific types, such as crypto-tokens, we are also unsure how this criterion would function for, or be applied to, those assets falling within the scope of the statute. This criterion does not seem to us as a future-proof criterion.

The intention in the second part of the proposed criterion might be perhaps referring to being existent as a matter of fact (as opposed to as a matter of law). Overall, we think that this criterion should be defined very clearly. As far as we understand, the main purpose of the second part of the proposed criterion is, in essence, to distinguish this new proposed type of property from things in action. This could be perhaps achieved through a different formulation under the proposed criterion, such as by simply stating that the thing in question must not fall into the category of things in action, or alternatively that the thing in question is not intangible property which consists of a claim or right enforceable against a particular obligor or another person, or alternatively, as per para 10.64 of the consultation paper, the thing in question "do[es] not consist of rights (legal positions between persons vis-à-vis each other and things)".

Consultation Question 4.

We provisionally propose that, to fall within our proposed third category of personal property, the thing in question must be rivalrous. Do you agree?

We see the rationale behind the proposal that the thing in question must be rivalrous and it seems to us to be an appropriate test to determine whether a thing is property.

However, we would find further explanation helpful as to why the LCEW prefers the concept of rivalrousness over 'controllability' or 'having the capability of being controlled exclusively', given that control is a concept developed for this area and already being used in other legal initiatives in the area and that the LCEW considers in para 5.61 that the two approaches are very similar and likely to lead to functionally similar results in practice. In addition, some aspects of the test of rivalrousness seem to us to make the concept difficult to understand and apply, such as that the quality of rivalrousness is not absolute and rivalrousness exists on a spectrum as per para 5.74 of the consultation paper. If a new category of personal property were created with distinctive features, we wonder whether it might be more appropriate to use control which is a concept developed for this area rather than using an existing concept of property law.

As we also noted above in our general comments, 'attributability' seems to be an element of the concept of control in para 11.112 of the consultation paper but not of rivalrousness. Therefore, there might be some advantages in using the concept of control in the absence of an additional criterion on attributability to ensure that a thing is to be linked to a person in order to attract property rights.

Consultation Question 5.

We provisionally propose that a data object, in general, must be capable of being divested on transfer. Do you agree? Please give examples, if any, of when this will not be the case.

Yes, we agree. We cannot think of any good example when this will not be the case. As a general point, we do not think that something needs to be transferable to be considered as property. However, if transfer is possible, then divestibility is necessary.

We provisionally propose that divestibility should be regarded as an indicator, or general characteristic of data objects, rather than as a gateway criterion. Do you agree?

Yes, we agree.

Consultation Question 6.

We provisionally propose that:

(1) the law of England and Wales should explicitly recognise a distinct third category of personal property; and

(2) a thing should be recognised as falling within our proposed third category of personal property if:

(a) it is composed of data represented in an electronic medium, including in the form of computer code, electronic, digital or analogue signals;

(b) it exists independently of persons and exists independently of the legal system; and

(c) it is rivalrous.

Do you consider that the most authentic and appropriate way of implementing these proposals would be through common law development or statutory reform?

We think that legislation would be a more appropriate way to implement these proposals to provide legal certainty and predictability regarding the status of digital assets in English law for a number of reasons. First, an explicit recognition of new category of personal property with distinct features is a fundamental change and therefore legislation would be a more effective way of doing this. Second, from a conflict of laws perspective, there may be cases where English law is the applicable law before a foreign court with international jurisdiction and having legislation would be helpful in determining those cases by foreign courts. Third, legislation in this area would also send a positive signal at global level that English law supports and facilitates innovation in the digital space. Fourth, English law could be influential for other jurisdictions and English legislation could serve as a model for them in developing their laws on digital assets.

Regarding the common law development route, we think that it may take a considerable period of time to implement the proposals through that route, as there would need to be a sufficient number of cases to provide clarity regarding various aspects of digital assets from the courts of England and Wales. Judges are limited to the facts before them and also many disputes are

settled or resolved out of court. The common law may not necessarily develop in the same direction based on only guidance, as guidance, although it is useful particularly on technical matters, is not binding. Also, over time, judges change which may result in a change of approach or attitude in courts. There might be conflicting judgments from different courts on aspects of digital assets and it would take time for these issues to reach the UK Supreme Court to get a unifying view on these aspects.

We, therefore, support statutory reform with a minimalistic approach bringing together some future-proof fundamental principles in a very clear way and leaving further development to courts. Legislation could specify that this is a new type of property and provide some rules on transfer and enforcement. Dr MacPherson and Dr Yüksel Ripley suggested a similar approach for Scots law that Scotland can take a relatively light-touch approach to legislation on digital assets by giving some general provisions for clarity (in particular specifying that digital assets are, in principle, property for the purposes of Scots law and they are a special type of incorporeal moveable property, and also specifying how digital assets are transferred) and leaving further details and application in various contexts to the courts (for further details, please see their response to the Scottish Government Expert Reference Group's Consultation and their blog post, both cited above).

Consultation Question 7.

We provisionally conclude that media files do not satisfy our proposed criteria of data objects, and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree.

Regardless of your answer to the above question, do you think that media files should be capable of attracting personal property rights?

In principle, we do not think that media files should be capable of attracting personal property rights based on the analysis in the consultation paper. However, there might be particular circumstances in individual cases which could lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

Consultation Question 8.

We provisionally conclude that program files do not satisfy our proposed criteria of data objects, and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree.

Regardless of your answer to the above question, do you think that program files should be capable of attracting personal property rights?

In principle, we do not think that program files should be capable of attracting personal property rights based on the analysis in the consultation paper. However, there might be particular

circumstances in individual cases which could lead to a different result. whereby they satisfy the criteria and therefore attract personal property rights.

Consultation Question 9.

We provisionally conclude that digital records do not satisfy our proposed criteria of data objects, and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree.

Regardless of your answer to the above question, do you think that digital records should be capable of attracting personal property rights?

In principle, we do not think that digital records should be capable of attracting personal property rights based on the analysis in the consultation paper. However, there might be particular circumstances in individual cases which could lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

Consultation Question 10.

We provisionally conclude that email accounts do not satisfy our proposed criteria of data objects and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree.

Regardless of your answer to the above question, do you think that email accounts should be capable of attracting personal property rights?

In principle, we do not think that email accounts should be capable of attracting personal property rights based on the analysis in the consultation paper. However, there might be particular circumstances in individual cases which might lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

We note the distinction between e-mail account and mailbox and understand from para 7.12 of the consultation paper that the LCEW does not consider the mailbox itself as an object of property rights on the ground that "*[a]ccess to a mailbox is normally determined by a mailbox provider*". We wonder whether there might be unusual cases where this is not so and therefore the mailbox itself could be an object of property rights.

Consultation Question 11.

We provisionally conclude that in-game digital assets do not satisfy our proposed criteria of data objects and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree.

Regardless of your answer to the above question, do you think that in-game digital assets should be capable of attracting personal property rights?

In principle, we do not think that in-game digital assets should be capable of attracting personal property rights based on the analysis in the consultation paper. However, there might be particular circumstances in individual cases which might lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

Consultation Question 12.

We provisionally conclude that (DNS) domain names do not satisfy our proposed criteria of data objects and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree.

Regardless of your answer to the above question, do you think that (DNS) domain names should be capable of attracting personal property rights?

In principle, we do not think that (DNS) domain names should be capable of attracting personal property rights based on the analysis in the consultation paper. However, there might be particular circumstances in individual cases which might lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

Consultation Question 13.

We provisionally conclude that Carbon Emissions Allowances do not satisfy our proposed criteria of data objects and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree as they do not satisfy the criterion of 'existence independent of the legal system'. We also note, however, that there might be particular circumstances in individual cases which might lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

In addition, we wonder whether they would always entirely satisfy the criterion of 'data represented in an electronic medium', noting that different arguments exist on the issue and they may be alternatively seen as a mere record of the thing in question as per para 9.15 of the consultation paper.

Consultation Question 14.

We provisionally conclude that most VCCs do not satisfy our proposed criteria of data objects and therefore that they fall outside of our proposed third category of personal property. Do you agree?

Yes, we agree as they do not satisfy the criterion of 'rivalrousness'.

In addition, we wonder whether they would always entirely satisfy the criterion of 'existence independent of the legal system'. There might be perhaps cases where it would be appropriate to presume contractual relationships among participants established by implication based on their participation to a given scheme.

Regardless of your answer to the above question, do you think that VCCs should be capable of attracting personal property rights?

In principle, we do not think that VCCs should be capable of attracting personal property rights based on the analysis in the consultation paper. We also see value in having the same treatment for statutory and voluntary schemes of the same thing. However, there might be particular circumstances in individual cases which might lead to a different result, whereby they satisfy the criteria and therefore attract personal property rights.

We agree that they might be designed differently in the future in a way to satisfy the criterion of 'rivalrousness'. However, as we noted above, there might be cases where they may not still satisfy the criterion of 'existence independent of the legal system' and therefore will not be capable of attracting personal property rights.

Consultation Question 15.

We provisionally conclude that crypto-tokens satisfy our proposed criteria of data objects and therefore that they fall within our proposed third category of personal property. Do you agree?

Yes, we agree that crypto-tokens satisfy the proposed criteria of data objects and therefore that they fall within the proposed third category of personal property. We also note that there seems to be no separate analysis of the ledger in the consultation paper and think such analysis of the ledger in the final report might be useful.

Consultation Question 16.

We provisionally propose that the concept of control is more appropriate for data objects than the concept of possession. Do you agree?

Yes, we agree that the concept of control is more appropriate for data objects than the concept of possession, partly due to the arguments set out in the consultation paper. Possession is a concept that carries a lot of 'baggage' and meaning that are unlikely to be appropriate or useful for data objects. It is, by its nature, of relevance specifically to tangible property. If a new category of personal property is being created, it is not necessary to import a concept such as possession which has implications that are more relevant or applicable to other categories of property. Law reform gives the opportunity to use a more appropriate concept for data objects such as control. If a legislative route is taken, a bolder approach can be adopted in this area and it may be easier to realise a distinctive and bespoke concept of control for data objects, whereas if the common law development route is taken, it may be more difficult to create or utilise a new concept and there may be a temptation to use the existing concept of possession, albeit with some adaptations.

Consultation Question 17.

We provisionally propose that, broadly speaking, the person in control of a data object at a particular moment in time should be taken to be the person who is able sufficiently:

(1) to exclude others from the data object;

(2) to put the data object to the uses of which it is capable (including, if applicable, to effect a passing of, or transfer of, that control to another person, or a divestiture of control); and

(3) to identify themselves as the person with the abilities specified in (1) to (2) above.

Do you agree?

The proposal appears reasonable to us based on the points made in the consultation paper. It may be queried whether 'sufficiently' is necessary as a qualifier here (and indeed it qualifies (1)-(3)), but we are persuaded on balance regarding the merits of its inclusion. There is, however, some uncertainty regarding the meaning of the term in the context of data objects. We note that there is case law in relation to its meaning for tangible objects, but it may be more difficult to determine a suitable and consistent meaning in relation to data objects.

Consultation Question 18.

We provisionally conclude that the concept of control as it applies to data objects should be developed through the common law, rather than being codified in statute. Do you agree?

We are uncertain about this proposal. If the concept is being used in a different way compared to other contexts, then it may be considered sensible to include it in legislation for clarity and certainty. Any such inclusion in legislation could be relatively light touch, with merely a fairly broad statutory formulation. It would be a difficult and onerous task for judges to develop the concept by themselves, and even with some statutory provision, there is still scope for courts to develop the meaning in particular circumstances. In addition, there is a danger that if the matter is left to common law development alone, there is scope for the courts to adopt an alternative approach (they would not necessarily need to follow what the LCEW recommends as such recommendations are not binding on courts) and development would also depend on the 'right' cases coming before the courts. If cases involved peculiar circumstances, this could give a false impression of the law more broadly in this area. It may therefore be preferable to have a statutory provision as a base point from which the courts can develop the law further.

Consultation Question 19.

We provisionally conclude that it would be beneficial for a panel of industry, legal and technical experts to provide non-binding guidance on the complex and evolving issues relating to control and other issues involving data objects more broadly. Do you agree?

We consider this to be a good idea. We expect that there would likely develop a 'two-way conversation' between the judiciary (through court decisions) and the guidance, with judges taking (some) account of the guidance and using it to help with their judgments, while those judgments would in turn shape the guidance, and so on. However, we do not consider the guidance to override the potential desirability of legislation. If the guidance is non-binding, then the courts could simply decide to ignore it, albeit that in most cases they would likely welcome the assistance it would offer. If there were to be legislation, the guidance could be recognised as something that the courts should have regard to, along with possibly a list of other factors, even if they ultimately decided to depart from the guidance. A provision from another area of law, Reg 2 of the Cross-Border Insolvency Regulations 2006 (SI 2006/1030), could provide something of a template for referring to the guidance (and potentially other documents) in order ascertain the meaning of control.

We consider that the establishment of the proposed panel would also be helpful for parties in other jurisdictions of the UK. In Northern Ireland and Scotland the guidance could be usefully referred to in interpreting the law. The guidance could also be influential in other jurisdictions as judges, lawyers and other interested parties may use it and make reference to it. The fact that Chief United States Bankruptcy Judge Martin Glenn has already supported references being made to the LCEW's Consultation Paper on Digital Assets in a case, due to the lack of guidance in the US, provides a marker as to how courts in other jurisdictions may use the proposed non-binding guidance in future – see https://cases.stretto.com/public/x191/11749/PLEADINGS/1174910172280000000017.pdf.

Consultation Question 20.

We provisionally conclude that a transfer operation that effects a state change within a crypto-token system will typically involve the replacing, modifying, destroying, cancelling, or eliminating of a pre-transfer crypto-token and the resulting and corresponding causal creation of a new, modified or causally-related crypto-token. Do you agree?

This requires to be considered by technical experts. However, there perhaps needs to be further consideration of the extent to which what is suggested applies to different types of crypto-tokens in the same way.

We note the references to divergent views in response to the earlier call for evidence regarding factual transfers and we would be interested to find out more about alternative views that have been expressed.

We provisionally conclude that this analysis applies in respect of UTXO based, Account based and token-standard based (both "fungible" and "non-fungible" crypto-token implementations). Do you agree?

This question also requires input from non-legal technical experts, such as computing scientists. We are uncertain. Care should be taken to ensure that the analysis applies to all forms of token that are intended to be included.

Consultation Question 21.

We provisionally conclude that the rules of derivative transfer of title apply to crypto-tokens, notwithstanding that a transfer of a crypto-token by a transfer operation that effects a state change involves the creation of a new, causally related thing. Do you agree?

Irrespective of whether or not technically the same thing has been transferred or a new thing is created, we consider that the outcome is and ought to be the same, and that the rules of derivative transfer should apply. It is sensible and more straightforward to perceive the legal transaction in this way. This already seems to be the approach adopted and, if it were not, then reform would be necessary to achieve it.

Consultation Question 22.

We provisionally propose that:

(1) A special defence of good faith purchaser for value without notice (an innocent acquisition rule) should apply to a transfer of a crypto-token by a transfer operation that effects a state change. Do you agree?

In principle, yes, but see below.

(2) An innocent acquisition rule should apply to both "fungible" and "nonfungible" technical implementations of crypto-tokens. Do you agree?

Yes, if there is to be such a rule, it should apply uniformly for both types.

(3) An innocent acquisition rule cannot and should not apply automatically to things that are linked to that crypto-token. Do you agree?

Yes, we support this. The rules for crypto-tokens should not necessarily override the rules for linked items. We can see there is a potential conflict where e.g. the *nemo dat* principle applies to linked items but an innocent acquisition rule applies to the relevant crypto-token. We agree that an innocent acquisition rule cannot and should not *automatically* apply to the linked item(s). However, some further consideration is needed regarding when it should apply to linked items and when it should not apply. To do this, it would be helpful to work through example scenarios.

More broadly, we generally agree that there should be protection for good faith purchasers for value without notice. It is essentially a policy decision as to whether protection is given to an innocent third-party acquirer or a victim of fraud to whom the asset belonged. We think the analogies with how money and certain negotiable instruments are dealt with are helpful and consider that the justifications for innocent acquisition for such property are also generally applicable to crypto-tokens. As noted in the consultation paper, if there is no innocent acquisition rule, this will impact negatively on the efficiency and costs of transactions and will also damage the market in crypto-tokens overall. However, some further attention may need to be given to whether the rule should apply to all types of crypto-asset.

Consultation Question 23.

We provisionally propose that an innocent acquisition rule in respect of transfers of crypto-tokens by a transfer operation that effects a state change should be implemented by way of legislation, as opposed to common law development. Do you agree?

Yes, we support this. It is unclear whether the current law protects an innocent acquirer for value. There is a distinct possibility that it does not have such a rule and the common law may not develop such a rule and may struggle to do so, particularly since the *nemo plus* principle applies broadly and as the default position in property law. While an innocent acquisition rule could be developed at common law through analogy with the position for money and negotiable instruments, this is not certain and would no doubt be contested, and would likely take some time to be fully fleshed out as cases are awaited. As such, implementation of such a rule by way of legislation would be preferable.

Consultation Question 24.

We provisionally conclude that the rules of derivative transfer of title apply to crypto-tokens and that it is possible to separate (superior) legal title from the recorded state of the distributed ledger or structured record and/or factual control over a crypto-token. Do you agree?

Yes, we would support this, on the basis of the points made in the consultation paper.

We provisionally conclude that, over time, the common law is capable of developing rules to assist with the legal analysis as to title and/or priority where disputes arise between multiple persons that have factual control of a cryptotoken, and that statutory reform would not be appropriate for this purpose. We consider that those rules will need to be specific to the technical means by which such factual circumstances can arise within crypto-token systems or with respect to crypto-tokens. Do you agree?

We are more favourable to the common law dealing with such matters. The area is relatively undeveloped at the moment and there are a multitude of possible scenarios and issues that may arise, which would be difficult for legislation to capture and cover. As such, the common law is well placed to use the background law here to deal with disputes as they arise. An alternative approach would be to have a basic statutory provision stating a general rule and a non-exhaustive list of factors to be taken into account in relation to title and/or priority. Even if such a list of factors was not included in legislation, a Report on Digital Assets by the LCEW could explain some of the factors that could be of relevance for a general provision in an accompanying draft Bill, and this might (in some circumstances) be used ultimately for interpretive purposes.

Consultation Question 25.

We provisionally conclude that it is not appropriate to treat crypto-tokens as analogous to "goods", as currently defined in the Sale of Goods Act 1979 and other related statutes, including the Supply of Goods and Services Act 1982 and the Consumer Rights Act 2015. Do you agree?

We agree. Crypto-tokens are neither goods nor analogous to goods, as defined in the Sale of Goods Act 1979 and other related statutes. They do not fit within the definition of 'goods' in the legislation, as they are not personal chattels (or, in Scotland, corporeal moveables). They are not tangible, and other matters in relation to e.g. possession, remedies and transfer do not apply to them or do not apply to them in the same way as they apply to goods. We also provided further points regarding this matter in our response to the Call for Evidence on Digital Assets and in our response to the Scottish Government Consultation on Digital Assets in Scots Private Law, available at – https://www.abdn.ac.uk/law/research/centre-for-commercial-law/public-policy-stakeholder-engagement-1109.php#panel1114.

Consultation Question 26.

We provisionally propose that the law should be clarified to confirm that a transfer operation that effects a state change is a necessary (but not sufficient) condition for a legal transfer of a crypto-token. We consider that this state change condition is more appropriate than the potentially wider condition of "a change of control". Do you agree? Do you agree that such a clarification would be best achieved by common law development rather than statutory reform?

We agree with the first part of the question. It is probably appropriate to have a transfer operation in the way specified. However, we are unsure how this can and will be done by common law development instead of statutory reform. We generally support the notion that an element of publicity is necessary for the creation or transfer of a property right, and that a transfer operation effecting a state change is more closely aligned with a legal transfer for crypto-tokens than a change of control. We think there would be various problems with the latter, including that it would support the application of property law effects on the basis of private activity, which is inappropriate where the rights acquired would have third party effect. In any event, we think a brief statutory provision confirming the position would be preferable to relying on the common law.

Accordingly, we provisionally conclude that allowing title to a crypto-token to transfer at the time a contract of sale is formed, but where no corresponding state change has occurred, would be inappropriate. Do you agree?

Yes, due to the points made above and in the consultation paper, property/title should not transfer by way of a simple contract alone.

Consultation Question 27.

Are there any other types of link between a crypto-token and a thing external to a crypto-token system that you commonly encounter or use in practice?

We cannot answer this question substantively as we are not involved in practice.

We provisionally conclude that market participants should have the flexibility to develop their own legal mechanisms to establish a link between a crypto-token and something else — normally a thing external to the crypto-token system. As such, we provisionally conclude that no law reform is necessary or desirable further to clarify or specify the

method of constituting a link between a crypto-token and a linked thing or the legal effects of such a link at this time. Do you agree?

We agree and do not have any objections to this. In future, it may be desirable to legislate as practices develop. Given that there are different types of links and different types of items to be linked, some issues might justify legislation. In addition, given that there is to be no automatic application of an innocent acquisition rule for linked items where this applies to crypto-tokens (as noted above), if it is intended that such a rule should automatically apply to certain linked items (perhaps unless specific conditions apply), then legislation would be required.

Consultation Question 28.

Do you consider that there are any specific legal issues relating to non-fungible tokens ("NFTs") that would require different treatment from other crypto-tokens under the law of England and Wales?

Nothing in particular occurs to us on this matter.

Consultation Question 29.

We provisionally conclude that it is appropriate to draw a distinction between direct custody services (that is, holding crypto-tokens on behalf of or for the account of other persons and having capacity to exercise or to coordinate or direct the exercise of factual control in terms of both its positive and negative aspects) and custodial or other technology-based services that do not involve a direct custody relationship. Do you agree?

Yes, this seems sensible, on the basis of the reasons given in the consultation paper.

Consultation Question 30.

We provisionally conclude that, under the law of England and Wales, crypto-token custody arrangements could be characterised and structured as trusts, even where the underlying entitlements are (i) held on a consolidated unallocated basis for the benefit of multiple users, and (ii) potentially even commingled with unallocated entitlements held for the benefit of the custodian itself. Do you agree?

Yes, we are persuaded and agree, on the basis of what is written in the consultation paper. If it is determined that this is not already possible, then provision should be made to give effect to it.

We provisionally conclude that the best way of understanding the interests of beneficiaries under such trusts are as rights of co-ownership in an equitable tenancy in common. Do you agree?

Yes, this seems appropriate, based on what is written in the consultation paper.

Do you consider that providers and users of crypto-token custody services would benefit from any statutory intervention or other law reform initiative clarifying the subject matter certainty requirements for creating a valid trust over commingled, unallocated holdings of crypto-tokens? If yes, please explain what clarifications you think would assist.

For this matter, it may be preferable to leave it to the courts to develop the application of trust law and principles to cases as they arise. Otherwise, what may happen is that trust law is rewritten for crypto-tokens. It is preferable for crypto-tokens to fit into trust law, rather than for trust law to be re-shaped to accommodate crypto-tokens.

Consultation Question 31.

We provisionally conclude that a presumption of trust does not currently apply to crypto-token custody facilities and should not be introduced as a new interpretive principle. Do you agree?

Yes, we agree.

Consultation Question 32.

We provisionally propose that clarification of the scope and application of section 53(1)(c) LPA 1925 would be beneficial for custodians and would help facilitate the broader adoption of trust law in structuring custody facilities, in relation to cryptotokens specifically and/or to other asset classes and holding structures, including intermediated investment securities. Do you agree?

Yes, we think that for this particular matter clarification would be desirable.

If you think that clarification of the scope and application of section 53(1)(c) LPA 1925 would be beneficial, what do you think would be the best way of achieving this? Please indicate which (if any) of the models suggested in the consultation paper would be appropriate, or otherwise outline any further alternatives that you think would be more practically effective and/or workable.

Our preference would be for Option 2(a). We also note that this is the LCEW's preferred option and agree with the reasons provided in the consultation paper.

Consultation Question 33.

We provisionally propose that legislation should provide for a general pro rata shortfall allocation rule in respect of commingled unallocated holdings of cryptotokens or crypto-token entitlements in a custodian insolvency. Do you agree?

We consider that some form of legislative intervention is required here. However, we are wary of introducing such a change in isolation, without considering the wider aspects of custodian insolvency. For example, it may be advisable for there to be a special regime for custodian

insolvency, but this will obviously require further exploration and consultation on whether the general law of insolvency should apply, perhaps subject to certain modifications, or whether a more specific insolvency regime is necessary. We think that there should be wider consultation on the need for a special regime for custodian insolvency and this question should be considered as part of that wider discussion.

Consultation Question 34.

We provisionally conclude that extending bailment to crypto-tokens, or the creation of an analogous concept based on control, is not necessary at this time. Do you agree?

We agree. Bailment itself is not applicable given the absence of possession for crypto-tokens. Based on the consultation paper, there does not seem to be an obvious need or demand for an analogous concept based on control at present. Trusts and contract already provide what is required. The position may, however, change in the future as commercial practice develops.

If not, please provide specific examples of market structures or platforms that would benefit from being arranged as bailments, that could not be effectively structured using the trust and/or contract frameworks currently available.

N/A

Consultation Question 35.

We provisionally conclude that crypto-tokens, as objects of personal property rights, can be the subject of title transfer collateral arrangements without the need for specific law reform to provide for this. Do you agree?

We agree. Crypto-tokens can be the subject of title transfer collateral arrangements as a natural consequence of their recognition as an object of personal property rights. Specific law reform is not required here unless, for example, it was considered desirable to depart from the normally applicable rules.

Consultation Question 36.

We provisionally conclude that non-possessory securities can be satisfactorily granted in respect of crypto-tokens without the need for law reform. Do you agree?

Yes, we agree. Again, it is a natural consequence of the recognition of crypto-tokens as property that non-possessory securities can be satisfactorily granted in respect of crypto-tokens without the need for law reform. While we see benefit in review and reform of the English law of security rights more broadly, there is no good reason to contend that non-possessory securities cannot be granted over crypto-tokens. There are also economic and policy arguments in favour of the application of such securities to crypto-tokens. It seems straightforward enough, given their natures, that charges and mortgages can be granted in respect of crypto-tokens. In relation to charges, as well as being potential collateral under a fixed charge, a crypto-token could be covered by a floating charge and would be so if the security covered the entire property and

undertaking of the owner of the crypto-token or crypto-tokens were otherwise included in the charged property.

Consultation Question 37.

We provisionally conclude that it is not desirable to make provision for data objects to be the subject of possessory securities such as the pledge, or to develop analogous security arrangements based on a transfer of control. Do you agree?

If not, please provide specific examples of market structures or platforms that would benefit from the availability of possessory security arrangements, that could not be effectively structured using the non-possessory security frameworks currently available.

We agree. If possession is inapplicable to data objects, possessory securities are also inapplicable for such property. From the consultation paper, it also appears as if it is undesirable to develop analogous security based on a transfer of control. If such security interests were to be developed, transparency and publicity issues would potentially arise, particularly if they did not fall under the registration of charges regime for companies.

Consultation Question 38.

We provisionally conclude that the Financial Collateral Arrangements (No 2) Regulations 2003, SI 2003 No 3226 (the "FCARs") should not be extended to more formally and comprehensively encompass crypto-token collateral arrangements. Do you agree?

Yes, we agree. However, if the broader law here is to be reformed, there should be consideration as to whether and how crypto-token collateral arrangements could or should be integrated into a wider scheme.

Consultation Question 39.

We provisionally conclude that it would be beneficial to implement law reform to establish a legal framework that better facilitates the entering into, operation, rapid, priority enforcement and/or resolution of crypto-token collateral arrangements. Do you agree?

If so, do you have a view on whether it would be more appropriate for any such law reform to aim to create: (i) a unified, comprehensive and undifferentiated regime for financial collateral arrangements involving both traditional types of financial collateral and crypto-tokens; or (ii) a bespoke regime for financial collateral arrangements in respect of crypto-tokens?

Yes, we agree. While we can see some advantages under approach (ii), including that it would be easier to achieve, we prefer approach (i) overall. This is especially true if approach (i) were to be amended, so that it allows for small amounts of differentiation to accommodate any specific issues involving crypto-tokens. Given the issues with the existing law, wider reform is

preferable and would bring greater clarity to this area. It is more ambitious and will be more difficult to achieve than (ii) but ultimately worthwhile.

Consultation Question 40.

We provisionally conclude that an action to enforce an obligation to "pay" non-monetary units such as crypto-tokens would (and should) be characterised as a claim for unliquidated damages, unless and until crypto-tokens are generally considered to be money (or analogous thereto). Do you agree?

Yes, we agree. This seems sensible to us. In relation to the position on insolvency as discussed at paras 19.23 and 19.24 of the consultation paper, while we accept that there could be a (significant) difference for the creditor depending on how their claim is characterised, we consider that it would be significantly easier and more appropriate to deal with such a claim as an unliquidated damages claim rather than a foreign currency claim, unless and until crypto-tokens are generally considered to be money (or analogous thereto).

Consultation Question 41.

We provisionally conclude that tracing (rather than following) provides the correct analysis of the process that should be applied to locate and identify the claimant's property after transfers of crypto-tokens by a transfer operation that effects a state change, and that the existing rules on tracing (at equity and common law) can be applied to crypto-tokens. Do you agree?

We agree that tracing (rather than following) provides the correct analysis of the process that should be applied to locate and identify the claimant's property after transfers of crypto-tokens by a transfer operation that effects a state change, and that the existing rules on tracing (at equity and common law) can be applied to crypto-tokens.

Do you consider that the common law on tracing into a mixture requires further development or law reform (whether generally or specifically with respect to crypto-tokens)?

We have no particular comments here, except to say that we think this should be left to the common law.

Consultation Question 42.

We provisionally conclude that the following existing legal frameworks can be applied to data objects, without the need for statutory law reform (although the common law may need to develop on an iterative basis):

(1) breach of contract;

(2) vitiating factors;

(3) following and tracing;

(4) equitable wrongs;

(5) proprietary restitutionary claims at law; and

(6) unjust enrichment.

Do you agree?

We agree in relation to all of these legal frameworks. Following the recognition of data objects as a type of personal property (and dealing with certain other matters mentioned above), we consider it should be left to the common law to fit such property into the rest of the law.

Consultation Question 43.

We provisionally conclude that, in relation to the tort of conversion, there are arguments in favour of extending conversion (or a conversion-type cause of action grounded in control rather than possession) to data objects. Do you agree?

We can see the argument in favour of this but are not wholly certain. Perhaps further consideration should be given as to why conversion specifically should be extended to data objects and why other remedies (or potential remedies) are not sufficient.

We provisionally conclude that the introduction of a special defence of (or analogous to) good faith purchaser for value without notice (at law) would limit the impact of the application of strict liability for conversion in the context of data objects. Do you agree?

This seems logical, if conversion is to apply to data objects. It would be a justifiable exception to strict liability and would limit the impact of that form of liability for conversion in the context of data objects.

Consultation Question 44.

We provisionally conclude that existing principles in relation to injunctive relief can apply to data objects, without the need for law reform. Do you agree?

Yes, we agree. We consider this to be important and that there is no reason why such principles should not apply to data objects, without the need for law reform. Such relief can be flexible and tailored to the relevant circumstances.

Consultation Question 45.

Are there any other causes of action or remedies you think may be highly or specifically relevant to data objects but which require law reform?

We cannot think of any other causes of action or remedies relevant to data objects which require law reform.

Consultation Question 46.

We provisionally conclude that the existing methods of enforcement of judgments (and ancillary mechanisms) in the context of crypto-tokens are satisfactory. Do you agree?

We broadly agree with this. However, some further thought may need to be given as to which of the methods of enforcement of judgments are applicable and relevant to crypto-tokens and how the law in this area may need to be amended or developed to accommodate such property, including to deal with practical problems that are particularly pronounced for crypto-tokens (e.g. where there is an uncooperative or obstructive judgment debtor). In addition, there may be issues regarding enforcement where assets on distributed ledger are deemed to be located in another jurisdiction. Given there is no consensus position regarding where crypto-tokens are 'located', this can give rise to enforcement problems locally.

Consultation Question 47.

We provisionally conclude that there is an arguable case for law reform to provide courts in England and Wales with the discretion to award a remedy (where traditionally denominated in money) denominated in certain crypto-tokens in appropriate cases. Do you agree?

Yes, we can see arguments in favour of this, including those outlined in the consultation paper. We do though wonder whether this is a step in the direction of treating crypto-tokens as analogous to money in terms of their functions, and if this may have intended or unintended consequences, e.g. in terms of the ability to enforce such an award or make a relevant claim in insolvency. Yet perhaps these are things which should be taken into account in relation to the exercise of discretion (see below). In addition, we note that recognising crypto-tokens as analogous to money in terms of their functions does not necessarily mean that they are also analogous to legal tender. Legal tender has a narrower technical meaning than money. In the UK, what is classified as legal tender varies throughout its jurisdictions, and in England and Wales it is Royal Mint coins and Bank of England notes (see generally Bank of England, 'What is legal tender?,' https://www.bankofengland.co.uk/knowledgebank/what-is-legal-tender). Yet perhaps these are things which should be taken into account in relation to the exercise of discretion (see below).

If so, what factors should be relevant to the exercise of this discretion?

We can think of a handful of relevant factors for the exercise of discretion: the intention and/or agreement of the parties, commercial expectations; the difficulties a party may have with enforcement if the remedy is denominated in crypto-tokens, e.g. as a judgment debtor or in the other party's insolvency.

Another point to note is that the closer crypto-tokens are considered to approximate money in terms of their functions in England and Wales, the more likely it may be that courts will be willing to exercise their discretion. In addition, if some crypto-tokens are considered to be more akin to money than others, such as exchange tokens, this may also increase the likelihood of a court exercising its discretion for such tokens.