Digital assets

Call for evidence

April 2021
Digital assets
Call for evidence
THE LAW COMMISSION – HOW WE CONSULT

About the Law Commission: The Law Commission was set up by section 1 of the Law Commissions Act 1965 for the purpose of promoting the reform of the law. The Law Commissioners are: The Rt Hon Lord Justice Green, Chair, Professor Sarah Green, Professor Nicholas Hopkins, Professor Penney Lewis, and Nicholas Paines QC. The Chief Executive is Phillip Golding.

Topic of this call for evidence: Digital assets, including cryptoassets. This call for evidence seeks stakeholders’ views on the ways in which digital assets are being used, treated and dealt with by market participants. It also seeks views on the potential consequences of digital assets being “possessable”.

Team working on the project: The following members of the Commercial and Common Law team have contributed to this call for evidence: Laura Burgoyne (team manager); Matthew Kimber (team lawyer); Siobhan McKeering (team lawyer); Caroline Jackson (research assistant).

Geographical scope: This call for evidence considers the law of England and Wales.

Availability of materials: The call for evidence is available on our website at https://www.lawcom.gov.uk/project/digital-assets/.

Duration: We invite responses from 30 April to 30 July 2021.

Comments may be sent:

Using an online form at https://consult.justice.gov.uk/law-commission/digital-assets (where possible, it would be helpful if this form was used).

Alternatively, comments may be sent:

By email to digitalassets@lawcommission.gov.uk.

By post to Commercial and Common Law Team, Law Commission, 1st Floor, Tower, 52 Queen Anne’s Gate, London, SW1H 9AG.

(If you send your comments by post, it would be helpful if, whenever possible, you could also send them electronically.)

After the call for evidence: We will use the views and evidence received during this call for evidence to assist us in formulating proposals for law reform in this area.

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<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Assignment</td>
<td>The transfer of a right from one person to another.</td>
</tr>
<tr>
<td>Bailment</td>
<td>A bailment occurs when one person is voluntarily in possession of a tangible thing that belongs to (is owned by) another, usually for a specific purpose.</td>
</tr>
<tr>
<td>Blockchain</td>
<td>A method of recording data in a structured way. Data (which may be recorded on a database or ledger) is usually grouped into timestamped &quot;blocks&quot; which are mathematically linked or “chained” to the preceding block, back to the original or “genesis” block.</td>
</tr>
<tr>
<td>Charge</td>
<td>A type of non-possessory security interest that can be taken over an asset. The owner of the asset creates a property right in relation to that asset in favour of the person who takes the benefit of the charge.</td>
</tr>
<tr>
<td>Conversion</td>
<td>An action in tort for wrongful interference with possession.</td>
</tr>
<tr>
<td>Cryptoasset</td>
<td>A digital asset created or implemented using cryptographic techniques. There are many different types of cryptoassets and in this call for evidence we use the term in a broad sense.</td>
</tr>
<tr>
<td>Distributed ledger</td>
<td>A digital store of information or data (a “ledger”). A distributed ledger is shared (that is, “distributed”) among a network of computers (known as “nodes”) and may be available to other participants. Nodes approve and eventually synchronise additions to the ledger through an agreed consensus mechanism.</td>
</tr>
<tr>
<td>Distributed ledger technology (“DLT”)</td>
<td>Technology that enables the operation and use of a distributed ledger.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------------</td>
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</tr>
<tr>
<td>Fungible</td>
<td>Interchangeable with other things of a similar kind, quality and grade. For example, pound coins are a class of fungible things because one pound coin is equivalent to and interchangeable with another pound coin. Other classes of fungible things include gold, crude oil and shares in a company.</td>
</tr>
<tr>
<td>Lien</td>
<td>A right to retain possession of a thing until a claim or debt has been satisfied.</td>
</tr>
<tr>
<td>Novation</td>
<td>A process by which the rights and obligations under a contract are taken up by a third party through the extinction and replacement of the original contract.</td>
</tr>
<tr>
<td>Off-chain transaction</td>
<td>A transaction involving a digital asset which moves value, rights or things but which is not reflected on the relevant blockchain or distributed ledger.</td>
</tr>
<tr>
<td>On-chain transaction</td>
<td>A transaction involving a digital asset which is recorded by the modification of a blockchain or distributed ledger.</td>
</tr>
<tr>
<td>Pledge</td>
<td>A type of security interest involving a debtor transferring possession of the property serving as security to a creditor. It is therefore a type of bailment.</td>
</tr>
<tr>
<td>Private key</td>
<td>Unique data that allows a participant to create digital signatures to sign transactions on a blockchain or distributed ledger system. Private keys are normally kept secret by users.</td>
</tr>
<tr>
<td>Property right</td>
<td>A right relating to property, which is enforceable against third parties.</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction and background

DIGITAL ASSETS

1.1 Digital assets are increasingly important in modern society. They are used for an expanding variety of purposes, including as a means of payment or to represent other things or rights, and in growing volumes. Cryptoassets, smart contracts, distributed ledger technology ("DLT") and associated technology have broadened the ways in which digital assets can be created, accessed, used and transferred. Such technological development is set only to continue.

1.2 However, the law of England and Wales does not currently provide certainty as to the legal status of digital assets. Legal certainty would lay a strong foundation for the development and adoption of digital assets. It would also incentivise the use of the law and jurisdiction of England and Wales in transactions concerning those assets.

1.3 Our work recognises that digital assets are generally treated as property by market participants. It also recognises the importance of property to modern social, economic and legal systems.¹ Property in this sense refers not to specific things themselves but to the consensus between people as to how those things should be held, used and exchanged.² Our digital assets project aims to ensure that property rights in digital assets receive full and consistent recognition and protection under the law.³

1.4 In this short call for evidence, we ask stakeholders for information on how digital assets are used, treated and dealt with by market participants and about how the law might accommodate digital assets now and in the future. We also ask where the law might be inhibiting particular use cases, innovation or development.

1.5 At this stage, we use the term “digital assets” in a broad sense to cover assets that are represented digitally or electronically, including cryptoassets.

Our work on digital assets

1.6 In March 2020, the Ministry of Justice ("the MoJ") and the Department for Digital, Culture, Media and Sport ("DCMS") asked the Law Commission to undertake two separate but related projects on digital assets:

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² See H De Soto, *The Mystery of Capital* (2000) p 164. See also p 229: “Legal property is the indispensable process that fixes and deploys capital. [Without] property mankind cannot convert the fruits of its labour into fungible, liquid forms that can be differentiated, combined, divided, and invested to produce surplus value.” The advancement of digital asset technology will exponentially expand the scope of this productive process – it could create "an internet of property".

³ Our work is globally relevant. The law of England and Wales has a global reach as the legal system of choice for many commercial parties: The Law Society, *England and Wales: a world jurisdiction of choice* (2019).
(1) to make recommendations to allow for electronic trade documents (our “electronic trade documents project”); and

(2) to review the law more generally and consider reform to ensure that the law can accommodate digital assets, including cryptoassets (our “digital assets project”).

1.7 The two projects, while distinct, involve similar legal principles and our digital assets project will develop the work undertaken in our electronic trade documents project. Given this alignment, we have published this call for evidence at the same time as our consultation paper on electronic trade documents. That consultation paper makes proposals and includes draft legislation to allow for electronic versions of trade documents such as bills of lading and bills of exchange. Concepts discussed in the consultation paper on electronic trade documents are referenced throughout this call for evidence and respondents may be interested in reading chapters 2 and 5 of that consultation paper.

1.8 The MoJ asked that our digital assets project include the following.

(1) A description of the current law relating to digital assets.

(2) Recommendations to solve the problems caused by the law’s approach to “possession” in relation to digital assets.

(3) Other recommendations as the Law Commission considers necessary or desirable to ensure that the law can provide legal certainty and predictability for digital assets.

(4) Identification of areas for future consideration with respect to digital assets.

1.9 We attach our full terms of reference in Appendix 1 (Terms of Reference).

1.10 Our aim is to publish our consultation paper on digital assets at the end of 2021. In that consultation paper we expect to make proposals for law reform to make (some) digital assets possessable. Our consultation paper will draw on the conclusions of the UK Jurisdiction Taskforce’s (“UKJT”) Legal Statement on cryptoassets and smart contracts. It will also build on the proposals in, and the responses to, our consultation paper on electronic trade documents.


ABOUT THIS CALL FOR EVIDENCE

1.11 The last significant public opportunity for stakeholders and market participants to give their views on the application of the common law of England and Wales to digital assets was during the UKJT consultation, which closed in June 2019.\(^6\)

1.12 We are conscious that digital assets, and particularly cryptoassets, have continued to develop since 2019.\(^7\) Stakeholders and market participants may have encountered novel or difficult issues that were not apparent or were not discussed as part of the UKJT consultation. New stakeholders and market participants may have new or different views. The application of existing legal concepts may be inefficient or unsuitable for new types of digital assets and digital asset architecture.

1.13 The purpose of this call for evidence is therefore to give stakeholders and market participants an opportunity to provide their input to us ahead of the publication of our consultation paper on digital assets. Consultees who respond to our consultation paper on electronic trade documents may also wish to comment on the issues raised in that paper in the broader context of digital assets. This call for evidence gives the chance to do so.

1.14 This call for evidence focuses on gathering evidence about how digital assets are being used, treated and dealt with by stakeholders and market participants. It also asks some more conceptual questions on how market participants think about the legal consequences of dealing with digital assets.

1.15 Our terms of reference (attached at Appendix 1 (Terms of Reference)) contain similar questions to those answered in the UKJT Legal Statement. However, as discussed at paras 1.17 and 2.16, we are considering both the existing law and reform to the law. On that basis, we encourage stakeholders and market participants who took part in the UKJT consultation to respond to this call for evidence to the extent the questions are relevant to you or your business.

1.16 While this call for evidence is open to all, it necessarily refers to certain technical features of digital assets and cryptoassets. In that respect, some of the questions in this call for evidence will be more accessible to stakeholders and market participants who are familiar with those technical features. Respondents should feel free to respond to all or part of this call for evidence.

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\(^6\) UKJT, Public consultation: The status of cryptoassets, distributed ledger technology, and smart contracts under English private law (May 2019) (“UKJT Consultation”).

\(^7\) So has the law of England and Wales. In November 2019, the UKJT Legal Statement provided a timely review of the current law. English courts and courts in other common law jurisdictions have also recently considered the question as to whether cryptoassets are personal property. see AA v Persons Unknown [2019] EWHC 3556 (Comm), [2020] 4 WLR 35 (High Court of England and Wales). Quoine Pty Ltd v B2C2 Ltd [2019] SGHC(I) 3, [2019] 4 SLR 17, upheld in part by the Singapore Court of Appeal [2020] SGCA(I) 2 (Singapore International Commercial Court and Court of Appeal). Ruscoe v Cryptopia Ltd [2020] NZHC 728, [2020] 22 ITEL R 925 (New Zealand High Court). Robertson v Persons Unknown (15 July 2019, unreported) (High Court of England and Wales) and Ion Science Ltd and Duncan Johns v Persons Unknown (21 December 2020, unreported) (High Court of England and Wales).
Scope

1.17 Our consultation paper on digital assets will build on the conclusions in the UKJT Legal Statement. Because of this, there is intentional overlap between the questions asked in the UKJT consultation and the questions asked in this call for evidence. However, our work on digital assets goes further than the UKJT consultation because it asks respondents to consider potential implications of a reform to, and expansion of, the concept of possession to apply to (some) digital assets. This would require a change to the law and could have significant practical consequences, which we introduce below.

1.18 This call for evidence also seeks to identify existing practical issues arising from the application of the common law to digital assets and how market practice seeks to resolve those issues. Finally, we also invite respondents to suggest comparative jurisdictions and to identify other areas of law that could be affected by such a reform.

1.19 As with the UKJT consultation and the UKJT Legal Statement, this call for evidence focuses on private law and practice. The questions in this call for evidence are accordingly limited in scope and do not cover, for example, regulatory, tax, criminal, data protection, consumer protection, settlement finality, anti-money laundering or counter-terrorist financing issues. Nevertheless, clarity as to the legal status of digital assets could incentivise the development by stakeholders and market participants of novel and tailored approaches in those areas.

1.20 Cryptoassets are an important sub-set of digital assets. We are aware that numerous attempts have been made at defining and classifying cryptoassets. Because this call for evidence refers to digital assets in a very broad sense, it does not seek legally to define that term, or the term “cryptoassets”. Accordingly, responses should not be limited by technical definitions. However, for the purposes of responses relating to cryptoassets, we refer respondents to the high-level descriptions set out in Annex 3 (Cryptoassets) of the UKJT consultation. Where relevant in this call for evidence, we also refer to certain sub-classes of cryptoasset, again, without attempting to provide a formal legal definition.

1.21 While our work seeks to support and facilitate the development of digital assets, it remains technology neutral. Our approach to law reform will consider change to underlying legal principles – in that way we aim to avoid endorsement (or censure) of

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8 One example is the recent HM Treasury, Consultation and call for evidence on the UK regulatory approach to cryptoassets and stablecoins (January 2021), at https://www.gov.uk/government/consultations/uk-regulatory-approach-to-cryptoassets-and-stablecoins-consultation-and-call-for-evidence. We also note the work done by the Blockchain Research Institute Token Taxonomy Initiative in creating the Token Taxonomy Framework, at https://www.blockchainresearchinstitute.org/wp-content/uploads/2020/02/Tapscott_Token-Economy_Blockchain-Research-Institute.pdf.


10 While those sub-classes are fluid, they include cryptocurrencies (or “payment tokens”), platform tokens, utility tokens, security tokens, natural asset tokens, non-fungible tokens or crypto-collectibles, stablecoins and may also include crypto-fiat currencies.

11 Although we use examples of current technology where relevant.
any particular digital asset or technological feature and to prevent our proposed reforms from becoming quickly outdated.

Next steps

1.22 Before publication of this call for evidence, we spoke to a small number of stakeholders representing a range of interests related to digital assets. We look forward to engaging further with stakeholders and market participants as our digital assets project progresses.

1.23 We welcome responses to this call for evidence by 30 July 2021.

1.24 We will use responses to inform the proposals for law reform which we will put forward in our consultation paper on digital assets.
Chapter 2: Call for evidence

THE COMMON LAW POSITION

2.1 Colloquially, the term “property” is used interchangeably to describe both a thing, and a claim or entitlement to that thing. However, in a legal sense, the term “property” describes a relationship between a person and a thing, and not the thing itself.12

2.2 Whether a thing is capable of being property is important, because property rights are good against the entire world. In contrast, personal rights (for example, the right to the performance of an obligation) are rights against only a person that has assumed the relevant legal duty (for example, by entering into a contract).

2.3 There is no definitive definition of “property” under the law of England and Wales. In some contexts, the term is used in a very broad sense,13 and in others, whether a thing can attract property rights is considered by reference to indicators or characteristics of property.14

2.4 The UKJT Legal Statement concluded that, in general, “cryptoassets have all the indicia of property”.15 While we agree with that conclusion, this call for evidence does not interrogate the characteristics of personal property.16

2.5 Instead, we recognise that the law will treat certain digital assets as personal property. In other words, a digital asset can have a sufficient proprietary quality to attract property rights. Whether the specific digital asset does in fact attract property rights is a separate question.

Things in possession and things in action

2.6 Personal property17 is sometimes divided into two broad categories:

(1) things in possession; and

(2) things in action.

12 Property has been described as “not a thing at all but a socially approved power-relationship in respect of socially valued assets”: see K Gray, “Equitable Property” (1994) 47(2) Current Legal Problems 157 at 160.

13 For example, the definition of property in s 436 of the Insolvency Act 1986.

14 Common law courts have consistently applied Lord Wilberforce’s list of the characteristics of property, set out in National Provincial Bank v Ainsworth [1965] AC 1175 at 1247 and 1248. For a right or interest to be “property”, Lord Wilberforce said that it must be “definable”, “identifiable by third parties”, “capable in its nature of assumption by third parties” and it must have “some degree of permanence or stability”.

15 UKJT Legal Statement at [15].

16 As noted above, our digital assets project scope includes a review of the current law in relation to digital assets. The characteristics of personal property will be reviewed as part of our digital assets project.

17 This excludes any interests in land (sometimes referred to as “real property”): M Bridge, L Gullifer, K Low, and G McMeel, The Law of Personal Property (2nd ed 2019) para 1-007.
2.7 Under the current law a “thing in possession” is, simply, any object that can be physically possessed. This category includes assets which are “tangible, moveable and visible and of which possession can be taken”.\(^\text{18}\) For example, a gold bar is a thing in possession.

2.8 The UKJT Legal Statement observed that “[c]ryptoassets cannot be physically possessed: they are purely “virtual””. On that basis, the UKJT concluded that a cryptoasset cannot be a thing in possession under the law of England and Wales. While the UKJT’s focus was cryptoassets, their analysis and conclusions in relation to the law as it currently stands – with which we agree – are equally applicable to digital assets in general.

2.9 The second broad category of personal property under the law is “things in action”. Things in action are often described in a narrow sense: “rights in things in action can be asserted only by taking legal action or proceedings”.\(^\text{19}\) Things in action are sometimes given a much broader meaning as a residual class of property. In other words, the broad use of the term “thing in action” captures any personal property that is not a thing in possession.

2.10 Having concluded that cryptoassets cannot be things in possession, the UKJT Legal Statement considered whether they could be “things in action”:

Whether a [cryptoasset] is a thing in action depends on how that term is used, ie whether it means a right that can be claimed by action or simply any thing that is not a thing in possession. Our view is that if a cryptoasset does not embody a legally enforceable right or obligation then it is neither necessary nor useful to classify it as a thing in action.\(^\text{20}\)

2.11 This conclusion is important because the law has traditionally assumed that all things must fall within one or other of the two categories. In Colonial Bank v Whinney,\(^\text{21}\) Fry LJ said:

All personal things are either in possession or action. The law knows no tertium quid [“third thing”] between the two.

There is therefore a question as to whether a thing can be property at all if it is neither a thing in possession nor a thing in action.

2.12 However, the law of England and Wales has shown great flexibility in this respect. In the recent case of AA v Persons Unknown, the High Court of England and Wales


\(^{\text{20}}\) UKJT Legal Statement at [86].

adopted the reasoning of the UKJT Legal Statement, acknowledging that “[cryptocurrencies] are neither [things] in possession nor are they [things] in action.”

Nonetheless, in that case the court held that cryptocurrencies were a form of property. This meant that the court could recognise unlawfully obtained bitcoins as property capable of being subject to a proprietary injunction – a court order attaching to property. Other judgments have reached a similar conclusion in relation to other intangible things constituting property, such as EU carbon emission allowances and export quotas.

2.13 Again, while the UKJT and AA v Persons Unknown focused on cryptoassets, the reasoning and analysis in the Legal Statement applies to digital assets in general.

2.14 There is still uncertainty as to whether a third category of property beyond things in possession and things in action exists and, if it does, how that category should be defined. No recent authority has conclusively settled these issues. For example, in AA v Persons Unknown, the court did not find it necessary to answer these questions to conclude that a cryptoasset could be property more generally. Our digital assets project will consider these issues in more detail. Yet, regardless of taxonomy, a logical question to ask once a digital asset is recognised as being property is: can it be possessed?

**Possession**

2.15 Whether a thing can be possessed as a matter of law affects its legal treatment. It also has practical consequences for how that thing can be transferred, whether and how certain types of security can be granted over it and the proprietary remedies available to protect it.

2.16 The UKJT Legal Statement and the judgment of the court in AA v Persons Unknown necessarily relied on an application of the existing law and were therefore predicated on the conclusion that cryptoassets cannot be possessed. The Law Commission is not so constrained – our purpose is to consider law reform. Specifically, we are considering the law of England and Wales’ approach to the possession of digital assets.

2.17 We have already completed a significant amount of work in this area. Our consultation paper on electronic trade documents analyses the development of the concept of possession in law and explains why that concept does not currently accommodate intangible assets, including electronic trade documents. We recommend that respondents to this call for evidence read chapter 5 of that consultation paper for more

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24 *Armstrong v Winnington* [2012] EWHC 10, [2013] Ch 156, in which the court held that EU carbon emission allowances could be characterised as “other intangible property”, distinct from a thing in action or thing in possession.

25 *A-G of Hong Kong v Chan Nai-Keung* [1987] 1 WLR 1339 at 1342 where the Privy Council said: “Their Lordships have no hesitation in concluding that export quotas in Hong Kong although not ‘things in action’ are a form of ‘other intangible property.’”

26 Possession was restricted to tangible rather than intangible property in the landmark House of Lords case *OBG Ltd v Allan* [2007] UKHL 21, [2008] 1 AC 1.
In summary, in that consultation paper we propose a concept of possession which would apply to electronic trade documents, based on a review of the legal characteristics currently associated with possession.

2.18 In our digital assets project, we are considering the broader question of whether other digital assets could and should be possessable under the law of England and Wales.

2.19 Our consultation paper on electronic trade documents considers in detail certain criteria required for electronic trade documents to be possessable. Briefly, our consultation paper on electronic trade documents suggests that an electronic trade document should be possessable if it:

(1) has an existence independent of both persons and the legal system (that is, it is not a bare legal right such as a right under a simple contract or a debt claim);

(2) is capable of exclusive control: the nature of the thing does not support concurrent assertions of occupation or use; and

(3) is divestible, in that the thing must be fully divested on transfer.  

2.20 In our consultation paper on digital assets, we will consider whether similar criteria could identify certain other digital assets as being possessable.

2.21 In this call for evidence we ask respondents for input on the legal and practical consequences of other digital assets being possessable under law. We are also interested in respondents’ views on the following:

(1) whether the distinction between things in possession and things in action causes difficulty or uncertainty in categorising digital assets;

(2) whether stakeholders and market participants recognise or consider this distinction in practice;

(3) if respondents have examples, or specific evidence, of where the fact that a digital asset cannot be possessed causes practical difficulties or problems; and

(4) whether the ability to possess a digital asset, notwithstanding its intangible nature, could cause practical difficulties or problems.

2.22 We encourage respondents to provide practical examples (including example or anonymised legal agreements or drafting) to help contextualise their responses.

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Question 1.

2.23 What would be the legal or practical implications for you if digital assets were possessable under the law of England and Wales?

Please explain your answer and provide examples.

OWNERSHIP AND TRANSFER

Ownership

2.24 The principal or primary interest which a person can have in relation to a thing is "ownership". Broadly, an owner of a thing has a right to control and enjoy that thing to the exclusion of others, and a right to dispose of that thing.

2.25 In its Legal Statement, the UKJT stated that:

A cryptoasset cannot meaningfully be treated as property unless it is possible in principle to determine who owns it, and how ownership is transferred.

2.26 The UKJT Legal Statement went on to consider how "ownership" of a cryptoasset might be determined. It argued that a person that has lawfully acquired knowledge and control of a private key would generally be treated as the owner of the associated cryptoasset. The UKJT Legal Statement then drew a parallel with the concept of physical possession: a person lawfully in possession of a tangible asset is usually presumed to be its owner.

2.27 However, the UKJT Legal Statement was not able to consider the legal distinction between ownership and possession in relation to cryptoassets. This is because cryptoassets are intangible and so cannot be possessed under the current understanding of that concept in law.

2.28 We are now considering whether cryptoassets could and should be possessable and are interested in exploring practical issues that might arise when applying the concepts of ownership and possession to cryptoassets and other digital assets. We are also interested in examples of when the ownership and possession of a digital asset could be separated and when that might be useful. We ask respondents for their input on these issues below.

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30 UKJT Legal Statement at [42].
31 UKJT Legal Statement at [43]. This idea is captured by the popular online phrase “not your keys, not your coins”, itself a derivative of Andreas Antonopoulos’ “If you control the bitcoin keys, it’s your bitcoin. If you don’t control the bitcoin keys, it’s not your bitcoin”: A Antonopoulos, The Internet of Money, Volume One (2016) p 18.
The transfer of digital assets is fundamental to the proper functioning of markets that involve those assets.

There is no question that a digital asset can be transferred. Yet the proper analysis of a transfer has significant legal and practical consequences, including in relation to the legal requirements for an effective transfer. The distinction between things in possession and things in action is important in this respect. Delivery of possession will usually be effective to transfer a thing in possession, but delivery of possession is not possible for intangibles or things in action. Things in action are usually transferred by assignment or novation. The transfer of a thing in action affects the relationships between the person that owes the obligation(s), the transferor and the recipient. Exactly how those relationships are affected will depend on the legal analysis of the transfer.

The proper analysis of a transfer of a digital asset is complex. Such a transfer is neither wholly analogous to a transfer of a thing in possession, such as cash, nor wholly analogous to a transfer of a thing in action, such as money in a bank account.

By way of example, cash is tangible. It can be possessed. A bank note can be transferred by delivering it to another person. In contrast, money in a bank account is intangible. It cannot be possessed. A person who holds money in a bank account has only a thing in action. That person has a right to claim against the bank to the amount standing to their credit in the bank account. Transfers of bank money cannot be made by delivery of possession. A transfer between two bank accounts is in some ways not akin to a transfer at all – it is instead an equal and opposite debiting of the sender’s account and crediting of the recipient’s account. The debiting and corresponding credit of the bank accounts involves the loss and equivalent gain of a right, or a “thing in action” against the bank(s).

Part of the complexity in relation to the transfers of digital assets arises because digital assets are intangible and so are not currently possessable under law. That means a digital asset cannot be transferred by delivery of possession. However, the unique features of certain digital assets mean that, in some ways, transfers do operate in a similar way to transfers of physical objects. If a digital asset were possessable at law, then the transfer of that digital asset might also be explained by reference to the

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33 Documentary intangibles, which are intangible rights embodied by physical documents, are an exception to this rule. When possession of a documentary intangible is delivered, the embodied intangible rights are simultaneously transferred: R Goode and E McKendrick, Goode and McKendrick on Commercial Law (6th ed 2020) para 2.58. See also our consultation paper on electronic trade documents which discusses this issue in detail.

34 For example, an equitable assignment, a statutory assignment and a novation will likely result in different legal consequences. A detailed review of these consequences is outside the scope of this call for evidence.

35 Though a bank note may be simultaneously a thing in action, as it expresses a promise by the Bank of England to pay the stated sum to the bearer on demand: see C Proctor, Mann on the Legal Aspect of Money (7th ed 2012) para 1.46.

36 D Fox and S Green, Cryptocurrencies in public and private law (2019) para 2.05.

concept of possession. The proper legal analysis as to the transfer of a digital asset could have significant ramifications for the development of these types of assets and for market participants. We are interested in exploring respondents’ views on these issues. We are also interested in whether these issues could be resolved or mitigated if digital assets were possessable.

2.34 We note that participants on a cryptoasset system may use certain privacy or anonymisation mechanics which allow them to “mix” coins by pooling individual transactions into one aggregate. As a result, the sources and destinations of the component transactions are privatised. We are interested in respondents’ view on transfers involving “mixing” in the context of a digital asset being capable of possession.

2.35 We are also aware that some applications utilise an existing blockchain system or distributed ledger but perform multiple functions or transactions off-chain. In some of these applications, only the final result of the functions or transactions is recorded by a modification to the relevant ledger or blockchain. These applications are referred to as “Layer 2” applications. We understand that many Layer 2 applications remain in a relatively early stage of development. However, we are conscious that any proposals for reform should be flexible enough to apply to future technology as well as existing technology. On that basis, we are also interested in respondents’ views on the issues in this call for evidence in the context of Layer 2 applications and other technological developments.

Question 2.

2.36 Do you consider a transfer of a digital asset to be more analogous to a transfer of a thing in possession, such as cash, or a transfer of a thing in action, such as bank money? Does a different analysis apply for different types of digital assets (including different sub-sets of cryptoassets) or different methods of transfer?

Please explain your answer and provide examples.

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39 We note that many different privacy mechanics/privacy-focused cryptoassets exist and would also welcome respondents’ views on those, to the extent relevant to the questions in this call for evidence.

40 For example, the “Lightning Network” of routed payment channels which uses Bitcoin as the underlying system: A Antonopoulos, Mastering Bitcoin (2nd ed, 2018) p 313.
**Question 3.**

2.37 Are there practical circumstances in which it would be useful to distinguish, or to separate, the ownership and the possession of a digital asset, particularly in relation to transfers?

If so:

1. For cryptoassets, could these circumstances arise both on-chain (reflected by modifying a ledger or blockchain) or only off-chain (where value moves or a transaction occurs without modification to the relevant ledger or blockchain)?

2. Do other technical or practical solutions (for example smart contracts, multi-signature, escrow arrangements, Layer 2 applications or “mixing”) or market practice make these distinctions less important?

Please explain your answer and provide examples.

2.38 How transfers of cryptoassets operate on-chain may complicate the analysis. At a very high level, a cryptoasset is often represented by a chain of digital signatures.\(^{41}\) When a cryptoasset is transferred on-chain, a transferor must add their digital signature to the chain to authenticate the transaction. The cryptoasset received by the recipient will therefore be represented by a different (longer) chain of digital signatures. A different, or new, digital signature of the recipient is then required to authenticate any subsequent transaction.\(^{42}\)

2.39 This feature led the UKJT to make the following observation:\(^{43}\)

[An on-chain transaction] is not really analogous to the delivery of a tangible object or the assignment of a legal right, where the same thing passes, unchanged, from one person to another. Instead, the transferor typically brings into existence a new cryptoasset, with a new pair of data parameters: a new or modified public parameter and a new private key.

2.40 We are interested in respondents’ views on this observation. In particular, we are interested in respondents’ views on whether an on-chain transfer is treated as creating “new” property.\(^{44}\) Or do stakeholders and market participants treat an on-chain transfer as a transfer of property, notwithstanding the fact that new data is being

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\(^{42}\) For further detailed technical analysis, see UKJT, *Public consultation: The status of cryptoassets, distributed ledger technology, and smart contracts under English private law*, Annex 2 (May 2019) at p 13 to 17.

\(^{43}\) UKJT Legal Statement at [45].

\(^{44}\) This question is related to, but distinct from the question of whether new ‘value’ is created, see the UKJT Consultation, p 13 to 16.
used/created? We are also interested in respondents’ views on whether the ability to possess a digital asset would help to clarify this analysis.

2.41 We would also like to understand whether and how the analysis differs across the different types of cryptocurrencies (or “payment tokens”), platform tokens, utility tokens, security tokens, natural asset tokens, non-fungible tokens (“NFTs”) or crypto-collectibles, stablecoins and crypto-fiat currencies. Question 7 also includes further questions in relation to tokenised assets.

**Question 4.**

2.42 How do you typically characterise an on-chain transfer of a cryptoasset?

Please explain your answer and provide examples.

**Sale of “goods”**

2.43 Contracts for the sale of goods generally involve the transfer of property, or an agreement to transfer property, from a seller to a buyer.\(^{45}\) The Sale of Goods Act 1979 (“SGA”) applies to these contracts.\(^{46}\)

2.44 We also note that the Supply of Goods and Services Act 1982 applies to certain “contracts for the transfer of property in goods” and the Consumer Rights Act 2015 applies to certain “contracts for transfer of goods”. While this call for evidence focuses on the SGA, we are also interested in respondents’ views on the issues we raise in the context of those other two pieces of legislation.

2.45 The SGA includes a small number of default rules and implied terms which, in the absence of any contrary agreement, will apply to contracts for the sale of goods.\(^{47}\) Whether or not a contract is for the sale of goods can therefore have significant legal consequences.

2.46 Section 61(1) of the SGA defines “goods” as including “all personal chattels other than things in action and money”.\(^{48}\) The UKJT Legal Statement concluded that:

> For the particular purposes of the SGA, cryptoassets are “things in action”, and are not to be characterised as “goods”.\(^{49}\)

2.47 That relied on the prior conclusion that a cryptoasset cannot be possessed under law. However, if digital assets and cryptoassets were possessable as a matter of law, it is less clear that they would fall outside the definition of “goods” under the SGA. Equally,

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\(^{47}\) Contracts for the sale of goods by a trader to a consumer are covered by the Consumer Rights Act 2015.


\(^{49}\) UKJT Legal Statement at [130].
even if digital assets were possessable, it is not clear that they would fall within the term "personal chattel" under section 61(1) of the SGA.

2.48 We are interested in respondents’ views on this issue and whether a different analysis applies for different types of digital assets (including different sub-sets of cryptoassets).

Question 5.

2.49 In what circumstances (if any) are digital assets analogous to "goods", as currently defined under the Sale of Goods Act 1979? In what circumstances are digital assets not analogous to “goods”? What would be the practical consequences of characterising digital assets as "goods" for these purposes? Please explain your answer and provide examples.

We would also be interested in respondents’ views on these issues in the context of the Supply of Goods and Services Act 1982 and the Consumer Rights Act 2015.

Title transfer

2.50 It is a general principle of law that no person can give a better title to a thing than that person already has. So, where a car is sold by a person who is not the owner (for example, a thief), the buyer cannot acquire good title to the car because the seller – the thief – did not have good title. The real owner would be entitled to recover the car from the buyer, even if the buyer did not know that the car was stolen. This general principle is expressed in Latin as "nemo dat quod non habet" ("no one can give what they do not have") and is known among some lawyers as the “nemo dat” principle. It is codified in law in relation to goods by section 21(1) of the SGA. As a general principle, it is subject to equitable and common law defences and statutory exceptions.

2.51 We are interested in respondents’ views on how this principle operates in respect of transfers of digital assets.

50 Subject to any applicable exceptions to the principle.
Question 6.

2.52 What practical or legal difficulties or problems (if any) do you encounter with the application of the “nemo dat” principle in respect of a transfer of a digital asset?

(1) Do you encounter or anticipate the same practical or legal difficulties or problems in respect of on-chain transfers and off-chain transfers?

(2) Do different digital assets or digital assets that perform different functions give rise to different practical or legal difficulties or problems?

(3) Would the ability to possess a digital asset affect the application of the “nemo dat” principle?

(4) What else could be done to alleviate these practical or legal difficulties or problems?

Please explain your answer and provide examples.

Transfers of “tokenised” assets

2.53 Some digital assets are “tokens” – they represent something else that exists either digitally or physically. For example, utility tokens are fungible tokens intended to provide digital access rights to an application or service, such as access to a decentralised storage system. One utility token is interchangeable with another of the same utility token to the same application or service, like a token to an arcade game is interchangeable with another token to that arcade game. Security tokens are fungible tokens intended to provide fractional ownership of an underlying asset, such as real estate, or a company. One security token is interchangeable with another of the same security token to the same asset, like a share in a company is generally interchangeable with another share in that company. Non-fungible tokens or “NFTs” are distinguishable, unique assets. They can be used to represent unique digital or physical assets such as art or other rare items. As such, one NFT is not directly interchangeable with another NFT, because every NFT is different. NFTs are sometimes described as “deeds” or “tickets” to an asset. NFTs have existed for a

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51 In the sense of a “title deed”, such as a title deed to a house.

relatively long time\textsuperscript{53} but greater use and adoption of NFTs has brought them recent mainstream recognition.\textsuperscript{54}

2.54 Digital asset platforms or systems (including those that use DLT) are convenient for recording, or “tokenising” the holding of digital or physical assets or legal rights in things and for trading those tokens. Parties transact using the agreed protocol or system and transfer tokens from the transferor to the recipient. They may expect that when the tokens transfer on the system, so does the title to the digital or physical things represented by the token or the legal rights in that thing. Parties may or may not contract for that result. However, if they do not, it is less clear how such a transfer operates as a matter of private law.\textsuperscript{55}

2.55 As a matter of practice, an analogy might be drawn with negotiable or bearer instruments or documentary intangibles such that transfer of possession of the digital asset token would transfer possession of the tokenised asset.\textsuperscript{56} We discuss these types of instruments and documentary intangibles in our consultation paper on electronic trade documents.\textsuperscript{57} Alternatively, transfer of the digital asset could evidence the parties’ intentions to assign or novate the tokenised asset or the legal rights in that thing.

2.56 We note that Liechtenstein has implemented the Token and Trusted Technology Service Provider Act (“Liechtenstein Blockchain Act”),\textsuperscript{58} a collection of new and amended laws which allow nearly any asset or right to be “tokenised”. The laws provide that digital token “containers” can be created, into which other rights or assets can be “inserted” or “packaged”. A digital token container can contain rights to real assets such as shares, real estate, access rights or money.\textsuperscript{59} A disposal of the digital token container effects the disposal of the right represented by (or inserted or

\textsuperscript{53} Coloured coins – a set of similar technologies which are used to “mark” or “colour” a very small amount of bitcoin to record the creation, ownership and transfer of extrinsic assets other than bitcoin – have existed since 2012: see M Rosenfeld, \textit{Overview of Colored Coins}, (December 2012), at https://bitcoil.co.il/BitcoinX.pdf. The first Ethereum based project to use the ERC-721 “token” technical standard was CryptoKitties, and the first CryptoKitty was minted in November 2017.

\textsuperscript{54} For example, the NFT linked to Beeple’s digital artwork “EVERYDAYS: THE FIRST 5000 DAYS” was minted on 16 February 2021 and was sold by Christie’s auction house for $69,346,250 (including fees), at https://www.christies.com/features/Monumental-collage-by-Beeple-is-first-purely-digital-artwork-NFT-to-come-to-auction-11510-7.aspx.


\textsuperscript{56} For this analogy to work, digital assets would have to be possessable.


\textsuperscript{58} Liechtenstein Law of 3 October 2019 on Tokens and TT Service Providers (“Liechtenstein Blockchain Act”).

packaged into) the digital token container. In this sense, while the digital token container and the rights that are put into the container are separate, on a transfer, the token and those rights are “tethered” or “fused” by operation of the statute.

2.57 We are interested in respondents’ views on how transfers of digital asset tokens and the underlying tokenised assets operate under the law of England and Wales.

<table>
<thead>
<tr>
<th>Question 7.</th>
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<tr>
<td>2.58 How do you typically characterise the relationship between a digital asset token and the underlying tokenised asset?</td>
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<tr>
<td>(1) What are the practical consequences of this characterisation for the purposes of transfers of either the digital asset token or the underlying tokenised asset which it represents?</td>
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<td>(2) Does the current legal characterisation of a transfer give rise to practical or legal difficulties or problems?</td>
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<td>(3) Would the ability to possess a digital asset token help to clarify this analysis?</td>
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<tr>
<td>(4) What else could be done to alleviate these practical or legal difficulties or problems?</td>
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<td>Please explain your answer and provide examples.</td>
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**BAILMENT, SECURITY AND CONVERSION**

2.59 As we recognise at paragraph 2.15, if a thing can be possessed, it can also be the object of various legal interests and claims, including:

(1) bailment;

(2) possessory security interests; and

(3) wrongful interference with property (conversion).

2.60 We are interested in respondents’ views on whether and how these possessory legal interests and claims could apply to digital assets.

**Bailment**

2.61 Bailment is an important legal concept for things in possession. A bailment occurs when one person is voluntarily in possession of a tangible thing that belongs to (is

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60 Liechtenstein Blockchain Act, Art 7(1).

61 Indeed, an “empty container” is transferrable – this is the analysis used by the Liechtenstein Blockchain Act for the transfer of cryptocurrency.
owned by) another, usually for a specific purpose.\textsuperscript{62} This includes storing goods in another’s warehouse or cellar\textsuperscript{63} and a waiter taking a diner’s coat at a restaurant.\textsuperscript{64} Many other types of bailment arise in everyday life and might arise by contract or by operation of the law. For example, hiring a car, handing over possession of a thing as security for a loan, or leaving a watch with another person for repair are all forms of bailment.

2.62 Bailment requires a delivery or transfer of possession from one person to another. The UKJT Legal Statement concluded that because a cryptoasset cannot be possessed, neither can it be the object of a bailment. This conclusion applies by extension to digital assets more generally.

2.63 We are interested in how and why the bailment of a digital asset might arise in practice if digital assets were possessable. We note, for example, that the US state of Wyoming has enacted laws which provide that digital assets held by qualified custodian intermediaries are held in a bailment relationship.\textsuperscript{65} We refer to these laws as the Wyoming Blockchain Laws, a broad term referring to a collection of thirteen digital asset-focused laws passed by the Wyoming legislature. The Wyoming Blockchain Laws provide a framework for the legal treatment of digital assets, including recognising direct property rights in digital assets.

Question 8.

2.64 If a digital asset were possessable, are there practical circumstances in which bailment of digital assets could arise?

(1) Do you think bailment of a digital asset would be a useful or practical concept?

(2) Do other technical or practical solutions or market practice make bailment of digital assets less important?

Please explain your answer and provide examples.

Security interests

2.65 Security interests are property rights a creditor acquires in a debtor’s property, usually to support the repayment of loans or the performance of other obligations.\textsuperscript{66}


\textsuperscript{63} Coggs v Bernard (1703) 2 Ld Raym 909.

\textsuperscript{64} Ultzen v Nicols [1894] 1 QB 92.

\textsuperscript{65} Senate File 0125 § 29-104(d). This is a departure from traditional intermediated holding relationships, in which intangible assets are held on trust by custodians. Under a trust, purchasers have a beneficial interest in their assets, while under a bailment, purchasers retain direct legal ownership.

2.66 Some security interests depend upon possession and so are only relevant to things that can be possessed. Some security interests are non-possessory and so are relevant to both things in possession and things in action.\(^\text{67}\)

2.67 The law of England and Wales recognises only four different types of consensual security interest: pledges, liens, mortgages and charges.\(^\text{68}\) Pledges and liens depend on possession – they can be created only if it possible to transfer possession of a thing to the party taking the security. A pledge is itself a form of bailment.\(^\text{69}\) Mortgages and charges do not depend on the transfer of possession.

2.68 The UKJT Legal Statement concluded that if a cryptoasset is property, a mortgage or an equitable charge can be created over it. It also concluded that, since a cryptoasset cannot be possessed, it cannot be the object of a pledge or lien.\(^\text{70}\)

2.69 The current law therefore limits the types of security that can be taken over digital assets to mortgages and charges. We are interested to hear from market participants as to whether the difficulties in exercising control over a digital asset (particularly a cryptoasset) reduce the efficacy of taking a mortgage or charge over digital assets.

2.70 We are interested in how security over digital assets is granted or taken by market participants in practice. We are also interested in market participants’ and stakeholders’ views as to whether the ability to take possessory security over digital assets would be useful.\(^\text{71}\)


\(^{69}\) Coggs v Bernard (1703) 2 Ld Raym 909 at 913.

\(^{70}\) UKJT Legal Statement at [102] to [103].

\(^{71}\) We note the provisions enacted by the US state of Wyoming, which allow creditors to take possessory security over digital assets: Senate File 0125 § 29-103. Such security must be perfected by “control”, which, in this context, requires that the secured party has the exclusive legal authority to conduct a transaction in relation to a digital asset.
Question 9.

2.71 How is security over digital assets granted or taken in practice?

(1) Do you consider mortgages and charges to be effective methods of taking security over digital assets?

(2) If a digital asset were possessable, are there practical circumstances in which the creation of possessory security over a digital asset might be used?

(3) Do other technical or practical solutions or market practice, including the creation of quasi-security, make the ability to take possessory security over a digital asset less important?

Please explain your answer and provide examples.

Conversion

2.72 When someone’s property is interfered with by another (for instance, when it is stolen, taken without their permission or destroyed), they can sue in the tort of conversion. This is the law’s primary means of protecting interests in personal property.

2.73 However, the landmark House of Lords case *OBG Ltd v Allan* \(^{72}\) limited the ambit of conversion to things in possession.

2.74 We are interested in market participants’ and stakeholders’ views on how the conversion of digital assets could arise in practice, if a digital asset were possessable. We note that courts in some jurisdictions have already recognised that some digital assets are susceptible to conversion.\(^{73}\)

2.75 Using a cryptoasset as an example: a person might wrongfully acquire a private key and create a transaction, authenticating that transaction with the wrongfully acquired private key. The transaction would be propagated on the protocol network, validated and added to the blockchain. We are interested in whether a claim in conversion could lie against the person who wrongfully acquired the private key and created the (valid) transaction. We are also interested in more complex, practical examples.


\(^{73}\) These jurisdictions include New Zealand, Canada, and California: see the cases of *Henderson v Walker* [2019] NZHC 2184 (New Zealand High Court); *Canivate Growing Systems v Brazier* [2020] BCSC 232 (Supreme Court of British Columbia); *Kremen v Cohen* (2003) 337 F 3d 1024 (Ninth Circuit Court of Appeals, discussing Californian law).
**Question 10.**

2.76 If a digital asset were possessable, are there practical circumstances in which conversion of a digital asset could arise?

(1) Do you think conversion would provide a useful or practical claim in this context?

(2) Do other technical or practical solutions or market practice mean that the applicability of conversion to digital assets is less important to stakeholders and market participants?

Please explain your answer and provide examples.

**FURTHER QUESTIONS**

**Comparison with other jurisdictions**

2.77 Our consultation paper on digital assets will consider the law on digital assets in a sample of other jurisdictions. We are particularly interested in understanding how other jurisdictions address the question of whether digital assets can be possessed.

2.78 In this call for evidence we refer to the Liechtenstein Blockchain Act\(^{74}\) and the Wyoming Blockchain Laws.\(^{75}\) We welcome comments on the aspects of the Liechtenstein Blockchain Act and the Wyoming Blockchain Laws relevant to the questions in this call for evidence. We also welcome suggestions for other jurisdictions and systems that we should consider as part of our digital assets project.

**Question 11.**

2.79 We welcome comments on the aspects of the Liechtenstein Blockchain Act and the Wyoming Blockchain Laws relevant to the questions in this call for evidence. What other jurisdictions, if any, should we consider and why?

**Other issues**

2.80 This call for evidence is intended to give respondents the opportunity to provide input on issues we plan to consider as part of our digital assets project. These issues are derived from initial conversations with stakeholders, recent academic work and case law, as well as our electronic trade documents project. They are not exhaustive. We recognise that the issues covered by this call for evidence are likely to have consequences for other areas of law. By way of limited example, this call for evidence does not cover issues relating to insolvency, financial collateral, trusts, criminal or conflict of laws. Nor does it cover the practical issues of following or tracing in the

\(^{74}\) See para 2.56.

\(^{75}\) See paras 2.63 and 2.70.
context of digital assets. We are keen to hear more detail on these issues, to the extent relevant to the questions in this call for evidence.

2.81 We are also keen to hear whether there are other issues which cause problems in practice or which could be affected by digital assets being possessable.

**Question 12.**

2.82 We welcome suggestions as to other issues which arise in practice, or other areas of law which could be affected, and which should be included in the scope of our digital assets project. For each issue, we would be grateful for the following information:

(1) a summary of the problem or potential problem.

(2) an explanation of and evidence of the effect of the problem or potential problem in practice.

(3) suggested solutions to the problem or potential problem, and any evidence of the costs and benefits of the solution.
Appendix 1: Terms of reference

The Law Commission is asked to:

(1) Set out the current law in relation to crypto/intangible assets, drawing on the conclusions of the UK Jurisdiction Taskforce’s legal statement (with reference to the questions listed in part A of the Annex, and the questions in part B where the Law Commission considers this to be appropriate).

(2) Make recommendations to solve the problems caused by English law’s approach to the possession of crypto/intangible assets, based on a comprehensive review of the law in England and Wales and a brief comparative analysis of the approach in other jurisdictions.

(3) Make such other recommendations as the Law Commission considers necessary or desirable to ensure that the law is capable of accommodating crypto/intangible assets insofar as the timetable allows.

(4) Identify areas for future consideration – this could cover both wider crypto/intangible assets issues and/or smart contracts.

The Law Commission’s work at this stage will not include:

(5) Producing draft legislation to implement our recommendations.

(6) Questions as to jurisdiction or choice of law.

(7) Other areas of law insofar as they relate to crypto/intangible assets such as tax, data protection etc.
ANNEX

Part A: key questions

1.2 Under what circumstances, if any, would the following be characterised as personal property:

(1) a crypto/intangible asset;
(2) a private key?

1.3 In particular:

(1) What are the key characteristics that a crypto/intangible asset must have to be considered property?
(2) What characteristics would prevent a crypto/intangible asset from being considered property?

1.4 If a crypto/intangible asset is capable of being property:

(1) Is that as a thing in possession, a thing in action or another category of property?
(2) How is title to that property capable of being transferred?

1.5 Is a crypto/intangible asset capable of being the object of a bailment?

1.6 Can security validly be granted over a crypto/intangible asset and, if so:

(1) How?
(2) What forms of security may validly be granted over a crypto/intangible asset?

1.7 Can a crypto/intangible asset be characterised as “property” for the purposes of the Insolvency Act 1986?

1.8 Can crypto/intangible assets be characterised as “goods” under the Sale of Goods Act 1979?

1.9 In what circumstances is a distributed ledger capable of amounting to a register for the purposes of evidencing, constituting and transferring title to assets?

Part B: Possible additional questions for consideration

1.10 If crypto/intangible assets can be characterised as property:

(1) What are the key characteristics that a DLT system must have so that crypto/intangible assets on that system can be considered property?
(2) What characteristics would prevent any crypto/intangible assets on a DLT system being considered property?
1.11 The Legal Statement found that private/public keys in themselves are not private property.\textsuperscript{76} 

(1) Does the Law Commission agree?

(2) If so, what are the implications for cryptoasset wallets (especially in a theft scenario)?

1.12 Crypto/intangible assets may be represented “off-chain” (outside the DLT) by other digital assets. Crypto/intangible assets may also be linked to underlying physical assets.\textsuperscript{77} In such case:

(1) How are assets, services or other things that are linked to cryptoassets to be treated?

(2) Would linkage create separate legal rights, such that bailment is possible in certain circumstances?

1.13 Could a crypto/intangible asset be characterised as:

(1) a documentary intangible?

(2) a document of title?

(3) negotiable?

(4) an “instrument” under the Bills of Exchange Act 1882?

\textsuperscript{76} There are wallet providers for many cryptoassets. These companies provide cryptoasset wallets which store public and/or private keys which can be used to track ownership of a cryptoasset, but they do not store the cryptoasset itself which remains on the decentralised DLT. Germany has developed specific regulation to cover wallet providers. See Legal Statement, paras 43 and 65. The Legal Statement considers a cryptoasset as consisting of a “parameter” of data, including private keys.