

CRYPTOASSETS AND SMART CONTRACTS
THE UKJT LEGAL STATEMENT

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INTRODUCTION

1. On 18 November 2019 the UK Jurisdiction Taskforce (**‘the UKJT’**), chaired by Sir Geoffrey Vos (Chancellor of the High Court), published its Legal Statement on Cryptoassets and Smart Contracts (**‘the Statement’**).¹
2. Launching the statement, Sir Geoffrey Vos said that it was a *‘watershed for English law and the UK’s jurisdictions’* and *‘something that no other jurisdiction has attempted’*.²
3. The Statement is a welcome step in clarifying the current state of the law. Amongst other things, the Statement sets out that:
 - a. ‘cryptoassets’ should be treated as ‘property’ under common law (they meet the test in *National Provincial Bank v Ainsworth*³), even though they do not fit neatly within the existing conventional categories of ‘things in possession’ or ‘things in action’;
 - b. ‘cryptoassets’ can, at least to some extent, be owned, transferred, assigned and securitised;
 - c. ‘smart contracts’ are capable of satisfying the basic requirements of an English law contract (depending, as any arrangement does, upon the parties’ words and conduct).
4. The Statement is not binding law and it has not been endorsed as correct by the Chancellor or the UKJT itself.⁴ It is therefore unclear how it will be treated by the courts, although given its provenance and the process leading to its publication, it will surely be treated with respect. Further, whilst the authors of the Statement clearly envisage some form of legislative intervention, the publication of the Statement by the UKJT also signals a willingness, at least from some senior members of the judiciary, to promote the flexibility

¹Available here: https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf.

² Sir Geoffrey Vos’ speech launching the Legal Statement, available at: https://www.judiciary.uk/wp-content/uploads/2019/11/LegalStatementLaunch.GV_2.pdf at para 2.

³ [1965] AC 1175.

⁴ The Chancellor makes this point expressly in his Foreword to the Statement: *‘[i]t is not my role as a judge, nor that of the UKJT or its parent, the UK’s LawTech Delivery Panel, to endorse the contents of the Legal Statement.’* Instead the Statement is the work of barristers (the authors) guided by questions posed by the UKJT and those who responded to the consultation and by responses from 29 expert commentators who saw a draft.

of the common law as a means of offering pragmatic solutions to the novel legal issues raised by cryptoassets and smart contracts.

WHAT DOES THE STATEMENT DO?

5. The rationale of the Statement is to clarify the legal status of, and the basic legal principles applicable to, cryptoassets and smart contracts under English law. The Statement is intended to address the ‘*logically prior issue of common law characterisation*’⁵ as a preliminary step in the eventual comprehensive regulation of these areas of digital transactional activity. Sir Geoffrey Vos stated that ‘*there is no point in introducing regulations until you properly understand the legal status of the asset class that you are regulating*’.⁶ Similarly, the UKJT felt that it was not possible to consider what remedies ought to be available without clarifying the underlying legal principles.
6. To facilitate the preparation of the statement the UKJT drafted a short list of legal questions which were sent to major stakeholders in the tech community, financial services sector and the regulatory and legal communities.⁷ Public meetings were held and expert opinions were canvassed. A panel of barristers then drafted the definitive statement of what they (rather than the members of the UKJT⁸) consider the applicable principles of English law to be (rather than what they would like it to be or what it should be), having regard to that external input.
7. The aspiration of the Statement is to provide market confidence and a degree of legal certainty regarding the English common law. Speaking extra-judicially on another occasion, Sir Geoffrey Vos stated that, in his view, smart contracts have not become ubiquitous because mainstream investors were unwilling to part with real money without the assurance that there is a legal foundation for their engagement. Thus far, ‘*the legal*

⁵ The Statement, para 10.

⁶ Sir Geoffrey Vos’ speech launching the Statement, para 5.

⁷ Details of which are in Appendix 2 to the Statement.

⁸ In particular, it is not a statement of the views on the law of the two judges (the Chancellor and Zaccaroli J) who are members of the UKJT Panel.

*uncertainty that pervades the use of so-called crypto currencies and cryptoassets for financial transactions has meant that the starting line has not been crossed*⁹

WHAT DOES THE STATEMENT SAY?

Structure of the Statement

8. The Statement is divided into two sections:
 - a. Cryptoassets; and
 - b. Smart Contracts.

9. The Statement recognises that the law in this area is likely to be highly fact-sensitive. There are many different kinds of cryptoasset and smart contract. As with its application to questions of property and contract law in more conventional settings, the answer the common law will give will be specific to the circumstances and may therefore differ in the case of particular cryptoassets or smart contracts.¹⁰

Cryptoassets

What is meant by the term 'cryptoasset'?

10. Sensibly, the authors of the Statement do not attempt to define precisely what a cryptoasset is. But the term 'cryptoasset' in the Statement refers to dealings in assets of some kind which are represented digitally by reference to the rules of the system in which the asset exists.¹¹ Functionally, it is said that a cryptoasset is represented normally by a pair of data parameters: (i) a public one – containing encoded information about the asset, such as its ownership, value and transaction history; and (ii) a private one – the private key which permits transfers or other dealings in the cryptoasset to be cryptographically authenticated by digital signature.¹²

⁹ Sir Geoffrey Vos, Chancellor of the High Court, Joint Northern Chancery Bar Association and University of Liverpool Lecture, *Cryptoassets as property: how can English law boost the confidence of would-be parties to market legal contracts?* 2nd May 2019, para 4.

¹⁰ The Statement, para 12. In the same paragraph the authors of the Statement make clear that it should not be relied on as being relevant to any particular circumstances and legal advice should be sought in a particular case.

¹¹ The Statement, paras 26 and 28.

¹² The Statement, paras 28.

11. Dealings in cryptoassets are broadcast to a network of participants and, once confirmed as valid, are added to a digital ledger which is often decentralised with no one person having a responsibility or right to maintain it.¹³ The rules governing dealings are often established by the informal consensus of participants.

Cryptoassets are Property under the Common Law

12. The main conclusion in the statement is that cryptoassets **should be treated as property**¹⁴ which can be accommodated in the inherently flexible English common law system.¹⁵

13. The authors conclude that cryptoassets have all the legal indicia of property according to Lord Wilberforce's criteria in *National Provincial Bank v Ainsworth*¹⁶; they are **definable, identifiable by third parties, capable of assumption by third parties** and have some degree of **permanence** or **stability**.¹⁷ They also possess other important proprietary features; they are **certain, controllable to the exclusion of others** and **assignable**.¹⁸

- a. The public parameter (see paragraph 10 above) of the cryptoasset, interpreted in accordance with the rules of the relevant system, is sufficient in principle to **define** the asset and to **identify** it to any person with access to the system network.¹⁹
- b. The requirement for **control** and **exclusivity** is satisfied by the cryptographic authentication process which permits the holder of the private key (see paragraph 10 above) and only that holder to deal in the cryptoasset and to control it to the exclusion of others.²⁰
- c. They are as **permanent** as other conventional financial assets which may exist only until they are, for example, cancelled, redeemed, repaid or exercised.²¹ However, the Statement does acknowledge that **stability** may be affected by the state of the

¹³ The Statement, para 29.

¹⁴ The Statement, para 15.

¹⁵ The Statement, para 3.

¹⁶ [1965] AC 1175.

¹⁷ The Statement, paras 39 and 40.

¹⁸ The Statement, para 39.

¹⁹ The Statement, para 49.

²⁰ The Statement, para 50.

²¹ The Statement, para 52.

ledger (e.g. how frequently it is updated) and the possibility of divisions or forks in consensus where new ledgers may be created.²²

14. The novel features of some cryptoassets (such as intangibility, cryptographic authentication, use of a distributed transaction ledger, decentralisation, rule by consensus etc) does not disqualify them from being property.²³
15. The authors accept that cryptoassets '*might not be classifiable either as things in possession or things in action*' but they were clear that an inability to classify them within our existing conventional categories of '*things in possession*' or '*things in action*' does not exclude them from being property²⁴ (although see paragraphs 37 to 41 below). Indeed, the Chancellor speaking extra-judicially referred to section 205(xx) of the Law of Property Act 1925 as defining property non-exhaustively. It is phrased as '*including*' choses in action and any interest in real or personal property.²⁵
16. The UKJT is not alone in concluding that cryptoassets can be property.
 - a. The proprietary status of cryptoassets has received some recognition in other common law jurisdictions. In the Singapore International Commercial Court, Simon Thorley in *B2C2 v Quoine*²⁶ concluded that bitcoins could be the subject of a trust, and hence were property. It was observed that cryptocurrencies '*have the fundamental characteristic of intangible property as being an identifiable thing of value*' and that they met all of the requirements in *National Provincial Bank*.²⁷
 - b. More recently, in *Liam David Robertson v Persons Unknown*²⁸, Moulder J granted an asset preservation order over a million pounds-worth of Bitcoin which had been fraudulently obtained from the claimant in a 'spear phishing attack'. The Bitcoin ended up in a digital wallet held by Coinbase, a digital currency exchange. Whilst the judge did not explicitly decide that Bitcoin was property, she held that there was a serious issue to be tried as to whether a proprietary claim existed.

²² The Statement, para 54 and 55.

²³ The Statement, para 85.

²⁴ The Statement, para 85.

²⁵ Sir Geoffrey Vos's Joint Northern Chancery Bar Association and University of Liverpool Lecture, para 52.

²⁶ [2019] SHGC(I) 03.

²⁷ At para 12.

²⁸ [2019] not yet reported.

17. Treating cryptoassets as property has a number of logical consequences in terms of how one analyses the ways in which they are held and dealt with.

- a. Cryptoassets can be owned. A person who has acquired knowledge and control of a private key by some lawful means would generally be treated as the owner of the cryptoasset.²⁹
- b. Cryptoassets can be transferred and assigned.³⁰ The transferor typically modifies the public parameter (see paragraph 10 above) or generates a new one to create a record of the transfer (including details of the transferee). The transferor then authenticates the record by digitally signing it with the private key. At that point the cryptoasset becomes linked to the private key of the transferee and is under the transferee's exclusive control. Once the transaction is recorded in the ledger, any attempts by the transferor to transfer the cryptoasset again should not be accepted by the consensus.³¹ It is acknowledged that this is not precisely 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. The data representing the 'old' cryptoassets persists in the network, but ceases to have any value or function because the cryptoasset is treated by the consensus as spent or cancelled so that any further dealings in it would be rejected. A closer analogy may be drawn with a bank payment where no property in the payer's funds passes to the payee; instead new property is created by the credit to the payee's account.³²
- c. Certain types of security can be granted over cryptoassets.³³ Those securities are likely to be mortgages or equitable charges (because pledges and liens can only be created if it is possible to transfer possession of an asset).³⁴

²⁹ The Statement, para 43.

³⁰ The Statement, para 51 specifically in relation to their assignability.

³¹ The Statement, para 44.

³² The Statement, para 45.

³³ The Statement, para 103.

³⁴ The Statement, para 102.

18. The following other statements are also made:

a. Cryptoassets are not:

- i. pure information;³⁵
- ii. documents of title;³⁶
- iii. documentary intangibles;³⁷ or
- iv. negotiable instruments.³⁸

b. Cryptoassets cannot:

- i. be physically possessed. They are purely virtual,³⁹ or
- ii. be the subject of a bailment or conversion (which are both dependent on the ability to possess an asset physically).⁴⁰

Smart Contracts

19. The conclusion on smart contracts is less revelatory.

20. The main distinctive feature of a smart contract is concluded to be its '*automaticity*' (i.e. such contracts can be performed, at least in part, automatically without the need for human intervention).⁴¹

21. Smart contracts **are capable of satisfying the basic requirements of an English law contract** ((i) agreement has objectively been reached between the parties as to terms that are sufficiently certain (ii) the parties intended objectively that they would be bound by their agreement (iii) unless the contract is made by deed, each party must provide consideration).⁴² Whether those requirements are in fact met will depend on the parties' words and conduct, just as it does with any other contract.

³⁵ The Statement, para 64. The private key itself, however, is considered to be information at para 65.

³⁶ The Statement, paras 112 and 118.

³⁷ The Statement, para 115.

³⁸ The Statement, para 122.

³⁹ The Statement, para 17.

⁴⁰ The Statement, para 88.

⁴¹ The Statement, para 135.

⁴² The Statement, para 136.

22. Smart contracts can be interpreted and enforced using ordinary and well-established legal principles.⁴³
23. Where a legal rule requires documents to be signed or in writing, such a requirement can in principle be met by using a private key or by a smart contract whose code element is recorded in source code.⁴⁴

IMPACT OF THE STATEMENT

24. If the principles set down in the Statement are accepted by the courts, this will have significant consequences for the application of a number of legal rules, such as those relating to succession on death, the vesting of property in personal bankruptcy, the rights of liquidators in corporate insolvency, as well as in cases of fraud, theft or breach of trust requiring the tracing of assets, for example.⁴⁵

SOME OBSERVATIONS ON THE STATEMENT

The Legal Status of the Statement

25. The Statement is not binding law. It is unclear how it will be treated by the courts. Courts will not be bound to follow the principles expounded therein in the same way as they are bound to follow case-law and legislative provisions. Indeed, the legal status of cryptoassets has attracted diverging judicial views. Lord Hodge, also speaking extra-judicially, has suggested that:

*‘it is not practicable to develop the common law through case law to create a suitable legal regime for many of the technological developments we have discussed [including smart contracts and Fintech]...The judiciary does not have the constitutional competence to do so. The changes which are required are not interstitial law, the making of which is the long-recognised task of judges. They will require interdisciplinary policy-making and consultation which a court cannot perform when resolving individual disputes’.*⁴⁶

26. Lord Hodge also makes the point that it is not enough for our legislatures and courts in England, Wales, Scotland or Ireland to adapt the law to accommodate novel forms of transacting without some form of international cooperation.⁴⁷ Indeed, it would be

⁴³ The Statement, para 150.

⁴⁴ The Statement, para 136.

⁴⁵ The Statement, para 17.

⁴⁶ Lord Hodge, Justice of the Supreme Court of the United Kingdom, Law and technological change, British Irish Commercial Bar Association, Signet Library, Edinburgh, 4 April 2019, p. 14.

⁴⁷ Ibid, pp. 6-7.

practically difficult if cryptoassets were conceptualised as property in the UK but something entirely different in other jurisdictions.

27. It is therefore not clear whether courts will be willing to apply the common law in the manner suggested in the Statement.
28. However, courts are likely to treat the Statement as an important exposition of the application of English legal principles to cryptoassets and smart contracts. The Statement contains the views of barristers specialist in the field, informed by external input organised by the UKJT.
29. The authors of the Statement also clearly do envisage some form of legislative intervention (at least for some aspects of the law relating to cryptocurrencies). The Chancellor, when launching the Statement, stated that the next step was for the Law Commission to consider whether any legislation might be desirable in this area. Sir Nicholas Green, Chair of the Law Commission, was an observer on the UKJT. Attention should therefore be paid to the Law Commission's response to the Statement in the coming months.
30. Sir Geoffrey Vos, again speaking extra-judicially, has stated that he envisages '*a quick and simple legislative approach*'. He emphasised the importance of keeping the necessary reforms simple.⁴⁸ Since he is the Chair of the UKJT it may be unlikely that complex legislative reform will be forthcoming. However, quite what '*a quick and simple*' legislative approach will involve remains to be seen. It may be that an express statement that a smart contract is capable of being a legally binding contract under English law and a similar statement in relation to the proprietary status of cryptoassets would suffice.
31. The UKJT also clearly envisage the development of a comprehensive regulatory framework founded on the legal principles identified in the Statement. The Financial Conduct Authority ('**the FCA**') has published its Final Policy Statement on Guidance on Cryptoassets⁴⁹ (July 2019) setting out its position on cryptoassets in relation to the regulatory perimeter. The FCA, as one of the specialist consultees for the Statement, will no doubt use the Statement as a basis for further development and clarification of its regulatory framework.

⁴⁸ Sir Geoffrey Vos' Joint Northern Chancery Bar Association and University of Liverpool Lecture, paras 13 and 16.

⁴⁹ Available at: <https://www.fca.org.uk/publication/policy/ps19-22.pdf>.

Conflict of Laws

32. It is clear from the Statement that there remain difficult questions around the determination of whether English law governs the proprietary aspects of dealings in cryptoassets. The Statement (necessarily) only addresses these questions at a high-level.⁵⁰
33. In a truly decentralised system, such as Bitcoin, and where the assets are purely virtual, the authors of the Statement conclude that it does not make a lot of sense to say that there is any one country where the asset is situated, for example in the case of intangible property in the form of a thing in action, where that thing in action is recoverable or enforceable. Therefore, in seeking to answer questions such as how property is to be classified, whether a propriety or security or other interest exists and how and when a transfer of property affects third parties, the authors of the Statement suggest that the *'normal rules should not apply'*⁵¹ (i.e. that the applicable law should be the law of the country where the property is situated at a relevant time).
34. However, it is acknowledged that it is *'very difficult to say which rules would be used instead'*.⁵² No doubt the difficulty is compounded by the fact that transactions involving cryptoassets frequently take place by reference only to anonymous address identifiers rather than named legal persons.
35. Legislation, international cooperation and innovative thinking will be required to resolve this issue. It is our view that until this matter is resolved, in an industry that is largely cross-border and international, there will remain a significant level of legal uncertainty which may take some time to be resolved.
36. There are, in theory, very simple legal solutions to the conflict of laws issue – Sir Geoffrey Vos, speaking at the 2019 Annual COMBAR lecture, stated that *'the real prize will be to persuade the coders to include a simple English law and UK jurisdiction clause in their algorithmic engagements'*⁵³ – but the practical realities of achieving these sorts of simple solutions may be rather more challenging. In the absence of voluntary co-operation from coders and users of cryptoassets, more creative answers will be required.

⁵⁰ The Statement, para 90.

⁵¹ The Statement, para 97.

⁵² The Statement, para 98.

⁵³ Sir Geoffrey Vos, Chancellor of the High Court, Annual COMBAR lecture, Tuesday 12 November 2019 at 5.30pm, Future Proofing for Commercial Lawyers in an Unpredictable World, para 39.

What are Cryptoassets?

37. The Statement concludes that a cryptoasset is not tangible property, not a thing in possession and not a thing in action, but that this does not prevent it from being a form of intangible property (see paragraph 15 above). Nor is it information.
38. Case-law on whether a novel kind of intangible assets can exist even though it was neither a thing in possession nor a thing in action is conflicting. In 19th century case of ***Colonial Bank v Whinney*** Fry LJ said ‘*all personal things are either in possession or in action. The law knows no tertium quid [third thing] between the two*’. That case has been cited and followed most recently in 2014 in ***Your Response v Datateam*** in which Moore-Bick LJ said that ***Colonial Bank*** made it ‘*very difficult to accept that the common law recognises the existence of intangible property other than [things] in action (apart from patents, which are subject to statutory classification...?)*’.
39. However, the courts have recognised novel kinds of intangible assets as property in other cases such as milk quotas⁵⁴ and EU carbon emissions allowances.⁵⁵
40. The authors of the Statement have stated that they do not consider that the cases referred to in paragraph 38 are authority for the proposition that something can only be property if it is either a thing in possession or a thing in action.⁵⁶
41. This case-law will have to be considered if an issue as to whether cryptoassets are property comes before the courts. In our view, it is very likely to be resolved in favour of accepting that cryptoassets are some kind of property, but the precise proprietary definition will impact issues related to regulation, enforcement and remedy. As with patents, perhaps legislative intervention after consideration by the Law Commission may provide the greatest clarity on this issue (albeit this will not provide an immediate answer).

Interpretation of Smart Contracts

42. The Statement asserts that the existing rules of interpretation should apply to smart contracts. Whilst this is surely correct as a matter of principle if one accepts the Statement’s over-arching conclusion that smart contracts are capable of giving rise to binding legal

⁵⁴ E.g. *Dairy Swift v Dairywise Farms Ltd* [2000] 1 WLR 1177.

⁵⁵ *Armstrong v Winnington* [2012] EWHC 10, [2013] Ch 156.

⁵⁶ The Statement, para 77.

obligations, the following issues, however, are likely to complicate the practical application of that approach.

- a. Smart contracts are often entirely written in code, which (with respect) most judges will not understand. In order to determine what the terms of a such a contract mean, expert evidence (or interpretation) is likely to be required as part of the exercise of interpretation.
 - b. As the contract will not be written in the English language, concepts such as the ‘objective meaning of words’ will require revisiting in the context of smart contracts composed of code.
 - c. It may be that judges will be more willing to look at evidence extrinsic to the contract itself to construe it, for example, in instances where the code was merely intended to implement the contractual obligations rather than define them, or where, the contract consists of both code and natural language.
43. These difficulties may well mean that, at least initially, less radical users of cryptoassets (such as conventional banks) prefer to use so-called ‘*split contracts*’⁵⁷ which combine code with a ‘natural language’ part of the contract which can build in additional flexibility and assist a court (or expert) in interpreting the contract in the event of dispute.

CONCLUSION

44. The Statement brings welcome clarity to this area of the law. By recognising that technology and technologists are not exempt from or above the law, this is also a welcome development for the rule of law.
45. Investors are likely to be reassured by this explicit attempt to facilitate the development of a sound legal infrastructure for cryptoassets and smart contracts by using the flexibility of the common law. It is inevitable that the matters in the Statement will be the subject of judicial decision in the future. Of course each case will be determined on the basis of its precise facts and the Chancellor emphasised that, as a judge, it was not his role to endorse the contents of the Statement.⁵⁸ However, it is clear that, in view of his speech launching

⁵⁷ See, for example, Alfonse D D M Rius, *Split Contracts: Bridging Legal Prose and Smart Contract Code*, rsos.royalsocietypublishing.org.

⁵⁸ See footnote 4 above.

the Statement and other extra-judicial comments he has made in this field, the Chancellor and those involved in producing the Statement are keen to facilitate and promote a process through which, to the greatest possible extent, the common law can play its part in helping to produce practical, commercial solutions to the legal implications of the use of technologies.

46. It is important to note, however, that the Statement is merely the starting point. This short explanatory paper has sought to expound what the Statement does and to point to (only) some of the issues likely to arise in the near future. Individual cases will raise many more difficult questions, which no doubt can be answered in the future by a combination of legislation and a pragmatic application of principles derived from our common law.

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